#### **COMMONWEALTH OF KENTUCKY**

#### BEFORE THE PUBLIC SERVICE COMMISSION

#### In the Matter of:

APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY	) ) )	CASE NO. 2016-00370
In the Matter of:		
APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY	) ) ) )	CASE NO. 2016-00371

TESTIMONY OF
JOHN P. MALLOY
VICE PRESIDENT, CUSTOMER SERVICES
KENTUCKY UTILITIES COMPANY AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Filed: November 23, 2016

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1	Q.	Please state your name, position and business address.
2	A.	My name is John P. Malloy. I am Vice President of Customer Services for Louisville
3		Gas and Electric Company ("LG&E") and Kentucky Utilities Company ("KU")
4		(collectively, the "Companies"), and an employee of LG&E and KU Services
5		Company. My business address is 220 West Main Street, Louisville, Kentucky 40202
6	Q.	Please describe your educational and professional background.
7	A.	A complete statement of my work experience and education is contained in the
8		Appendix A attached hereto.
9	Q.	Have you previously testified before this Commission?
10	A.	Yes, I have filed testimony with this Commission on several occasions. Most recently
11		I submitted direct testimony in the Companies' application for approval of their
12		proposed Solar Share Program and related tariff provisions. 1 Also, I submitted rebutta
13		testimony in the Companies' most recent base-rate cases. <sup>2</sup>
14	Q.	Are you sponsoring any exhibits?
15	A.	Yes. I am sponsoring the following exhibits:
16 17 18		Exhibit JPM-1 Electric and Gas Advanced Metering Systems Business Case for Louisville Gas and Electric Company and Kentucky Utilities Company
19	Q.	What are the purposes of your testimony?
20	A.	The purposes of my testimony are to describe the Companies' most recent customer

<sup>1</sup> In the Matter of: Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Approval of an Optional Solar Share Program Rider, Case No. 2016-00274, Testimony of John P. Malloy (Aug. 2. 2016).

service performance metrics and initiatives and to support the Companies' proposed

<sup>&</sup>lt;sup>2</sup> In the Matter of: Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates, Case No. 2014-00371, Rebuttal Testimony of John P. Malloy (Apr. 14, 2015); In the Matter of: Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Rates, Case No. 2014-00372, Rebuttal Testimony of John P. Malloy (Apr. 14, 2015).

full deployment of Advanced Metering Systems ("AMS") across the Companies' Kentucky service territories, including providing cost-benefit and technical information necessary to support the Companies' requests for certificates of public convenience and necessity ("CPCNs"), one per Company, for the proposed AMS deployment.

#### I. CUSTOMER SERVICE PERFORMANCE UPDATE

A.

Q. Please provide an overview of the Companies' objectives regarding customer service and satisfaction.

The Companies' Customer Experience objective is to provide superior and innovative customer service. The Companies continue to meet this objective by expanding relationships with customers and delivering outstanding customer experiences that create value for the customer and build trust. The Companies follow their core values (safety and health, customer focus, employee commitment and diversity, integrity and openness, performance excellence, and corporate citizenship) to ensure these objectives are accomplished in a safe, effective, and efficient manner.

As an example of the Companies' focus on Customer Experience across all lines of business, Customer Service performance metrics, including service levels from the Companies' contact centers, meter reading, customer debt management, customer inquiries, and other customer billing and financial measures, are monitored and reviewed by the Companies' officers on a monthly basis. These metrics indicate continued excellence in the Companies' commitment to high customer service levels, with positive, multi-year trends further evidencing the Companies' success.

Q. Please provide a summary of how you measure customer satisfaction.

1 A. Through our many customer satisfaction surveys, the Companies have useful data on customer satisfaction drivers. The primary customer satisfaction drivers continue to be power quality and reliability, price, billing and payment, corporate citizenship, and communications.

- The Companies' Residential Competitive Customer Satisfaction Study measures customers' satisfaction with their utility company, and has been in place since 1991. This study is currently conducted by an independent third party. It includes a random sample of customers within each Company, with stratification and weighting to ensure the overall results represent the demographic profile of the customers within the Companies' service territory based on U.S. Census data. This polling survey provides information regarding where the Companies are successfully connecting with customers on issues that are important to them.
- The Companies are included in several syndicated studies, including the J.D. Power studies.
- The Companies use a third-party vendor to conduct customer-experience transactional surveys, conducted within 72 hours of the completion of a customer's transaction with the Companies. Transactions include residential and business agent-answered telephone calls and emails, and those from My Account (the Companies' online account management tool for customers), our walk-in centers, field service, tree-clearance activities, gas-riser inspections and installations, and our various energy-efficiency programs.

 The Companies also maintain a proprietary online panel that is primarily used to test new products, services, or materials. The panel consists of 1,500 LG&E and KU customers and is refreshed on an annual basis.

A.

## Q. Have the Companies received any awards or recognition recently for achieving high levels of customer satisfaction?

Yes. In 2016 KU and LG&E were honored to be ranked first and fourth, respectively, among mid-sized utilities in the Midwest Region in the J.D. Power and Associates 2016 Electric Utility Residential Customer Satisfaction Study.<sup>3</sup> In addition, LG&E was ranked highest in customer satisfaction among mid-sized utilities in the Midwest Region in the J.D. Power and Associates 2016 Gas Utility Residential Customer Satisfaction Study.<sup>4</sup>

In 2015 and 2016, the Companies were collectively rated a top-ten economic development utility in Site Selection magazine, which publishes information for industry-expansion planning professionals.<sup>5</sup> Site Selection's annual rankings of Top U.S. Utilities in Economic Development is based on analysis of corporate end-user project activity in that company's territory; website tools and data; innovative programs and incentives for business, including energy efficiency and renewable energy programs; and the utility's own job-creating infrastructure and facility investment trends.<sup>6</sup>

<sup>&</sup>lt;sup>3</sup> See http://www.jdpower.com/press-releases/jd-power-2016-electric-utility-residential-customer-satisfaction-study.

<sup>&</sup>lt;sup>4</sup> See http://www.jdpower.com/press-releases/2016-gas-utility-residential-customer-satisfaction-study.

<sup>&</sup>lt;sup>5</sup> See http://siteselection.com/issues/2015/sep/top-utilities.cfm; http://siteselection.com/issues/2016/sep/the-years-best-utilities-give-you-much-more-than-power.cfm?s=ra.

At the October 2015 E Source Forum, LG&E and KU took the top position for radio advertising for its Home Energy Rebates Program.<sup>7</sup> E Source provides utilities with independent consulting in energy efficiency, utility customer satisfaction, program design, marketing, customer management, and sustainability.

Although these are far from the only metrics the Companies use to evaluate the excellence of their service to customers, to rank so well among our peers in these important surveys speaks well of the customer service our employees work hard to provide every day.

#### A. Customer Services: Stakeholder Input

Α.

#### Q. Have the Companies engaged customer groups to gain insight into their needs?

Yes. The Companies consult with three distinct customer groups to solicit input on actions being taken to meet overall customer needs: the Consumer Advisory Panel, the Customer Commitment Advisory Forum, and the Energy Efficiency Advisory Group.

#### 1. Consumer Advisory Panel

The Consumer Advisory Panel, of which I am the chairman, meets quarterly to discuss customer-related issues. These issues include environmental matters impacting our Companies, advancing customer service offerings, such as community solar (Solar Share), electric vehicle (EV) charging stations, and business solar, and contact channels, low-income customer programs, research and development, and emerging technology. The panel consists of 21 geographically diverse residential, commercial, and industrial customers from both Companies' service territories. The map below shows the areas where our current panel members reside.

<sup>&</sup>lt;sup>7</sup> See https://www.esource.com/ES-PR-AdContestWinners-2015-10/Press-Release/AdContestWinners.



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#### 2. **Customer Commitment Advisory Forum**

The Customer Commitment Advisory Forum (CCAF) provides a platform for discussion between the Companies and low-income customer advocates. The purpose of the Advisory Forum is to facilitate collaboration, provide a venue for open discussion, and broaden general understanding of the issues facing the communities we serve. The Advisory Forum's main purpose is to give the Companies useful insight regarding policies and practices that relate to the provision of electric and gas service to their more vulnerable customers in need. The organizations that participate in the Advisory Forum include:

Affordable Energy Corporation	Lexington-Fayette Urban County		
- Cy - F	Government		
Association of Community Ministries	Louisville Metro Human Services		
Bluegrass Community Action Partnership	Metropolitan Housing Coalition		
Chrysalis House – Lexington	Multi-Purpose Community Action		
Chi ysans House – Lexhigton	Agency		
Community Action Council – Lexington	Office of the Attorney General		
Community Action Kentucky	People Organized and Working for		
	Energy Reform and Affordable		
	Energy		
Community Action Partnership - Louisville	Project Warm		
Habitat for Humanity - Lexington	Shively Area Ministries		
Kentucky River Foothills Community	Linkan Lagana of Lanignilla		
Action Agency	Urban League of Louisville		
Legal Aid Society - Louisville			

#### 3. Energy Efficiency Advisory Group

The Energy Efficiency Advisory Group provides a forum for customer groups to discuss the Companies' existing demand-side management and energy efficiency ("DSM-EE") programs and to consult concerning the development of future programs. Representatives of the following organizations that represent the residential, commercial, and industrial sectors receive regular invitations and frequently attend the Advisory Group meetings:

Association of Community Ministries	Kentucky School Board Association
Legal Aid Society	Louisville Metro Air Pollution Control District
Metro Louisville	Louisville Sustainability Council
Community Action Council for Lexington-Fayette, Bourbon, Harrison and Nicholas Counties	Metropolitan Housing Council
Community Action Kentucky	Midwest Energy Efficiency Alliance
Department for Energy Development and Independence	National Energy Education Development Project

Jefferson County Public Schools	North American Stainless
Kentucky Association of Home Builders	Office of the Attorney General
Kentucky Association of Manufacturers	Partnership for a Green City
Kentucky Community & Technical College System	Shelby County School Board Association
Kentucky Division of Air Quality	University of Kentucky
Kentucky Industrial Utilities Customers, Inc.	University of Louisville
The Kentucky Resources Council, Inc.	Walmart

#### Q. Do the Companies use customer feedback to address customer needs?

- 3 A. Yes. The Companies use customer feedback in many ways.
  - Through dialogue at Customer Commitment Advisory Forum meetings regarding customers without social security numbers, the Companies changed their new customer requirement of providing a social security number from customers who do not have one (primarily immigrants) to accept Internal Revenue Service (IRS) issued, ten-digit Individual Taxpayer Identification Numbers (ITIN) to initiate service.
  - The Agency Low Income Website (Low Income Portal) provides low-income assistance agencies with a streamlined tool to make pledges on behalf of low-income customers in a more efficient and effective manner so the agencies can assist the customer in maintaining their service. The Low Income Portal was developed and implemented in 2009 based on recommendations from the Customer Commitment Advisory Forum. Through use of the portal, agencies now have available to them necessary customer data without requiring the customer to make

- a Company office visit or fax a statement of account. Usage of the portal has increased from 48% of agency pledges in 2010 to 89% of pledges in 2015.
- The Companies continue to engage the Customer Commitment Advisory Forum to determine necessary information for the agencies in regards to the My Account customer self-service website.
  - To meet the needs of the Companies' customers regarding electric vehicles (EV), the Companies developed a pilot program of up to 20 EV charging stations (10 in LG&E service territory and 10 in KU service territory).<sup>8</sup> The Companies are currently working with Louisville Metro Public Works, the Parking Authority of River City (PARC), the Louisville Downtown Partnership, EVOLVE KY (an electric vehicle customer group), Lexington Fayette Urban County Government, and Lex Park to identify suitable locations for public stations. The Companies' marketing team has also assisting with promoting the EV charging program at a number of events, including the Governor's Local Issues Conference (August 2016), the Kentucky Association of Manufacturers Event (October 2016), the EEI National Key Account Conference (October 2016), and the Kentucky Association for Economic Development Conference (November 2016), and will continue to do so as appropriate opportunities arise. To date, EV charging stations have been installed at Yum! headquarters in Louisville and at the KU General Office building in Lexington.

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<sup>&</sup>lt;sup>8</sup> See In the Matter of: Application of Louisville Gas and Electric Company and Kentucky Utilities Company to Install and Operate Electric Charging Stations in their Certified Territories, for Approval of an Electric Vehicle Supply Equipment Rider, and Electric Vehicle Supply Equipment Rate, an Electric Vehicle Charging Rate, Depreciation Rate, and for a Deviation from the Requirements of Certain Commission Regulations, Case No. 2015-00355, Order (Apr. 11, 2016).

- The Companies further utilize customer feedback when training and educating their employees in order to ensure a universal understanding of customer opinions and preferences. For example, one session in the mandatory new-employee orientation is focused solely on the Customer Experience. The Companies' strategy and expectations are addressed, and employees are asked to consider the impact of every decision on customers.
  - The Companies' employees are also asked to serve as ambassadors for the Companies and to bring any customer concern from friends, neighbors, relatives, and others to the Customer Commitment Department for prompt research, follow up, and resolution.

#### B. <u>Customer Services: Resources to Assist Customers</u>

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- Q. Please provide an overview of the Companies' customer contact channels that are available to help serve customers.
- 14 A. The Companies have implemented several initiatives since the 2014 rate cases to better 15 reflect customers' preferences across several new or enhanced contact channels.
  - Mutual Assistance: The business and residential contact centers and the walk-in centers coordinate via cross-training and a mutual assistance program to support peak customer contact times in the various contact centers. For example, the Companies' walk-in business offices installed phones at the front counters in select locations in 2016 to allow customer-service representatives at those locations to assist other contact centers during busier call volume times of day or month.
  - Social Care: The business and residential contact centers have developed additional
     social media care options, including a new Social Customer Care Team, with the

addition of a new social media management platform in May 2016. This allows the Companies to receive and respond to information and feedback customers provide via social media.

A.

- Web Self-Service: In addition to increased functionality of the My Account customer self-service site, the Companies implemented MV-Web in January 2015, an online tool that provides commercial and industrial customers secure and reliable access to their interval load data.
- Outage Texting and Alerts: The Companies introduced outage texting in May 2015
  to provide participating customers outage reports, status updates, and restoration
  notices via text messages.

Customers can choose to receive information and complete transactions across these recently enhanced channels and others in a manner and time that best fits their needs.

In addition to assessing operational performance across every customer contact channel, the Companies use a third-party research firm to conduct transactional studies following customer interactions to measure how customers evaluate the Companies' performance. Ratings for each contact channel have been excellent. The contact channels continue to routinely meet or exceed the 8.5 mean target score on a 10-point scale.

#### Q. Do the Companies offer programs to help customers pay their bills?

Yes. LG&E and KU offer a variety of billing and payment options designed to meet the needs of their diverse customer population. First, the Companies' Budget Payment Plan helps alleviate the swings in monthly utility bills in the cold winter and hot summer months by calculating an average billing amount and making adjustments periodically to keep the monthly payment due amount more predictable for customers. Second, the Companies' bill due dates are at least 22 calendar days after the billissuance date to give customers ample time to pay their bills. And third, the Companies provide the FLEX program that gives fixed- or low-income customers up to 30 days to pay their bills. As of October 31, 2016, more than 25,000 LG&E and KU customers have signed up for this program. Further, residential customers who receive a pledge for or notice of low income energy assistance from an authorized agency are not assessed or required to pay a late payment charge for the bill for which the pledge or notice is received, nor are they assessed or required to pay a late payment charge in any of the eleven months following receipt of such pledge or notice.

A.

The Companies continue to offer a multitude of ways customers can pay their bills: in-person at a walk-in business office; at an after-hours drop box; at an authorized pay-agent location; on the phone; on-line with an electronic check, credit card, or debit card; by recurring payments through automated deduction from a bank account; through the customer's own bank website; or by mailing a payment. And as I discussed above, the Companies' Low Income Portal allows various community action agencies to post pledges to pay on customer accounts.

#### C. <u>Customer Service Efficiency and Productivity Programs and Practices</u>

- Q. Do the Companies use programs that enhance productivity and efficiency with respect to their customer service?
  - Yes. The Companies have a number of programs and technologies that are designed to aid in the efficient performance of customer service. Since 2009, the Companies have invested in new technologies that provide customers with online self-service

options, real-time automated payment processing, enhancements to serve visually impaired customers, enhancements to serve Spanish-speaking customers, and web portals to assist agencies providing assistance to low-income customers and property management professionals. The Companies' website allows customers to transact business easily, including from their mobile devices. All of these technologies allow our customers to make payments and interact with the Companies more efficiently.

# D. <u>Additional Customer Service Initiatives Undertaken Since 2014 Rate Cases</u> In addition to the updates you provided above regarding the Companies' ongoing customer service and customer experience programs, have the Companies undertaken any additional customer service initiatives since their 2014 base-rate cases?

Yes. The Companies have undertaken a number of new initiatives to enhance further the service they provide customers.

#### 1. Electronic Data Interchange (EDI)

In 2015 the Companies implemented Electronic Data Interchange (EDI) payments, providing non-residential customers another means of receiving and paying their bills. Accepting EDI payments is a fully automated payment posting process, eliminating any manual intervention and reducing the possibility of payment posting errors. To date, accepting EDI payments has resulted in an increase of about 8,500 electronic payments per month from non-residential customers. EDI billing for 2016 has resulted in over 28,000 invoices issued in total, with an increase in volume of 72% from January 2016 to August 2016.

#### 2. Bill Redesign

Q.

A.

In 2015-2016 the Companies implemented a bill composition and communication application that allows them to take advantage of the latest industry offerings for customers. In particular, the new application facilitated a complete redesign of the Companies' billing statements beginning with the May 2016 bills, allowing for the incorporation of new or improved features such as energy usage graphs, customized messaging, responsive design for rendering on mobile devices, full color design with multiple options for print outputs, audible PDFs for visually impaired customers, and optionality for future enhancements.

#### 3. Outage Texting and My Notifications

The Companies implemented two new ways for customers to receive information related to their utility service. The first, Outage Texting, was introduced to customers in May 2015. There have been nearly 35,000 Outage Reports and Status Updates and 15,000 Restoration Notices sent via text in the 12 months ending August 2016. The second offering, My Notifications, provides billing notifications via email, text, and voice messages, and was introduced to customers in July 2015. There have been over 380,000 billing notifications sent in the 12 months ending August 2016 through My Notifications.

In addition, the Companies have and anticipate spending over \$174 million in customer service capital investments (inclusive of projects within the operational lines of business) from July 1, 2016, through June 30, 2018. The largest single part of that capital investment will be in the Advanced Metering Systems deployment effort, which is \$60 million for LG&E and \$60 million for KU by June 30, 2018.

#### Q. Have the Companies begun a project to upgrade their Customer Care System?

Yes. The Companies' current Customer Care System was implemented in April 2009 with an initial capital investment of approximately \$84 million. Specifically, the Customer Relationship Management portion of the system was implemented to manage call center customer interactions and the Enterprise Core Component was implemented to support customer billing, meter reading, and accounting activities. Since implementation, the Companies have taken advantage of a common software platform that allows us to provide customers increased options through new rate structures, self-service offerings, and analytical capabilities to harmonize processes that benefit the customer experience.

Α.

Beginning in February 2016 the Companies began a \$27 million upgrade project for their Customer Care System, which will be completed in the second quarter of 2017. The upgrade will put the Companies on the most current Customer Relationship Management and Enterprise Core Component versions from SAP, the Companies' Customer Care System software vendor. This upgrade is expected to provide enhanced system speed and performance. In addition, a guided moves process, summary screens for billing and credit, and enhanced search capabilities will assist the Companies' customer service representatives in providing quick and accurate customer service.

#### II. <u>FULL DEPLOYMENT OF ADVANCED METERING SYSTEMS (AMS)</u> <u>WILL PROVIDE SIGNIFICANT BENEFITS TO CUSTOMERS</u>

- Q. Please describe the Companies' proposed full deployment of AMS for which the
  Companies are seeking a CPCN and cost recovery beginning in this rate case.
- A. The Companies are proposing to replace their existing customer electric meters with

  AMS meters and to install AMS gas-meter-reading indices on the majority of existing

gas meters by the end of 2019, with the first AMS meters to be deployed in the third quarter of 2017. The AMS meters the Companies propose to deploy will have two-way communications capabilities typical of smart meters, which will communicate usage and other relevant data to the Companies at regular intervals, but will also be able to receive information from the Companies, such as software upgrades and requests to provide meter readings in real time. The AMS electric meters will also have remote service switching capabilities. AMS equipment planned for gas service does not have remote service switching capabilities due to safety concerns.

The proposed full deployment of AMS will be a significant undertaking consisting of:

- Exchanging 418,000 electric meters and adding AMS gas indices to
   322,000 gas meters in LG&E's service territory
- Exchanging 530,000 electric meters in KU's Kentucky service territory, as well as 30,000 in KU's Virginia service territory
- Expanding the existing radio-frequency ("RF") Mesh communications infrastructure to enable AMS RF communications across the Companies' service territories
- Updating existing meter head-end to support a full system volume of endpoints
- Installing and integrating a Meter Data Management System, Meter Asset
   Management System, and Meter Operations Center

<sup>&</sup>lt;sup>9</sup> More than 54,000 gas meters will have to be exchanged as part of the full deployment of AMS. 54,000 Rockwell R175 gas meters will have to be exchanged because they have a brass index that is not compatible with the AMS gas index module. There are additional gas meters concerning which LG&E will either replace the index or the entire meter because they have an odometer style index that is not compatible with the AMS gas index module.

The Companies estimate the total capital cost of the deployment will be \$320.4 million, and that deployment-related operating and maintenance ("O&M") expenses will be \$30.0 million. Of those amounts, \$312.8 million of capital investment is Kentuckyjurisdictional (\$138.8 million KU, \$119.0 million LG&E electric, and \$55.0 million LG&E gas), with the remaining \$7.6 million of capital investment relating to KU's Virginia service territory. Similarly, \$22.2 million of O&M expense is Kentuckyjurisdictional (\$13.7 million KU, \$13.0 million LG&E electric, and \$2.5 million LG&E gas), with the remaining \$800,000 relating to KU's Virginia service territory. The Companies project that over the estimated 20-year life of the fully deployed AMS metering system, the Companies and their customers will receive net benefits of almost \$470 million nominal dollars (\$30.2 million net present value to 2016), resulting primarily from O&M savings compared to continuing to operate and maintain the Companies' existing metering infrastructure, and customer-specific savings from better identification of non-technical losses and customer use of the 15-minute interval data to achieve savings. Notably, these projected savings account for removing the Companies' existing meters from service prior to the end of their useful lives.

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# Q. How have the Companies determined that now is the correct time to invest in Smart Meters across the whole service territory?

The Companies have researched, monitored, conducted pilot programs and small smart-meter deployments, and evaluated broader smart-meter deployment for over 17 years. In recent years, the Companies conducted a comprehensive look at smart meters when federal funding was available for smart-grid deployments under the American Reinvestment and Recovery Act. The Companies used Accenture Consulting to assist

with their analysis and determined that the emerging and developing technology cost was not justified at that time due to potentially early technical obsolescence and cost.

A few years later in 2013, the Companies hired DNV-KEMA Energy and Sustainability ("DNV-KEMA") to review the then-current status and outcomes of smart-meter activities based on the experience of the Companies and their peers in the region and nationally, with the objective of offering recommendations for appropriate next steps that the Companies should consider. The DNV-KEMA report concluded:

LG&E and KU may have opportunities to benefit from a targeted AMI deployment, but that system-wide conversion is not justified at this time given the data analyzed. The most favorable strategy for AMI deployment would be one that is focused on urban/suburban areas where infrastructure needs coincide with geographic locations where high concentrations of customers reside. AMI technology is typically less costly to deploy in urban/suburban areas compared to rural areas. Here the economics of Smart Meters are most attractive from both an operational and a customer benefits standpoint, based on our analysis."<sup>10</sup>

In light of the DNV-KEMA study, in 2014 the Companies requested and the Commission approved an AMS Customer Offering as part of the Companies' portfolio of DSM-EE offerings. The offering, which was optional to customers, was designed to determine if customers desiring AMS meters were located primarily in the urban or suburban parts of the Companies' service territories, though the Companies did not limit the AMS offering only to customers living in population-dense areas.

Because it had been three years since the Companies had comprehensively evaluated a potential full deployment of AMS (the DNV-KEMA study), the Companies decided recently to reevaluate the concept. A full and comprehensive business case

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<sup>&</sup>lt;sup>10</sup> In the Matter of: Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Review, Modification, and Continuation of Existing, and Addition of New, Demand-Side Management and Energy Efficiency Programs, Case No. 2014-00003, Testimony of David E. Huff, Exhibit DEH-1(DNV KEMA study) at 1 (Jan. 17, 2014).

including a complete financial analysis and deployment plan is attached as Exhibit JPM-1. The balance of my testimony addresses the pertinent issues, costs, and results of this most recent evaluation, which causes us to conclude that now is the appropriate time to invest in full AMS deployment across all of our territory.

#### Q. Please describe the Companies' experience with smart meters.

A. As I noted above, the Companies have 17 years of experience with smart-meter deployments through pilot programs and smart-meter deployments related to specific tariff offerings.

Beginning in 1999, KU installed more than 4,000 meters and a Landis + Gyr (L+G) TS1 (Turtle®) system in Wilmore Kentucky to remotely read meters over a power line carrier network. The system has performed reliably but has reached the end of its life as parts are difficult to obtain to keep the system in working condition.

In 2007, the Commission approved smart-meter and responsive pricing pilot program for LG&E. 11 LG&E deployed 2,000 smart meters along seven different meter-reading routes in diverse geographies in its service territory to gain experience with the capabilities and challenges of the meters and their communication systems across different kinds of terrain, population density, and foliage conditions. The pilot ran for three full years (2008-2010), during which LG&E reported annually to the Commission concerning the pilot's status and lessons learned from the deployment and rate structure. In its final report, LG&E stated it had gained valuable experience concerning smart-meter technology and how topography and terrain affected communications.

<sup>&</sup>lt;sup>11</sup> In the Matter of: Application of Louisville Gas and Electric Company for an Order Approving a Responsive Pricing and Smart Metering Pilot Program, Case No. 2007-00117, Order (July 12, 2007).

In 2012, LG&E deployed approximately 1,500 AMS meters and related infrastructure in its downtown Louisville network as part of a project to gather enhanced engineering information for network planning. LG&E's downtown network has provided the Companies with additional useful experience and information concerning AMS deployments. (The AMS meters installed in the downtown network will not need to be replaced as part of the Companies' proposed full deployment of AMS, and will integrate seamlessly into that deployment.)

Finally, in early 2014 the Companies filed a smart-metering proposal as part of their 2014 DSM-EE Program Plan application: the AMS Customer Offering. 12 The Companies proposed to deploy as many as 5,000 AMS meters for each of KU and LG&E (electric only), along with the necessary RF Mesh network and other communications and back-end equipment. Importantly, the offering was entirely voluntary and available to residential and small commercial customers (Rates RS, RTOD, and GS). The offering also provided a web portal allowing participants to view 15-minute, hourly, or daily energy-usage information (typically available 24-48 hours after usage occurs), which enables customers to understand their energy use and take actions to manage it. (As with LG&E's downtown network, the RF Mesh AMS meters installed through the AMS Customer Offering will not need to be replaced as part of the Companies' proposed full deployment of AMS, and will integrate seamlessly into that deployment.)

#### Q. What is the status of the Companies' AMS Customer Offering?

<sup>12</sup> In the Matter of: Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Review, Modification, and Continuation of Existing, and Addition of New, Demand-Side Management and Energy Efficiency Programs, Case No. 2014-00003, Application (Jan. 17, 2014).

A.	To date, the Companies have enrolled over 4,000 customers in the AMS Customer
	Offering. By way of comparison, customer enrollments began in June 2015 and by the
	end of the year 1,222 customers had enrolled. These enrollment numbers indicate
	customers are increasingly interested in participating in the offering. <sup>13</sup> Notably, the
	Companies have found that customers participating in the AMS Customer Offering are
	geographically diverse, spanning various topographies, population densities, and socio-
	economic segments throughout the Companies' Kentucky service territories.

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- Q. Please describe the cost-benefit analysis the Companies performed and the conclusions of the analysis concerning the proposed full deployment of AMS.
- A. The Companies' cost projections carefully consider the deployment and ongoing expenses necessary to implement and operate the various components of AMS technology across their service territories. Development of these detailed estimates resulted from robust and extensive analysis efforts, which included consideration of:
  - Inclusion and refinement of costs the Companies are likely to incur, based in part on the Companies' experience with the current AMS Customer Offering
  - Assumptions, contractual indications, and cost outlays articulated by peer utilities, including the Companies' affiliate, PPL Electric Utilities ("PPL EU")
  - Estimates provided by internal subject matter experts across numerous business units

<sup>&</sup>lt;sup>13</sup> In the Matter of: Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Review, Modification, and Continuation of Existing, and Addition of New, Demand-Side Management and Energy-Efficiency Programs, Case No. 2014-00003, Advanced Metering Systems 2015 Annual Report at 5 (Jan. 28, 2016).

Budgetary estimates from potential vendors

- Assumed cost efficiencies resulting from a similar PPL EU vendor and smart-meter system architecture
- Assumed cost efficiencies resulting from concurrent deployment of electric meters and gas indices

During the initial period of deployment, i.e., through 2021, the Companies forecast a capital expenditure for the AMS deployment of \$320.4 million. During this time, AMS capabilities will progressively become operational and require maintenance, resulting in aggregate incremental O&M expenses of \$30.0 million. The total lifecycle costs of the AMS deployment, i.e., costs incurred through 2039, total \$550.9 million (nominal), comprising \$345.8 million capital, \$165.3 million O&M, and \$39.7 million for meter retirements.

The benefits of fully deploying AMS, however, far outweigh its costs. Indeed, the NPV benefit of deploying AMS compared to continuing to use the Companies' existing metering infrastructure is \$30.2 million through 2039, with net nominal benefits of almost \$470 million over the same period. These benefits derive predominately from almost \$500 million (nominal) of recovery of non-technical losses. Non-technical losses are energy a utility produces but is not metered or billed and is not lost due to losses one would expect in any electrical system, e.g., line losses resulting from electrical resistance in transmission and distribution lines. Most non-technical losses result from theft of service, which is much easier to detect using smart meters, but they can also result from meter-configuration errors or meter malfunctioning, both of which are also easier to detect with smart meters. The

additional revenues resulting from reducing non-technical losses will displace revenues the Companies would otherwise have to collect from other customers.

A.

Another large driver of savings from AMS is O&M savings resulting from decreased meter reading and related meter services, totaling savings of almost \$300 million (nominal). With AMS, the vast majority of meter reading will be done remotely, as will other meter services, including remote service switching, producing roughly \$156 million of NPV savings through 2039.

The other large driver of savings results from customers using less energy and using it more efficiently as they learn more about their own usage from the web portal that will be available to them as part of the AMS deployment. The Companies and other utilities have observed that customers who actively access such information tend to decrease their usage slightly. Aggregating those savings through 2039 produces net savings of over \$166 million (nominal) and over \$66 million NPV, which are savings customers will receive directly by reducing their bills through reduced usage.

The Companies' detailed cost benefit analysis is provided in Exhibit JPM-1 at Section 7.

### Q. Did the Companies account for the cost of their existing meters in their costbenefit analysis?

Yes. The Companies will remove and retire existing meters incapable of communicating with the proposed AMS RF Mesh network. As Christopher M. Garrett discusses in his testimony, the Companies request approval for those meters' remaining net book value to be added to a regulatory asset after the Companies retire the meters. The Companies' cost-benefit analysis assumes a five-year cost recovery and estimates

the value of the meters to be recovered through the regulatory asset to be about \$40 million (nominal).

#### Q. Are smart-meter deployments common?

4 A. Yes. According to the U.S. Department of Energy's Energy Information 5 Administration, as of the end of 2014 there were almost 144 million electric meters in the U.S.<sup>14</sup> Of those, 40.7% were smart meters, <sup>15</sup> 32.6% were automated meter reading 6 ("AMR") meters, 16 and about 26.7% were purely electro-mechanical meters (i.e., 7 having no communications ability) of the kind the Companies currently predominantly 8 9 have in service.<sup>17</sup> And the deployment of smart meters has grown consistently over 10 time, from just 7 million deployed in 2007 to well over 50 million today, with several million being added each year. 18 Therefore, smart-meter deployments are both 11 common and increasing. But more importantly, as the Companies' cost-benefit 12 13 analysis shows, a full deployment of AMS in the Companies' Kentucky service 14 territories will provide net benefits of almost \$470 million (nominal).

## Q. In addition to the quantified net benefits you have already described, how will customers benefit from a full deployment of AMS?

17 A. Customers will benefit in numerous ways. First, as current AMS participants already
18 can, all customers will be able to use a web portal to access information about their
19 usage at any time of day or night, download consumption patterns to better understand

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<sup>&</sup>lt;sup>15</sup> *Id*.

<sup>&</sup>lt;sup>16</sup> *Id*.

<sup>&</sup>lt;sup>17</sup> *Id.* The vast majority of the Companies' meters are purely electro-mechanical, but approximately 90,000 of the Companies' meters are AMR meters (gas and electric).

<sup>&</sup>lt;sup>18</sup> "Utility-Scale Smart Meter Deployments: Building Block of the Evolving Power Grid, IEI Report, September 2014," *available at* http://www.edisonfoundation.net/iei/Documents/IEI SmartMeterUpdate 0914.pdf.

how they use energy, and explore different products and programs that may align to their needs. Second, full AMS deployment will enable the Companies to develop time-of-day or more dynamic rate structures that could help customers reduce their bills. Third, the ability to access near real-time energy data will improve customer service representatives' ability to address customers' questions and concerns regarding individual customer outages, power quality, and energy usage. Fourth, full AMS deployment will enable the Companies to better localize and resolve power outages, which will help reduce customer outage times. Fifth, customers will be able to participate in numerous programs where information is shared via outbound call, email, or text message, including information about power disruptions, voltage spikes, demand response events, power restorations, and other notifications more specific to a customer's usage. These benefits, though difficult to quantify, are real, and will improve customers' service and their customer experience.

A.

## Q. Will the remote service switching capability of the full AMS deployment also be a benefit?

Yes. The remote service switching capability of the full AMS deployment can benefit customers who move to or from a premise by having their service established or terminated very quickly through contact with a customer-service representative or through self-service using the Companies' My Account web portal. Additionally, AMS's remote service switching ability will allow the Companies to reconnect a customer's service nearly instantaneously upon payment for service previously disconnected for non-payment. The ability to provide these services remotely and quickly meets customers' current expectations of almost immediate personalized

service of the kind they often receive from other service providers such as cable TV and telephone providers.

A.

Additionally, the ability to remotely switch service can help avoid injuries. Since 2011, Field Services Personnel have encountered about 80 physical threats related to disconnections per year on average. During these safety incidents a number of employees are called into action to ensure safety of the employee, investigate the circumstances, and report the incident to the Commission. The Electrical Technical Training and Public Safety department estimates that between 37 and 58 employees are called in response to a safety incident of this kind. Reduced personnel exposure to hazards due to AMS implementation reduces the need for this coordinated response, freeing up employee time that can be spent on other tasks. This can potentially create a relative reduction in personnel costs over time, which will benefit customers. Therefore, though the Companies have not attempted to quantify these benefits, they are real benefits of AMS generally and its remote service switching capability specifically.

#### Q. Will the Companies allow customers to opt out of the full AMS deployment?

No. A smart-meter deployment creates the greatest benefits relative to its costs if it is ubiquitous. Allowing individual customers to opt out eliminates ubiquity, potentially reducing the benefits of the overall deployment and certainly creating additional costs for the utility (e.g., for manual meter reading). It is important that all meters become AMS meters because even when a single meter is removed from the RF Mesh network used for AMS communications it can affect the ability of surrounding meters to consistently report their readings. Additionally, a customer who opts not to have an

AMS meter cannot get other benefits such as usage notifications and granular usage information (i.e., usage information at intervals shorter than each billing period). Likewise, the Companies' benefits are limited by customers who would opt out, such as not being able to automatically get reports of outages from opted-out customers' meters. Therefore, the Companies do not have cost or operational reasons for supporting opt-outs, and good reasons not to offer them.

Notably, this position is consistent with the Commission's position stated this year in its final order in its most recent smart-grid administrative case: "Due to the potential negative impact on the operational benefits of a Smart Grid, the Commission does not support meter opt-outs, whether they be from digital, AMR or AMI meters." The Commission further stated that whether to offer opt-outs, and the extent to which any opt-outs offered should apply, should be at the offering utility's discretion: "The Commission believes that each utility can best determine the need for an opt-out provision and whether that the proposed opt-out provision will apply to digital, AMR, or AMI meters will be at the utility's discretion."

The Companies realize that a small number of customers have raised concerns in other utilities' smart-meter deployments to argue in favor of opt-outs (or simply to oppose a smart-meter deployment). The two primary objections such customers raise are that smart meters will adversely affect their health and that smart meters invade their privacy. The Companies respect customers' concerns, and plan to use education and personal conversations to relieve customer concerns about AMS. The Companies

<sup>&</sup>lt;sup>19</sup> In the Matter of: Consideration of the Implementation of Smart Grid and Smart Meter Technologies, Case No. 2012-00428, Order at 17 (Apr. 13, 2016).

1	have also established policies to protect customer privacy and to ensure that the
2	installed devices meet applicable health and safety standards.

# What is the Companies' plan to educate and inform customers about the AMS deployment and how customers can benefit from it?

A successful education and communications plan will drive high levels of customer engagement and help customers achieve maximum benefits from AMS. The Companies have similarly deployed AMS metering in LG&E's downtown network with a robust communication plan that has avoided any customer concerns. Comparable to these successful communication plans, the Companies will develop a multi-faceted customer education and communications plan to educate customers, as well as community stakeholders, throughout the duration of the project and after customers receive their AMS meters to encourage participation and support of future programs.

This will include offering information on a variety of topics, including how the program works; the meter installation process; the new tools and features, such as the ePortal functionality currently available to AMS Customer Offering participants; and new ways to help manage their energy use and modify their services.

The Companies recognize that they serve a diverse population that has different needs and requires different communications and education approaches. To reach all customers and community stakeholders, the Companies plan to use a wide array of communication channels, such as:

Advertising

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A.

• Automated calls

1		Community outreach and events
2		<ul> <li>Customer newsletters and bill inserts</li> </ul>
3		Direct mail
4		• Email
5		Informational updates through the ePortal
6		• Videos
7		• Leave-behind materials following an installation
8		Media relations
9		Social media
10		Additional details and examples concerning the Companies' communication
11		plan are in Exhibit JPM-1 at Section 9.
12	Q.	What impacts, if any, will the full deployment of AMS have on the Companies'
13		planning existing DSM-EE AMS Customer Offering?
14	A.	Operationally, full AMS deployment will enhance the existing RF-based AMS systems
15		used for the AMS Customer Offering. Fully deploying AMS meters and associated
16		systems will ensure that existing AMS meters can communicate across the RF Mesh
17		network, providing system benefits that are not available through the current AMS
18		Customer Offering.
19		Programmatically, the Companies propose to maintain the existing DSM-EE
20		AMS Customer Offering for the remaining life of the AMS Customer Offering the
21		Commission approved as part of the Companies' 2014 DSM-EE Plan (i.e., through the
22		end of 2018). This will ensure the offering's participants can continue receiving the
23		offering's benefits while the Companies fully deploy AMS to all customers. But to

avoid customer confusion, the Companies plan to cease promoting the AMS Customer Offering and focus on the educational and communication needs of the AMS full deployment. Customers who desire to have an AMS meter installed ahead of the full deployment schedule for their area will be able to contact the Companies and request an accelerated installation, which requests the Companies will accommodate to the extent reasonable and feasible.

#### III. CONCLUSION

- Q. What are your conclusion and recommendation?
- 9 A. Based on the evidence provided above and in the Company's application in this
  10 proceeding, I conclude the proposed full deployment of AMS across the Companies'
  11 Kentucky service territories will provide significant benefits to customers and therefore
  12 serves the public convenience and necessity. Therefore, I recommend the Commission
  13 approve the proposed deployment, grant the requested CPCNs, and the rest of the relief
  14 the Company is requesting in this proceeding.
- 15 Q. Does this conclude your testimony?
- 16 A. Yes, it does.

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#### VERIFICATION

COMMONWEALTH OF KENTUCKY	)	
	)	SS
COUNTY OF JEFFERSON	)	

The undersigned, **John P. Malloy**, being duly sworn, deposes and says that he is Vice President, Customer Services for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.

John P. Malloy

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 44 day of 1016.

Sterly Schooles (SEAL)

My Commission Expires:

JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2018
Notary ID # 512743

#### APPENDIX A

#### John P. Malloy

Vice President, Customer Services LG&E and KU Energy LLC 220 West Main Street Louisville, Kentucky 40202 Telephone: (502) 627-4836

#### **Education**

Indiana University, Master Business Administration – 2000

Indiana University, B.S. in Finance – 1998

#### **Previous Positions**

#### LG&E – KU Services Company

2013 – Current Vice President of Customer Services

2007 – 2013 Vice President of Energy Delivery – Retail Business

2003 – 2007 Director of Generation Services

#### Louisville Gas and Electric Company, Louisville, Kentucky

1998-2003	Maintenance Manager, Mill Creek
1996-1998	Manager Resource / Project Management, Louisville Gas and Electric - Fleet
1989-1996	Instrument and Electrical Supervisor, Mill Creek
1986-1989	Instrument and Electrical Technician, Mill Creek
1984- 1986	Production Operations, Mill Creek
1983- 1984	Coal Handling Operations, Cane Run
1980- 1983	Instrument and Electrical Technician, Cane Run

#### Other Professional Associations

Spalding University 2016 – current Board of Trustees

Louisville Orchestra 2016 – current President (elect) Board of Directors

2012 – 2016 Executive Committee – Board of Directors

2018 – 2012 Vice President of Development

LG&E Credit Union 2010 – current Chairman Emeritus

2001 - 2010 Chairman and CEO, Board of Directors

1998 - 2001 Treasurer, Board of Directors

1995 - 1998 Board of Directors

Leadership Kentucky Board of Directors

2016 – current Board of directors Executive Committee

2009 – 2016 Board of Directors

#### Catholic Education Foundation

2016 – current Board of Directors

#### Kentucky Association of Manufacturers

2016 - current Chairman - Board of Directors

2012 – 2016 Executive Committee – Board of Directors

2010 – 2012 Chairman of Energy / Natural Resources Policy Committee

## Exhibit JPM-1

## Advanced Metering Systems Business Case



# Electric and Gas Advanced Metering Systems Business Case



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## 1 Executive Summary

Louisville Gas & Electric (LG&E) and Kentucky Utilities Company (collectively referred to as the Company) have undertaken a business case analysis of Advanced Metering Systems (AMS) deployment across their entire Kentucky and Virginia service territories to extend benefits experienced by AMS Opt-in Program participants to the vast majority of customers<sup>1</sup>. This will empower customer choice, streamline meter related processes, produce operational savings which can be passed on to customers, and establish foundations for increased grid resiliency and efficiency.

AMS introduces bi-directional communications between Company staff using backoffice systems which communicate with metering endpoints of all residential and many business customers. This allows for detailed electric and gas consumption information to be made available for a variety of customer and utility uses. Customers can make more informed decisions about how and when to use energy by reviewing their usage patterns with the help of enhanced customer service channels as needed. Utility operations will restore outages faster, optimize grid performance, and make better-educated capital deployment planning decisions for future infrastructure investments.

To extend AMS to in-scope customers, the Company will implement the capabilities per a three-year deployment schedule, with the deployment of 1.3 million meters and system implementation occurring in parallel. Meter deployment will begin in the Louisville area to leverage existing AMS Opt-in Program infrastructure, with the last meters put in service by year-end 2019 in outlying areas. System implementation will begin shortly after meter deployment, with the last systems release slated for mid-year 2019. In advance of deployment, the Company will begin a robust customer education and communication plan to address deployment logistics, customer concerns, and AMS benefits. This informational exchange will endure beyond deployment to ensure customers remain engaged, informed, and empowered to fully maximize their available benefits.

The Company is investing \$511 million (\$346 million of capital and \$165 million of O&M) to fund full AMS deployment and maintenance over a 20-year timeframe. Advanced meters, network infrastructure, and supporting systems make up the majority of the costs. These costs are more than offset by \$1.02 billion in expected benefits across the same time period. The main quantitative benefits revolve around meter reader reductions, meter service efficiencies, reduction of non-technical energy losses, and potential energy savings resulting from customer adoption of ePortal-enabled insights. Qualitatively, the Company expects increased customer

<sup>&</sup>lt;sup>1</sup> Details of customer benefits from the DSM AMS deployment is in Appendix A-1, Advanced Meter Service Participant Study - Bellomy Research.



satisfaction through increased billing transparency, increased optionality, easier scheduling of meter services, better-informed customer service interactions, and decreased outage durations. Based on a rigorous cost-benefit analysis, the Company projects that over 20 years the benefits of the full AMS deployment will exceed its costs by a total of \$30.2 million (net present value (NPV) to 2016)<sup>2</sup>, making it a worthy investment on behalf of ratepayers.

#### 2 Introduction

Louisville Gas & Electric and Kentucky Utilities Company (the Company) are regulated utilities serving customers in Kentucky and Virginia as part of the PPL Corporation (PPL) family of companies. The Advanced Metering Systems (AMS) Program has been developed as a means to deploy mature metering technologies for improved customer experiences. This AMS Business Case demonstrates the value to customers associated with the deployment of advanced electric meters, advanced gas indices, and the supporting infrastructure and systems for customers. These technologies represent a step forward in the way the Company interacts with customers, operates its business, and restores the electric distribution system. The AMS Program will also support future technologies that will help the Company to continue enabling significant improvements in the customer experience and grid operations. AMS and future technologies are an extension of the Company's continued commitment to embracing new technologies and are vital to supporting the Kentucky Public Service Commission's goals as established in Administrative Case Number 2012-00428 including:

- Providing customers with increased access to their consumption, rate, and billing information while maintaining strict customer privacy and cyber-security standards.<sup>3</sup>
- Continuing investment in advanced technologies at the right time. 4
- Increasing customer education focused on available programs, expected benefits, privacy, and health concerns associated with advanced technologies.<sup>5</sup>

The AMS Business Case evaluates the costs of implementing the necessary technologies and processes, along with the benefits associated with enhanced grid operations and customer service capabilities enabled by AMS. AMS technologies will move the Company's electric and gas distribution grid towards greater levels of efficiency and reliability, and will empower customers through more information and control over their energy usage and costs, enhancement of existing customer programs, and increasingly positive customer experience. Further, AMS enables the use of metering data to support the Company's energy future through coordination with technologies such as Volt/VAR optimization (VVO), Advanced Distribution Management

<sup>&</sup>lt;sup>2</sup> See Appendices A-6.1 – A-6.7 for Capital Evaluation Models.

<sup>&</sup>lt;sup>3</sup> Kentucky Public Service Commission, Case #2012-00428, Final Order 2016-04-13, p.33-34.

<sup>&</sup>lt;sup>4</sup> Kentucky Public Service Commission, Case #2012-00428, Final Order 2016-04-13, p.33-35.

<sup>&</sup>lt;sup>5</sup> Kentucky Public Service Commission, Case #2012-00428, Final Order 2016-04-13, p.17-19, 33-35.



Systems (ADMS), Advanced Distribution Automation (ADA), demand modeling, load forecasting, and distributed energy resources (DERs) integration.

# 3 Background / Current Situation

The Company serves 1.3 million customers and has consistently ranked among the best companies for customer service in the United States. Louisville Gas & Electric serves 322,000 natural gas and 403,000 electric customers in Louisville and 16 surrounding counties while KU serves 546,000 customers in 77 Kentucky counties and five counties in Virginia.

The Company has a long history of embracing new technologies to provide its customers with the best possible experience. Some examples include:

- Power Line Carrier Metering technologies In 1999, the Company installed over 4,000 meters which represented the Company's first production efforts to remotely transmit meter reads to back-office systems.
- Responsive Pricing and Smart Meter Pilot In 2007, the Company embarked on a pilot program to assess the net impact of various combinations of information, equipment and pricing signals on customers electric usage and ability to shift usage from higher-demand to lower-demand time periods. Paired with time-of-use rates, the Company installed a Trilliant metering solution including 2,000 meters to residential and small commercial customers with varying combinations of other devices like in-home displays, thermostats, and load-control devices. This offering provided the Company with valuable insights into enabling energy management tools for our customers.
- Downtown Network In 2014, the Company deployed approximately 1,500 advanced meters in the downtown Louisville area to support distribution network operations and analytical needs. The system gives the Company the ability to monitor load, voltage, and engineering-specific data to improve modeling, analysis, and overall management of the downtown Louisville secondary network. It supports enhanced capacity planning; enables accurate modeling of normal, peak, and contingency conditions; and mitigates the possibility of a significant outage event in the core downtown Louisville area, and associated damage to critical network infrastructure.
- Advanced Metering Systems Opt-in Program Starting in 2015, the Company began
  offering up to 10,000 advanced meters to customers who opted-in as part of the Demand
  Side Management (DSM) program. This includes Landis + Gyr (L+G) radio frequency (RF)
  mesh network technology in Louisville and Lexington through the DSM program, as well
  as the Itron TOTALGRID cellular solution for customers without existing or installed RF
  mesh infrastructure.



PPL Electric Utilities (PPLEU), a utility serving customers in Pennsylvania and another member of the PPL family of companies, is currently preparing to deploy 1.44 million advanced meters in its service territory. The Company is leveraging lessons learned and best practices from PPLEU for successful deployment in Kentucky.

Based on these experiences and findings, the Company plans to move forward with a full-scale deployment of advanced meters across the LG&E, KU, and Old Dominion Power service territories to take advantage of economies of scale to bring customers the full benefits Advanced Metering Systems can provide.

Across industries, technology has facilitated the evolution of customer expectations. Utility customers have always expected safe and reliable energy service. Increasingly customers are interested in understanding how their behavior drives their energy bill, their individual effect on the environment, and what programs and/or products are available that make sense for their needs. Information addressing these questions is available from a variety of sources, but can be difficult for the average customer to find or understand. AMS allows the Company to further enhance its role of Trusted Energy Provider, by answering these questions for customers through access to detailed and personalized consumption data, corresponding tools to actively manage their energy usage, and tailored recommendations that can save customers money. By doing this, the AMS Program will enhance the Company's relationship with its customers.

# 4 Corporate Vision

The Company's corporate vision is to "empower economic vitality and quality of life," and its mission is "to provide reliable, safe energy at a reasonable cost to our customers and best-in-sector returns to our shareowners."

The Company is guided towards these goals by specific values. These values are advanced with the Company's strategic investment in AMS.

- Safety and Health AMS technology improves outage response and restoration, resulting
  in increased safety to the customer and Company personnel during outage events. It also
  lowers employee drive time leading to decreased auto-related safety incidents.
  Additionally, remote service switching limits employees' exposure to dog bites,
  dangerous facilities, and customer threats. The Company has averaged approximately 80
  such incidents per year since 2011.
- Customer Focus Increased volume and availability of customer data will better inform
  customers and customer service representatives. This will help customers better
  understand their bills and customer programs that would benefit them. This will help
  customer service representatives provide better customer service through near-



immediate access to a customer's service data, reducing the necessity of field visits to address customer concerns.

- Diversity and Engagement Improved usage data will increase communication between groups of the Company, leading to better customer outcomes. For example, customers can engage in proactive management of their energy usage. With the help of trained Customer Service Representatives, they can explore the impact of behavior changes, customer programs, or optional rate structures on their energy costs.
- Performance Excellence AMS technology has long-term benefits including operational efficiencies and increased reliability while setting the foundation for future technologies that continue supporting the goal of providing the best service to customers.
- Integrity and Openness The Company is committed to honest communication with its
  customers. Providing customers with improved consumption data supports this and
  promotes positive interactions with the Company. The Company also will be
  implementing a full customer education and communication plan that addresses
  customers concerns about safety, privacy, and cyber security.
- Corporate Citizenship -The AMS program will increase data availability bettering the Company's relationships with both customers and regulators through establishing a foundation for future products and services. Also, the AMS deployment and subsequent operations will comply with all mandated regulatory orders.

The AMS upgrade directly supports these goals by facilitating positive customer interactions, providing customers with information and tools to make smarter energy choices, and equipping the Company with the technology to improve efficiency, reliability, and customer service, while reducing costs to our customers for enhanced customer service.

#### 5 Strategy

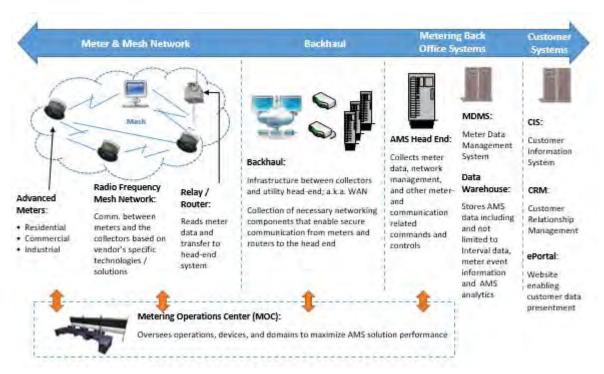
5.1 Introduction to AMS<sup>6</sup>

Advanced Metering Systems represent a collection of mature technologies that uses advanced meters and supporting infrastructure to enable remote two-way communication between the

<sup>&</sup>lt;sup>6</sup> For a glossary of terms and acronyms referenced throughout this document, see Appendix A-7, AMS Glossary.



meter, utility customers, and grid operation systems. AMS allows for more detailed measurement of customer energy consumption, more frequent collection for customer presentment, and enhanced diagnostic capabilities to monitor and alert central operations when power quality violations (e.g. outages, voltage sags) are determined for individual customers. The core components and a high-level overview of the flow of information are below:



#### 5.2 Data Communications with Customers

An improved customer experience is a central driver for this program and as such, the customer-facing capabilities are of key importance. These include:

- Web Portal Presentment (ePortal): Today's energy consumers have come to expect more information on their terms and per their time constraints. The most flexible way to satisfy this expectation is to integrate data captured in the Company's back-office systems with a webportal. In so doing, customers are able to access information about their usage at any time-of-day or night, download consumption patterns to better understand how they use energy, and explore different products and programs that may be better aligned to their needs. The Company expects availability of data to drive increased interest in optional rates and energy efficiency programs that have already demonstrated positive benefits for those customers that have taken advantage of these programs.
- Enhanced Representative Enablement: Customer Service Representatives (CSRs) are currently limited in their real-time access to individual customer outage, power-



quality, and detailed metering information. Using AMS technologies, CSRs will be empowered to improve the customer experience in real-time while a customer is on the phone and not be entirely dependent on scheduling a field visit. Power outages can be assessed remotely to determine if an entire circuit is experiencing an outage or if a problem is behind the meter. CSRs will have information available about a customer's individualized experience to assess how many outages have actually been experienced as opposed to how many have been reported. Meters that have been disconnected for a variety of reasons can be remotely re-connected in real-time.

Proactive Notification: Customers may choose to participate in numerous programs
where information is shared via outbound call, email, or Short Message Service (SMS)
text message. Information about power disruptions, voltage spikes, demand
response events, power restorations, and monthly to-date notifications represent a
starting point of functionalities contemplated through this program.

#### 5.3 Gas Indices

Just as each electric customer will receive an AMS electric meter, LG&E gas customers will receive a replacement AMS gas index which will be connected to the gas meter. Any customers of both electric and gas will have AMS metering for each service. One benefit of replacing the index is that no interruption of gas service is required to replace the index. In both cases, the AMS technology is solid-state, can measure consumption in intervals as frequently as 15 minutes, offers bi-directional wireless communication, and can support remote firmware upgrades. Transmission of consumption data for electric and gas both use the same communications network. Consequently, there is little additional cost to capture and transmit customer gas consumption data. For reference, the average cost of an electric meter is \$104.09 compared to \$74.09 for a gas index, with many of the network and system costs not rising materially with the inclusion of gas indices.

The technology for gas AMS has several differences from electric AMS which impact its capabilities. Various approaches and configurations were analyzed to maximize the cost effectiveness for customers. Some of these considerations include:

- Battery Power: Gas indices are battery powered. They cannot power themselves from
  the commodity they measure (as electric meters do). As a consequence, unplanned gas
  AMS communications are limited to minimize battery drain. More frequent
  communications will result in a shorter operational lifespan requiring more frequent and
  costly index replacements. Current technology designs these devices for very low power
  consumption allowing the battery to last 20 years under the standard operating profile.
- Remote Service Switching: Gas indices perform a monitor-only function relative to the gas meter and cannot connect or disconnect service. The technology exists where gas meters can be simultaneously replaced to enable this function, but safety concerns



associated with remote service switching of gas outweighed the potential benefits of this functionality.

 Gas Service Quality: Quality of service functions such as pressure monitoring, leak detection, and cathodic protection monitoring/reporting are dependent on replaced gas meters and other communications-enabled components. Enhancements in this area were not included as the enablement of gas communication does not require the replacement of gas meters.

Despite these constraints, deploying electric and gas AMS upgrades together allow the Company to holistically maximize realizable benefits through economies of scale. Many back-office components (such as head end, meter data management, and systems integration) have significant fixed cost structures which vary little to accommodate gas AMS. Conversely, certain cost savings (such as meter reader reductions) cannot be fully realized if gas AMS is avoided, or worse, newly established inefficiencies of gas-only manually meter reads could result in cost increases to gas customers who would need to bear the full burden of meter reading efforts.

Ultimately, AMS for electric and gas minimizes operational complexity through the establishment and maintenance of a unified billing management process. Meter technicians are able to focus on more impactful activities such as ensuring safety and metering accuracy are maintained in accordance with existing standards. Further, all customers, regardless of the commodity they purchase, will benefit from increased billing transparency and granularity allowing them to make more informed decisions about their usage.

# 5.4 Ownership/Maintenance of AMS Components

The Company will own and maintain all electric and gas meters, the corresponding AMS communications network, and all back-office systems' processing and storage of customer usage data. The Company will manage all testing, inventory, and records associated with these assets.

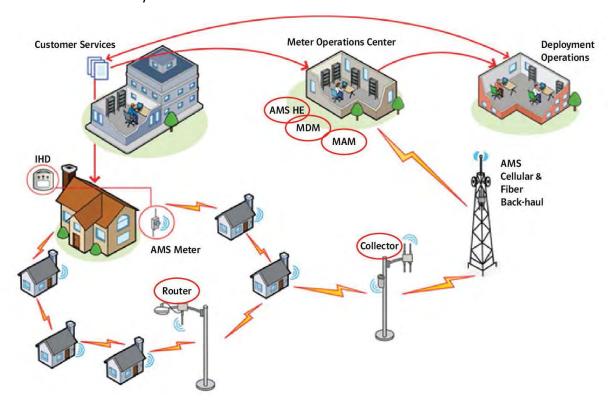
The Company expects a small percentage of instances in which a technician arrives on site and finds damage to the customer-owned meter base preventing installation of an AMS meter. In these situations, the Company will offer to repair or replace the meter base at a customer's home or business as needed. This will be done at no additional cost to the customer, provided the customer signs a waiver confirming their understanding that these repairs are on a one-time basis and that the customer is responsible for meter base repairs and maintenance going forward. The customer also has the option to refuse this service, and repair the meter base through a contractor of their choice at their own cost.

The Company recognizes that with owning these assets, the Company takes on a significant responsibility to safeguard and protect customer data. The Company will implement various cyber-security measures at all network connection points of the AMS communication network. The Company also works regularly with industry experts to improve cyber-security practices and will discuss cyber security-plans in greater detail later in the document.



# 5.5 System Components

The following descriptions of end-to-end metering technologies are meant to provide a broad explanation of the capabilities of individual components and technologies necessary to implement and operate an effective and efficient AMS platform. The following is a high-level overview of an AMS System:



#### 5.5.1 End Point Devices<sup>7</sup>:

# 5.5.1.1 Advanced Meters

An advanced meter is an electronic device used to measure electricity and/or gas consumption at residential, commercial, and industrial locations. This device digitally communicates interval data and register reads using two-way telecommunications infrastructure. Generally, the meter stores the data and communicates all stored data at scheduled intervals, e.g., once per 24-hour period, once every 8 hours, etc. These devices can be equipped to use either a cellular radio or a mesh network, to interface with a utility's backhaul, or the portion of the network comprising

<sup>&</sup>lt;sup>7</sup> See Appendix A-3.1, L+G Residential Endpoint Data Sheets, for technical specifications related to the Landis + Gyr Gridstream RF FOCUS AX Integrated Endpoint and Appendix A-3.2 L+G Commercial & Industrial Endpoint Data Sheets. Also, see Appendices A-3.6, A-3.7, and A-3.8 for L+G Gas Module Data.



intermediate links between the core network and smaller subnetworks<sup>8</sup>, and back-office systems.

In all cases, it is expected that the majority of electric meters<sup>9</sup> will be completely replaced. The new meter will contain the meter, storage, index, and communications device. With gas meters, only the index module (a communication device that is capable of securely and efficiently sending information packets a short distance) is expected to be replaced, with the exception of more than 54,000 gas meters that will have to be exchanged as part of the full deployment of AMS. 54,000 Rockwell R175 gas meters will have to be exchanged because they have a brass index that is not compatible with the AMS gas index module. There are additional gas meters concerning which LG&E will either replace the index or the entire meter because they have an odometer style index that is not compatible with the AMS gas index module.

An advanced meter has a number of capabilities depending on the type of meter and whether it measures electricity or gas:

Capabilities of both gas and electric meters:

- Tamper/theft detection;
- More precise<sup>10</sup> measurement;
- Real-time data query: As initiated by system scheduling, CSRs, or control center operators, the meter can be pinged to report current readings (depending on commodity, these details can include power/gas consumption, outage status, voltage status, and other characteristics);
- Interval granularity: Meters are typically configured to capture energy consumption at 15-minute intervals. As technology and customer expectations evolve, more frequent consumption checks, on the order of five minutes, may occur;
- Reading frequency: Energy consumption data is typically transmitted back to the AMS head-end three to four times a day and then uploaded for customer viewing daily; and
- Secure communications: Allows for secure, encrypted communication between end points and AMS supporting infrastructure.

Capabilities of electric meters only:

- Ability to provide voltage monitoring and real-time notifications for voltage excursions;
- Power outage notifications (PON) where the meter automatically notifies the back-office systems of a loss of power;

<sup>&</sup>lt;sup>8</sup> See <a href="https://en.wikipedia.org/wiki/Backhaul">https://en.wikipedia.org/wiki/Backhaul</a> (telecommunications).

<sup>&</sup>lt;sup>9</sup> MV90 meters are an industry standard solution for large volume customers typically associated with commercial and industrial customers. These meters have been excluded from the planned AMS deployment.

 $<sup>^{10}</sup>$  Meters meet existing ANSI C12.20 standard accuracy classes and are either within +/- 0.2% or +/- 0.5% accurate. Legacy electromechanical meters were generally built to ANSI C12.1 standards of +/- 1%. Precision also references the increased data granularity made available to customers.



- Power restoration notifications (PRN) where meters proactively communicate that power has been restored;
- Remote service switching (usage of these capabilities are governed by regulatory and internal policies);
- ZigBee<sup>11</sup> communications to interact with Home Area Network (HAN) devices as the "last mile" of Demand Response (DR) capabilities;
- ZigBee communications enabled near real-time monitoring: ZigBee can independently
  interact with other customer procured equipment for near real-time monitoring. This
  includes the enablement of customer defined settings that notifies customers when load
  changes beyond a predetermined threshold. This functionality is enabled by AMS and
  displayed through in-home devices;
- Remote firmware upgrades: Allows for enhanced capabilities to be deployed over time, as well as timely updates to address security threats as identified, without the need for manual intervention; and
- Remote diagnostics: The Company's Meter Operations Center will have a dedicated advanced meter monitoring function that can ping individual meters to test communication pathways and responsiveness.

Capabilities of gas modules only:

- 20-year battery while supporting standard data collection patterns (e.g., 15-minute intervals, collected three times daily, with approximately three firmware upgrades throughout its deployment lifespan); and
- Five-year expected battery life for any meters where customers have opted for advanced data collection patterns (e.g., 15-minute intervals, collected hourly, with approximately three firmware upgrades throughout its deployment lifespan).

#### 5.5.3 Field Area Network (FAN)

Embedded within each meter is a communications module that enables the meter to communicate with back-office systems. These modules can either be outfitted with mesh or cellular radios, each of which is best suited to a different set of project economics. Circumstances like population density, topography, seasonal conditions, and other strategic factors may influence the type of communication utilized. By understanding the economic and strategic considerations and combining these modules appropriately, an optimal deployment can be achieved.

<sup>&</sup>lt;sup>11</sup> Zigbee is a wireless language enabling communication between certain low-power, digital radio devices. See https://en.wikipedia.org/wiki/ZigBee.



# 5.5.4 Radio Frequency (RF) Mesh Network<sup>12</sup>

The radio frequency (RF) mesh network is created by including a low-power, short-range radio in each meter. Each meter is able to transmit its own consumption interval readings as well as a finite collection of data from downstream meters over a secured network connection. All meters with this technology dynamically communicate with each other to identify optimal communication pathways back to centralized data collection points. In doing so, these networks of devices can self-identify the most efficient paths on an ongoing basis and dynamically reconfigure to maintain optimal routing in varying operational situations. It is important to note that RF radiation produced through this process is safe for customers. Radiation exposure from smart meters has been shown to be many times less than that of talking on a cell phone. <sup>13</sup>

The Company will utilize radio frequency mesh networks to facilitate meter communication with the backhaul system for the majority of AMS meters. The meters will utilize a relay/router system to transmit the meter data back to the back-office systems, as well as transmit data from the back-office to the meters in the field in a bi-directional manner.

The electric meter will serve as the communications platform for the gas indices. The platform will enable communication between the gas meters and the back-office systems while efficiently optimizing impacts to the gas meter's battery life.

#### 5.5.4 Cellular Radio

In certain circumstances, a cellular radio will be used instead of the mesh network. Typically, this technology will be used for customers in areas with minimum population density to support a mesh network. These meters will instead directly communicate with public cellular systems (e.g. Verizon, ATT) to transmit consumption data to the Company's back-office systems.

# 5.5.5 Collectors/Relays/Routers<sup>14</sup>

Collectors, relays, and routers are the equipment that facilitate transmission of data from the mesh-network-linked advanced meters to the back-office systems. It should be noted that there are innumerable infrastructure configurations possible for the communications network. The transmission of data may utilize multiple types of devices from a variety of vendors, each of which pulls in and transmits data to the next node in the communications pathway on the way to the back-office system.

The collectors, relays, and routers have a number of characteristics that enable communications' efficiency and effectiveness. They are:

<sup>&</sup>lt;sup>12</sup> See Appendices A-3.1, A-3.2, A-3-6, A-3.7, and A-3.8

<sup>&</sup>lt;sup>13</sup> 2011, Edison Electric Institute, "A Discussion of Smart Meters And RF Exposure Issues." pg. 11-15.

<sup>&</sup>lt;sup>14</sup> See Appendices A-3.3 L+G Router Data Sheet, A-3.4 L+G C6500 Collector Data Sheet, and A-3.5 L+G C7500 Collector Data Sheets for technical specifications.



- The ability of the network to rearrange itself dynamically to maintain the most efficient communications pathways across seasons, varying weather conditions and vegetation cycles;
- In the event of a power outage, the ability of the FAN to stay up long enough to transmit
  a power-off notification to alert the outage management system (OMS) of the problem;
  and
- The inclusion of multiple types of devices that collect and transmit digital interval data:
  - Collectors: larger bandwidth devices for maximum throughput of data to manage data collections;
  - Routers: smaller devices that are used to extend the range of communications for meters and collector connectivity; and
  - o Meters: small, short-range devices used to aggregate a small number of meters.

#### 5.5.6 Backhaul

The backhaul network, which is typically a wide area network (WAN), is the high-speed, high-bandwidth communications structure between the collectors and the AMS head-end. The network can either be public or private depending on several factors, including cost (both initial and recurring), security, meter density in the area, and distance from the existing fiber network.

A private system would have collectors connected to centralized fiber optic or microwave communications infrastructure. A public system would utilize the network of a third-party vendor, typically a wireless cellular carrier, to transmit the data from collectors to the AMS headend. While a blend of these technologies will be pursued as a pragmatic solution, the majority of communications will occur through the Company's private, fiber-optic network as a means to securely transmit the aggregated data from the collectors and routers to the back-office systems.

# 5.5.7 Systems and Integration – Core AMS<sup>15</sup>

#### 5.5.7.1 AMS Head-End (AHE)

The AMS head-end is the centralized communications aggregation, monitoring, and control system that integrates the communications infrastructure in the field and the back-office systems. The AMS head-end communicates with the advanced meters to collect meter data from reads and events. It also can ping individual meters as necessary and push firmware updates across the network. For electrical systems, it can remotely initiate the connection and disconnection of meters. The AMS head-end system serves as the main point of data collection and dispersal for data being transmitted in either direction, to and from meters.

## 5.5.7.2 Meter Data Management System (MDMS)

An effective AMS platform requires an MDMS. The MDMS provides advanced meter data storage and archival capabilities for interval meter read information. The MDMS also processes the

<sup>&</sup>lt;sup>15</sup> See Appendix 2, Illustrative Application Architecture, for illustration of system architecture for AMS deployment.



incoming meter data to ensure sufficient quality. Once the raw data has been processed, it can be utilized by back-office systems like billing, customer service, and certain enhanced data analytics algorithms.

An important function of the MDMS is the "validate, estimate, and edit" (VEE) process. This is a method whereby the MDMS reviews all un-validated data from advanced meters in an effort to identify anomalies and mitigate occasional data gaps. Data may fail preliminary validation because it falls outside an expected range and is flagged for review by metering agents. In addition to failed validations, incomplete or missing interval reads are also highlighted. Flagged data intervals are estimated as the final step of the process and can be updated once additional data has been received or the original data has been validated.

#### 5.5.7.3 Data Warehouse

The data warehouse is the back-office system that is the main archival database for the other systems. It is integrated across the back-office and provides archival support and retrieval functions. Due to the increased volume of information associated with AMS data, the capacity to support data warehouse functionality will need to be augmented accordingly. A fully integrated data warehouse provides the following capabilities:

- Links multiple systems and facilitates data communication;
- Speeds up retrieval as it combines traditionally separate data archives;
- Enables data aggregation and reporting;
- Integrates with customer data presentment services (e.g. web portal); and
- Enables analytic capabilities for insights.

#### 5.5.8 Customer Systems

#### 5.5.8.1 Web Portal

As part of the AMS deployment, the Company will use a web portal that will act as a hub for residential, commercial, and industrial customers to view their energy usage, including advanced meter interval data. This platform will allow customers to view their consumption data and billing impacts within 24 hours of usage. 24 hours is the soonest data can be made available for customer presentment due to processes that translate AMS consumption data transmitted through the RF mesh network into billing quality data. Access to this data will enable customers to make better-informed decisions about how they use energy. The portal will power customer choice, giving customers the option to enroll in programs that can leverage the more granular data provided by AMS. These include energy efficiency, demand response, and other pricing programs. Customers can also access educational and safety information, material on energy efficient consumer products, and analysis on home energy usage. The platform will also be integrated with smartphone applications that allow customers to access their data on the go, in addition to being able to create customizable alerts notifying them of grid conditions (including outages, reductions or curtailments), unusual usage, and billing notifications.



# 5.5.8.2 Green Button Download My Data

Many utilities, including the Company, have implemented Green Button Download My Data. Currently, this capability is only available to the subset of customers who received advanced meters through the downtown network or AMS opt-in projects. Full deployment of AMS technology would make this feature available to all customers within scope of this project. The Green Button Download My Data system provides every utility customer with the ability to download their personal energy consumption data directly to their computer in a secure manner. Data downloaded once AMS has been implemented will be more granular, providing interval consumption data to give customers a better understanding of their energy usage. Additionally, if customers are interested, they can upload their data to a third-party application for further analysis and functionality.

# 5.5.8.3 Customer Service System

The SAP-Customer Care System (CCS) is a set of applications utilized to manage customer-facing activities. The set of programs pulls meter data to administer orders, billing and payment processing, collections, rebates and discounts for energy efficiency and demand response, and other pricing program rates and usage. As part of the AMS deployment, SAP-CCS will be modified and configured to accept billing data. SAP-CCS will also be configured with parameters to interpret AMS data so that usage can be priced by programs such as time-of-use (TOU). Having such a prominent role in customer interaction with the Company, an effective SAP-CCS with appropriate capabilities is critical to maintaining and enhancing customer satisfaction.

SAP-CCS also includes capabilities intended to foster a relationship with customers and assist in customer satisfaction through personalized service. The system pulls from various back-office IT sources to create personal profiles on customers to facilitate customer engagement. For instance, SAP-CCS can be linked with interactive voice response (IVR) to send an automated notification to customers when the system receives a "power-off" notification from advanced meters. Additionally, SAP-CCS will present customer history and near real-time meter status to the customer service representatives when customers contact the Company, giving the Company's employees greater insights to help customers. Service representatives will have a new suite of tools at their fingertips to perform diagnostic services instantly or to ping meters when issues arise. They will also have the ability to restore power that has been disconnected whether it be for non-payment, seasonal usage, or other reasons.

# 5.5.9 Metering Operations Center (MOC)

The MOC is the central management hub overseeing the day-to-day operations of the advanced meter network, along with its associated communications infrastructure. During the construction and deployment phase of the AMS program, the center will manage communications' infrastructure, meter deployments, and coordinate to ensure collectors, routers, and meters are communicating. The MOC will also be responsible for troubleshooting



any meter-related issues that occur during that phase. Once the rollout is complete, the MOC will evolve into the central management hub. Its responsibilities include:

- Proactively manage and monitor advanced meter and field area network performance;
- Remotely investigate/remediate meter and communications infrastructure problems;
- Dispatch technicians/vendors to remediate problems that cannot be done remotely;
- Manage firmware deployments;
- Manage meter exchanges, repairs, maintenance and warranty issues;
- Manage the Meter Inventory Tracking System; and
- Manage the advanced meter shop for the Kentucky service territory.

As the Company moves forward with additional grid modernization in future years, the capabilities established for active monitoring of data flows between systems can be further expanded for communications with other devices such as advanced distribution automation (ADA).

#### 5.5.10 Meter Asset Management (MAM)

The MAM is the information warehouse for inventory, tracking, and testing of all AMS endpoint devices, including meters, indices, routers, and collectors. The MAM cache holds all relevant information necessary to track an endpoint device across its deployment lifecycle, including, but not limited to, device manufacturer, manufacturer date, installation date and location, serial number, warranty information, geographic information system (GIS) location of service, maintenance log, and any scanned records. The inventory tracking system also reconciles field crew readers with back-office systems and has the capability to store records scanned during any service call by field crews. The MAM will also support compliance and reporting with all Kentucky Public Service Commission mandated meter-testing processes.

# 5.6 Technology Evaluation

The Company has been monitoring the progression of advanced metering systems since the technology emerged in the early 2000s. With heightened sensitivity to the capabilities and limitations of these devices, the Company has consistently considered the customer experience with regard to its decisions on promoting adoption.

During 2008-2011, the Company conducted the Responsive Pricing and smart meter pilot program and gained valuable experience with the capabilities of the technology. While insightful and demonstrating potentially useful future benefits once the technology matured, the meters and systems of that generation were deemed immature. The marketplace and vendors were quickly enhancing system functionality which made deployed technologies quickly obsolete. In July 2011, the Company requested cancellation of the program, citing these technology issues and limited customer participation.



A 2013 DNV KEMA study<sup>16</sup> prepared for the Company found that AMS technology had matured significantly since the initial smart meter pilot program. Investigations and ongoing discussions with peer utilities, vendors, and consultants supported this finding. The pace of technology advancements had slowed considerably and the comprehensive set of physical sensors to enable functionality had stabilized. Further, additional algorithmic innovations and analytic capabilities could continue to develop but could be remotely updated on the device without the need for hardware replacements.

In 2014, encouraged by DNV KEMA's analysis of Kentucky AMS feasibility, the Company sought to establish, and the Kentucky Public Service Commission approved, the AMS opt-in program. During this program, which is discussed in greater detail in a later section, the Company tested both radio frequency (RF) mesh and cellular technologies. The Company found that the RF mesh technology was the most reliable, cost-effective technology for its service territory, and has chosen to deploy RF mesh meters to all customers where possible. RF mesh technology also provides the Company with the opportunity to leverage network infrastructure and back-office head end systems that were deployed during the program, lowering some of the costs associated with expansion throughout the service territory.

# 5.7 Positioning for the Future

AMS represents one of the numerous power service technologies that have become commonplace in recent years, and is a key foundational component for other power service operational capabilities, and customer products and services. Future operations will likely function such that meters perform multiple roles where, in addition to providing billing data, they also act as a coordinated group of sensors throughout the territory. When meters are combined with other operational systems and capabilities that the Company has identified in the 2017 Business Plan but outside the scope of the AMS Business Case, advanced metering data can enhance the value and operations of other business units.

The primary mission of real-time power service operations has been to restore outages as efficiently as possible and coordinate planned outages for maintenance and construction. However, in the context of modern-day customer expectations and technological advancements, a new mission of "grid optimization" is emerging as a parallel to these historical goals. In this sense, AMS data enables more accurate, more efficient outcomes for current capabilities such as locating outages, validating restoration, and managing voltage.

In a broader historical context, it is important to note that the trend toward AMS, and these other optimization capabilities, are still relatively new. New market participants, vendors, and consultants have been focused on electrical distribution like never before, resulting from the innovations currently being seen throughout the industry and being considered for

<sup>&</sup>lt;sup>16</sup> 2013, DNV KEMA Energy and Sustainability, "LG&E and KU Smart Meter Business Case".



implementation at the Company. All indicators point to this trend continuing, if not escalating. While many of the capabilities are known, some capabilities are not yet known or possible to define; however, it is reasonable to expect that use-cases will emerge, utilizing the information available from AMS to enhance operations and lead to the development of new customer services and products.

## 5.7.1 Advanced Distribution Management System

The Company's ongoing distribution automation (DA) program will install approximately 1,400 electronic Supervisory Control and Data Acquisition (SCADA) system-connected reclosers on approximately 20% of distribution circuits, affecting approximately 50% of customers. The SCADA-connected, intelligent electronic devices (IEDs) will be controlled by an advanced distribution management system (ADMS).

ADMS is the emerging standard software suite used by distribution grid operators. It combines functions of an outage management system (OMS) with functions of a distribution management system (DMS) and the SCADA system. While the functions of an ADMS are numerous, only a subset are covered in this report as applicable to AMS.

One of an ADMS's core capabilities is to consolidate pertinent data from, and exert real-time control over, a variety of IEDs such as reclosers, capacitor banks, load tap changers, voltage regulators, and fault current indicators. These devices can be coordinated by the ADMS to provide greater capabilities than what would be achievable if each device were to operate independently. Two notable functions are fault location, isolation, service restoration (FLISR), and Volt/VAR optimization (VVO).

AMS enhances both of these functions by providing additional data points for computation and algorithmic adjustment. AMS data will improve the load profiles and powerflow calculations used by FLISR. Similarly, AMS supports VVO by providing voltage at each metering point across the length of the circuit. These voltage points create a voltage profile that allows for tighter control of voltage, within acceptable limits, that results in energy savings. Both of these functions are discussed in more detail in the sections which follow.

#### 5.7.2 Volt/VAR Optimization & Distributed Energy Resources

VVO represents a family of optimization algorithms that can be deployed during various situations to improve operational characteristics. By monitoring and controlling capacitor banks, voltage regulators, and load tap changers, VVO algorithms can in some cases reduce energy consumption for all customers on a circuit by two to three percent without negatively impacting the customer experience. The operation of this function can be highly automated or initiated by direct operator intervention.



The ability to monitor grid conditions and automatically regulate power flow is especially important today. Distributed energy resources (DERs), especially rooftop solar, have become more economical and efficient in recent years. In certain areas, they have experienced substantial grid penetration, and this trend is expected to continue if not increase. While DERs have many benefits, the distribution network was not initially designed with non-point power sources in mind. Even though there is a certain robustness to the systems, over time, especially with greater DERs penetration, volatility of power flow will increase (i.e., solar photovoltaics supplying power only during the day) and will make optimization all the more important. VVO has several benefits:

- Higher level of an operator's visibility into system operating parameters;
- Greater control over reliable and consistent energy delivery; and
- Greater control over optimizing Energy Efficiency, thereby saving customers' money.

Advanced meters can enhance VVO further by designating a specific subset of meters as "bellwether" meters. A bellwether meter is one that is configured to provide additional voltage data with greater frequency. They are particularly useful when placed at the end of a circuit where they perform as an end-of-line voltage monitor. This additional information can be leveraged in VVO calculations to refine VVO adjustment algorithms further and ensure that no customers experience a voltage violation.

#### 5.7.3 Fault Location, Isolation and Service Restoration (FLISR)

FLISR is a capability that coordinates substation equipment, circuit reclosers, and wireless communications' infrastructure through analytic algorithms to decrease the duration of and the number of customers affected during outages. FLISR leverages data compiled by SCADA from various devices along the distribution network and computes the estimated location of a fault on a given circuit. In response to this determination, it can coordinate the operation of IEDs to reconfigure distribution circuits and minimize the impact to customers. FLISR can propose a series of actions for control center operators to adjust and authorize, or FLISR can run in an automated mode that does not require operator intervention. Field crews must ultimately be dispatched to repair any damaged sections of distribution circuits, but fewer customers are impacted in the interim.

For FLISR to operate properly, the ADMS requires a variety of data. Two data points AMS will positively impact are the customer load profiles and powerflow calculations. Without AMS data, the FLISR calculations will use static data to determine the best switching solution. With the timely and accurate data from AMS, the FLISR calculation will be able to determine a better switch plan than it could with static data to possibly restore more customers.



AMS will be particularly helpful in identifying timely, efficient, and accurate outage locations on non-DA circuits. Meter communication will be able to replace the reliance on customer contacts for this information.

Whether the restoration is automated via ADMS or performed manually, AMS data will be useful in identifying nested outages and confirming the customer's service has been restored.

# 5.7.4 Distributed Energy Resource Management Systems (DERMS)

Distributed energy resource management systems (DERMS) are a suite of applications that integrate and manage DERs across the grid. DERMS can be an independent system or a module of an ADMS. It relies on open protocols to leverage as much of the existing infrastructure as possible and facilitates next-generation coordination between in-place components, such as advanced meters, DA and substation devices, ADMS, DR devices, and advanced inverters, to provide additional control of the distribution network. As previously reported, with the potential for DERs to have significant impacts on the grid, DERMS will further enable efficiency and reliability. Advanced metering can be used for two key functions within this system: demand response support and distributed generation support.

#### 5.7.5 Demand Response Support

Defining explicit characteristics of the Company's demand response (DR) program was not part of this AMS assessment. However, as the Company moves forward and considers offering additional programs of this sort, it is possible to look at other programs available throughout the industry to identify commonalities for how advanced metering is leveraged.

DR programs are dependent on customers participating at certain times when needed, with compensation dependent on levels of participation. For certain types of programs, AMS enables participation by allowing bi-directional messages to be sent from the utility to a premise, requesting curtailment accompanied by an acknowledgment or confirmation once curtailment has occurred. In other programs, AMS may not include the curtailment notification. In either case, AMS captures interval data for both baseline consumption (that which is used on other comparable, non-event days) as well as event-specific consumption (showing consumption levels at intervals immediately before, during, and after events) which can jointly be used to measure curtailment performance during events. By capturing this information, it is possible to present performance measures to customers more quickly for internal analysis and budgetary consideration.

# 5.7.6 Other DER Support

Distributed energy resources (DERs) are gaining traction throughout the country with customers of various sizes as the economics of the technology involved become more affordable. In



particular, rooftop solar photovoltaics (PV), energy storage, fuel cells, and plug-in electric vehicles (PEVs) are experiencing greater market penetration. Collectively, these assets represent a fundamental shift away from a centralized power delivery framework as each can also support bi-directional power flow by injecting surplus energy into the grid.

In one context, integration of these assets introduces dynamism which the Company will seek to manage in order to ensure safe and reliable power for all customers. Advanced metering could be connected to each DER to provide enhanced real-time monitoring and allow for more nuanced control of the distribution grid in response to changing operational characteristics.

In another context, advanced metering for each DER allows for highly granular usage data to complement existing net metering structures. When paired with evolving time-of-day rates, new and mutually beneficial approaches could emerge which incentivize new customer behaviors better aligned to the intermittent and variable nature of these resources.

#### 5.7.7 Web Enhanced Customer Experience Programs

AMS technology brings numerous benefits to the customer experience as part of the program currently envisioned. Certain other potential customer benefits would require follow-on evaluation and would be better pursued once the AMS technology is fully deployed and stable. These capabilities fall into two broad categories: modifications to existing programs and new capabilities.

## 5.7.7.1 Changes to Existing Programs

The Company has always sought to provide the best customer experience possible. Over the years the Company has established and maintained a number of successful programs that have proven to be very popular amongst many groups of customers. Existing programs that could benefit from AMS include:

• Demand Conservation — Customers voluntarily enroll in the demand conservation program and receive monthly bill credits in return allowing attachment of devices on their central air conditioning unit, heat pump, electric water heater, or in-ground swimming pool pump. These devices are used to briefly interrupt cycles during peak summer days. This curtailment has proven in the aggregate to reduce peak demand and has been highly beneficial in stabilizing energy delivery. However, the reduction level and consistency for individual customers are less clear. AMS technology could give customers greater insight into their own consumption patterns to better evaluate the potential impact of participating in the demand conservation program. Further, programs could be stratified, giving greater incentives to customers whose conservation efforts are most dependable or provide the deepest reduction in peak usage.



- Online and On-Site Home Energy Analysis The Company currently offers both web-based and in-person assessments of customers' energy usage. Increased granularity of customer data generated from AMS could enable more customized recommendations for customers based on the analysis of actual, demonstrated behaviors. Home energy counselors would have these additional tools and insights to help customers better understand the effects of tips and recommendations generated through a home energy analysis, potentially leading to greater bill savings for the customer.
- We Care Income-eligible customers receive an in-home energy assessment. Once the
  assessment is complete, customers are eligible to receive various energy efficiency
  improvements performed on their home at no additional cost. Empowering customers
  with more AMS-enabled information about their usage could help them, or those who
  advocate and assist their needs, to better understand the impact these improvements
  have on their bill and other ways to save.
- Residential Time-of-Day (TOD) Rates Granular consumption data could allow customers
  to view their energy usage during peak and off-peak hours to better evaluate whether
  TOD rates can benefit them. Not only could AMS data allow customers to view potential
  savings that can be realized by enrolling in TOD rates, but could also empower them to
  investigate behavioral changes that could increase potential savings.
- Green Button "Green Button Download My Data" has been implemented by the Company as well as many utilities around the country to provide a standardized format of AMS interval data for use by customers. The next generation protocol entitled "Green Button Connect My Data" allows customers to authorize the Company to provide their interval data to customer-designated third parties. In so doing, the Company seeks to enable customer choice and understanding by giving them the tools and data to work with whichever providers they find to be most impactful to needs.

#### 5.7.7.2 New Capabilities

The Company is also investigating new customer programs that are not possible without AMS implementation. One example includes:

Predictive Usage Alerts – AMS can enable customers to set alerts that notify them when
they are approaching a certain usage or bill amount. AMS technology can have the ability
to predict monthly usage based on customers' past usage history and recent trends. This
can enable customers in making behavioral changes before the end of their billing cycle
in order to better control their energy costs.



• Pick Your Own Due Date – By shifting from monthly reads to daily, AMS-enabled reads, the Company will have usage information available throughout the month. This service is not currently available, due to the manual, periodic nature of collecting metering data. With AMS-enabled data, the Company consistently has a customer's consumption data; therefore, customized changes to due dates can be implemented. This allows customers the ability to pick a bill due date that is convenient for them, have it applied at a time of their choosing, and gives customers greater control of their finances to assist them in their unique financial situations.

#### 6 AMS Opt-in Program

#### 6.1 Vendor Evaluation

The Company has a long history of evaluating vendors for different operational needs and implementing emerging technologies to improve service reliability, operational efficiency, and customer service. The Company evaluates vendors through a competitive bid process to ensure that technologies and services are provided at the lowest possible cost while providing the capabilities necessary to maximize customer benefits.

For full-scale AMS deployment, the Company has chosen to partner with Landis + Gyr. Landis + Gyr has experience deploying advanced meter technology at other large utilities and has successfully worked with the Company numerous times in the past. Examples of relevant successful Landis + Gyr projects that have led to positive outcomes include:

- Landis + Gyr Experience: Landis + Gyr has successfully deployed advanced meters across
  the globe. In North America alone, Landis + Gyr have deployed approximately 25 million
  meters. Within the United States, these deployments have been implemented by utilities
  across the country, ranging in size and up to 3.3 million meters, and primarily utilizing the
  same RF mesh technology the Company will be deploying in its Kentucky service territory.
- Downtown Network: In 2014, Landis + Gyr was awarded a contract to deploy approximately 1,500 advanced meters in the downtown Louisville area. Landis + Gyr was chosen from a field of five bidders that were all evaluated using the same criteria and methods. The final selection of Landis + Gyr was based on low costs combined with their ability to meet all necessary requirements. These advanced meters and the supporting infrastructure were successfully deployed in 2014 and continue in operation today. With full AMS deployment, these meters will seamlessly integrate with new AMS infrastructure.



- AMS Opt-in Program: In 2015, the Company reviewed four bids to supply meters, infrastructure, and services for up to 10,000 customers who voluntarily opted in to the AMS opt-in Program. Bids were evaluated on cost and operational fit for the AMS opt-in program which could lead to full-scale deployment. Landis + Gyr and Itron were both awarded contracts. Landis + Gyr provided RF Mesh network technology for metro service areas and Itron provided cellular network technology for the surrounding areas. Both companies were the lowest cost options and Landis + Gyr specifically demonstrated the ability to leverage existing network assets implemented during the downtown network project. A recent survey of program participants demonstrated overwhelmingly positive feedback from the customers polled and can be found in Appendix A-1. The Landis + Gyr equipment used as part the opt-in program has established a foundation for full deployment of AMS and will be integrated into the larger system.
- PPL Electric Utility (PPLEU) AMS Deployment: Landis + Gyr was selected out of a field of various providers to supply advanced meters, supporting infrastructure, and MDMS system software. This deployment is currently in progress, utilizes the same technology proposed throughout this document, and allows intra-company communications and learnings to increase deployment efficiencies.

Landis + Gyr's nationwide AMS experience and familiarity with Kentucky service territory characteristics make them an ideal partner for full AMS deployment. It is important to note that all discussions with Landis + Gyr are conceptual at this point and costs included in this plan are estimates only. The Company is developing detailed plans and will begin negotiation with all of its partners. The Company also plans to continue exploring opportunities to take advantage of the scalar benefits of an enterprise-AMS deployment, including volume discounts, performance-based pricing, and opportunities to leverage existing network assets.

# 6.2 AMS Opt-in Program Results

In Kentucky PSC case number 2014-00003, the commission approved the Company's AMS opt-in program as a way to further test AMS technology. The approval stated that "customers benefit from smart meters because they have a level of information at their disposal that allows them to control their energy use and, therefore, exercise more control over their utility bills." In 2015, the Company implemented this program for customers who elected to voluntarily opt-in.

<sup>&</sup>lt;sup>17</sup> At the time of the contract award Landis + Gyr did not have an acceptable cellular option. Thus, Itron was selected to provide cellular meters for opt-in customers in rural areas outside of an RF Mesh deployment. Landis + Gyr has since developed an advanced cellular option that is under evaluation.



Deployment commenced in November 2015 and was capped at 10,000 advanced meters. Since then, the Company has deployed approximately 3,500 meters in its services territory.

This preliminary AMS infrastructure includes meters, routers, collectors, head end, and integration with ePortal. Deployment has progressed with minimal issues. In May 2016, the Company partnered with Bellomy Research (a third-party marketing research company) to conduct a customer survey evaluating AMS opt-in customers' perceptions<sup>18</sup>. The survey showed positive results including:

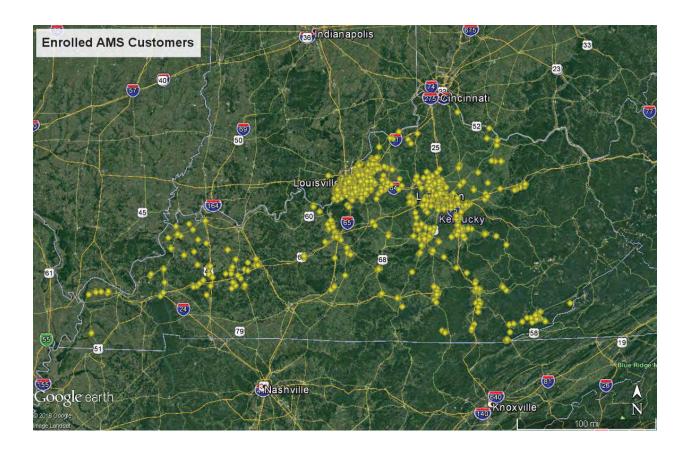
- Customer Satisfaction: A large percentage of program participants were satisfied with their AMS service (77%) and the ePortal (75%). The majority of respondents rated their overall satisfaction with AMS as Highly Satisfied (58%).
- Customer Engagement: Most customers took additional steps to lower their energy consumption, including upgrading to LED light bulbs, programming thermostat settings, and enrolling in the Company's energy efficiency programs.
- ePortal Usage: The survey showed a positive relationship between increased ePortal usage and customer satisfaction. Customers who used the ePortal more frequently were much more likely to be satisfied with the overall AMS program.
- Areas for Improvement: Most observations from program participants highlighted program elements that could be improved with full deployment, rather than a lack of interest or disagreement with the core capabilities provided. These included:
  - Ease of Access The most frequent comment from customers revolved around having to log into their utility account, search to find the meter data within the Company website, and the lack of a mobile app. These are all areas the Company plans to explore and improve upon to make it easier for customers to view and analyze their data.
  - Customer Education Some customers expressed that they did not understand how to navigate the ePortal or did not understand the consumption data. The Company is exploring ways to improve customer education to address these concerns and improve customer satisfaction.
  - o Timeliness of information During the program, ePortal information was updated daily with 15-minute interval data. Customers expressed the desire to see this information sooner than daily. Generally, the feasibility of doing so is not currently economically possible. However, the Companies continue to explore technologies that could provide customers with this information.

<sup>&</sup>lt;sup>18</sup> See Appendix A-1, Advanced Meter Service Participant Study - Bellomy Research, pg 7-40.



 Information Display in \$ Terms – 86% of customers expressed interest in having the option to view ePortal information in dollar terms in addition to the current consumption (kWh). This functionality is currently being evaluated by the Company.

The Company has also found that opt-in customers are geographically diverse, spanning various topographies, population densities, and socio-economic segments throughout Kentucky. The distribution of enrolled AMS opt-in customers, as of September 30, 2016, is shown below:



Collectively, all data points resulting from experiences to date indicate that a full-scale AMS deployment represents a logical expansion of the AMS opt-in program.

# 7 Benefits/Costs Analysis



#### 7.1 Benefits

As demonstrated by the AMS opt-in program, these technologies enable many direct and indirect benefits that contribute to an improved customer experience. The Company plans to achieve these benefits by deploying meters throughout the rest of its service territory. The scale of a full deployment, continuing technological advancements, and numerous capabilities to monitor and control meters allows the Company to realize improvements in both operational and customer experience.

The expected benefit categories include reduced meter reading and services support, avoided capital and O&M costs, improved outage identification and management, reduction of non-technical losses, and reduced energy costs to customers due to using improved consumption data to lower usage. Total benefits are estimated to be \$1.020 billion. A breakdown of individual benefit categories is shown down below<sup>19</sup>:

## Total Benefits with AMS Implementation - 20 Years; \$ Millions



Specific qualitative benefits and financial estimates are the result of a cross-functional analysis effort involving different groups at the Company including Customer Service, Meter Assets, Meter Reading, Field Services, Billing Integrity, Information Technology, Distribution Operations, and Corporate Safety. These benefits are discussed in greater detail below.

<sup>&</sup>lt;sup>19</sup> For greater detail regarding methodologies and supporting data of all cost and financial benefit breakdowns, see Appendix A-5 AMS Business Case Summary Presentation, and Appendix A-6 AMS Capital Evaluation Models.



#### 7.1.1 Improving Customer Interactions

First and foremost, AMS is one of the key initiatives at the heart of the Company's efforts to enhance its position as the Trusted Energy Partner for its customers in Kentucky and Virginia. AMS provides the Company with the ability to considerably improve the level of information it has about the customer experience. This information, combined with the Company's unique position to interpret and present this information to customers in ways they find impactful, presents an opportunity to inform and empower customers.

# 7.1.1.1 Customer Empowerment via ePortal

As a part of the AMS infrastructure deployment, the Company will continue to offer an ePortal that will enable customers to access their electric and gas consumption data, among other products and services. Due to the increased granularity and access to data, these capabilities will be available to many more customers. Customers will be able to see historical energy usage data from which their usage trends and patterns emerge, allowing energy saving tips and insights to be presented. This access will enable customers to make more informed decisions on their energy usage through visualization of energy conservation-driven behavior changes. The website will be the hub of educational and safety information, along with material on energy efficient consumer products.

Preliminary opt-in program results show that active users of these types of tools find tremendous value in having access to this detailed energy usage data. These users draw insights from their consumption patterns and adjust their behavior to save energy. The Company conservatively projects a 3% energy saving for those making proactive changes. This estimate is based on the average monthly bill for residential customers in the Company's service territory and a Smart Grid Consumer Collaborative (SGCC) report<sup>20</sup> showing that a 5 to 15 percent reduction in usage is consistently found for active users. This represents savings of approximately \$166.3 million over 20 years.

#### 7.1.1.2 Call Center and Customer Service

The Company initially expects a modest increase in call volumes during the implementation of AMS and welcomes the opportunity to directly address customer questions. As time progresses, this higher call volume is expected to drop below current levels as customer education efforts and self-service trends on the ePortal are established.

AMS will also provide incremental experiential benefits in the ongoing customer operations area. By embracing these new technologies, AMS gives new tools to customer service representatives to more quickly and effectively help customers. Customer service representatives (CSRs) will have access to a host of additional tools and capabilities such as:

• Customer Usage History – CSRs can access each customer's history and detailed electric and gas interval usage data to establish context about a particular customer, better

<sup>&</sup>lt;sup>20</sup> 2013, Smart Grid Consumer Collaborative, "Smart Grid Economic and Environmental Benefits". Pg. 30.



anticipate customer concerns, and provide details to customers who might not have ePortal access or need assistance interpreting the information.

- Rate Information CSRs will be able to view a customer's granular usage data to recommend optional rate plans that better meet their energy management needs.
- Real-time diagnostics CSRs will be able to ping customer-specific meters in real-time to run basic diagnostics and more quickly determine the nature of an issue. In some cases, CSRs will be able to determine if an outage is electric distribution system-related or behind the meter.
- Real-time Account Services CSRs will be able to perform real-time meter reads for movein/move-outs and other account related details without having to schedule an appointment, have a technician physically visit the premise, or wait for hours or days for these functions to be performed.
- Real-time Remote Service Switching CSRs will have the ability to reconnect electric meters in real-time when customers start service, pay outstanding bills, etc.

# 7.1.1.3 Improved Billing Issue Resolutions

Strong internal revenue collection processes flag anomalous billing determinants to identify and correct data to ensure accurate billing. Current processes result in a low level of exceptions. Staff then manually process these exceptions, researching them through a variety of means to confirm accuracy. This process can take multiple days and sometimes requires a field technician to physically inspect the meter. AMS technologies will streamline this process, lowering the need for current follow-up levels through automation and data analytics.

Additionally, the Company currently estimates approximately 1% of meter reads while in the process of reading a meter. AMS will lower the number of these instances and, when necessary, will be estimated more accurately.

The Company has chosen not to quantify these benefits due to the fact that its current processes have driven low levels of exceptions and meter reading estimates. Nonetheless, the Company believes there will be improvements associated with this process that will lead to increased customer satisfaction.

#### 7.1.2 Enhanced Distribution Grid Efficiencies

AMS technologies enable enhanced distribution grid efficiencies in a number of ways by helping operations to "get the lights on" as fast as possible. Some of these approaches are as follows:

# 7.1.2.1 Automated Outage Reporting and Shortened Restoration Times

AMS technologies can proactively report when power outages have been detected for individual meters. This allows earlier detection of outages with more information available to the Company's Outage Management Systems (OMS). This data will help the Company identify the location and extent of outages which supports a more rapid, effective coordination of restoration efforts. Faster, more targeted restoration activity translates into decreased crew



time, overtime savings, reduced fleet costs, and lower contractor expenditures representing total savings of \$4.1 million over 20 years based on a 10% reduction in outage duration and fleet costs.

# 7.1.2.2 Reduction of "OK-on-Arrival" Instances

AMS technology will reduce the number of instances in which a crew is dispatched to a reported outage, but arrives on-site to find utility-responsible services operating properly. AMS technologies can alert dispatchers that an experienced outage has elapsed or that outages are "behind the meter" and would better be resolved by a customer's electrician. The Company expects to eliminate 3,400 per year "OK-on-Arrival" instances, reducing fleet and crew time, which represents a savings of \$6.9 million over 20 years.

## 7.1.3 Enhanced Metering Operations Efficiencies

AMS technologies enable enhanced-metering operations' efficiencies in a number of ways by helping to streamline, automate, and improve many of the capabilities already being performed. Some of these approaches are as follows:

# Reduced Staffing for Recurring Meter Reading

Current meter systems require the Company to manually read meters on a monthly basis. AMS allows the Company to read meters remotely through over-the-air network communication in a manner that is faster than the current manual effort. This will allow the Company to realize savings through the elimination of nearly all manual meter reading once meters and the necessary infrastructure are operational, saving employee overtime and decreasing contractor usage.

Current meter reading processes also include physical inspection of meters while onsite. Additional savings can be realized by reducing these physical inspections from a monthly basis to the regulatory-required timeline of two and three years for electric and gas meters respectively. Additional savings could be realized if the Kentucky PSC relaxed current physical meter inspection requirements in response to the installation of AMS meters.

In total, reduced meter readings represent savings of \$203 million over 20 years.

# 7.1.4 Reduced Staffing for Ad Hoc Field Services

Current meter systems also require the Company to manually visit certain premises on an asneeded basis in response to customer circumstances. This can include, but is not limited to, off-cycle meter reads, meter re-reads, move-in connections, bill payment reconnections, and disconnections resulting from various causes. AMS technology provides automation potential for these and other situations. By enabling bi-directional wireless communications for these functions, CSRs will be able to perform these functions in real-time and a physical visit by a field technician will no longer be required. AMS enables a reduction of internal overtime and external contractor spend in this area, with total savings estimated to be \$92 million over 20 years.



## 7.1.5 Recovery of Non-Technical Losses

AMS capabilities embedded within each meter coupled with revenue protection analytics can uncover usage anomalies which can potentially indicate theft, meter configuration errors, and meter malfunctions which all contribute to non-technical revenue loss. Examples of anomalies include intermittent outages coupled with usage reductions indicating physical meter breach or bypass (e.g., tilt, rotation, and reverse flow), anomalous load profile with statistically significant variation indicating meter disabling, consumption on inactive accounts, and anomalies or meter events suggesting meter malfunction or configuration error (i.e., measurement errors and missing interval data).

The Company has not previously had the tools to adequately identify and proactively address the problems associated with non-technical losses. Instead, all Kentucky customers have subsidized these losses as part of their rates. But through certain identification algorithms associated with AMS, it will now be possible to take steps to reduce these losses by attributing a portion of them directly to their cause.

In this case, the Company seeks to estimate savings based primarily upon the Electric Power Research Institute (EPRI) study titled "Advanced Metering Infrastructure Technology: Limiting Non-Technical Distribution Losses In The Future." This report describes the fact that a utility's ability to deliver energy is limited to its gross generation less technical and non-technical losses. Non-technical losses arise from things like "non-performing and under-performing meters, incorrect application of multiplying factors, defects in current transformer (CT) and potential transformer (PT) circuitry, non-reading of meters, pilferage by manipulating or bypassing of meters, and theft by direct tapping, etc."<sup>21</sup> The study also states that "(i)ntegrated with meter data management system (MDMS) technology — software that accepts, stores, and forwards AMI-collected data to utility systems such as billing — AMI significantly improves a utility's ability to monitor customers' electric meters and detect both intentional electricity bypasses and unintentional errors (e.g., billing and customer service problems encountered by traditional manual meter-reading operations)."<sup>22</sup>

The study goes on to summarize that "(e)stimates of non-technical revenue losses range from 0.5% to 4.0% of annual revenue," but concludes that "(n)on-technical revenue losses most likely fall within a much narrower range: 1.65% to 2.15%, depending on the utility and service territory... A 'mode' of 2% would appear reasonable and reflective of the impact on distribution utilities."<sup>23</sup>

<sup>&</sup>lt;sup>21</sup> 2008, EPRI, "Advanced Metering Infrastructure Technology: Limiting Non-Technical Distribution Losses In The Future" p. 1-3.

<sup>&</sup>lt;sup>22</sup> 2008, EPRI, "Advanced Metering Infrastructure Technology: Limiting Non-Technical Distribution Losses In The Future" p. v.

<sup>&</sup>lt;sup>23</sup> 2008, EPRI, "Advanced Metering Infrastructure Technology: Limiting Non-Technical Distribution Losses In The Future" p. 1-18.



The Company applied the recommended 2% to the projected annual electric revenues less the forecasted revenue of out-of-scope customers. The Company then estimated that 60% of these non-technical losses could be identified, of which 60% would go on to be recovered.

The end result is a net customer benefit from a more equitable system, where the true responsibility of payment is borne by the parties responsible for the energy usage. Depending on factors such as the percentage of meter errors, the percentage of theft discovered, and the percentage of revenue that can eventually be recovered, non-technical losses recovered can be large. The Company estimates recovery of non-technical losses to be approximately \$16 million per year representing \$489 million over 20 years.

#### 7.1.6 Avoided / Deferred Capital Costs – Meter Replacements

Implementation of AMS meters reduces the need for legacy, electro-mechanical meters that were budgeted for replacement in coming years due to their anticipated end-of-service life. As the AMS deployment commences, non-AMS meters taken out of service can be retired or used as replacements in areas that AMS has not been made available. This provides the Company with flexibility to address operational and customer service issues that may arise during deployment. Any AMS meters failing shortly after deployment will be replaced by the AMS vendor under warranty. Meter failures through the remainder of the business case period will likely continue, but at a lower failure rate due to the average service age. Collectively, this lowered replacement spend represents annual capital savings of approximately \$1.4 million which represents \$37 million in savings over 20 years.

#### 7.1.7 Avoided / Deferred Capital Costs – Information Technology

AMS implementation allows the Company to avoid or defer certain costs related to IT applications that will be impacted by AMS technologies. Identification of these costs was performed thoughtfully to ensure that avoidance or deferral of these costs would cause no detriment to the customer. Impacted programs include \$6.4 million in avoided costs identified by eliminating the cyclical meter reading hardware refresh purchases, \$6.8 million in deferred Customer System enhancements and upgrade cycles, \$4.8 million in avoided upgrade costs for the mobile work management system, and \$2 million in various other identified benefits. In total, these programs represent approximately \$20 million in IT savings over 20 years.

#### 7.1.8 Improved Meter-Related, Utility Staff Safety

Safety and health are core values of the Company. The ability to reduce exposure to injuries through AMS directly supports the Company's goal of zero accidents and no adverse impacts to the public, employees, and contractors.

For instance, manual meter reading and related services can expose Company employees and contractors to unsafe encounters such as hazardous stairs or unrestrained animals. Safety incidents, including threats, require the attention of a number of employees that are called into



action. This involves ensuring the safety of the employee, investigating the circumstances, and reporting the incident to the Kentucky Public Service Commission. The Electrical Technical Training and Public Safety department estimates that between 37 and 58 employees are called in response to a safety incident. Since 2011, Field Services' personnel have averaged about 80 physical threats per year related to service disconnections.

AMS implementation would reduce these events, improving employee productivity and increasing safety. Proper safety policies and procedures minimize these instances, which has led the Company to not quantify these benefits.

## 7.1.9 Environmental Benefits

AMS provides environmental benefits for the future. Remotely reading meter data certainly enables lower transportation emissions from less mileage and fewer premise visits. In addition, customers will obtain the opportunity to better understand their usage and decrease emissions of carbon dioxide (CO2) from lower energy consumption. AMS can also provide a foundation for measuring data that may be required for meeting CO2 reductions from any future state-wide or federal greenhouse gas' (GHG) regulations.

## 7.2 Costs

The Company's cost projections carefully consider the preliminary deployment and on-going expenses necessary to implement and operate the various components of AMS technology across its service territory. Development of these detailed estimates resulted from robust and extensive analysis efforts, which included consideration of the following:

- Inclusion and refinement of costs the Company incurred as part of its current AMS Opt-In program;
- Assumptions, contractual indications, and cost outlays articulated by peer utilities, including PPLEU;
- Estimates provided by internal subject matter experts across numerous business units;
- Budgetary estimates from potential vendors;
- Assumed cost efficiencies resulting from a similar PPLEU vendor and architecture;
- Assumed cost efficiencies resulting from concurrent deployment of electric meters and gas indices; and
- Reviews with external consultants for high-level, overall reasonableness and comprehensiveness.

Results from this methodical process give the Company confidence that it has fully considered costs for meters, mesh and cellular communications, data backhaul, core information technology systems (configuration, enhancement, and integration), customer outreach/education, employee change management, and overall program management. These cost categories were



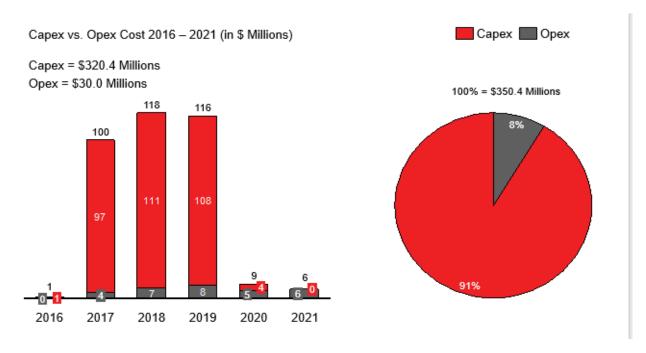
then further modeled to fully consider various financial impacts, such as deployment rates, inflation, depreciation, and costs of capital.

The Company forecasts a total capital expenditure of \$320.4 million through the current 2017-2021 business plan, which includes a contingency amount of \$34.2 million. During this time frame, AMS capabilities will progressively become operational, and thus operational and maintenance expenses are incurred. Operations and maintenance (O&M) expenses across this same period are forecasted to be \$30 million. The capital and O&M annual spend for this phase of the program is shown below:

COMPANY TOTAL	Total Nominal \$Millions 2016 -2021	2016	2017	2018	2019	2020	:	2021
Capital Costs								
Meters and Network	\$ 210.2	\$ 0.5	\$ 63.1	\$ 71.3	\$ 75.4	\$ -	\$	-
IT and Systems	\$ 110.2	\$ 0.5	\$ 33.9	\$ 39.8	\$ 32.1	\$ 3.9	\$	-
Capex total	\$ 320.4	\$ 1.0	\$ 97.0	\$ 111.1	\$ 107.5	\$ 3.9	\$	-
Operating Costs								
Meters and Network	\$ 14.6	\$ -	\$ 3.2	\$ 5.5	\$ 5.9	\$ -	\$	-
IT and Systems	\$ 15.4	\$ -	\$ 0.7	\$ 1.1	\$ 2.4	\$ 5.1	\$	6.1
Opex total	\$ 30.0	\$ -	\$ 3.9	\$ 6.6	\$ 8.3	\$ 5.1	\$	6.1
Total Costs	\$ 350.4	\$ 1.0	\$ 100.8	\$ 117.6	\$ 115.8	\$ 9.0	\$	6.1
Total Benefits	\$ 112.6	\$ -	\$ 1.6	\$ 5.3	\$ 31.2	\$ 37.6	\$	37.0

AMS Cost-Benefit S	umma	ary (2016-203	9)	
\$ Millions	Nom	inal Values	Net Pre	sent Values
(Costs)				
Total Project Costs (Capital)		(320.4)		(299.0
Total Project Costs (O&M)		(30.0)		(23.1
Total Project Costs	\$	(350.4)	\$	(322.1
Total Recurring Costs (Capital)		(25.4)		(11.3
Total Recurring Costs (O&M)		(135.3)		(50.7
Total Recurring Costs	\$	(160.8)	\$	(62.0
Meter Retirement	\$	(39.7)	\$	(3.8
Total Lifecycle Costs	\$	(550.9)	\$	(387.9
Benefits				
Operational Savings		364.9		156.2
Recovery of Non-Technical Losses		488.6		195.3
ePortal Benefit		166.3		66.6
Total Lifecycle Benefits	\$	1,019.8	\$	418.1
Net Benefits vs (Costs)	\$	468.9	\$	30.2
Discount Rate: 6.62%				



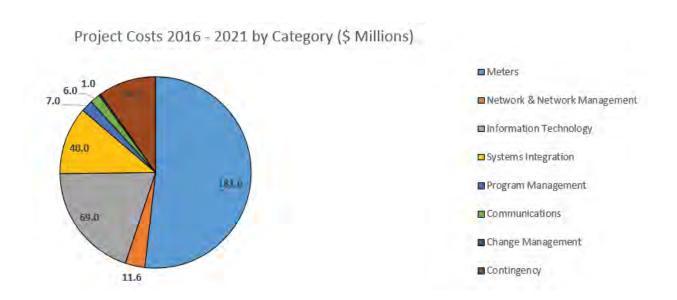


On an ongoing basis, from 2022 through 2039, the Company will have limited incremental direct AMS capital expenditure of \$25.4 million. However, annual ongoing O&M costs will start at \$6.1 million in 2022 and escalate to \$9.2 million by 2039, which is, in aggregate, \$135.3 million of O&M in the years 2022-2039, as shown below:

Total Nominal	\$N	lillions 20	)22	-2039
	0	perating Costs	В	enefits
2022	\$	6.1	\$	37.6
2023	\$	6.2	\$	39.6
2024	\$	6.3	\$	40.0
2025	\$	6.5	\$	41.3
2026	\$	6.7	\$	42.6
2027	\$	6.8	\$	45.5
2028	\$	7.0	\$	46.3
2029	\$	7.2	\$	46.9
2030	\$	7.4	\$	48.4
2031	\$	7.5	\$	50.0
2032	\$	7.7	\$	51.6
2033	\$	7.9	\$	55.9
2034	\$	8.1	\$	55.0
2035	\$	8.3	\$	56.8
2036	\$	8.5	\$	58.7
2037	\$	8.8	\$	60.7
2038	\$	9.0	\$	63.7
2039	\$	9.2	\$	66.5
Total:	\$	135.3	\$	907.1



The costs incurred to implement this plan have been grouped into categories as shown below:



Within each of these categories, the costs were further broken down as either capital or O&M within the years over which these costs would be incurred. The costs have been presented on a nominal basis over a 5-year period. A graphical representation of these costs is shown below.

Project Costs 2016 - 2021 \$ Millions

-			
Category	Capex	OpEx	Total
Meters	167.0	14.6	181.6
Network & Network	10.4	1.2	11.6
Management	10.4	1.2	11.0
Information Technology	56.7	12.3	69.0
Systems Integration	40.0	-	40.0
Program Management	5.1	1.9	7.0
Communications	6.0	-	6.0
Change Management	1.0	-	1.0
Contingency	34.2	-	34.2
Total	320.4	30.0	350.4



## **Costs by Program Component**

# 7.2.1 Meter

The most significant component of the AMS deployment is the \$125.9 million equipment cost for the approximately 980,000 electric meters and 322,000 gas meter indices. Meter installation costs throughout the territory will vary per geography, but an average installation cost of \$23.56 per electric meter and \$9 per gas index form the basis of an overall \$32.6 million installation cost. Another component of the meter cost is related to the repair of meter bases as part of the meter swap process which totals \$8.9 million. Other minor costs such as meter testing, meter failures, and customer growth are included in the total meter cost. The total estimated costs for the meter category total \$181.6 million (\$167.0 million capital and \$14.6 million O&M).

# 7.2.2 Network & Network Management

Network costs include the router and collector equipment costs which total \$4.8 million including approximately 2,200 routers and 150 collectors based on a study done by Landis + Gyr to estimate total systems costs. Additionally, costs to deploy and install the network communications system will be \$6.9 million and will include network planning and engineering, training, and testing.

Other components of the network and network management costs include backhaul, annual component failures, and annual maintenance. The total estimated costs for the Network & Network Management category total \$19.5M (\$11.5 million capital and \$8 million O&M).

# 7.2.3 Information Technology

Information Technology costs include software, hardware, vendor support, and internal IT resources costs. The software costs of head-end, MDM, portal, meter operating center and meter asset management system total \$180.3 million, while the associated hardware costs are \$25.9 million. Additional labor costs that are associated with IT are \$5 million. The total Information Technology costs are estimated to be \$206.8 million (\$81 million capital and \$125.8 million O&M). These costs include interfaces and integration of multiple new and existing systems. The Company is currently designing its planned system architecture, but an illustrative application architecture can be found in Appendix A-2.

# 7.2.4 System Integration

The system integration category captures the costs associated with coordinating and managing the implementation of the different IT packages in an optimal manner. Associated tasks include providing overall architectural guidance, platform design, supporting security requirements, facilitating integration across disparate systems, comprehensive test plan development, and execution. Total System Integration costs are estimated to be \$40 million (\$40 million capital and \$0 O&M).



# 7.2.5 Program Management

The Program Management category captures the costs associated with overseeing the entire program through the end of 2021. The responsibilities associated with the category include program leadership, project management, business process development, and redesign. Total Program Management costs are estimated to be \$22.2 million (\$5.1 million capital and \$17.1 million O&M).

# 7.2.6 Customer Communications & Change Management

The estimated Customer Communications and Change Management costs cover two categories – training costs totaling \$1.0 million and customer education costs totaling \$6.0 million. Training costs include costs associated with both the development of training guides and modules as well as the delivery of training. The costs associated with customer education incorporate costs for the development of AMS plan-related materials for all stakeholders as well as costs to deliver relevant education and messages through the appropriate channels in accordance with the timeframes outlined in the Customer Education and Communication Plan. Total Communication and Change Management costs are estimated to be \$7.0 million (\$7.0 million capital and \$0 O&M).

# 7.2.7 Requested Waivers for Improving AMS Benefits

The Company plans to request the following waivers, approvals, and relief to implement AMS and to achieve the additional benefits of this technology.

Waivers requested and included in base business case assumptions:

- 807 KAR 5:006, Section 7(5) Section 7(5)(a) requires a utility to read each customer's meter at least quarterly except if prevented by reasons beyond its control and excepting customer-read meters subject to Section 7(5)(b). In turn, Section 7(5)(b) requires that a meter be read manually at least once during each calendar year. Waiver of this regulation or otherwise receive confirmation that obtaining a monthly remote meter reading constitutes a meter reading in satisfaction of the regulation for AMS meters that allow for remote data communication would result in savings of \$2.4 million from eliminating manual readings otherwise needed to satisfy this regulation.
- 807 KAR 5:006, Section 14(3) This regulation requires the Company to inspect the
  condition of meter and service connections before providing service to a new customer
  so that prior or fraudulent use of the facilities shall not be attributed to the new customer.
  This would apply only to AMS meters that allow for remote data communication. Annual
  cost to continue inspections prior to providing service to a new customer should this
  waiver not be granted is \$3 million.



Should the Kentucky PSC grant the Company requested waivers identified below, additional annual savings would be achieved and ultimately passed on to the customer in future ratemaking.

- 807 KAR 5:006, Section 26 (4)(e) and 807 KAR5:006, Section 26 (5)(a)(2) require the Company to perform inspections on electric meters every two years and gas meters every three years. Annual cost to comply with this regulation is \$1.2 million. AMS provides electronic information and alarms as described in Section 4.6 and more fully shown in Appendix A-3. This electronic information includes tampering alarms. Thus, the Companies will have notice if a meter is tampered with and can follow-up with a physical inspection. Other information delivered from the meter provides the Company details of the general condition of every meter in the system on a daily basis. Consequently, the intent of the two-year and three-year inspections may be met with the electronic information provided by the AMS and thus not require periodic physical inspections.
- 807 KAR 5:041 Section 16, and KPSC Case 2005-00276 require the Company to perform sample and periodic meter testing programs. The Company seeks to suspend its existing sample program in the deployment years and proposes to resume the sample program post-AMS deployment. Annual cost to comply with this regulation is \$167,000. The estimated savings will be in the form of additional workforce capacity since this is a temporary suspension of the requirement. The contractors and employees doing this work today will be assigned other work (testing new meters) during the deployment phase and will return to testing sample meters after deployment.
- 807 KAR 5:041 Section 15 (3) requires the Company to test all removed meters. As reported quarterly to the Kentucky Public Service Commission, the Company has demonstrated that the vast majority of meters tested are operating accurately. Over the last six years, more than 99% of KU and LG&E electric meters tested have been within +/-2%. Of the less than 1% of meters that are fast or slow, 82% are slow and 18% are fast. Therefore, approximately 0.12% of electric meters are fast.

98% of LG&E gas meters tested have been within +/- 2%. Of the 2% that are fast or slow, 67% are slow and 33% are fast. Therefore, approximately 0.76% of gas meters are fast.

Labor costs to comply with this regulation are \$3.3 million. The Company suggests that this is a high cost to customers to identify roughly 0.12% of electric customers and 0.76% of gas customers possibly impacted by a fast meter. The Company seeks to suspend its



removal testing and proposes to resume it post-AMS deployment. Additionally, the Company will request permission to dispose of removed meters immediately although they have not been tested for accuracy, as these meters will not then be returned to service.

• 807 KAR 5:006 Section 19 states, "A utility shall make a test of a meter upon written request of a customer if the request is not made more frequently than once each twelve (12) months." On its face, this requirement would appear to apply only to meters still in service, not to meters already removed from service. But out of an abundance of caution, the Company will ask the Commission to grant the Company a deviation from Section 19 regarding all meters the Company removes as part of the full AMS deployment. The reasons for the deviation are the same as those given above for the Company's requested deviation from 807 KAR 5:041 Section 15(3) concerning testing of meters removed from service.

# 7.3 Benefits/Costs Summary

Quantitatively, the results of the Company's detailed financial modeling as part of the business case demonstrate that net benefits outweigh net costs to yield an NPV of \$30.2 million, making AMS a worthy investment on behalf of customers. The Company is investing \$511.2 million (\$345.9 million in capital and \$165.3 million in O&M) to fund full AMS deployment and maintenance over a 20-year timeframe. Advanced meters, network infrastructure, and supporting systems make up the majority of the costs. The Company expects \$1.02 billion in expected benefits across the same time period. The main financial benefits revolve around meter reading cost reductions, meter services' efficiencies, reduction of non-technical energy losses, and potential energy savings resulting from customer adoption of ePortal-enabled insights. As these overall costs are expected mainly to be incurred in the first few years of the program, and benefits are expected to be over the next 20 years, financial analysis reconciles this to a comparable value in 2016 terms. The comparison of these reconciled benefits and costs yield the \$30.2 million net present value.

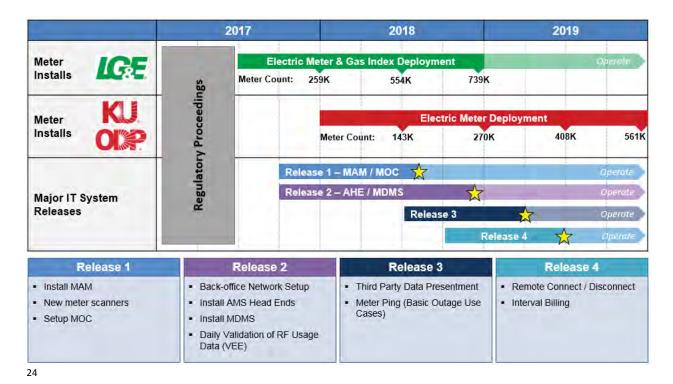
# 8 Deployment Plan

In consideration of AMS having a direct impact on every customer, the deployment of AMS represents one of the most far-reaching initiatives the Company has ever undertaken. As such, it is vital to ensure that the transition is conducted smoothly and efficiently to minimize customer inconvenience. In preparation, over 75 people representing more than 10 different business functions have been involved in conducting significant analysis, reviewing, socializing, and



planning for various facets of the AMS program. While certain detailed activities continue to maintain internal awareness and momentum, the overall organization is fully ready to mobilize to make this vision a reality.

The AMS program will comprise numerous systems, components, facility modifications, and many meter installations which must be carefully coordinated and sequenced. The high-level plan includes a full implementation over three years beginning in mid-2017 as shown below:



# 8.1 Electric Meter and Gas Index Installations

Electric meter and gas index deployment in the LG&E territory is planned to start shortly after regulatory approval, which is anticipated in mid-2017. Preliminary meter installations will communicate through the Company network to provide initial connectivity data to the existing AMS head end. These customers will have access to all capabilities currently available to the AMS Opt-in Program participants until remaining AMS systems are brought online later in the program.

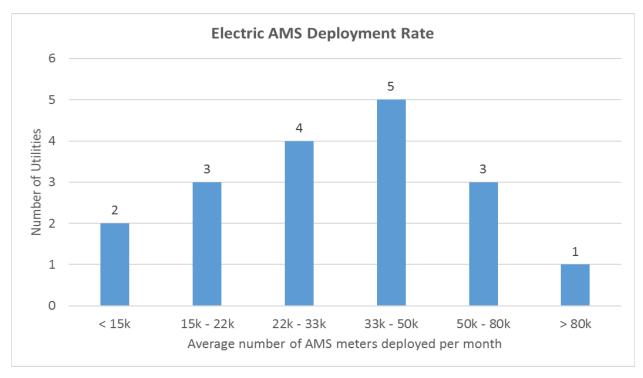
Deployments will initially commence in the Louisville area due to the population density and prevalence of existing AMS Opt-in Program infrastructure. Crews will exchange meters in accordance with defined processes that include: capturing the final meter reading from the existing meter, removal of the existing meter, performing any necessary meter base repair,

<sup>&</sup>lt;sup>24</sup> Meter counts reflect data from 8/19/2015.



capturing new meter characteristics for the Meter Asset Management system, installing a new meter, and backoffice validation of the removed meter's accuracy.

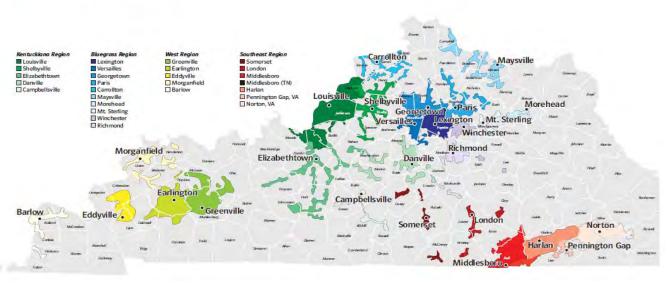
The Company plans to average roughly 43,000 meter exchanges per month. Through research conducted as part of the AMS planning effort, the Company has found that other investor-owned Utilities (IOUs) have typically deployed meters at an average rate of approximately 37,000 metering sites per month, and the Company plan is within the prevailing range of 33,000 to 50,000 per month as shown in the figure below. This estimate also includes deployment of routers and collectors to enable communications between meters and back-office systems.

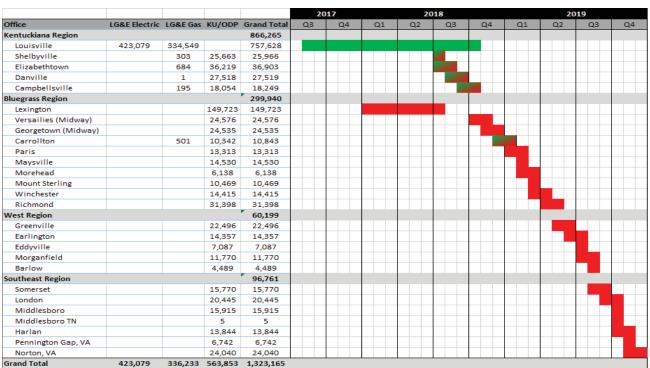


Using this rough guideline, meter exchanges are estimated per the sequence and schedule as shown in the following diagrams:









25

<sup>&</sup>lt;sup>25</sup> Meter counts as of 10/27/2016



# 8.2 Major IT System Releases

The Company will also configure and deploy several new systems and enhancements to existing systems. These capabilities will be pursued through several staggered releases. Each release is designed to provide incremental functionality which progressively increases operational efficiencies and/or customer experience considerations. Descriptions of each of these releases are as follows:

- Release 1 MAM / MOC: The meter asset management (MAM) system is a preliminary capability that will assist the Company in systematically capturing meter characteristics as deployed. The metering operations center (MOC) monitors communications channels between meters and the AMS head end. Together these capabilities provide the necessary tools to implement modern and efficient processes to efficiently deploy, inventory, and optimize meter communications.
- Release 2 AHE / MDMS: The AMS head end (AHE), which aggregates meter data, will be upgraded to the latest version and configured for data communications with other AMS platform systems. The meter data management system (MDMS) validates meter data and processes it to ensure revenue quality. Together these capabilities provide the core remote meter reading capability which allows manual meter reads to cease and new register read data to be used for billing purposes.
- Release 3 Ping & Presentment: Detailed interval data will be available in consumption (kWh) and estimated bill (\$) terms via the ePortal for customers to review their consumption details. Rate information will also be made available through the ePortal to allow customers to analyze how different rate options fit their lifestyle. Additional meter pinging capabilities will be enabled in the CIS and AHE which will allow CSRs and operations staff to dynamically confirm power status in real-time.
- Release 4 Remote Service Switching & Interval Bills: Remote service switching will be enabled allowing CSRs and operations staff to energize a previously disconnected premise per predetermined schedule or ad-hoc requirement. Remote service switching capabilities will be configured and enabled for meter services functions. Billing systems will be enhanced to fully accommodate increased interval details and cross-reference with time-of-day rate structures.

# 8.3 Program Management

Given the size and cost associated with the AMS program, it is vital to ensure that the implementation is managed through an established set of procedures and processes. This methodology will be strictly adhered to with this program much as it is for other large infrastructure implementations pursued through other parts of the Company. The Company's



robust program management governance structure adds a number of valuable organizational tools and protocols to ensure program alignment and compliance with project expectations. The Company has the appropriate expertise, governance, and partners necessary to successfully deliver a full AMS deployment, as it has done with numerous large capital projects in the past.

# 9 Customer Education and Communications Plan

## 9.1 Introduction

Advanced Meter Service technologies give customers new data, tools, and control over their energy consumption for a holistic set of benefits as described. Communication, education, and support through the deployment will be key in addressing customer concerns and demonstrating the benefits of AMS. A successful education and communications plan will drive high levels of customer engagement and help customers achieve maximum benefits.

Various internal studies of third-party customer satisfaction surveys have shown a connection between strong, proactive customer communications and positive customer experiences with AMS programs. Thus, the Company will develop a multi-faceted customer education and communications plan to educate customers, as well as community stakeholders, throughout the duration of the project and after customers receive their meters to encourage participation and support of future programs.

This will include providing a robust offering of information on a variety of topics, to include how the program works; the meter installation process; the new tools and features, such as the ePortal-functionality, available through AMS; and new ways to help manage their energy use and modify their services.

The Company serves a diverse population that have different needs and require different communications and education approaches. To reach all customers and community stakeholders, the Company plans to use a wide array of communication vehicles, such as:

- Advertising
- Automated calls
- Community outreach and events
- Customer newsletters and bill inserts
- Direct mail
- Email
- Informational updates through the ePortal
- Videos
- Leave-behind materials following an installation
- Media relations
- Social media



An example display of information available on the ePortal that is used in customer outreach efforts for the AMS Opt-In program can be seen below. Additional communication materials can be found in the Appendix A-4.



## 9.2 Implementation Plan

The Company anticipates that customer communications and education will vary at different times throughout the AMS deployment. Diverse customer audiences and community stakeholders with varying interests make creating dynamic outreach, engagement, and education programs essential. The Company will develop a three-stage, comprehensive approach using a multi-channel, multimedia campaign to inform and educate customers and community stakeholders, creating two-way conversations about AMS technology. This well-structured plan is designed to increase acceptance, ease implementation, and allow customers to make informed decisions. The three stages of the communication and education campaign are shown below:

**Stage 1 - Deployment:** The purpose of the deployment stage is to initiate a fact-based Advanced Meter Systems education and awareness campaign that informs customers and community stakeholders about the purpose of the program and the benefits associated with AMS.



**Stage 2 – Customer engagement:** This stage's objective is to further educate customers about the new features and tools available through AMS and what they can do to fully take advantage of these offerings. This includes participation in other Company programs and innovative rate structures that can help customers manage their energy usage and costs. The increased knowledge of opportunities, coupled with customer engagement, aims to increase customer satisfaction by giving them control, options, and information to make energy choices best fit to their needs.

**Stage 3 – Customized communications:** This longer-term effort will adjust in response to customers' needs, operational programs, and rate plans that are enabled by the AMS implementation.

## 9.3 Flexibility and Adjustment

The components and overall strategy are designed to be dynamic and flexible in nature to meet customers' and community stakeholders' needs. The Company will address questions and any concerns, and will closely monitor deployment progress and customer feedback to revise the plan as needed.

# 9.4 Residential Time-of-Day Rates

Different usage trends, economic constraints, familiarity with the technology, and various other circumstances make every customer unique, leading to a wide variety of individual customers' interests. To provide customers with options that fit their unique needs, the Company introduced two new Residential Time-of-Day (RTOD) rate structures along with the AMS Opt-in Program currently available.

Through time-of-day rates, the Company provides optional rate structures that more accurately reflect the actual cost of providing service to customers. Through these price signals, rates are lower at times when baseload generation is a larger part of the mix and higher at peak times when fast-ramping, expensive generation is required to meet customer demand. These programs are about customer choice: customers can save money by shifting their energy usage to off-peak hours or they can choose to incur higher costs and use power when it is most expensive. By enabling flexibility, these rate plans have received positive responses from customers, but have been somewhat limited to customers who already have an understanding of their energy usage or know that they are natural, or minimal effort, beneficiaries based upon their current lifestyle (e.g., customers who leave their home at 7:00 AM for work and return after 6:00 PM).

AMS implementation, with ePortal-support and proper customer education, has the potential to greatly increase enrollment in time-of-day rates. Customers who currently lack the information needed to compare available rate plans will have access to interval data to make an informed decision. At a minimum, this data will help customers think through the potentially cost-saving effects of enrolling in these time-of-day rates and other customer programs with no other



necessary behavioral changes. Customers will also have the option to explore alternate rates with the help of Company representatives and will be able to consider what additional savings may be possible if they choose to adjust their consumption patterns. Increased participation in time-of-day rates gives customers a clear path toward lowering their energy bills and will mutually benefit the utility by relieving stress on needed supply during peak generation hours.

# 10 AMS Analytics

As outlined above, AMS technologies provide many direct capabilities to increase the efficiency of previously manual business processes. Data analytics are crucial to unlocking many of these capabilities and support new processes that will lead to positive customer benefits. For instance, the benefit to reduce non-technical losses is highly dependent on analytics. Advanced meters use embedded logic to assess how power is flowing through the meter and can make a determination if the meter has been tampered with. If the meter detects tampering, it can send a notification to central operators. Field services personnel can then be dispatched to inspect, confirm, and mitigate as warranted. This reduces non-technical losses, with these savings being passed onto customers. Other benefits dependent on analytics include Outage Detection / Remediation, Voltage Violation Detection, and "OK-on-Arrival" reduction.

Data analytics is an area of innovation in the utilities industry, a trend that the Company is confident will continue. By deployment of foundational AMS technologies, the Company will be well-positioned to adopt new analytical techniques as they emerge within the industry.

## 11 Cyber Security

In today's digital world, cyber security threats are sophisticated and continue to evolve at an accelerating pace. The Company understands that it must keep pace with those threats to sustain reliable energy delivery and protect sensitive customer data. A thorough, but flexible cyber security program in the deployment of AMS is planned. This cyber security program is crucial to monitoring and protecting the decentralized elements of the advanced meter systems.

The Company currently has standards, frameworks, and guidelines addressing safe and reliable methods to gather, store, process, and communicate electronic information in support of this goal. The Company has applied this rigorous methodology to existing confidential customer data with great success. As new cyber-infrastructure is deployed to collect customer consumption data, similar scrutiny will be applied to ensure its protection. Cyber security strategies are shaped by adherence to all federal and state information protection standards, coordination with industry thought leaders, and various forums established to share best practices and key learnings to thwart and respond to cyber-attacks. A non-exhaustive list of approaches includes;

- Systematic identification of vulnerabilities through scans of cyber infrastructure;
- Vulnerability-specific, risk-based security plans targeting, identifying, protecting, detecting, responding and recovering from and to security breaches;
- Asset and configuration inventory management to identify exceptions;



- Password management including length and complexity requirements and monitoring at key network access points;
- Data analytics to identify behavior abnormalities in efforts to either proactively prevent cyber-attacks or investigate breaches; and
- Continuous review and improvement of the security program to match the evolution of security threats.

These activities will be used to help evaluate processes and entry points (both cyber and physical) on an ongoing basis and ensure that the Company is protecting emerging AMS data to the best of its ability.

# 12 Privacy

Increased granularity and volumes of customer data are the basis for many AMS benefits. Customers see this information as an insight into their private lives which needs to be treated with respect and care. The Company values its positive relationship with its customers and believes that misuse or any kind of disclosure (intentional or unintentional) represents an unacceptable breach. An existing privacy policy shown below has been in place for several years and will apply to AMS data:

We will make every effort to protect and preserve customer account information and will not share specific information about your account with third parties, without written authorization or unless we are required to do so by a court order, subpoena or other compulsory process, or by operation of law.

Customer account information may be used by us in the following representative ways:

- To verify the existence of a customer's energy service;
- To communicate with a customer and handle customer requests;
- To compile information about how our Web site is reached and used;
- To compile research that does not identify the customer as an individual, group or entity other than age group and gender;
- To contact our customers about other products or services offered by our alliance partners; and
- To collect debts owed by a customer.

Further, the Company will require any and all contractors involved with AMS deployment to follow the Company's privacy policy. Ensuring customer awareness and mitigation of any concerns they have regarding the protection of their consumption data will be a key theme of the Customer Education and Communication Plan.



# 13 **Summary**

In summary, the Company has rigorously worked to identify benefits and costs associated with full AMS deployment. Based on the results of this analysis, the Company is confident that full AMS deployment will lower operational costs while increasing customer satisfaction. Additionally, AMS will lay the foundation for future advanced capabilities that will be explored. This position is supported by internal conversations with key stakeholders, experience gained through pilot programs, and industry research. Additional information is available in the appendices.

# Appendix A-1 Advanced Meter Service Participant Study Bellomy Research





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Background and Objectives	* Methodology	Executive Summary	Detailed Findings	Satisfaction with AMS	✓ MyMeter Dashboard	✓ Impact on Behavior	✓ New Feature	

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7



# Background and Objectives

# Background

enrolled can track detailed information about their electricity usage via an online portal (MyMeter dashboard), helping them better understand and control energy usage in their home. Enrollment Advanced Meter Service (AMS) is a voluntary service offered by LG&E/KU that uses advanced was first offered during the summer of 2015, followed by installation of meters beginning in meters to record energy usage data in 15, 30 or 60 minute increments. Customers who are November 2015.

In May 2016, LG&E/KU partnered with Bellomy Research to conduct a study to evaluate perceptions among Advanced Meter Service (AMS) participants.

# Objectives

The overall objective is to understand customer perceptions of the Advanced Meter Service (AMS) offering, as well as to gauge interest in additional MyMeter dashboard features. Specific objectives include understanding:

- Overall satisfaction with the AMS offering
- Satisfaction with the MyMeter dashboard
- Interest in additional MyMeter dashboard features
- Changes in behavior due to participation



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# Methodology



customers via an email invitation. The link to the online survey was open to customers 24/7 for 10 This study was conducted using an online survey. Bellomy Research provided the survey link to days. No reminders were sent, due to high initial response rates.

Advanced Meter Service (AMS). The file contained approximately 2,100 customers, which all had an email address on record. After sample cleaning and removal of duplicate email addresses, the LG&E/KU provided a sample file containing a list of customers currently participating in the survey invitation was sent to approximately 2,000 customers.

Response Rate Summary:

	Emails Delivered	Survey Completes	Response Rate
Total	1,971	370	18.8%
LG&E	1,010	179	17.7%
KU	961	191	19.9%

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4



Data collection for this research was conducted during the second and third weeks of May 2016. The survey was approximately 5 minutes in length.

A breakdown of completed surveys by Utility and Customer Type is below:

	Total	LG&E	Æ
Total	370	179	191
Residential	364	178	186
Commercial	9	1	2

Statistical testing was conducted at the 95% confidence level, and significant differences are noted.

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**Executive Summary** 

9

# Conclusions



# Most customers currently participating are satisfied with the Advanced Meter Service (77%) and MyMeter Dashboard (75%).

 Higher satisfaction among KU customers is the result of LG&E customers being slightly more "neutral" towards the service, although both rate the Dashboard similarly. AMS participants are very engaged when it comes to saving energy. Most have taken additional steps since joining the program by doing things such as upgrading to LED bulbs, programming thermostat settings and enrolling in utility energy efficiency programs.

# Although satisfaction with the Dashboard is high, some opportunities exist:

- Customers who access the MyMeter Dashboard more frequently tend to be happier with the service. Continue to encourage customers to access the Dashboard.
- There is an opportunity for continuous communication and education among participants since some who have never accessed the MyMeter Dashboard (16%) said they did not know about it or how to access it. 0
- improvement. Possibly explore providing a mobile app, which was especially desirable among younger Ease of accessing the MyMeter Dashboard was the lowest rated attribute, suggesting an area for 0
- Few customers are using "energy markers" or schedule MyMeter notifications.



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# Conclusions



# Participants were asked to provide feedback on having an option to review energy usage in terms of dollars and not just kWh. Most (86%) were interested in this new MyMeter Dashboard

- o The highest interest was among customers ages 35 to 44 years old, which tend to have higher usage (larger households).
- The verbiage provided in the survey did a good job of clearly explaining that the dollar usage provided on MyMeter is not going to reflect the actual full bill amount. 0
- change, while kWh is constant. Further explanation might be required on how to compare dollar usage over time. In addition, it should be emphasized that customers have the option of looking at either. Some customers did raise concerns about dollars being a variable measure since energy prices can

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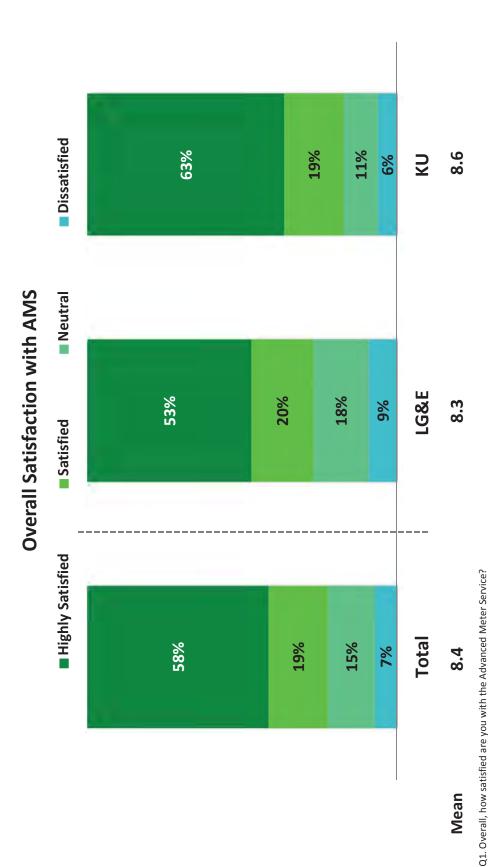
Advanced Meter Service

Satisfaction with





Nearly 3 out of 5 participants surveyed were *Highly Satisfied* with LG&E/KU's Advanced Meter Service (AMS) offering, although ratings were directionally higher among KU customers. LG&E customers were somewhat more likely than KU customers to give a Neutral rating.



10 Advanced Meter Service Participant Study

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# Overall Satisfaction

Satisfied customers found the information provided by AMS to be very useful and felt the graphics on the MyMeter Dashboard were interesting. Customers who were Neutral or Dissatisfied with AMS expressed concerns about the timeliness of the data and difficulty accessing the MyMeter Dashboard.

# Highly Satisfied or Satisfied (rating 8-10)

(n=257)

energy spikes to know what is causing the extra It's very beneficial to see what time of day your

Overall Sat=10

I enjoy seeing where I rank among other home owners in my area.

Overall Sat=10

I thought it was very informative. I really liked the graphics.

Overall Sat=9

It displays interesting information. However, I would need someone to discuss the results with me to know how to lower my bill. Overall Sat=8

Great advancement in tracking energy usage Overall Sat=10

# Neutral or Dissatisfied (rating 1-7)

(n=73)

I would like to see real time usage. Overall Sat=6 Works okay but could use a fair bit of tuning and Overall Sat=7 polish

I like having the meter, but it is difficult to access data and download it to analyze. Overall Sat=7 It's difficult to look at the results, having to log onto complicated. Not having the information linked to an app is difficult, as well and the 2 day delay in information does not allow a good reference to the KU account, then find the meter link seems energy usage in the house.

Overall Sat=7

It is too difficult to access the data. Overall Sat=1

Advanced Meter Service Participant Study

Q1a. Why did you give this rating?

11

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bellomy research



# Overall Satisfaction

they obtain from the site to make changes to save energy. They are also more likely to be ages 55 to 64 and/or Satisfied participants are more likely than Neutral or Dissatisfied to access MyMeter and use the information have a college degree, likely having the technical savvy to take full advantage of AMS.

	Highly Satisfied or Satisfied (rating 8-10)	Neutral or Dissatisfied (rating 1-7)
Base	257	73
Frequency of MyMeter Access		
Weekly	21%+	12%
Never	7% -	18%
Steps Taken to Save Energy*		
Upgraded to LED Bulbs	63% +	40%
Program Thermostat Temperature Settings	48% +	30%
None	16% -	35%
Age		
55-64	21% +	10%
Education		
Some college/technical school	14%	23%
College graduate	42%	33%

<sup>\*</sup>Among customers who have accessed the MyMeter Dashboard (Highly Satisfied or Satisfied n=240, Neutral or Dissatisfied n=60) Note: +/- indicates significant difference between Highly Satisfied or Satisfied and Neutral or Dissatisfied at 95% confidence level

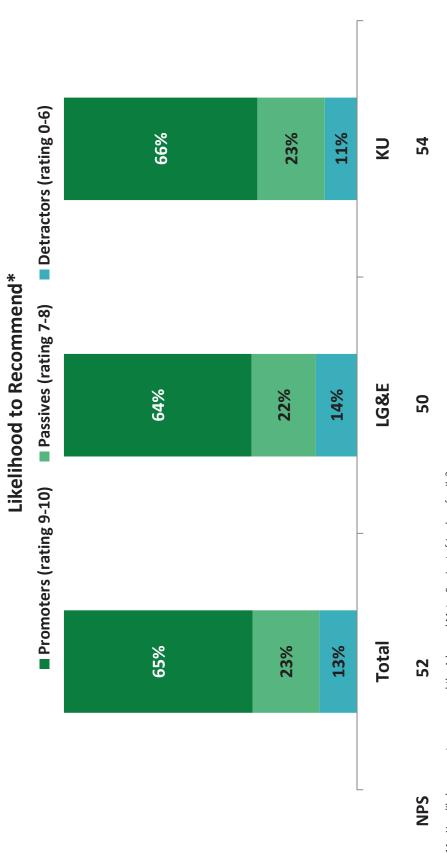
# 12 Advanced Meter Service Participant Study





# Net Promoter Score – Likelihood to Recommend

recommend the program to others. With significantly fewer Detractors, the Advanced Meter Service yields a Nearly two-thirds of participants surveyed are Promoters of the Advanced Meter Service and are likely to strong Net Promotor Score (NPS) of 52.



Q11. How likely are you to recommend the Advanced Meter Service to friends or family? \*Among customers who have accessed the MyMeter Dashboard (n=310)

**Advanced Meter Service Participant Study** 

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# Net Promoter Score – Likelihood to Recommend

Detractors (rating 0-6) were asked to explain why they gave their rating and many mentioned not understanding opportunity to educate current participants about AMS and how best to use the information from MyMeter. AMS or not finding the information provided by the current offering to be valuable. This suggests an

# Detractors (rating 0-6)

(n=39)

The current information you provide is not very

Likely to Recommend rating = 5

Don't understand it!! Likely to Recommend rating = 2

Most people I know are not that concerned and it's one more computer project to figure out.

Likely to Recommend rating = 5

Haven't found the item beneficial. Actually, I wish I had my bills from my old school meter back. They were more appropriate. I called and spoke with LG&E about it, they said the bills changed so much because most bills are estimated.

Likely to Recommend rating = 5

It's hard to recommend something I don't thoroughly understand.

Likely to Recommend rating = 5

**Advanced Meter Service Participant Study** 

Q11a. Why did you give this rating?

14

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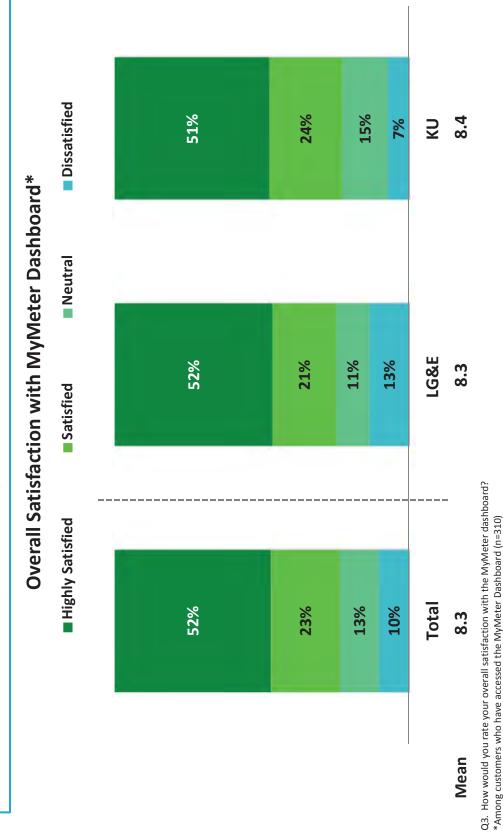
**MyMeter Dashboard** 

15

# **MyMeter Satisfaction**



Satisfaction with AMS, with just over half of customers for both utilities Highly Satisfied. However, slightly more LG&E and KU customers rated their satisfaction with the MyMeter Dashboard more similarly than their Overall LG&E customers stated they were *Dissatisfied* with the dashboard.



Advanced Meter Service Participant Study 16

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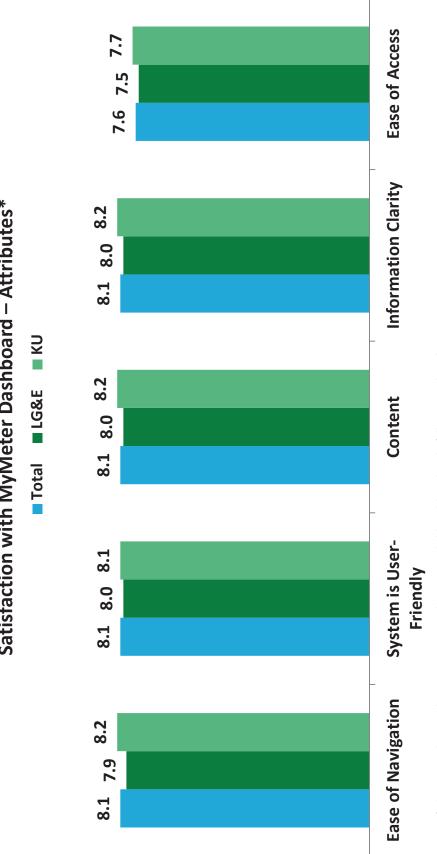




# MyMeter Dashboard Attributes

other attributes, suggesting an opportunity to make the dashboard easier to access (possibly via a mobile app). Ratings were similar for LG&E and KU customers across all attributes. Ease of Access was rated lower than the

# Satisfaction with MyMeter Dashboard – Attributes\*



Q4. How satisfied are you with your online experience using the MyMeter dashboard, based on the following attributes? \*Among customers who have accessed the MyMeter Dashboard (n=310)

**Advanced Meter Service Participant Study** 

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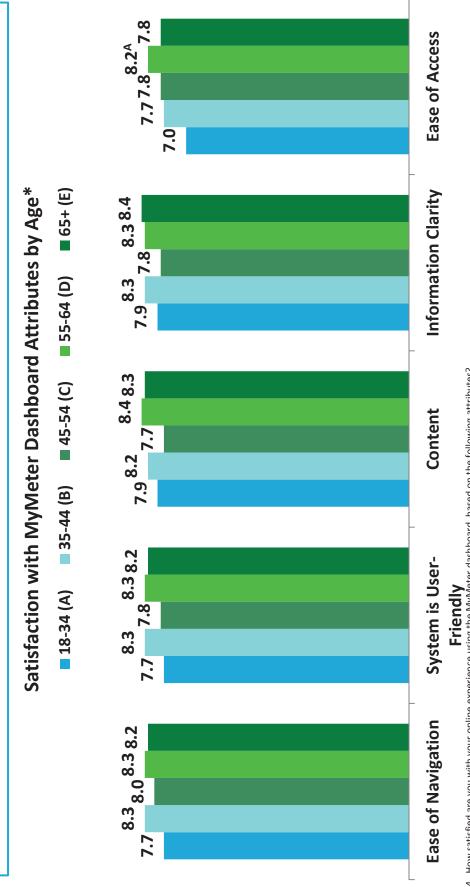
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## MyMeter Dashboard Attributes

Younger customers rated satisfaction with Ease of Access lower than all other age groups, further illustrating the opportunity to meet Millennial customer's expectations for quick and easy access to information most commonly obtained via a mobile device.



Q4. How satisfied are you with your online experience using the MyMeter dashboard, based on the following attributes? C2. In what range does your age fall?

\*Among customers who have accessed the MyMeter Dashboard (n=310)

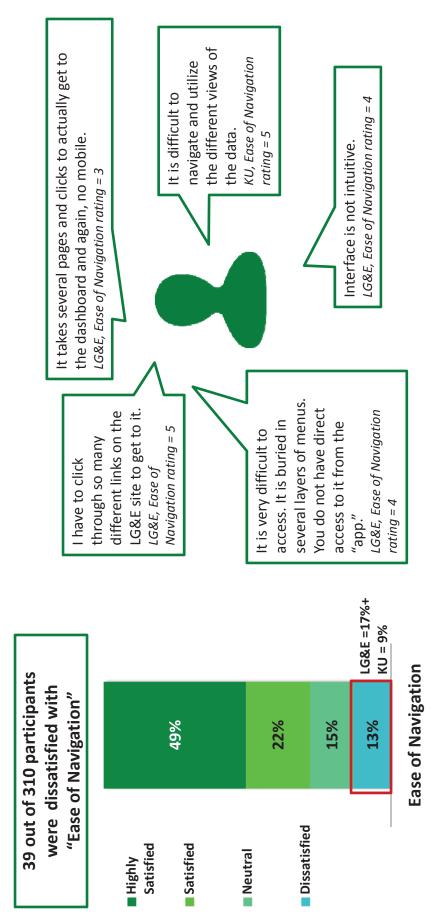
3 Advanced Meter Service Participant Study





# MyMeter Dashboard - Ease of Navigation

Dashboard. Many Dissatisfied customers mentioned difficulty navigating through the LG&E/KU website to find where to access MyMeter, while others found it difficult to navigate through the various reports available on LG&E customers were more likely to be *Dissatisfied* than KU customers with ease of navigating the MyMeter MyMeter. Lack of mobile access was also mentioned.



Q4a. Why did you rate the ease of navigating the MyMeter dashboard a [Insert rating]? Note: +/- indicates significant difference between LG&E and KU at 95% confidence level

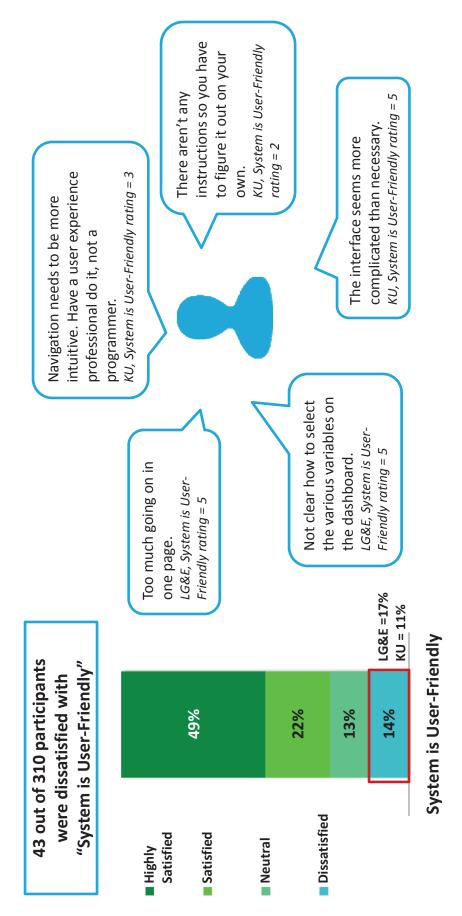
Advanced Meter Service Participant Study





# MyMeter Dashboard – System is User-Friendly

Among the 14% of customers who were Dissatisfied with MyMeter's user-friendliness, many mentioned having issues understanding how to use the tool and not being able to easily find instructions. Making tutorials and other instructions more readily available to participants could improve their experience with MyMeter.



Q4b. Why did you rate the user-friendliness of the MyMeter dashboard a [Insert rating]? Advanced Meter Service Participant Study

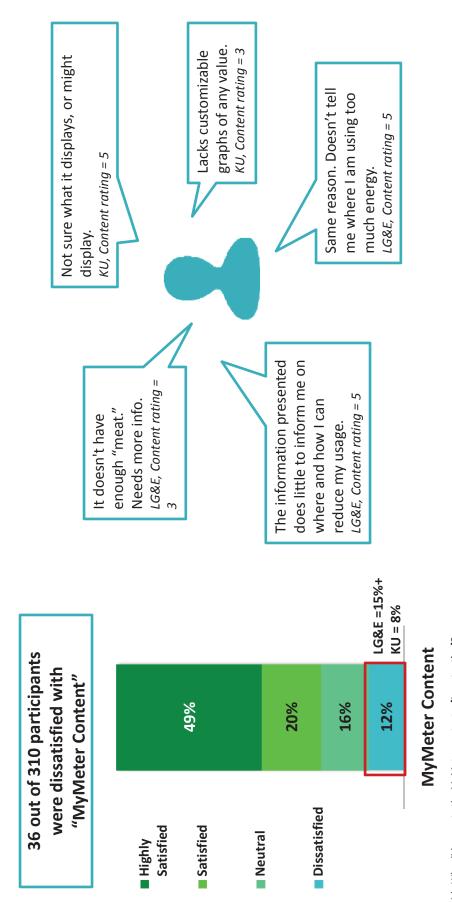
20



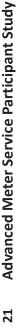


## MyMeter Dashboard - Content

Dashboard. Dissatisfied customers commented that the tool did not provide enough information or that the information that was available was not actionable to them. Others wanted more options to customize the LG&E customers were more likely to be *Dissatisfied* than KU customers with the content of the MyMeter reports and graphics available on MyMeter.



Q4d. Why did you rate the MyMeter content a [Insert rating]? Note: +/- indicates significant difference between LG&E and KU at 95% confidence level

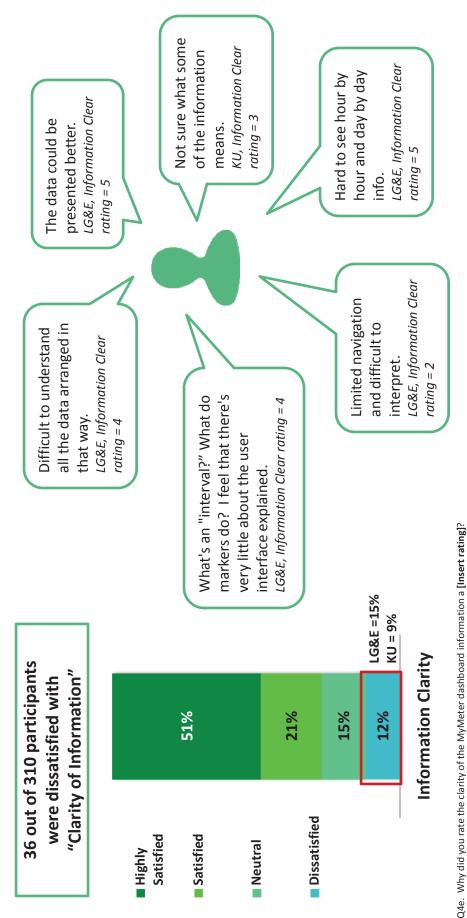






# MyMeter Dashboard - Information Clarity

The majority of customers who were *Dissatisfied* with clarity of the information available on MyMeter expressed issues with understanding the data as it was presented on the graphs and not understanding the terminology



22 Advanced Meter Service Participant Study

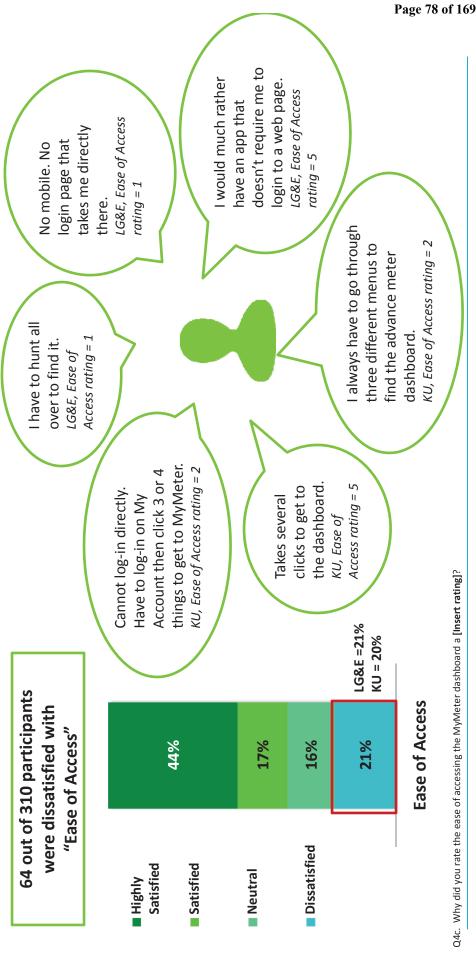
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## MyMeter Dashboard - Ease of Access

through the LG&E/KU website in order to minimize the number of clicks required to log-in. Some customers also Many of the customers Dissatisfied with ease of access expressed a need to access MyMeter without going expressed a desire to be able to access MyMeter via a mobile device.



23 Advanced Meter Service Participant Study

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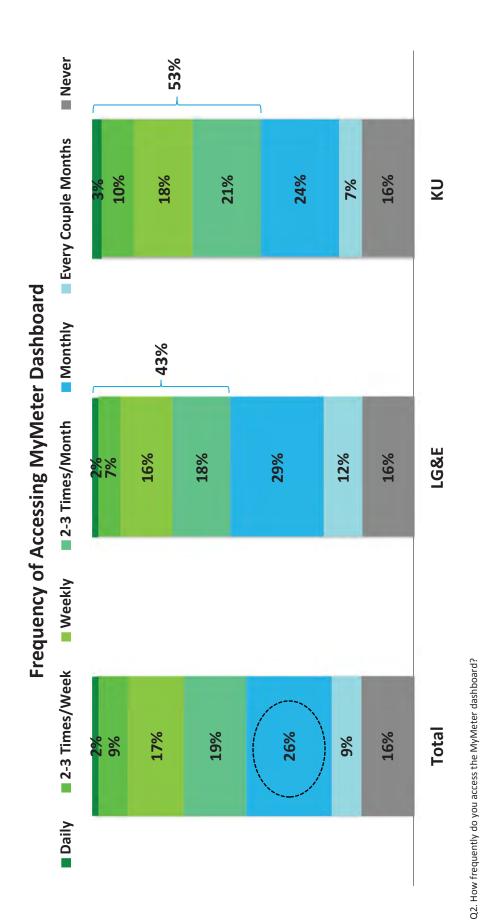
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Exhibit JPM-1



## MyMeter Access Frequency

participants surveyed who reported never accessing the MyMeter Dashboard, consistent between LG&E and KU. One-fourth of AMS participants reported accessing their MyMeter Dashboard on a monthly basis. Over half of KU customers access MyMeter more than once a month, ahead of LG&E customers. There were 16% of



24 Advanced Meter Service Participant Study

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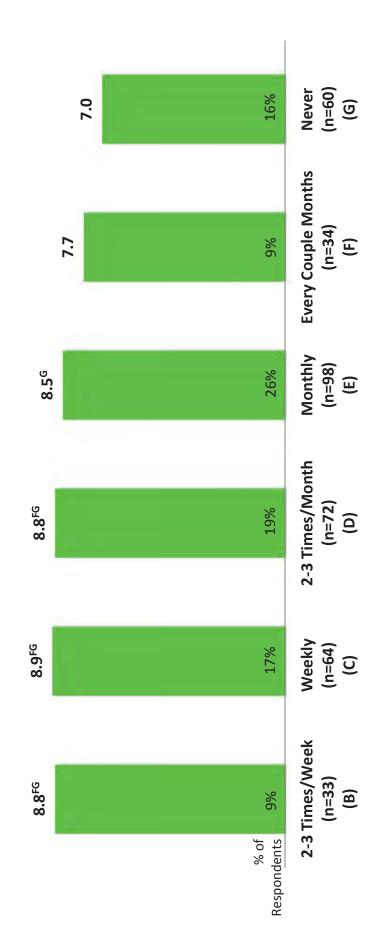
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### Overall Satisfaction

more frequently. Encouraging customers to access their MyMeter Dashboard weekly or a couple times a month Satisfaction with AMS was rated significantly higher among customers who accessed the MyMeter Dashboard could drive higher satisfaction with the service overall.

# Overall Satisfaction with AMS by Frequency of MyMeter Access



Q1. Overall, how satisfied are you with the Advanced Meter Service?, Q2. How frequently do you access the MyMeter dashboard? Letters indicate significant difference at 95% confidence level

25 Advanced Meter Service Participant Study

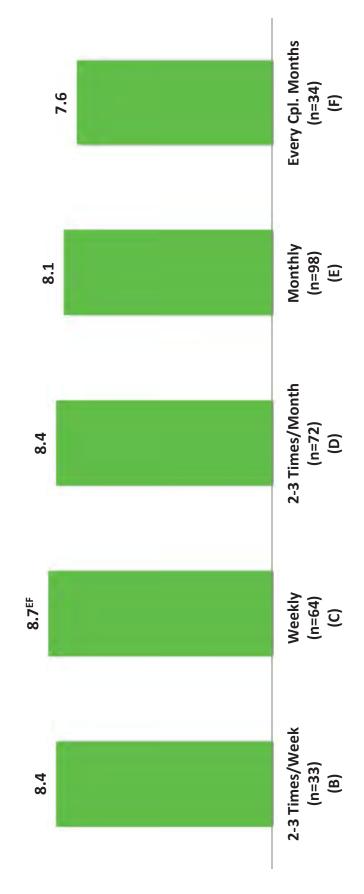




### MyMeter Satisfaction

lower satisfaction among customers accessing 2 to 3 times per week could be due to the 2-day delay in reporting Customers accessing MyMeter on a weekly basis reported highest satisfaction with the Dashboard. Slightly and possibly the desire for closer to real time usage data.

# Overall Satisfaction with MyMeter by Frequency of Accessst



Q3. How would you rate your overall satisfaction with the MyMeter dashboard?, Q2. How frequently do you access the MyMeter dashboard? Letters indicate significant difference at 95% confidence level

\*Among customers who have accessed the MyMeter Dashboard (n=310)

Advanced Meter Service Participant Study 26





# Net Promoter Score – Likelihood to Recommend

In addition to driving higher Overall Satisfaction, Customers who are using the MyMeter Dashboard frequently are more likely to be a *Promoter* of Advanced Meter Service than those who access less frequently.

# Net Promoter Score (NPS) by Frequency of MyMeter Access



2-3	2-3 Times/Week	Weekly	2-3 Times/Month	Monthly	<b>Every Couple Months</b>
	(n=33)	(n=64)	(n=72)	(n=98)	(n=34)
	(a)	2	<u>(a)</u>	(E)	
% Promoters	79% <sup>EF</sup>	₃%69	%59	%09	47%
% Detractors	%9	%9	%8	18% <sup>CD</sup>	26% <sup>CD</sup>

Q11. How likely are you to recommend the Advanced Meter Service to friends or family?; Q2. How frequently do you access the MyMeter dashboard?

Letters indicate significant difference at 95% confidence level \*Among customers who have accessed the MyMeter Dashboard (n=310)

Advanced Meter Service Participant Study

27

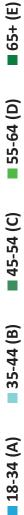


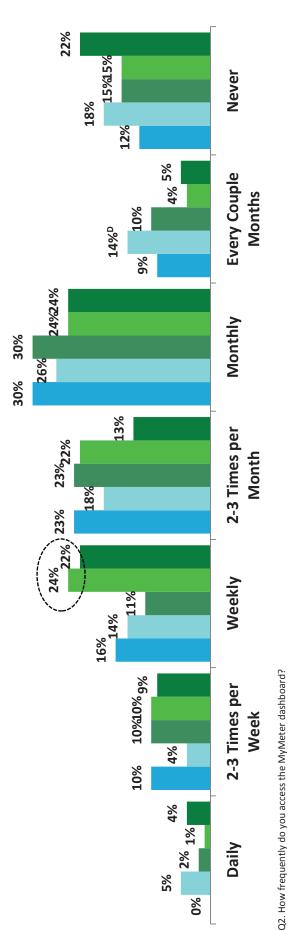


### MyMeter Access

Older customers are slightly more likely to access the MyMeter Dashboard on a weekly basis than younger customers. Interestingly, the oldest customers (65+) were also slightly more likely to have never accessed MyMeter.

### MyMeter Access by Age





C2. In what range does your age fall? Letters indicate significant difference at 95% confidence level

**Advanced Meter Service Participant Study** 

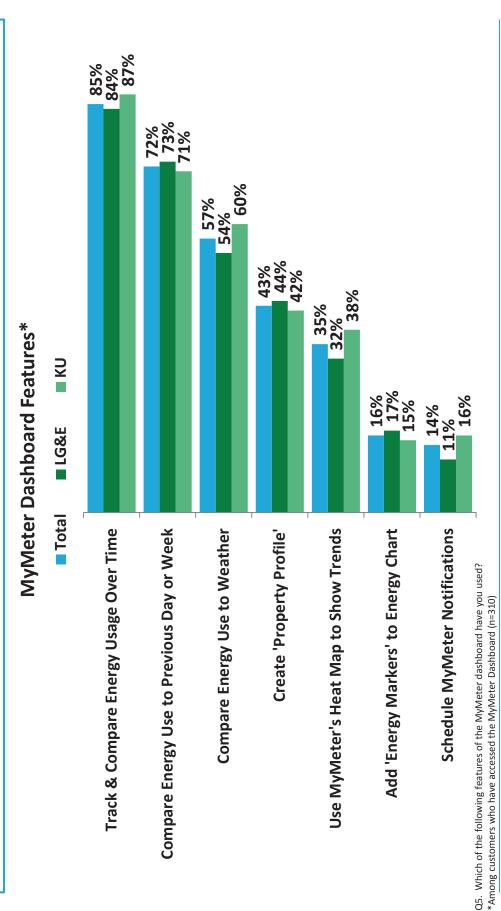
28





### MyMeter Access

week. Feature usage on MyMeter is similar for both LG&E and KU customers, with few customers using "Energy Most customers are using MyMeter to track and compare their energy usage over time or to a previous day or Markers" or scheduling notifications.



Advanced Meter Service Participant Study 29

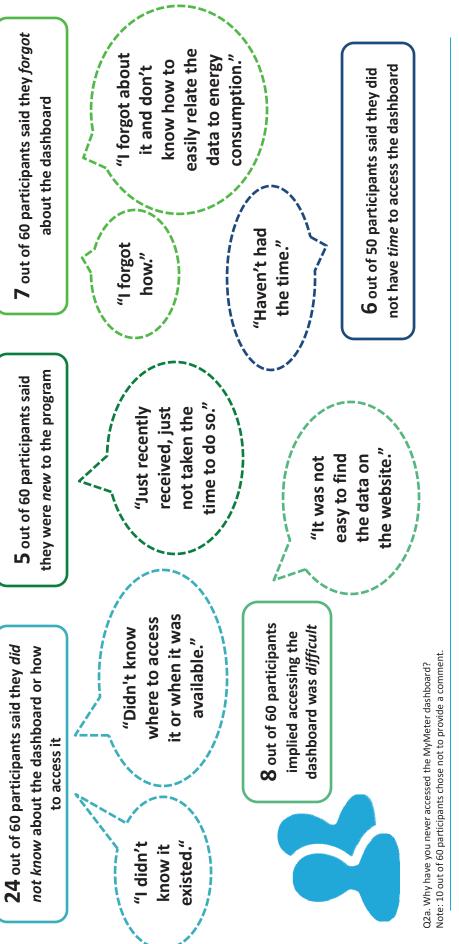
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### MyMeter Access

regarding why they haven't accessed. Some customers responded that they were unfamiliar with MyMeter Customers who stated they had never accessed the MyMeter Dashboard were asked a follow-up question and/or did not know where or how to access the dashboard.



30 Advanced Meter Service Participant Study



31

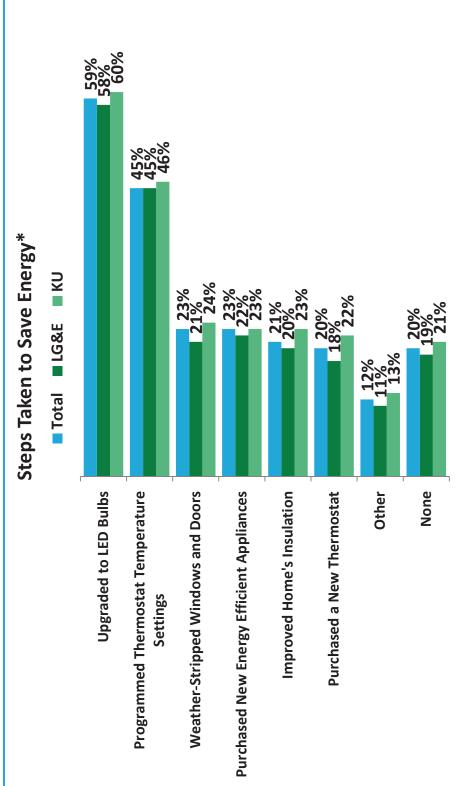


Participation Impact

on Behavior



those surveyed. However, one-fifth of participants stated they have taken no steps as a result of participation in Many participants surveyed reported upgrading to LED Bulbs to save energy as a result of their participation in AMS. In addition, adjusting/programming thermostat temperature settings was mentioned by nearly half of AMS, similar for both LG&E and KU.



Q8. Which, if any, of the following steps have you taken to save energy as a result of your participation in the Advanced Meter Service? \*Among customers who have accessed the MyMeter Dashboard (n=310)

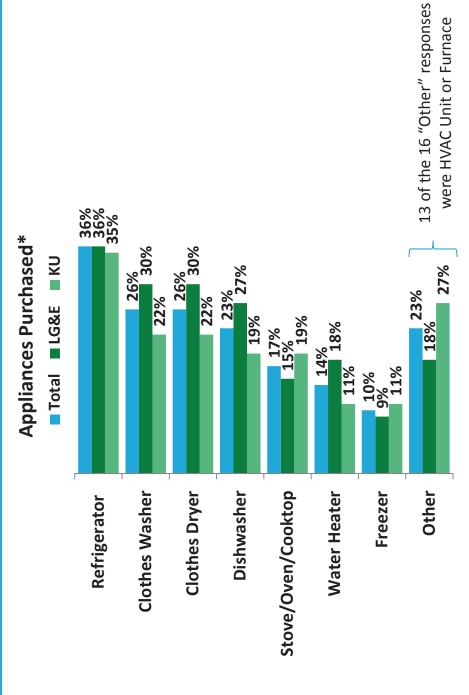
Advanced Meter Service Participant Study

32





Among participants making an appliance purchase (23%), they mentioned a variety of appliances purchased since joining the Advanced Meter Service. Refrigerator purchases were the most common. The majority of "Other" responses were the purchase of replacement HVAC Units, Furnaces or Heat Pumps.



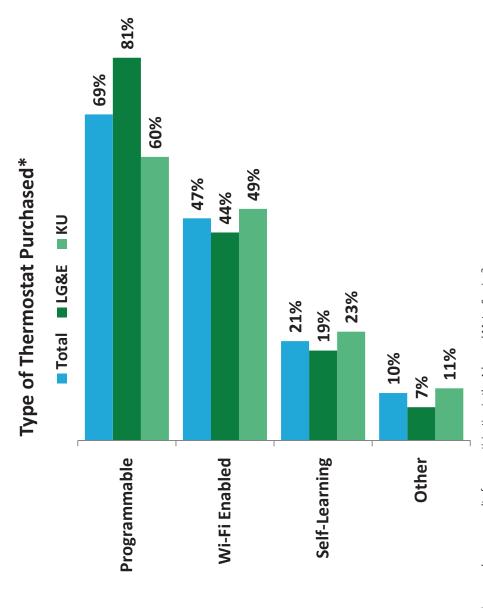
Q9. What type of appliances have you purchased  $\underline{\text{since joining}}$  the Advanced Meter Service? \*Among customers who purchased new energy efficient appliances (n=70)

Advanced Meter Service Participant Study



33

Among customers who purchased a new thermostat, the majority purchased a programmable thermostat. Only about one-fifth of new thermostats purchases were self-learning.



Q10. What type of thermostat did you purchase as a result of your participation in the Advanced Meter Service? \*Among customers who purchased a new thermostat (n=62)

Advanced Meter Service Participant Study

34

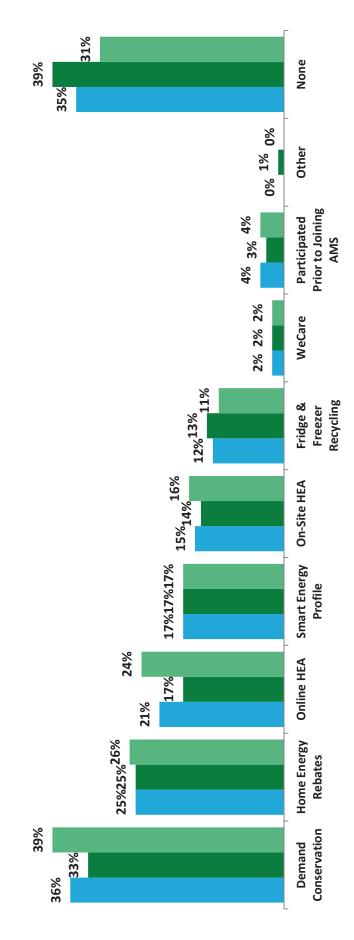




programs than LG&E customers. About 5% of participants reported having enrolled in EE programs prior to their Nearly 60% of participants surveyed reported enrolling in at least one Energy Efficiency program since joining AMS, especially Demand Conservation. KU customers were slightly more likely to enroll in Energy Efficiency participation in AMS.

## Energy Efficiency Program Enrollment\*

■ Total ■ LG&E ■ KU



Q12. As a result of your participation in the Advanced Meter Service which, if any, of the following energy efficiency programs offered by [LG&E, KU] have you enrolled in? \*Among customers who have accessed the MyMeter Dashboard (n=310)









36

### PPL companies

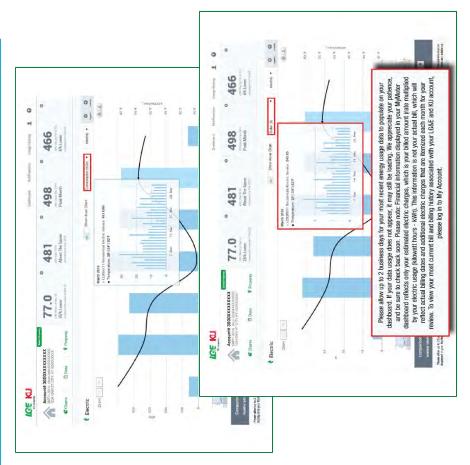
### New Feature

Dashboard feature which allows the option to review usage in terms of dollars (\$), rather than just consumption (kWh). Respondents were then asked to rate their level of interest on a 5-point scale from "5 - Very interested" AMS participants surveyed were presented with the following description and images of the new MyMeter to "1- Not interested at all."

feature to the MyMeter dashboard which will give you the option to review your energy usage in terms of <u>dollars</u>, rather than just consumption (kilowatt hours - kWh). LG&E, Kentucky Utilities is considering adding a new

replace your actual bill, which reflects actual billing dates charges, which is your billed amount (rate) multiplied by your electric usage (kWh). This information would not and additional electric charges that are itemized each dashboard would only reflect your estimated electric Financial information displayed in your MyMeter month for your review.

today followed by how this new feature would look. You'll consumption in terms of kWh to dollars. Please also note see that the monthly chart view changed from displaying Below is an image of the MyMeter dashboard as it exists the language at the bottom of the screen.



### Advanced Meter Service Participant Study

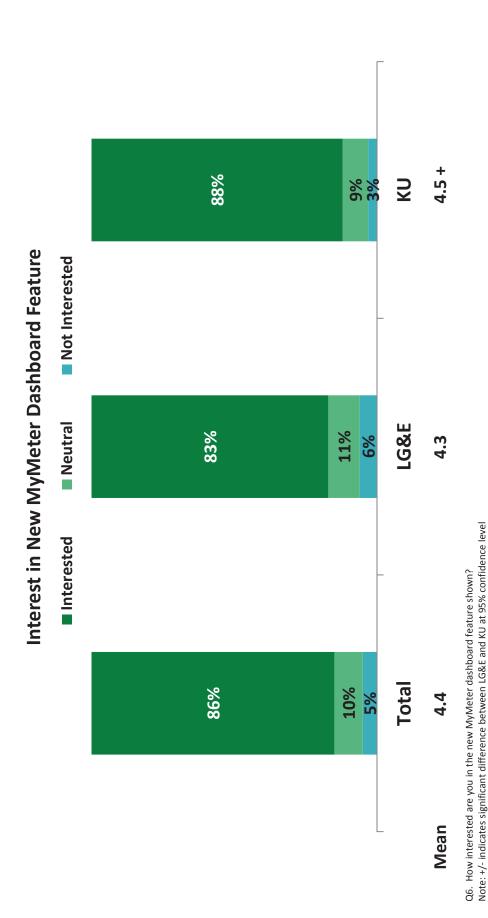
37



### Interest in New Feature



The majority of participants surveyed said they were *Interested* in the new MyMeter Dashboard feature, although KU customers were more interested than LG&E customers.



**Advanced Meter Service Participant Study** 38

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### 

## Interest in New Feature

Participants surveyed were asked to explain why they gave their rating for level of interest. Customers who were monitoring usage. Neutral and Disinterested customers tended to be leery of the accuracy of the dollar amount and preferred to see a more consistent figure using kWh. Many liked being able to have the option to choose *Interested* liked being able to see the dollar amount because their primary goal was to save money by between kWh or dollars.

interested in the new MyMeter 86% of participants were feature (n=317)

neutral in their interest for the 10% of participants were new MyMeter feature (n=36)

Once I am able to use the data, I will know if it is better to have the information in terms of dollars

Bottom line is how much money you are

spending, right! That's a good number

to have.

depiction of energy usage since the rate Actual energy kWh is a more accurate per kWh could go up and down it may not accurately depict changes.

information showed BOTH dollar and

kWh expended.

would be much better if the

Good to know dollar amount but it

A kWh today is the same amount of energy as a kWh next year, but the dollars could change.

Because I like to see how much money I

can save, not kWh.

interested in the new MyMeter 5% of respondents were not feature

(n=17)

That is comparable across the country. It should be available both ways so we I am more interested in kilowatt hrs. can choose.

and its impact on the environment than I'm more concerned about the usage how much I pay.

Energy prices change over time which can skew actual consumption figures.

**Advanced Meter Service Participant Study** 

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Q6a. Why did you give this rating? Caution: Low base sizes of less than 30 noted in red



## Interest in New Feature

Participants ages 35 to 44 have the highest level of interest in the new feature, significantly ahead of the oldest age group (65+).

## Interest in New MyMeter Dashboard Feature by Age





45-54 (n=61) (C)

55-64 (n=72) (D)

65+ (n=76) (E)

Q6. How interested are you in the new MyMeter dashboard feature shown? C2. In what range does your age fall:

40 Advanced Meter Service Participant Study

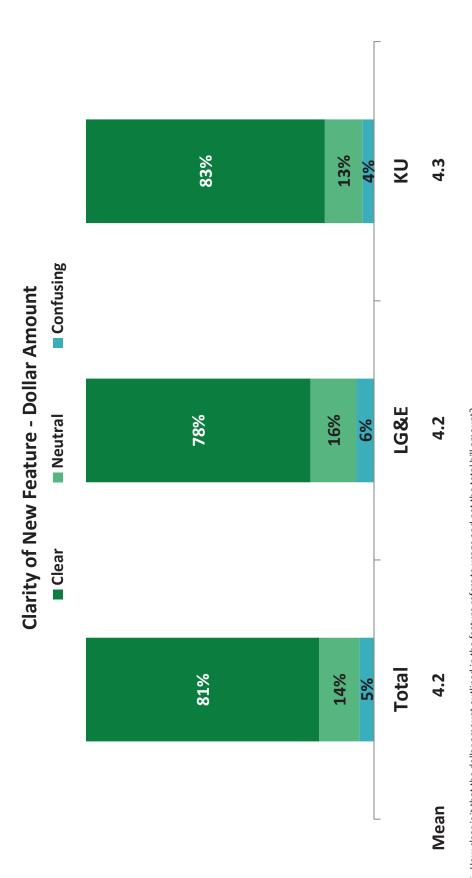
Letters indicate significant difference at 95% confidence level Note: +/- indicates significant difference between LG&E and KU at 95% confidence level





### Clarity of New Feature

Very Confusing." In total, 4 out of 5 participants surveyed felt the distinction between dollar usage and total bill Participants were also asked about clarity of the dollar amount using a 5-point scale from "5-Very Clear" to "1amount was clear, with ratings similar between LG&E and KU customers.



Q7. How clear is it that the dollar amount outlined in the feature refers to usage and not the total bill amount?

41 Advanced Meter Service Participant Study

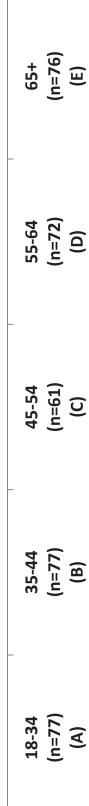


### Clarity of New Feature

Participants ages 55 to 64 were most likely to rate the dollar amount outlined in the new feature to be clear, significantly ahead of the middle aged (45-54) and eldest (65+) customer groups.

## Clarity of New Feature - Dollar Amount





Q7. How clear is it that the dollar amount outlined in the feature refers to usage and not the total bill amount? C2. In what range does your age fall: Letters indicate significant difference at 95% confidence level

**Advanced Meter Service Participant Study** 42



**Demographics** 

43

LGE KU AMS Business Case Appendix A-1





**Demographics** 

### 21% 3 22% 40% 14% 19% 39% 37% 191 3% 1% 1% 2% % LG&E 35% + 12% -179 37% 12% 14% 41% 37% 3% 1% %/ %0 2% Total 370 17% 28% 38% 16% 40% 37% 13% 3% 1% %9 1% %0 Base High school graduate or equivalent Graduate/post-graduate school Some college/technical school 1,501 – 2,500 Square Feet 2,501 – 3,500 Square Feet 800 – 1,500 Square Feet Over 3,500 Square Feet Under 800 Square Feet Prefer not to answer Prefer not to answer College graduate **Living Space** Education Don't know

Advanced Meter Service Participant Study 44

Note: +/- indicates significant difference between LG&E and KU at 95% confidence level





**Demographics** 

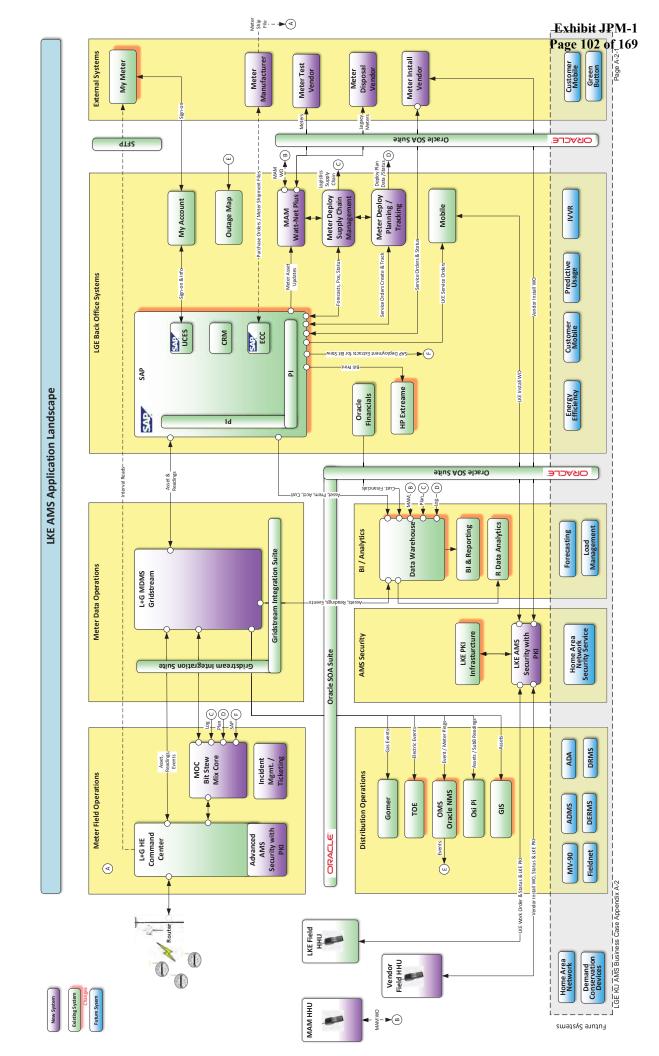
### 3 20% 17% 16% 22% 24% 71% 75% 23% 191 13% 17% 1% % 2% LG&E 25% + 22% 17% 17% 17% 25% 179 78% 13% 73% 1% 2% %6 2% Total 370 21% 16% 19% 21% 74% 74% 24% 21% 11% 1% 15% 2% 1% Base Prefer not to answer Prefer not to answer Prefer not to answer \$40,000 or less Over \$40,000 Income Gender Under 18 Female 35-44 45-54 55-64 Male Age 18-34 65+

Advanced Meter Service Participant Study 45

Note: +/- indicates significant difference between LG&E and KU at 95% confidence level

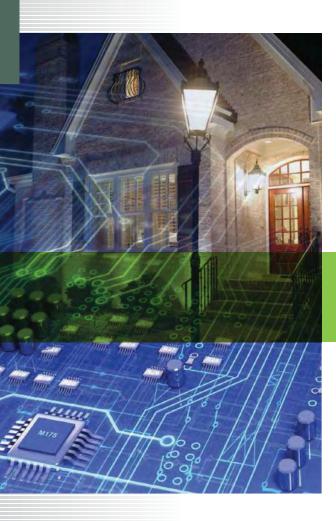


### Appendix A-2 Illustrative Application Architecture



### Appendix A-3 Landis + Gyr Data Sheets

A-3.1 L+G Residential Endpoint Data Sheets



### Gridstream RF Mesh Residential Endpoints

Landis Gyr manage energy better

Meter Platforms

FOCUS® AL Enhanced FOCUS AX Enhanced FOCUS AXe G5 FOCUS AXe Enhanced Elster REXU

Secure Intelligence Meets Residential Metering for Optimum Revenue and Greater Efficiencies

### Overview

More options. More security. Landis+Gyr's Gridstream® RF Mesh Residential Endpoints deliver. Here's why: Delivering future-ready advanced metering automation solutions and enabling consumer energy management programs—you can expect optimized revenue and more efficiencies in a long-lasting solution.

The endpoint leverages its integrated design and advanced functionality to work with the meter and provide a direct, meter register read. The endpoint transmits and receives data via Gridstream's robust and self-healing mesh network, utilizing the 902 to 928 MHz FHSS unlicensed frequency. Our premier single- or poly-phase digital endpoints prioritize application-based messages, expand to millions of endpoints, and offer

control through the intuitive, browser-based interface for streamlined network and data management.

In addition to kWh, kW and voltage readings, the endpoints report load profile, time-of-use periods and up to 5-minute interval data for billing, engineering and customer service applications. With the exception of the FOCUS AL platform, endpoints may be ordered with integral service disconnect and built-in, SEP certified, ZigBee® Home Area Network (HAN) interface.

The Generation 5 (G5) FOCUS AXe platform accommodates a standards based stack firmware, enabling use of non-proprietary network managers and tools.

### **FEATURES & BENEFITS:**

Why Landis+Gyr makes a difference.

- Enhanced security tilt/vibration tamper detection, magnetic/DC detection and complete optical port lockout
- Full two-way communication on-demand or routine
- Scheduling of metrology available data
- Remote upgradeable application
   eliminates on-site firmware and hardware changes
- Integral service disconnect with load limiting (AX-SD, AXe and REXU platforms)
- Advanced data support demand, TOU, load profile, and voltage
- Voltage monitoring and reporting



### Product Specifications: Gridstream RF Mesh Residential Endpoints

	FOCUS AL	Enhanced FOCUS AX	Enhanced FOCUS AXe	G5 Focux Axe	Enhanced Elster REXU	
Electrical						
Voltage	120 or 240 V (depending on meter form)	9–16 V (from meter's power supply)	9–16 V (from meter's power supply)	3.8 V-4.2 V DC (from meter's power supply)	Nominal Voltage (+/-20%)	
Power	Max: 2.8W (1.8W meter, 1W transceiver)	Max: 1.0W	Max: 1.0W	Max: 5.6W	Max: 3.0VA	
	Typical: 2W (1.6W meter, 0.4W transceiver)	Typical: 0.6W	Typical: 0.6W	Typical: 0.5W	Typical: <1VA	
RF 900 MHz						
Output Power	+26 dBm +/-1 dBm	+26 dBm +/-1 dBm	+26 dBm +/-1 dBm	+27 dBm +/-1dBm	+26 dBm +/-1 dBm	
Adjacent Channel Power	+39 dBc Nominal	+39 dBc Nominal	+39 dBc Nominal	+40 dBc Nominal	+39 dBc Nominal	
Transmit Frequency	902 to 928 MHz ISM unlicensed (FCC Part 15)	902 to 928 MHz ISM unlicensed (FCC Part 15)	902 to 928 MHz ISM unlicensed (FCC Part 15)	902 to 928 MHz ISM unlicensed (FCC Part 15)	902 to 928 MHz ISM unlicensed (FCC Part 15)	
Receive Sensitivity	-108 dBm minimum	-108 dBm nominal	-112 dBm (typical, 9.6 kbps)	-114 dBm (typical, 9.6 kbps)	-110 dBm (typical, 9.6 kbps)	
			-110 dBm (typical, 19.2 kbps)	-110 dBm (typical, 115.2 kbps)	-102 dBm (typical, 19.2 kbps)	
				-99 dBm (typical, 300 kbps)		
RF ZigBee®						
Output Power	N/A	+20 dBm +/-2 dBm				
Adjacent Channel Power		40 dBc Nominal	40 dBc Nominal	40 dBc Nominal	40 dBc Nominal	
Transmit Frequency		2405-2480 MHz	2405-2480 MHz	2405-2475 MHz	2405-2480 MHz	
Communications Protocol		ZigBee Protocol	ZigBee Protocol	ZigBee Protocol	ZigBee Protocol	
Receive Sensitivity		-104 dBm Minimum	-104 dBm Minimum	-104 dBm Typical	-104 dBm Minimum	
Standards Compliance						
FCC Title 47 CFR Part 15		Radiated and Cond	ducted Emissions (including i	ntentional radiators)		
IEC 61000 4-2, 3, 4, 5, 11, 12		[	Electromagnetic Compatibility	y		
ANSI C12.19		Cor	mpatible with Utility Industry	End		
ANSI C12.20-2002		National Standard for	or Electricity Meters - 0.2 and	d 0.5 accuracy class		
ANSI C12.1-2008			Code of Electricity Metering			
ANSI C37.90.1-2002		Standard S	Surge Withstand Capability (S	SWC) Tests		

### COMPATIBILITY

COMPA	IDILIII												
Class	18	28	2SE	2K	38	48	9S(8)	12S(25)	12SE(25)	16S	16SE	36 S(6)	45S(5)
100	AL												
	AX*												
	AXe												
200	AXe*	AL						AL		AX			
	REXU*	AX*						AX*					
		AXe*						REXU*					
320		REXU	AL					AXe*	AX		AX		
			AX					REXU					
			AXe										
480				AL									
				AX									
				AXe									
10/20					AL	AL							
					AX	AX							
					AXe	AXe							
20					REXU	REXU	AX					AX	AX

<sup>\*</sup>Switch Disconnect form available

Phone: **678.258.1500** FAX: **678.258.1550** 

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A-3.2 L+G Commercial & Industrial Endpoint Data Sheets



### Gridstream RF Mesh Commericial & Industrial Endpoints



Meter Platforms

Enhanced S4e Enhanced S4x Enhanced Elster A3 Enhanced GE kV2c

### Options to Take Control of Advanced C&I Metering Applications

### Overview

Robust, secure and future-proof. Landis+Gyr's Gridstream® RF Mesh Commercial & Industrial Endpoints bring electricity usage data to new levels.

The endpoint works with the polyphase meter to take advantage of advanced metrology and data values, while providing remote control of demand resets and TOU periods. The seamless integration delivers a direct read of the meter register to capitalized on advanced functionality.

The endpoint transmits and receives data through Gridstream's robust and self-healing, peer-to-peer mesh network, utilizing the 902 to 928 MHz unlicensed frequency. Endpoints prioritize messages based on application, expand to millions of endpoints and offer control through the inuitive, browser-based interface for streamline network and data management. Full two-way communication ensures commands are sent to the endpoint to reconfigure settings or upgrade firmware, without disrupting the meter data flow.

In addition to kWh, kW, time-of-use and voltage readings, the RF endpoint reports load profile and up to 5-minute interval data for billing, engineering and customer service applications. Endpoints come standard with ZigBee® transmitter for communication with in-premise devices.

### **FEATURES & BENEFITS:**

Why Landis+Gyr makes a difference

- Multiple options and enhancement capabilities via over-the-air or DCW upgrade
- Full, four quadrant meter ensures revenue optimization
- Enhanced security optical port lockout feature with Gridstream communications, cover removal switch and magnetic tamper detection
- Reactive, TOU and two separate load profiles are standard on every S4X Meter
- Support for new enhanced metrology features, including 31 new load profile channels and four-quadrant reactive energy
- Full two-way communication on-demand or routine
- Advanced data support demand, TOU, voltage
- Voltage monitoring and reporting capabilities

	S43	S4x	Elster A3	GE kV2c			
Electrical							
Voltage	10.5-13.5V (From meter's power supply)	10.5-13.5V (From meter's power supply)	13.5VDC + 1V, 50mA (limited duration from meter's power supply)	28 VDC (From meter's power supply)			
Power	Max: 2.5W Typical: 0.5W	Max: 1.0W Typical: 0.3W	Max: 3.0VA Typical: < 1VA	Max: 1.0W Typical: 0.3W			
RF 900 MHz							
Output Power	+26 dBm +/- 1 dBm	+26 dBm +/- 1 dBm	+26 dBm +/- 1 dBm	+26 dBm +/- 1 dBm			
Adjacent Channel Power	+39 dBc Nominal	+39 dBc Nominal	+39 dBc Nominal	+39 dBc Nominal			
Transmit Frequency	902 to 928 MHz ISM unlicensed (FCC Part 15)	902 to 928 MHz ISM unlicensed (FCC Part 15)	902 to 928 MHz ISM unlicensed (FCC Part 15)	902 to 928 MHz ISM unlicensed (FCC Part 15)			
Receive Sensitivity	-108 dBm minimum	-110 dBm (typical, 9.6 kbps); -102 dBm (typical, 19.2 kbps)	-110 dBm (typical, 9.6 kbps); -102 dBm (typical, 19.2 kbps)	-108 dBm minimum			
RF ZigBee®							
Output Power		+20 dBm +/- 2 dBm					
Adjacent Channel Power	40 dBc Nominal						
Transmit Frequency	2405-2480 MHz						
Receive Sensitivity	-104 dBm Minimum						
Communications Protocol	ZigBee Protocol						
Standards Compliance							
FCC Title 47 CFR Part 15	Ra	adiated and Conducted Emissic	ons (including intentional radiato	ors)			
IEC 61000 4-2, 3, 4, 5, 11, 12		Electromagnet	ic Compatibility				
ANSI C12.16		Dielectric (2.5kV, 60 Hz for 1 minute)					
ANSI C12.19	Compatible with Utility Industry End						
ANSI C12.20-2002	National Standard for Electricity Meters - 0.2 and 0.5 accuracy class						
ANSI C12.21		Optical port protocol with 128-bit AES Authentication					
ANSI C12.1-2008	Code of Electricity Metering						
ANSI C37.90.1-2002	Standard Surge Withstand Capability (SWC) Tests						
ANSI 62.41	High Voltage Line Surge (1.2 x 50 lsec)						

### Compatibility

- J															
Class	Voltage	1S*	25*	2SE	2K	38	48	5S	125*	98	12SE	15S	168	25S	25SE)
10	120/480					S4e									
20	240/120/480					S4e, S4X	kV2c	S4e		S4e, S4X					
120													S4e		
200	120/480	S4X, kV2c	S4e, S4X, kV2c						S4e, S4X, kV2c				S4e, S4X, kV2c	S4e, S4X,	
320	120/480		kV2c	S4X, kV2c					kV2c		S4e, S4X				
480	120/480											S4e			

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### A-3.3 L+G Router Data Sheets



Gridstream RF Router

> Landis+ Gyr+ manage energy better

Advanced, Yet Cost-effective, Communication Solution

### Overview

The Landis+Gyr RF Router helps form the powerful Gridstream® RF wireless mesh network used in Advanced Metering, Distribution Automation and Demand Response applications. Network performance and reliability are assured via the routers basic mesh functions including full two-way, peer-to-peer communication to all devices in the network, asynchronous spread spectrum frequency hopping and dynamic message routing.

The RF Router is designed to deliver enhanced on-board memory and communication speeds to support future application and development needs. In addition, advanced functionality enables individual message prioritization, automatic network registration and localized intelligence. The router can also provide distributed device control capabilities via programmable applets.

To provide critical network operations—even during small or widespread system power outages—a typical purchase includes battery backup integrated within the aluminum housing.

### **FEATURES & BENEFITS:**

Why Landis+Gyr makes a difference.

- Interoperability to enable integration with numerous partners and supported devices
- Standards-based, including IPv6, to protect existing and future investments
- Individual message prioritization provides end device interfacing with other smart grid applications and functions
- Dynamic routing by each radio in the mesh network
- Data security and errorchecking algorithms to assure integrity and reliability
- Downloadable code for easy, over-the-air firmware updates for near real-time monitoring and control

### **Specifications**

Size	11.82"W x 9.30"D x 4.07"H			
Weight	Base - 5 lbs 8 oz (2.49 kg)			
	Battery adds 2 lbs 8 oz (1.13 kg)			
Operating Temperature	-40°C to +85°C (internal ambient of enclosure)			
Power Supply	Operating AC Voltage – 96-317 VAC			
	Input for Receive mode / 120VAC Operation – 15 mA (max)			
	Input for Transmit mode / 120VAC Operation – 95 mA (peak), 25 mA (Avg)			
	Input for Battery charging mode / 120VAC Operation – 30 mA (max)			
RF Output Power	21, 25, 30 dBm (user selectable)			
General Radio Items	Frequency Range – 902-928 MHz			
	Channel Spacing – 100 kHz, 300 kHz, or 500 kHz (dependent on mode)			
	Channels – 56, 80, 240 (dependent on mode)			
	RF Baud Rates – 9.6, 19.2, 38.4, 115.2, 300 kbps			
Battery	Backup Time – 8 hours, typical			
	Backup – 12V SLA 2500mAhrs, nominal			
	Life – 5–7 years, typical			
Processing	CPU – ARM9			
	SRAM – 16 MB			
	Flash – 8 MB ANSI C12.1 Compliance			
Approvals	FCC Certified Part 15.247			
ANSI C12.1 Compliance	Operating vibration; operating shock; electromagnetic radiation emissions, electromagnetic susceptibility, surge withstanding capability, electrostatic discharge			
Enclosure Material Type	Aluminum/NEMA-4, sealed			
Standard Shipment Includes	White, die-cast aluminum all-weather enclosure			
	Operation on DC (12/24 VDC) or AC power, with automatic switching between			
	120 VAC or 277 VAC when connected to power source			
	RS-232/485 lines for both LPPx and transparent port communication			
	Standard N-Female antenna connector			
	Integrated filter for attenuation of out-of-band interference			
	Mounting hardware			

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A-3.4 L+G C6500 Collector Data Sheets



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C6500 RF Collector Ethernet only

C6530 RF Collector with CDMA/EVDO wireless modem

Versatile and Cost-Effective Communication Solution

### **Overview**

Ease of installation and dependable design make the Gridstream® C6500 Collector a cost-effective, workable option for efficient communication between Gridstream RF endpoints, routers and the Command Center server, while performing all necessary functions of the standard data collector.

The C6500 can be installed in a variety of locations and is configured to accept public backhaul communication options. The C6500 can be ordered with an internal CDMA/EVDO wireless backhaul modem or without a modem in cases where an Ethernet connection is available.

#### **FEATURES & BENEFITS:**

Why Landis+Gyr makes a difference.

- Interoperability to enable integration with numerous partners and supported devices
- Standards-based, including IPv6, to protect existing and future investments
- Integrated wireless radio backhaul modem
- Data security and error-checking algorithms assure integrity and reliability
- Simpler and reduced installation time
- Dynamic routing by each radio in the mesh network
- Downloadable code for easy, over-theair firmware upgrades and near real-time monitoring and control

### **Specifications**

Dimensions (excludes antennas)	5.04"H x 11.82"W x 9.30"D					
Antennas	Two (2), one blackhaul (top) and one (1) Gridstream (bottom)					
Antenna Height Minimum	20 ft.					
Weight	9.6 lbs.					
Standard Compliance	FCC Part 15, Class B					
Operating AC Voltage	96-277 Vrms					
Power Consumption	9W typical – batteries not charging					
	18W typical – batteries charging					
Operating Frequency Band	902-928 MHz, unlicensed					
Transmit Output Power	1W maximum for single IWR radio					
Baud Rate Range	9.6, 19.2, 38.4, 115.2, 300 kbps					
Endpoint Capacity (initial)	4,500					
Processing	CPU – ARM 9					
	Internal Memory – 16 MB					
	Flash – 8 MB					
Operating Temperature	-40°C to 60°C, outdoors					
Storage Temperature	-40°C to 85°C					
Color	White					
Enclosure Material/Type	Aluminum/NEMA-4, sealed					
Battery	Backup Time – 8 hours, typical					
	Backup - LiFePO4 cells in a 4s4p arrangement, 13.2V, 10000mAhrs nominal					
	Life – 15 years, maintenance free					
Backhaul Communications	Integrated wireless CDMA/EVDO or wired Ethernet connection					
Supplied Cellular Carriers	C6530: Verizon or Sprint					
Mounting Options	Utility poles and streetlights					

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### A-3.5 L+G C7500 Collector Data Sheets



### Gridstream C7500 RF Collector



### Extended Data Collection Capabilities for RF Mesh Systems

### Overview

With enhanced on-board memory and faster communication speeds, the Gridstream® C7500 Collector is a powerful and flexible data collection and control center for users of Landis+Gyr's RF Mesh advanced metering systems.

The collector is designed to actively monitor up to 25,000 endpoints simultaneously to continuously communicate unique commands to individual endpoints, in both defined groups or across the entire network. Data is received from network routers and endpoints to provide a conduit for system hosting via Internet packets.

Installation options of the secure NEMA-4 collector include a distribution substation, wood utility pole, steel monopole, radio tower or in a rack. In addition, the C7500 is designed to support future applications and upgrades and can accommodate a variety of communications options to the utility including RF, fiber, cellular and microwave with the use of a WAN modem.

#### **FEATURES & BENEFITS:**

Why Landis+Gyr makes a difference.

- Simultaneously monitors to up to 25,000 AMI endpoints in Gridstream environments
- Auto-baud rates enable uninterrupted data communication regardless of RF link quality changes
- Maximizes bandwidth use with asynchronous spread spectrum frequency hopping
- Packet switching guarantees message transfer with automatic store and forward routing
- Auto-notification of power outage and restoration across entire AMI system

### **Specifications**

Collector Dimensions	18"H x 17.5"W x 11"D (excludes antennas)
Weight	51 lbs.
Antennas	Four (4), remote RF Mesh Antennas, Antenex FG 9023 (typical)
Input Voltage	Selectable: 120/240 +/-20%
Input Current	1A typical at 120V
Power Consumption	48W maximum, 20W typical
Operating Frequency Band	902-928 MHz, Unlicensed
Transmit Output Power	1W maximum for each IWR
Standards Compliance	FCC Part 15, Class B
Operating Temperature	-40°C to +85°C (maximum local internal ambient temperature)*
Storage Temperature	-40°C to +85°C
Color	Gray
Enclosure Material/Type	Aluminum/ NEMA-4, Lockable
Backup Battery	SLA, 12V, 13 Ah
Backhaul Data	Ethernet 10/100T
Mounting Options	Rack Mount, Utility Pole, Pad Mount, Roof Top, Unistrut Frame, other

<sup>\*-40</sup>C to +60C outdoors, direct sunlight; -40C to +70C indoors or out of direct sunlight

### **Gridstream Series V Radio Specifications**

Electrical (General)			
Input Voltage Range	6 – 28 VDC		
Input Current (in transmitting mode)	320 mA typical (12 VDC operation)		
Input Current (in receiving mode)	38 mA typical (12 VDC operation)		
RF Frequency Range	902-928 MHz		
Channel Spacing	100, 300 or 500 kHz depending on the mode		
RF Data Rate	9.6, 19.2, 38.4, 115.2, 300 kbps		
Receiver			
Sensitivity (at 10% packet error rate)	-112 dBm (9.6 kbps) Typical		
	-101 dBm (115.2 kbps) Typical		
	-95 dBm (300 kbps) Typical		
Co-channel Rejection	10 dB Typical		
Adjacent Channel Rejection	30 dB Typical		
Alternate Channel Rejection	45 dB Typical		
Transmitter			
Output Power (at Antenna Connector)	21/25/30 dBm (user selectable)		
Modulation Type	2-FSK, GFSK		
Modulation Index	1		
Out-of-band Spurious Emissions	<-70 dB		

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A-3.6 L+G Residential Gas Module Data Sheets



### Gridstream: M120 RF Residential Gas Module



Two-way Residential Gas Metering for Network Continuity

### Overview

The M120 RF Residential Gas Communications Module provides two-way AMI communications over Landis+Gyr's scalable, secure and interoperable Gridstream® RF Mesh network. The module is designed to record and communicate both total consumption and one channel of interval data. The data can be used to empower utilities to offer flexible rates and assist with capacity planning.

The M120 gas module simplifies deployment by automatically registering on the Gridstream network upon installation, eliminating the need for field installation tools. The M120 module mounts on most any residential gas meter built since the 1950's. In addition, the module is programmed to transmit data once a day.

The M120 gas module is designed to communicate with electric meters, routers or radios on distribution automation devices. This flexibility is key for utilities to maximize the benefits of Gridstream and manage multiple types of endpoints on a single network.

With a 20-year battery life, the M120 gas module ensures years of customer service.

### **FEATURES & BENEFITS:**

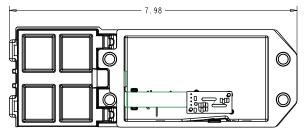
Why Landis+Gyr makes a difference.

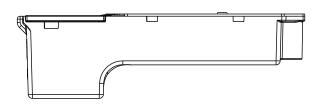
- Leverages full potential and scalability of Gridstream AMI network
- Fits most common residential gas meters and uses existing index
- No field programming, special field tools or costly infrastructure add-ons required
- Performs self-diagnostics
- Variety of event settings available to inform of module issues such as low battery
- Enhanced range (250 mW output)
- Plug-and-play activation keeps deployment on-schedule
- Interoperable for future advancements in gas measurement
- Produces one channel of load profile data which can be used for advanced rates, such as time of use

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JU	CUIII	catio	1113

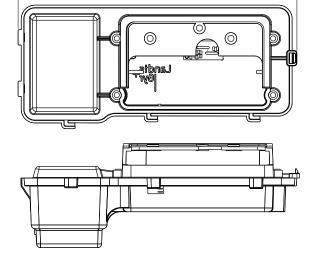
Power Supply	Two "A" lithium manganese dioxide batteries				
	20-year batte	ery life			
Environmental Temperature Rating	-40°C to +85	5℃			
Environmental	Relative hum	idity 0% to 100%			
RF Standards	FCC Part 15	.247			
	Frequency; 9	902 – 928 MHz unlicensed			
	Baud Rate: 9	9600 to 38400 BPS			
ANSI Standards	B109.1-2000	) Compliance			
	B109.2-2000	) Compliance			
UL	Class 1, Divis	sion 1, Group D			
Data Transmission	The data is transmitted once per day. Each transmission includes last 24 hours of 15-minute interval data and last consumption value.				
Events Included	Tamper detection				
	Tilt switch				
	Consumption rollover				
	Low battery				
	Stale register				
	Extreme temperature change				
	Cover off				
Universal Retrofit	Model	Meter Manufacturer			
	M120-1	Elster (American)			
	M120-2	Itron (Actaris/Schlumberger/Sprague)			
	M120-3	Sensus (Invensys/Equimeter/Rockwell)			
	M120-4	National			
Interval Data	45 days of o	ne-channel,15 minute LP data			

### **American**





### Sprague



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## A-3.7 L+G Commercial & Industrial Gas Module Data Sheets



**Gridstream:** 

M220 RF Commercial & Industrial Gas Module

> Landis |Gyr<sup>+</sup> |manage energy better

Two-way C&I Gas Metering for Utility Efficiency

### Overview

The M220 RF C&I Gas Communications Module provides two-way AMI communications over Landis+Gyr's scalable, secure and interoperable Gridstream® RF Mesh network. The module is designed to record and communicate both total consumption and two channels of interval data (configurable for 15 and 60 minutes). Interval data can be used to empower utilities to offer flexible rates and assist with capacity planning.

The M220 gas module simplifies deployment by automatically registering on the Gridstream network upon installation, eliminating the need for field installation tools. The M220 module also utilizes "Plug and Play" technology allowing accurate count from time of installation, until the pulse input configuration parameters are received over the network. In addition, the module is programmed to transmit data once a day.

The M220 gas module is designed to communicate with electric meters, routers or radios on distribution automation devices. This flexibility is key for utilities to maximize the benefits of Gridstream and manage multiple types of endpoints on a single network.

With a 20-year battery life, the M220 gas module ensures years of customer service.

#### **FEATURES & BENEFITS:**

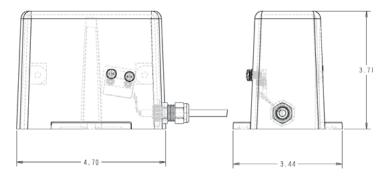
Why Landis+Gyr makes a difference.

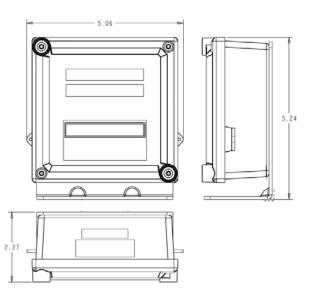
- Leverages full potential and scalability of Gridstream AMI network
- Fits most common C&I gas meters and uses current indexes
- No field programming, special field tools or costly infrastructure add-ons required
- Performs self-diagnostics
- Variety of event settings available to inform of module issues such as low battery
- Enhanced range (250 mW output)
- Plug-and-play activation keeps deployment on-schedule
- Interoperable for future advancements in gas measurement
- Provides up to two channels of load profile data which can be used for advance rates, such as time of use

### **Specifications**

Power Supply	Four "A" lithium manganese dioxide batteries				
	20-year batter	ry life			
Environmental Temperature Rating	-40°C to +85°C				
Environmental	Relative humid	Relative humidity 0% to 100%			
RF Standards	FCC Part 15.247				
	Frequency: 902 – 928 MHz unlicensed				
	Baud Rate: 96	600 to 38400 BPS			
ANSI Standards	B109.1-2000	Compliance			
	B109.2-2000 Compliance				
UL	Class 1, Divisi	ion 1, Group D			
Data Transmission	The data is transmitted once per day. Each transmission includes last 24 hours of 15-minute interval data and last consumption value.				
Events Included	Tamper detection				
	Tilt switch				
	Sensor failure				
	Low battery				
	Stale register				
	Extreme temperature change				
	Cover off				
	Model	Meter Manufacturer			
Universal Retrofit	M220-1	Elster (American)			
	M220-2	Itron (Actaris/Schlumberger/Sprague)			
	M220-3	Sensus (Invensys/Equimeter/Rockwell)			
Interval Data	45 days of two-channel,15 and 60 minute LP data				

### American M220-1





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A-3.8 L+G Commercial & Industrial Pressure and Temperature Module Data Sheets



### **Gridstream**

GPR-PT Commercial & Industrial Pressure and Temperature Monitoring Module



Two-Way C&I Pressure and Temperature Intelligent Energy Management

### Overview

The Gridstream® Recorder for Pressure and Temperature (GPR-PT) C&I Gas Communications Module provides two-way communications over Landis+Gyr's scalable, secure and interoperable Gridstream RF Mesh network. The two-way gas module records and communicates up to four channels of interval data (configurable for 15, 30 and 60 minutes). A serial Modbus (RS-232) connection is used to communicate with correctors and pressure trackers. Select correctors from Mercury/Honeywell and Eagle Research Inc. are supported. Four dynamic channels can be programmed to record Pressures, Temperature, Corrected and Uncorrected Volumes, and Voltages from the attached device. Data that is recorded can be pushed to the Head End System every 1, 2, 4, 6, 8, 12 and 24-hour period for efficient system monitoring.

The module works with most devices within the Gridstream wireless mesh network – including electric meters, routers or radios on distribution automation devices – to send and receive information.

The module uses the unlicensed FCC part 15 902-928 MHz band to transmit using frequency hopping, spread spectrum technology. For efficiently manage energy consumption, the module is programmed to periodically report customer usage profiles and accept system configuration changes.

### Fast, Easy Installation and Operation

- Auto-Registration
- No Field Programming or special field tools required
- Over-the-Air Firmware Upgrade
- On-Request Data Reads
- Flexible Mounting Bracket

#### **FEATURES & BENEFITS:**

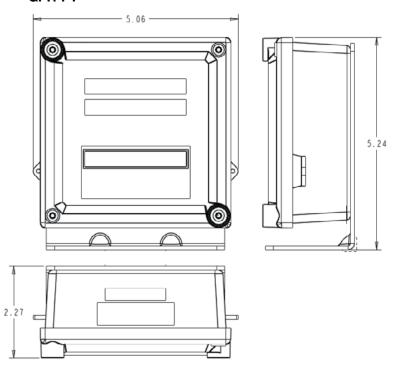
Why Landis+Gyr makes a difference.

- Leverages full potential and scalability of Gridstream AMI network
- Supports one generic collector alarm
- Variety of event settings available to inform of issues, such as low battery and tamper
- Serial Modbus Interface directly to Corrector
- Provides four dynamic channels of data to HES
- Configurable channels monitor Pressures, Temperature, Voltages, Corrected Volume and Uncorrected Volumes from supported devices
- Pressure Max and Min thresholds supported at the Head End System

### **Specifications**

Power Supply	Four "A" lithium manganese dioxide batteries				
	20-year battery life				
Modulation Type	FSK modulation				
Operating Temperature Range	-40°C to +85°C				
Environmental	Relative humidity 0% to 100%				
RF Standards	FCC Part 15.247				
	Frequency: 902-928 MHz				
	Baud Rate: 9600 to 38400 BPS				
ANSI Standards	B109.1-2000 Compliance				
	B109.2-2000 Compliance				
Enclosure Rating	NEMA 3R				
UL	UL – Class 1, Division 1, Group D				
GPR-PT Events Included	Tilt switch				
	Sensor failure				
	Low battery				
	Stale register				
	Extreme temperature change				
	Configuration change				
	Cut lead detect				

### **GPR-PT**



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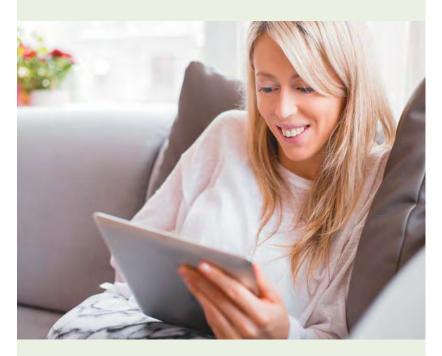


# Appendix A-4 DSM AMS Customer Communications Examples



### YOUR ENERGY USE, RIGHT AT YOUR FINGERTIPS.

Advanced Meter Service







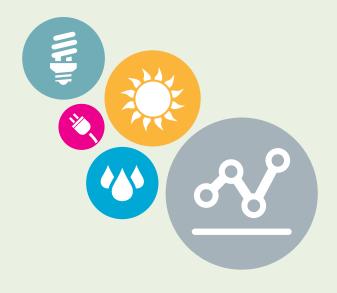
Our new Advanced Meter Service puts the power to control personal energy use in your hands. When you enroll, we'll exchange your home or small business electric meter with an advanced meter. Once your new meter's installed, you can use your MyMeter dashboard to:

- Track daily, weekly, monthly or yearly energy usage.
- Compare your energy use from season to season, or before, during, and after efficiency improvements.
- Set energy-saving reminders for things like changing furnace air filters or light bulbs.
- Customize your dashboard profile with relevant information about your home or business – building size, the type of appliances you have, improvements that could make a difference in your energy use, etc.

The Advanced Meter Service is a voluntary service available to residential and small commercial customers at no additional cost. Just log in to My Account at **Ige-ku.com** to learn more and enroll today.



LGE KU AMS Business Case Appendix A-4



### YOUR ENERGY USE, RIGHT AT YOUR FINGERTIPS.

Advanced Meter Service







Our new Advanced Meter Service puts the power to control personal energy use in your hands. When you enroll, we'll exchange your home or small business electric meter with an advanced meter. Once your new meter's installed, you can use your MyMeter dashboard to:

- Track daily, weekly, monthly or yearly energy usage.
- Compare your energy use from season to season, or before, during, and after efficiency improvements.
- Set energy-saving reminders for things like changing furnace air filters or light bulbs.
- Customize your dashboard profile with relevant information about your home or business – building size, the type of appliances you have, improvements that could make a difference in your energy use, etc.

The Advanced Meter Service is a voluntary service available to residential and small commercial customers at no additional cost. Just log in to My Account at **Ige-ku.com** to learn more and enroll today.



LGE KU AMS Business Case Appendix A-4



### YOUR ENERGY USE, RIGHT AT YOUR FINGERTIPS.

Advanced Meter Service





LGE KU AMS Business Case Appendix A-4

Page A-4-5



Our new Advanced Meter Service puts the power to control personal energy use in your hands. When you enroll, we'll exchange your home or small business electric meter with an advanced meter. Once your new meter's installed, you can use your MyMeter dashboard to:

- Track daily, weekly, monthly or yearly energy usage.
- Compare your energy use from season to season, or before, during, and after efficiency improvements.
- Set energy-saving reminders for things like changing furnace air filters or light bulbs.
- Customize your dashboard profile with relevant information about your home or business – building size, the type of appliances you have, improvements that could make a difference in your energy use, etc.

The Advanced Meter Service is a voluntary service available to residential and small commercial customers at no additional cost. Just log in to My Account at **Ige-ku.com** to learn more and enroll today.



LGE KU AMS Business Case Appendix A-4



### YOUR ENERGY USE, RIGHT AT YOUR FINGERTIPS.

Advanced Meter Service







Our new Advanced Meter Service puts the power to control personal energy use in your hands. When you enroll, we'll exchange your home or small business electric meter with an advanced meter. Once your new meter's installed, you can use your MyMeter dashboard to:

- Track daily, weekly, monthly or yearly energy usage.
- Compare your energy use from season to season, or before, during, and after efficiency improvements.
- Set energy-saving reminders for things like changing furnace air filters or light bulbs.
- Customize your dashboard profile with relevant information about your home or business — building size, the type of appliances you have, improvements that could make a difference in your energy use, etc.

The Advanced Meter Service is a voluntary service available to residential and small commercial customers at no additional cost. Just log in to My Account at **Ige-ku.com** to learn more and enroll today.





### **Advanced Meter Service**

### Your advanced meter is installed.

Great news! We've installed the advanced meter you requested. In about two business days, you can start using your MyMeter dashboard to:

- Track and manage your energy use on a daily, weekly, monthly or yearly basis.
- Schedule customized updates about your energy usage by text or email.
- Set Energy Markers<sup>™</sup> that identify events like replacing appliances, making energy efficiency renovations, and more – and use this data to monitor their impact on your energy usage.

Just visit **Ige-ku.com/mymeter** to learn more and get started.







### Your Energy Use, Right at your Fingertips

LG&E's new Advanced Meter Service puts the power to control personal energy use in your hands.

> Track, compare, set reminders and customize your dashboard.



To learn more visit Ige-ku.com/ams

When you enroll, we'll exchange your home or small business electric meter with an advanced meter, and you may access your usage information through a personal online dashboard.

The Advanced Meter Service is a voluntary service available to eligible residential and small commercial customers at no additional cost.

### Follow us









### Questions?

We're happy to help. Please contact Customer Service at Igeku.com/contact. If you prefer to contact us by telephone, our representatives are available Monday through Friday. Please DO NOT reply to this email.

#### Residential

7a.m.-7p.m. 502-589-1444 800-331-7370

#### **Business**

8a.m.-6p.m. 502-627-3313 800-331-7370

#### Privacy Policy and Terms & Conditions

LG&E and KU want to protect your security and privacy. Be assured that we will never ask for personal information (such as passwords or credit card numbers) in an email. If you receive such a request, please do not respond to that email. See our <u>Privacy Policy</u> and <u>Terms and Conditions</u> to learn more.

If you do not want to receive these email updates, please unsubscribe. If you would like to change your email address, you may update it here.

Please understand that you may still receive emails from <a href="lege-ku.com">lege-ku.com</a> regarding your account, if you have other preferences set on another account, or immediate action may be needed on your part in regards to your account.





### Your Energy Use, Right at your Fingertips

KU's new Advanced Meter Service puts the power to control personal energy use in your hands.

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> > **Enroll now**

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#### Residential

7a.m.-7p.m. 800-981-0600

#### Business

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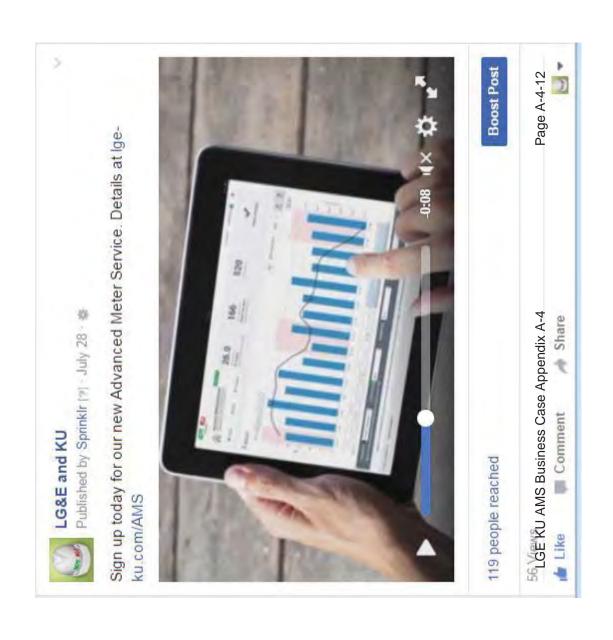
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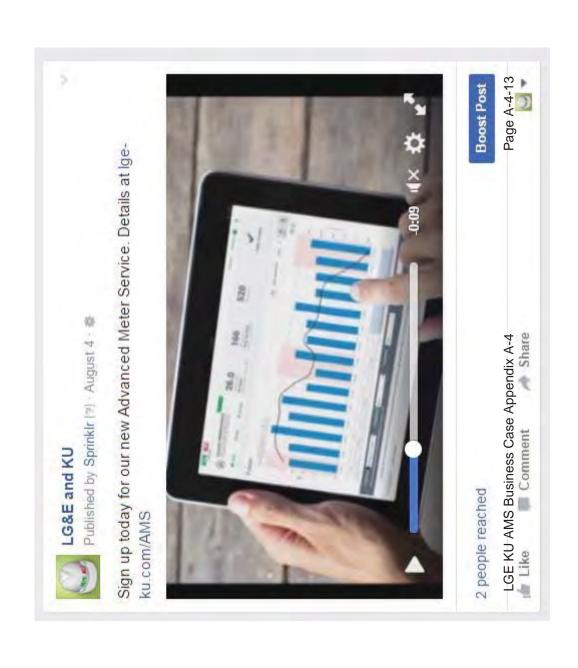
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LG&E and KU Energy LLC | 220 West Main Street | Louisville, Ky 40202











THERE'S MORE

Go to Ige-ku.com to:

• Find out how to start

or stop service

• Read about the importance

of calling before you dig

• Learn about WeCare, a program

helping low-income customers

create energy savings through

an on-site energy analysis

### YOU ARE THE REASON WE DO WHAT WE DO

At LG&E we go to work every day with you – the customer – in mind. Customer service is *never* taken lightly; it is something we take great pride in. That's why we have services and programs that help simplify your life and ensure quick and easy access to information you need and want.



- My Notifications Receive timely reminders about your monthly bill by text, email, voice call or all three.
   You choose when you'd like to be notified – when your bill is available, five days before its due date and/or one day past its due date.
- Auto Pay Have your payment conveniently deducted from your bank account on its due date. More than 100,000 customers take part in this program, which saves time and money. You'll still receive a monthly billing statement in plenty of time to verify the information on your statement and record the amount and date of the automatic withdrawal.

- Paperless Billing Receive an email each month instead of a traditional paper bill. The email includes a summary of your LG&E bill (amount due and payment due date) along with a link that allows you to safely and securely view your bill the same bill you would normally receive in the mail. And, combine going paperless with My Notifications to receive convenient bill reminders to make doing business with us even easier.
- Outage Texting Text OUTAGE to 4LGEKU (454358) to report a power outage. You can text STATUS to receive an update about the outage. Once power is back on, you'll receive a text confirming service has been restored.

You can sign up for services and programs through your online account – or quickly create one – by visiting my.lge-ku.com or calling 502-589-1444. (Call 800-331-7370 outside Louisville.) And don't forget to visit lge-ku.com/investments to check out the investments we are making to enhance the service we provide to you today and will provide in the future.

## TEN EASY WAYS TO **CUT COSTS**, ENERGY USE FOR **\$10** OR **LESS**

We can all agree we like to save money. Before temperatures plummet, here are 10 simple, low- and no-cost ways to better manage your monthly energy use heading into the winter months.

- 1. Caulk around leaky windows and weather strip door frames to keep out drafts
- 2. Vacuum your refrigerator coils
- 3. Install a flow restrictor in your showerhead
- 4. Replace your furnace/air conditioner filter every 30 days or as recommended by the manufacturer
- Unplug chargers, small appliances (e.g., electric can opener, toaster oven) and electronic games when not in use
- 6. Cook using your crockpot, grill, microwave or toaster oven rather than your conventional oven
- 7. Turn lights and fans off in unoccupied rooms
- 8. Use LED bulbs
- 9. Set your water heater to 120 degrees
- Adjust your thermostat down a few degrees in colder months

### ADVANCED THINKING: MORE DETAILED INFO COULD MEAN MORE SAVINGS

Would you like to get access to more detail on your energy usage? If so, sign up today for LG&E's Advanced Meter Service, a voluntary service available at no additional cost to residential and small business customers.

Most meters record a running total of energy used. But an advanced meter can record energy usage data in 15-, 30- or 60-minute increments. Generally, once a day the meter will communicate this information to LG&E's data network system.

5991

With an advanced meter, you are able to view usage information by

logging in to a secure online energy usage portal. Electricity usage data is available within two business days, providing a closer look at when you are using energy. Armed with this information, you will have a better understanding of electricity usage in your home or business, giving you more opportunity to improve energy efficiency.

Sign in to your online account – or create one – at my.lge-ku.com to sign up to receive an advanced meter.



## POWER 1



### YOU ARE THE REASON WE DO WHAT WE DO

At KU we go to work every day with you – the customer – in mind. Customer service is *never* taken lightly; it is something we take great pride in. That's why we have services and programs that help simplify your life and ensure quick and easy access to information you need and want.



- My Notifications Receive timely reminders about your monthly bill by text, email, voice call or all three. You choose when you'd like to be notified when your bill is available, five days before its due date and/or one day past its due date.
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Paperless Billing – Receive an email each month instead of a traditional paper bill. The email includes a summary of your KU bill (amount due and payment due date) along with a link that allows you to safely and securely view your bill – the same bill you would normally receive in the mail.

And, combine going paperless with My Notifications to receive convenient bill reminders to make doing business with us even easier.



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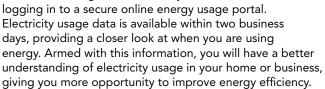
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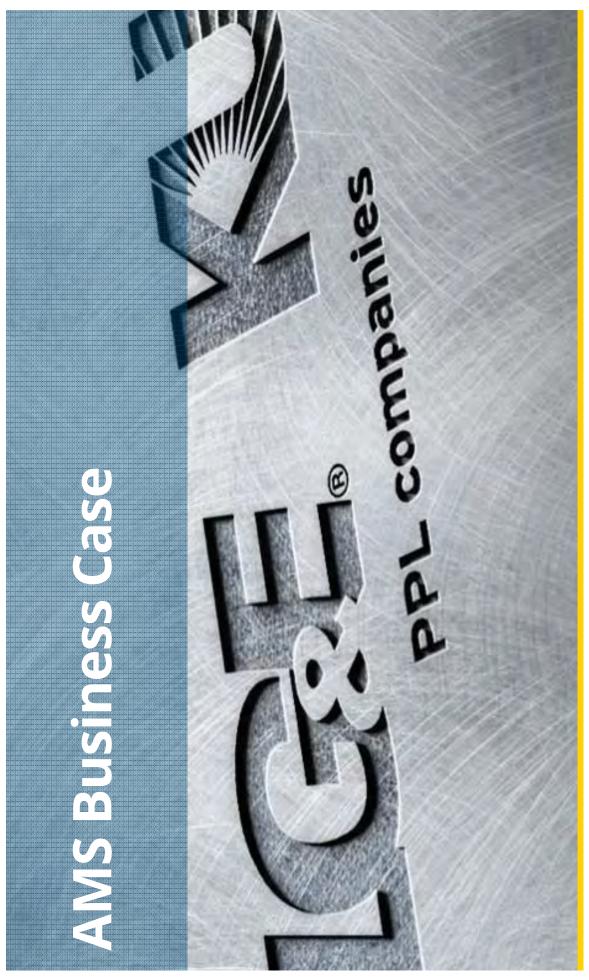
With an advanced meter, you are able to view usage information by



Sign in to your online account – or create one – at my.lge-ku.com to sign up to receive an advanced meter.



# Appendix A-5 AMS Business Case Summary Presentation







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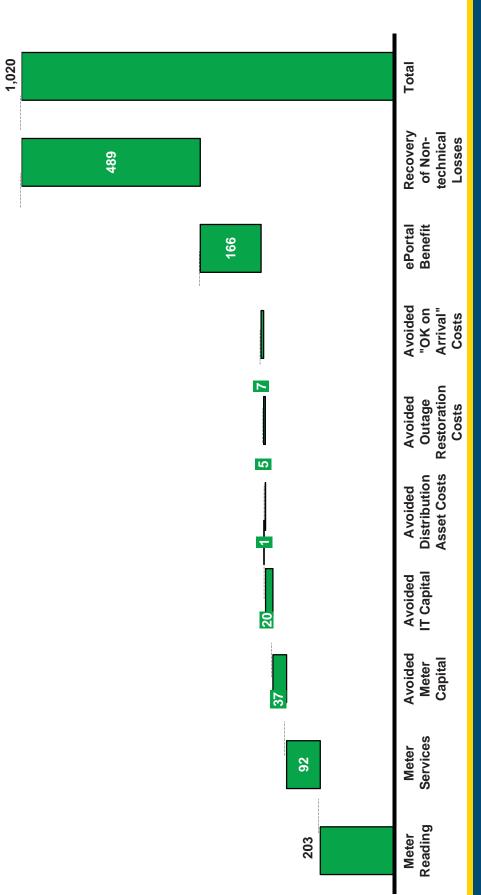
- AMS Implementation Business Case
- Detailed Assessment of AMS Benefit Levers & Methodology



Page 3

## Total savings of nearly \$1020 Million are possible over 20 years

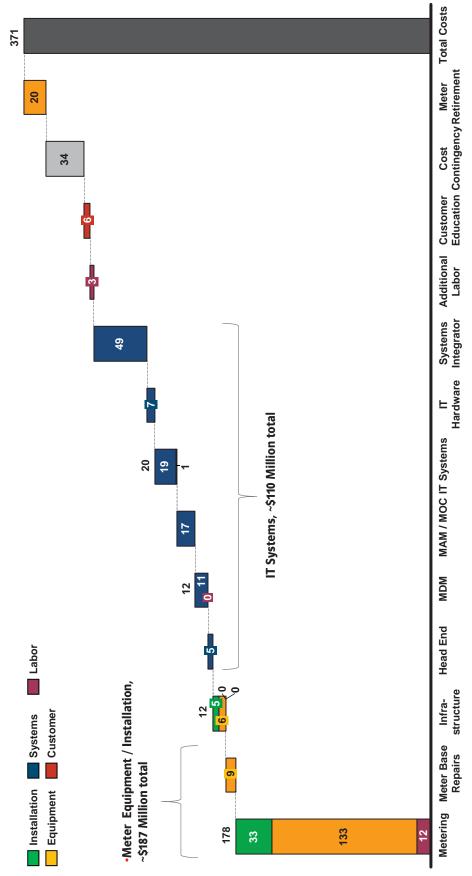
Total Benefits with AMS Implementation – 20 Years; \$ Millions





## **Gross AMS implementation costs are** ~\$370 Million for 2016 - 2021

Total Costs of AMS Implementation¹; \$ Million (nominal)

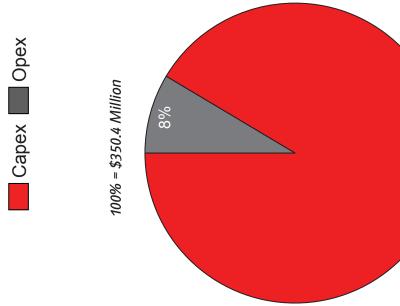


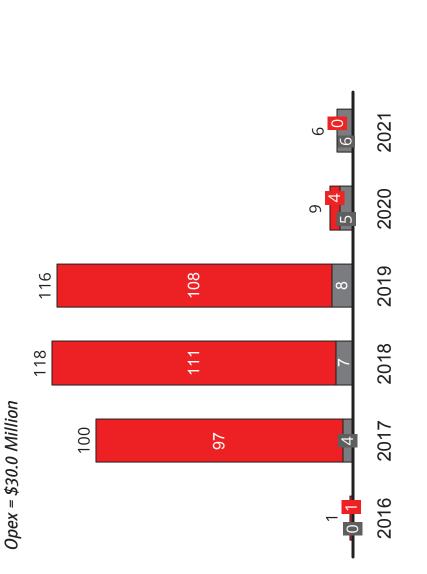


## Capital expenditures account for 91% of the costs, and the bulk of the spend falls in years 2017-2019

Capex vs. Opex Cost 2016 - 2021 (in \$ Millions)

Capex = \$320.4 Million







# AMS will provide additional "qualitative" customer benefits

analysis. AMS will enable new offerings for customers, improve customer satisfaction through access to data There are a number of additional customer benefits from AMS implementation that are not quantified in this and better engagement with customers. AMS will:

## **Customer Offerings**

- Support customer's decision on optional rates through more granular data to calculate the savings and costs of different rates
- Provide a platform for future product and service offerings such as energy management, smart thermostats and appliances
- Enable the integration of DER, e.g., solar and electric vehicles to the grid
- Better assure costs are recovered equitably through data analytics and 2 way communication with the meter in detecting losses early
- Provide an avenue for Green Button initiatives
- Provide customer outage notification which can improve customer's ability to monitor home while away

## **Customer Operations**

- Improve first call resolution through access to customer data
- Support long-term DSM in DLC programs and VVO

## Customer Outage / Power Quality Benefits

- Save cost of unserved energy due to reduced restoration time
- Enable better outage management and communications with the customer
- Improve power quality due to further development of the ability to monitor and analyze momentary outage and voltage issues

## **Environmental Benefits**

Reduce GHG emissions through reduction in power produced due to improved system losses, and provide foundation for GHG state or federal plans



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## **Table of Contents**

AMS Implementation Business Case

Detailed Assessment of AMS Benefit Levers and Methodology



## Meter Reading and Meter Services Value Levers

Total Savings¹	AMS 20 yr. savings <b>\$203 Million</b>	The meter services technician force is reduced due to AMS digitalizing the process along with the need for OT AMS 20 yr. savings
Calculation Assumptions	Total number of AMS meters * yearly contract value per meter * escalation factor * number of recovery years once MDMS is implemented – the annual cost of the inspectors	Utilizing the five-year budget define contractor spend, employee OT spend and material spend by year. For the five-year projection used the defined cuts to project savings. Take the 5th year budget savings and project it out with an escalation factor to the end of the recovery period
Levers	<ul> <li>Contractors perform meter reads monthly in the LG&amp;E territory at \$0.42/read, and in the KU and ODP territories at \$0.70/read.</li> <li>Assumed a cost escalation factor of 2.2%</li> <li>Assumed no inspection variance is allowed and 14 PSC inspector are included</li> </ul>	<ul> <li>Reduced Employee OT at LG&amp;E by 50% starting in 2019</li> <li>Reduced Employee OT at KU by 33% in 2019 and by 50% starting in 2020</li> <li>Contractor budget for LG&amp;E will be reduced to 4 techs starting in 2019</li> <li>Contractor Budget for KU will be reduced to 17 techs in 2019 and 7 techs starting in 2020</li> <li>Reduced Purchased Materials by: '18: 0%, '19: 10%, '20: 20%, '21: 20%.</li> </ul>
Description	<ul> <li>Currently in the LG&amp;E, KU &amp; ODP territories manual meter reading is performed by contractors on a revolving monthly basis.</li> <li>AMS eliminates all manual meter reading after the MDMS is integrated in 2019 &amp; meters are fully deployed in 2020</li> </ul>	AMS will largely eliminate the need for technician to perform disconnection services.     Eliminating disconnection services, employee OT will be reduced     Additionally, by geographic area contractor positions will be eliminated while maintaining a sufficient workforce presence     Finally, the material budget will be cut with manual disconnections no longer needed
Category	Meter Reading	Meter

1) Lifetime savings assume 2.2% escalation over lifetime



# Avoided / Deferred Capital Value Levers

Total Savings <sup>1</sup>	AMS 20 yr. savings <b>\$20 Million</b>	AMS 20 yr. savings
Calculation Assumptions	IT budget evaluation     assuming that for deferred     capital, the projected     budget was steady-state	
Levers	Based on the AMS implementation timeline, staffing levels, projected budgets, company priorities, and eliminating programs associated with manual meter reading, along with other factors, IT spend categories were evaluated.	The AMS implementation timeline, projected budgets, company priorities, inventory levels and the different types of meters to be deployed as a part of the AMS program were evaluated to build the savings projections.
Description	<ul> <li>The IT budget was evaluated for categories of spend that could be avoided or deferred base on the AMS implementation timeline and existing programs it would replace.</li> <li>It should be noted the savings is considered avoided capital for all but one IT category (SAP CRM/ECC Enhancement)</li> </ul>	The meter capital budget was evaluated for potential savings as the AMS program is implemented. As a part of AMS implementation, meter inventory will be built up.
Category	E	Avoided Meter Capital

1) Lifetime savings assume 2.2% escalation over lifetime



# Avoided Distribution Asset Costs Value Levers

Category	Description	Levers	Calculation Assumptions	Total Savings <sup>1</sup>
• Distribution Asset Costs	ng ge	outage e to utage	<ol> <li>Savings of 45 min. per outage for planned replacements</li> <li>Transformer failures = 6,000</li> <li>Number of transformer failures avoided = 250</li> <li>Average crew size = 2</li> <li>Average hourly loaded cost for crew = \$65 pp</li> </ol>	1) 250 outages x 45 min. time reduction / 60 x 2 x 65 / hr. field labor * labor escalation • \$764 Thousand  2) 250 outages x 5 customers x 2.57
	replacement, and a lower replacement budget. – In 2015 Distribution Transformer outages were responsible for 7,180,149 customer minutes of interruptions. The system SAIDI contribution is 7.4 minutes. There were ~6,000 transformer failures.	Protected revenue from reduced outage restoration time		kWh usage x 0.10 \$/kWh * retail escalation • \$11.2 Thousand AMS 20 yr. savings \$0.8 Million

1) Lifetime savings assume 2.2% escalation over lifetime



# Avoided Outage Restoration Costs Value Levers

Category	Description	Levers	Calculation Assumptions	Total Savings¹
	Reduce cost and impact of outages through ability to more rapidly characterize outage location, type (e.g. momentary vs. sustained), duration, restoration priority, and materials using data from AMS meters	identifying outage location on non-DA circuits (assume 20% of outage duration – CAIDI spent identifying outage location)	<ol> <li>Reduction in time spent identifying outage location</li> <li>Outage duration (CAIDI) – Blue Sky = 96 mins.</li> <li>Reduction in time spent = 9.6 mins.</li> <li># of Blue Sky outages = 20,000</li> <li>% non-DA circuits = 50%</li> <li>Average crew size = 1</li> <li>Average hourly loaded cost for crew = \$65 pp</li> <li>Assumes 3% labor escalation</li> </ol>	<ul> <li>10,000 Blue Sky outages</li> <li>x 9.6 mins time reduction</li> <li>/ 60 x 1 x 65 / hr. field</li> <li>labor x labor escalation</li> <li>\$3.3 Million</li> </ul>
				2) 10,000 Blue Sky outages x 40 customers x 0.55 kWh usage x 0.10 \$/kWh
Outage Mgmt. Costs		Protected revenue from reduced outage restoration time	<ul> <li># of customers in Blue Sky outages = 40</li> <li>Annual avg. energy consumption = 30 MWh</li> <li>Average retail price = 0.10 \$/kWh</li> <li>Assumes 4% electric retail price</li> </ul>	x retail price escalation • \$0.5 Million
		Fleet O&M cost reduction from 10% reduction in miles driven responding to outages	ם וו	3) 10,000 Blue Sky outages x 20 miles per outage x 10% reduction x \$1.46/mile x retail price escalation • \$0.8 Million
) Lifetime sav	Lifetime savings assume 2.2% escalation over lifetime	ver lifetime	<ul> <li>Reduction in miles driven = 2 miles</li> <li>Cost per mile = -\$1.46</li> <li>Assumes 2.2% non-labor escalation</li> </ul>	AMS 20 yr. savings <b>\$4.5 Million</b>



# Avoided "OK on Arrival" Truck Rolls Value Levers

Category	Description	Levers	Calculation Assumptions	Total Savings <sup>1</sup>
"OK on Arrival" Avoided Truck Roll Benefits	• Number of "OK on arrival" orders – where a crew is dispatched for a reported outage, but find that everything is working properly when they arrive, can be reduced with AMS. AMS meters provide the capability to "ping" a meter to determine whether the meter is communicating. Power is required at the meter to respond to the ping request. Therefore, LKE can use the meter ping to verify that a customer has service without sending a crew, thereby avoiding costs associated with unnecessary truck rolls. This results in crew time savings and fleet mileage savings	arrival" orders including ~1 hr. of crew time only	time per truck roll (\$65 per truck roll)  • Number of "Ok on arrival" orders for single outage calls avoided = 3,400  • Cost of a truck roll = \$65 per truck roll  • Assumes 3% labor escalation	arrival" orders avoided x \$65 per truck roll x labor escalation • \$6.9 Million  AMS 20 yr. savings \$6.9 Million

1) Lifetime savings assume 2.2% escalation over lifetime



# ePortal Customer Benefits Value Levers

Total Savings <sup>1</sup>	(\$82.46/month or \$117.79/month or \$130.42) * 12 months * escalation factor * 48% * 36% * 3%  • \$166 Million  AMS 20 Yr. Savings \$166 Million
Calculation Assumptions	Average monthly bill:  • LG&E \$82.46  • KU \$117.79  • ODP \$130.42  ~48% of customers use the portal at least once Of that 48%, approximately 36% will benefit from the energy granularity of AMS  Average energy savings is 3°
Levers	<ul> <li>Based on preliminary results of the pilot, LG&amp;E/KU is experiencing 48% of electric customers use the portal at least once.</li> <li>LG&amp;E/KU estimates that 36% of those customers who have utilized the portal at least once identify value in the electric usage information provided and continue to use the portal to save energy.</li> <li>Based on a smart grid consumer collaborative report, between 2 to 5% reduction in usage is projected a 3 % energy savings for those customers actively using the portal.</li> </ul>
Description	The web portal will give customers access to their electric usage data. This granular data, in combination with educational materials, will give customers insights into their electric energy usage and enable them to reduce it.
Category	ePortal Customer Benefits

1) Lifetime savings assume 2.2% escalation over lifetime



# Recovery of Non-Technical Losses / Theft Reduction Value Levers

Total Savings	1) ~\$2.2B revenues for non-MV90 customer * 0.72% increase in revenue • \$489 Million  AMS 20 yr. savings \$489 Million
Calculation Assumptions	1) Detect 60% of non-technical line losses through AMS analytics and recover 60% of validated loss en revenues of validated loss = 2% of revenues
Levers	including theft and meter malfunctions through AMS analytics, and assume recovery of 60% of validated loss through back bill, correction, or disconnection
Description	Identify endpoints with usage anomalies and meter events that indicate potential intentional theft, meter configuration errors and meter malfunctions – E.g.  Intermittent outages coupled with usage reductions indicating physical meter breach or bypass (e.g. tilt, rotation, reverse flow)  Anomalous load profile (statistically significant variation) indicating meter disable or jumpering  Anomalies or meter events suggesting meter malfunction or configuration error (i.e. measurement errors, missing interval data)
Category	Recovery of non-technical losses (Meter Integrity and Theft Reduction)



## Appendix A-6 AMS Capital Evaluation Models

## Appendix A-6.1 CEM Summary

## AMS - Full Deployment Project Number Customer Services: LG&E/KU/ODP Financial Summary for

Financial Analysis - Project Summary	Recommendation
Total Capital Expenditures Requested, \$000s	\$306,172
Total Cost Savings/(Incremental Costs), \$000s	\$814,266
NPV Revenue Requirements, \$000s	(\$30,164)
ROF	10.7%

	RECOMMENDATION	ION			
	5-Year Total				
Financial Analysis - By Year	2016-2020	2016	2017	2018	
Capital Expenditures Requested, \$000s	\$280,735	\$1,000	\$95,442	\$92,785	
Cost Savings/(Incremental Costs), \$000s	£23'6E\$	0\$	(\$2,244)	(\$1,297)	
EBIT, \$000s	\$58,318	\$20	\$8,796	\$18,100	
Net Income, \$000s	\$30,256	0\$	\$4,508	\$9,557	
ROE	%8.6	%0.0	7.0%	11.1%	

\$306,172 \$814,266 \$123,098 \$62,821 10.7%

\$24,411 \$15,767 \$8,185 8.2%

\$87,588 \$18,702 \$15,635 \$8,007

2016-2039 Life

2020

2019

\$3,920

NPVRR general rules: The NPVRR is the present value of the cost to the customer, so the option with the lowest NPVRR is best. NPVRR can be negative if savings are put into the model,



## Financial Summary for

## AMS (Meters/Network)

Project Number Customer Services: Servco

Financial Analysis - Project Summary ATION Alternative #1 Alternative #2 Alternative #3		RECOMMEND-			
	Financial Analysis - Project Summary	ATION	Alternative #1	Alternative #2	Alternative #3

Total Capital Expenditures Requested, \$000s	\$210,223	80	80	80
				•
Total Cost Savings/(Incremental Costs), \$000s	\$853,968	80	80	80
NPV Revenue Requirements, \$000s	(\$151,592)	80	0\$	80
ROE	9.6%	0.0%	0.0%	0.0%

	RECOMMENDAT	ATION					
	5-Year Total						Life
Financial Analysis - By Year	2016-2020	2016	2017	2018	2019	2020	2016-2039
Capital Expenditures Requested, \$000s	\$210,223	\$200	\$62,745	\$71,455	\$75,523	0\$	\$210,223
Cost Savings/(Incremental Costs), \$000s	\$51,735	0\$	(\$2,244)	(\$1,297)	\$22,809	\$32,467	\$853,968
EBIT, \$000s	\$40,707	\$10	\$6,074	\$7,529	\$12,879	\$14,215	\$112,816
Net Income, \$000s	\$19,761	0\$	\$3,139	\$3,420	\$6,085	\$7,117	\$55,865
ROE	8.4%	%0.0	12.2%	8.4%	7.2%	%6.8	%9 <sup>°</sup> 6

%9.6

NPVRR general rules:

The NPVRR is the present value of the cost to the customer, so the option with the lowest NPVRR is best. NPVRR can be negative if savings are put into the model,



## **AMS** (Software Deployment) Financial Summary for

Project Number Customer Services: Servco

<u>8</u>	ECOMMEND-			
Financial Analysis - Project Summary	ATION	Alternative #1	Alternative #2	Alternative #3

Financial Analysis - Project Summary	AIION	Alternative #1	Alternative #2	Alternative #3
Total Capital Expenditures Requested, \$000s	\$110,214	80	0\$	0\$
Total Cost Savings/(Incremental Costs), \$000s	0\$	80	0\$	80
NPV Revenue Requirements, \$000s	\$105,610	80	0\$	80
ROE	11.8%	%0.0	%0'0	%0.0

	<b>RECOMMENDA</b>	ATION					
	5-Year Total						Life
Financial Analysis - By Year	2016-2020	2016	2017	2018	2019	2020	2016-2025
Capital Expenditures Requested, \$000s	\$110,214	\$500	\$33,858	\$39,814	\$32,122	\$3,920	\$110,214
Cost Savings/(Incremental Costs), \$000s	0\$	0\$	0\$	0\$	0\$	0\$	0\$
EBIT, \$000s	\$26,670	\$10	\$3,079	\$11,625	\$6,105	\$5,852	\$32,770
Net Income, \$000s	\$13,757	0\$	\$1,471	\$6,444	\$2,912	\$2,930	\$16,811
ROE	12.5%	%0.0	%0.8	16.7%	14.3%	%0.6	11.8%

11.8%

NPVRR general rules:

The NPVRR is the present value of the cost to the customer, so the option with the lowest NPVRR is best. NPVRR can be negative if savings are put into the model,



## AMS (Software Upgrade - 2024) Financial Summary for

Customer Services: Project Number Servco

	RECOMMEND-			
Financial Analysis - Project Summary	ATION	Alternative #1	Alternative #1 Alternative #2 A	Alternative #3
Total Capital Expenditures Requested, \$000s	87,349	80	80	0\$
Total Cost Savings/(Incremental Costs), \$000s	0\$	80	80	0\$

	RECOMMENDA	LION				
	5-Year Total					
Financial Analysis - By Year	2016-2020	2016	2017	2018	2019	7
- 1 E 1 @000	0.0	00	O Ø	0.0	Oψ	

0.0%

0.0% 80

%0.0 80

11.9% \$5,050

NPV Revenue Requirements, \$000s

	INECOMENTE DIVIDINA						
	5-Year Total						
Financial Analysis - By Year	2016-2020	2016	2017	2018	2019	2020	(4
Capital Expenditures Requested, \$000s	0\$	0\$	0\$	0\$	0\$	0\$	
Cost Savings/(Incremental Costs), \$000s	0\$	0\$	0\$	0\$	0\$	0\$	
EBIT, \$000s	80	0\$	0\$	80	80	80	
Net Income, \$000s	0\$	0\$	0\$	0\$	0\$	0\$	
ROE	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	

\$1,163 11.9%

\$2,263

\$7,349

2016-2029

NPVRR general rules:

The NPVRR is the present value of the cost to the customer, so the option with the lowest NPVRR is best. NPVRR can be negative if savings are put into the model,



## Financial Summary for AMS (Software Upgrade - 2030)

Project Number Customer Services: Servco

	RECOMMEND-			
Financial Analysis - Project Summary	ATION	Alternative #1	Alternative #1 Alternative #2 Alternative #3	Alternative #3
Total Capital Expenditures Requested, \$000s	88,607	80	80	80
Total Cost Savings/(Incremental Costs), \$000s	0\$	80	80	80
NPV Revenue Requirements, \$000s	83,996	80	0\$	0\$
ROE	13.0%	%0.0	%0.0	%0.0

	RECOMMENDATION	TION					
	5-Year Total						
Financial Analysis - By Year	2016-2020	2016	2017	2018	2019	2020	201
Capital Expenditures Requested, \$000s	0\$	0\$	80	0\$	0\$	80	
Cost Savings/(Incremental Costs), \$000s	80	0\$	80	0\$	0\$	80	
EBIT, \$000s	80	0\$	0\$	0\$	80	80	
Net Income, \$000s	80	0\$	80	0\$	80	80	
ROE	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	

\$1,485

\$8,607

16-2035

\$2,851

NPVRR general rules:

The NPVRR is the present value of the cost to the customer, so the option with the lowest NPVRR is best. NPVRR can be negative if savings are put into the model,



## Financial Summary for AMS (Software Upgrade - 2036)

Project Number Customer Services: Servco

	RECOMMEND-			
Financial Analysis - Project Summary	ATION	Alternative #1	Alternative #2	Alternative #3
Total Capital Expenditures Requested, \$000s	89,481	80	0\$	80

Total Cost Savings/(Incremental Costs), \$000s	0\$	80	80	80
NPV Revenue Requirements, \$000s	\$2,997	0\$	80	0\$
ROE	12.1%	%0.0	%0.0	%0.0

	RECOMMENDATION	TION					
	5-Year Total						T
Financial Analysis - By Year	2016-2020	2016	2017	2018	2019	2020	2016
Capital Expenditures Requested, \$000s	80	0\$	80	80	80	80	
Cost Savings/(Incremental Costs), \$000s	80	0\$	0\$	80	80	80	
EBIT, \$000s	80	0\$	0\$	0\$	0\$	80	
Net Income, \$000s	80	0\$	0\$	0\$	0\$	80	
ROE	%0.0	%0.0	%0.0	%0.0	%0.0	%0.0	

\$2,954 \$1,522 12.1%

**6-2041** \$9,481

NPVRR general rules:

The NPVRR is the present value of the cost to the customer, so the option with the lowest NPVRR is best. NPVRR can be negative if savings are put into the model,



## Financial Summary for AMS (Meter Retirement)

Project Number Customer Services: Servco

מעויינים		
מ		

	RECOMMEND-			
Financial Analysis - Project Summary	ATION	Alternative #1	Alternative #1 Alternative #2 Alternative #3	Alternative #3
Total Capital Expenditures Requested, \$000s	(\$39,702)	80	80	80
Total Cost Savings/(Incremental Costs), \$000s	(\$39,702)	80	80	80
NPV Revenue Requirements, \$000s	\$3,775	80	0\$	0\$
ROE	%5'6	%0.0	%0'0	%0'0

	RECOMMENDATION	TION					
	5-Year Total						T
Financial Analysis - By Year	2016-2020	2016	2017	2018	2019	2020	2016
Capital Expenditures Requested, \$000s	(\$39,702)	0\$	(\$1,160)	(\$18,485)	(\$20,057)	80	
Cost Savings/(Incremental Costs), \$000s	(\$12,163)	0\$	80	0\$	(\$4,107)		
EBIT, \$000s	(\$6,059)	0\$	(\$358)	(\$1,054)	(\$3,348)	(\$4,299)	
Net Income, \$000s	(\$3,262)	0\$	(\$102)	(\$307)	(066\$)		
ROE	7.7%	%0.0	33.3%	2.6%	6.3%	8.8%	

\$14,025

6-2025

NPVRR general rules:

The NPVRR is the present value of the cost to the customer, so the option with the lowest NPVRR is best. NPVRR can be negative if savings are put into the model,

Appendix A-7 AMS Glossary

### **Acronym Glossary**

Acronym	Meaning
ADA	Advanced Distribution Automation
ADMS	Advanced Distribution Management Systems
AHE	AMS Head-End
AMS	Advanced Metering Systems
BPEM	Business Process Exception Management
CAPEX	Capital Expenditure
CIS	Customer Information System
CO2	Carbon Dioxide
CSRs	Customer Service Representatives
CT	Current transformer
DA	Distribution Automation
DERMS	Distributed Energy Resource Management Systems
DERs	Distributed Energy Resources
DMS	Distribution Management System
DR	Demand Response
DSM	Demand Side Management
EE	Energy Efficiency
ePortal	Web Portal Presentment
FAN	Field Area Network
FLISR	Fault Location, Isolation and Service Restoration
GHG	Greenhouse gas
GIS	Geographic information system
HAN	Home Area Network
IEDs	Intelligent Electronic Devices
IHD	In-home device
IOUs	Investor Owned Utilities
IT	Information Technology
IVR	Interactive voice response
KPSC	Kentucky Public Service Commission
KU	Kentucky Utilities
LG&E	Louisville Gas & Electric
MAM	Meter Asset Management
MDMS	Meter Data Management System
МОС	Metering Operations Center
NPV	Net present value
O&M/	
OPEX	Operations and Maintenance
OMS	Outage management system
PEVs	Plug-in electric vehicles
PON	Power outage notifications
PPLEU	PPL Electric Utilities
PRN	Power restoration notifications
PT	Potential transformer
PV	Photovoltaics
RF Mesh	Radio Frequency
SCADA	Supervisory Control and Data Acquisition
SGCC	Smart Grid Consumer Collaborative
SMS	Short Message Service



Acronym	Meaning
TOD/TOU	Time of Day /Time of Use
VEE	Validate, Estimate, and Edit
vvo	Volt/VAR Optimization
WAN	Wide Area Network

### **COMMONWEALTH OF KENTUCKY**

### BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY	)	
UTILITIES COMPANY FOR AN	)	CASE NO. 2016-00370
ADJUSTMENT OF ITS ELECTRIC RATES	)	
AND FOR CERTIFICATES OF PUBLIC	)	
CONVENIENCE AND NECESSITY	)	

### TESTIMONY OF ROBERT M. CONROY VICE PRESIDENT, STATE REGULATION AND RATES KENTUCKY UTILITIES COMPANY

Filed: November 23, 2016

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### INTRODUCTION

- 2 Q. Please state your name, position, and business address.
- 3 A. My name is Robert M. Conroy. I am the Vice President of State Regulation and Rates
- 4 for Kentucky Utilities Company ("KU" or "Company") and Louisville Gas and Electric
- 5 Company ("LG&E") (collectively "Companies"), and an employee of LG&E and KU
- 6 Services Company, which provides services to LG&E and KU. My business address
- 7 is 220 West Main Street, Louisville, Kentucky 40202.
- 8 Q. Please describe your educational and professional background.
- 9 A. A statement of my professional history and education is attached to this testimony as
- 10 Appendix A.

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- 11 Q. Have you previously testified before this Commission?
- 12 A. Yes, I have testified before the Commission numerous times, including KU's four most
- recent base rate cases.<sup>1</sup>
- 14 Q. What are the purposes of your testimony?
- 15 A. The purposes of my testimony are: (1) to support certain exhibits required by the
- 16 Commission's regulations; (2) to describe the methods by which KU informed its
- 17 customers of the proposed rate adjustment; (3) to present the revenue effects and the
- bill impacts to the average residential customer; (4) to present KU's recommendation
- for the allocation of the proposed increases in revenues among the customer classes
- based on the results of the Company's cost of service study prepared by W. Steven

<sup>&</sup>lt;sup>1</sup> In the Matter of: Application of Kentucky Utilities Company for an Adjustment of Base Rates, Case No. 2008-00251; In the Matter of: Application of Kentucky Utilities Company for an Adjustment of Base Rates, Case No. 2009-00548; In the Matter of: Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates, Case No. 2012-00221; In the Matter of: Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates, Case No. 2014-00371.

Seelye and The Prime Group in this case; (5) to discuss and explain the various tariff changes KU proposes; (6) to provide information concerning the Company's request for certificates of public convenience and necessity ("CPCNs") for its proposed Advanced Metering Systems ("AMS") and distribution automation ("DA") deployments; (7) to explain the Company's requested deviations from certain meterrelated regulations, which deviations are necessary to accommodate the proposed AMS deployment; and (8) to describe the various ways KU assists customers with low incomes.

### I. <u>FILING REQUIREMENTS</u>

### 10 Q. Are you supporting certain information required by Commission regulation 807

### 11 KAR 5:001 Section 16(8)?

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- 12 A. Yes, I am sponsoring the following schedules for the corresponding filing
  13 requirements:
- 14 Name, Address, Facts Section 14(1) Tab 1 15 Corp. – Incorporation, Good Standing Section 14(2) Tab 1 16 LLC – Organized, Good Standing Section 14(3) Tab 1 17 LP – Agreement Section 14(4) Tab 1 18 Reason for Rate Adjustment Section 16(1)(b)(1)Tab 2 Certificate of Assumed Name 19 Section 16(1)(b)(2)Tab 3 20 **Proposed Tariff** Section 16(1)(b)(3)Tab 4 21 **Proposed Tariff Changes** Section 16(1)(b)(4)Tab 5 22 Statement about Customer Notice Section 16(1)(b)(5)Tab 6 23 Notice of Intent Section 16(2) Tab 7

1		• Testimony	Section 16(7)(a)	1ab 14
2 3		<ul> <li>Detailed explanation of other information provided</li> </ul>	Section 16(7)(h)(17)	Tab 38
4 5		<ul> <li>Narrative description and explanation of all proposed tariff changes</li> </ul>	Section 16(8)(l)	Tab 65
6		• Customer Notice Information	Section 17	Tab 68
7	II.	CUSTOMER NOTICE		
8	Q.	Please describe the methods by which KI	U informed its custom	ners of its proposed
9		rate adjustments.		
10	A.	Notice to the public of the proposed rate a	djustments is being giv	ven as prescribed in
11		the Commission's regulations. On Novem	ber 2, 2016, KU deliv	ered a notice of the
12		filing of KU's application, including its	proposed rates, to t	he Kentucky Press
13		Association, an agency that acts on behalf of	f newspapers of general	l circulation through
14		the Commonwealth of Kentucky in which c	ustomers affected resid	le, for publication in
15		the applicable newspapers once a week	for three consecutive	e weeks beginning
16		November 16, 2016.		
17		In addition, KU provided notice b	by certified mail to ea	ach special contract
18		customer and telecommunication carrier po	le attacher-licensees.	
19		Furthermore, KU is posting the notice	ce to the public along w	vith a complete copy
20		of the application for public inspection at th	ne KU business office v	where customers can
21		transact business with the Company, One Q	uality Street, Lexingto	n, Kentucky 40507.
22		KU is also posting a complete copy	of its application in this	s case on its website
23		(www.lge-ku.com), along with a link to the	he Commission's web	site where the case
24		documents are available.		

1		Finally, on November 23 2016, KU began including a notice of the proposed
2		rate adjustments and general statement explaining the application in this case with the
3		bills for its Kentucky retail customers during the course of their regular monthly billing
4		cycle.
5	III.	PROPOSED REVENUE INCREASE AND BILL IMPACT
6	Q.	Please briefly describe the increase in revenues requested by KU.
7	A.	KU is requesting a 6.4 percent, or approximately \$103.1 million, increase in its annual
8		revenue. Kent W. Blake and Paul W. Thompson describe in their testimonies the
9		primary drivers of the needed revenue increases.
10	Q.	If the Commission approves the proposed base rates, what will be the percentage
11		increases in monthly residential electric bills?
12	A.	The average monthly residential electric bill increase due to the proposed electric base
13		rates will be 6.4 percent, or approximately \$7.16, for a residential customer using an
14		average of 1,179 kWh of electricity.
15	Q.	How does KU's average electric residential rate compare to the average
16		residential rate of investor-owned utilities across the United States?
17	A.	KU strives to ensure its residential customers receive reasonably priced energy. Based
18		on the Edison Electric Institute's Typical Bills and Average Rates Report Summer 2016,
19		which provides data covering the 12-month period ending June 30, 2016, KU's current
20		average electric residential rate is approximately 24 percent lower than the average
21		residential electric rate of investor-owned utilities across the United States. In addition,
22		KU's overall rates for all classes remain well below national and regional averages with
23		KU 22 percent and 23 percent below such averages, respectively.

- 1 Q. Please explain how the Company's proposed rate increases are consistent with the
- 2 Company's customer-service orientation described in Victor A. Staffieri's
- 3 testimony.
- 4 A. We at KU strive every day to provide safe, reliable, and economical utility service to
- our customers, as well as an excellent customer-service experience. Therefore, as
- 6 explained in Mr. Staffieri's testimony, the decision to file for rate increases is a serious
- 7 matter; we understand it will impact all customers and their experience with the
- 8 Company. In particular, we understand the needs of low- and fixed-income customers
- 9 through our numerous engagements and relationships with these customers and their
- advocates. I will describe in detail later in my testimony a number of initiatives KU
- has for these customers. Our Company's culture also includes service to the
- community through donations of personal and shareholder funds and through
- volunteering in the communities KU serves. So when we decide to seek additional
- revenues through a rate increase, we do so only when necessary to continue providing
- safe and reliable utility service and excellent customer service, and we do so fully
- cognizant of the impacts on customers resulting from our request.

## 17 IV. <u>COST OF SERVICE STUDY, RATE DESIGN, AND ALLOCATION OF INCREASE</u>

- 19 A. COST OF SERVICE STUDY
- 20 Q. Did the Company cause to be prepared a cost of service study to be used as the
- guide to its proposed rate design and the allocation of its requested revenue
- 22 increase?
- 23 A. Yes. At my direction, Mr. Seelye and The Prime Group conducted a fully allocated
- and time-differentiated embedded cost of service study for the Company.

Q. Which cost of service methodology did The Prime Group use to perform the Company's cost of service study?

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A.

Before asking The Prime Group to proceed with a cost of service study to support the Company's application in this proceeding, I asked The Prime Group to analyze whether it remains appropriate to continue to use the modified Base-Intermediate-Peak ("modified BIP") methodology the Companies have used in their cost of service studies for many years. As Mr. Seelye discusses in his testimony, The Prime Group ultimately conducted the Company's cost of service study using two methodologies, the modified BIP methodology and a loss of load probability ("LOLP") methodology. A utility's LOLP is the probability that a utility system's total demand will exceed its generation capacity over a given time period taking into consideration relevant factors, including the magnitude of the load and available generating capacity. Because the Companies plan their systems, and particularly their generating capacity requirements, including their reserve margin, based largely on minimizing loss of load within reasonable economic constraints, I believe an LOLP approach to conducting a cost of service study is appropriate. For the purposes of the Company's LOLP study, The Prime Group used hourly LOLP to allocate fixed production costs to the classes of customers. Because the Companies plan their generating units' production on an hourly basis, an hourly LOLP calculation is sensible and appropriate.

As Mr. Seelye discusses in his testimony, the results of the modified BIP and LOLP approaches to a cost of service study are directionally similar. In this application, the Company primarily relied on the results of the LOLP approach to

allocate costs between rate classes, but informed that allocation with the results of the modified BIP approach, as well as the ratemaking principle of gradualism.

### 3 Q. Please summarize the results of the cost of service study.

A. The following table (Table 1) summarizes the rates of return for each customer class before and after reflecting the rate adjustments proposed by KU under both the modified BIP and LOLP method:

TABLE 1 Class Rates of Return								
	R	late of Returi	ı on Rate Bas	e				
	Actual A	Adjusted	Proposed	Increase				
Customer Class	Modified BIP Method	LOLP Method	Modified BIP Method	LOLP Method				
Residential – Rate RS, RTOD, VFD	4.16%	4.36%	5.64%	5.85%				
General Service	9.10%	9.20%	10.95%	11.05%				
All Electric Schools	5.27%	6.77%	7.07%	8.75%				
Power Service								
- Secondary	9.61%	9.26%	11.51%	11.12%				
- Primary	11.83%	10.70%	13.77%	12.55%				
Time of Day Secondary	6.42%	6.06%	8.30%	7.91%				
Time of Day Primary	4.48%	4.05%	6.57%	6.10%				
Retail Transmission Service	4.55%	4.50%	6.76%	6.72%				
Fluctuating Load Service	1.50%	1.24%	3.44%	3.14%				
Lighting Energy Service	9.83%	18.57%	9.82%	18.56%				
Traffic Energy Service	10.02%	11.34%	11.66%	13.11%				
Lighting and Restricted Lighting Service	7.67%	8.44%	8.83%	9.66%				
Total System	5.56%	5.56%	7.29%	7.29%				

The Actual Adjusted Rate of Return was calculated by dividing the adjusted net operating income by the adjusted net cost rate base for each customer class. The adjusted net operating income and rate base reflect all pro forma adjustments. The Proposed Rate of Return was calculated by dividing the net operating income adjusted for the proposed rate increase by the adjusted net cost rate base. Mr. Seelye discusses the actual adjusted and proposed rates of return in his testimony.

### B. ALLOCATION OF REVENUE INCREASE

### 2 Q. What revenue increase is KU proposing for its operations?

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A.

As shown on Schedule M-2.1, KU is proposing an increase in forecasted test period revenues of \$103,097,915, which is calculated by applying the proposed rates to forecasted test period billing determinants and including changes to miscellaneous operating revenues. This increase is slightly lower than the revenue requirement increase of \$103,098,006 shown in Schedule A because the number of decimal places in the proposed charges cannot be carried out far enough to yield the exact amount shown in the schedule.

## How does the Company propose to allocate the revenue increase to the classes of service?

On average, the Company proposes to increase revenue across its rate classes by a system average of approximately 6.4 percent. But the results of the Company's cost of service study show there are notable differences in the rates of return between the Company's rate classes. This means there are some rate classes that are effectively subsidizing other rate classes. Although the Company does not propose to eliminate all interclass subsidies in this proceeding, the Company does propose to recover larger relative portions of the overall revenue increase from rate classes with lower rates of return and smaller relative portions of the proposed revenue increase from rate classes with higher rates of return. In other words, KU is proposing higher percentage increases for rate classes that have low rates of return, and the Company is proposing lower percentage increases for rate classes that have higher rates of return. This approach comports with the longstanding ratemaking principle of gradualism and is consistent with the Company's past rate-allocation proposals where there have been

significant differences in rates of return between rate classes. Mr. Seelye further discusses this approach in his testimony.

### C. RATE DESIGN APPROACH

A.

### 4 Q. What is the basic objective of the rate design being proposed?

The Company's proposed rate design continues to bring both the structure and the charges of the rate design in line with the results of the cost of service study. To that end, the Company proposes one structural change to its tariff, namely to eliminate its existing Standby or Supplemental Service Rider (Rider SS) in favor of modifying its existing demand-charge structures for Rates TODS (Time-of-Day Secondary Service), TODP (Time-of-Day Primary Service), RTS (Retail Transmission Service), and FLS (Fluctuating Load Service).

In addition to that structural change, the Company is proposing several notable changes to existing rate schedules and charges, including splitting the energy charge into two components solely for educational purposes on the tariff sheets for rate schedules that do not have demand charges and closing the Company's Curtailable Service Rider to new participation. My testimony addresses changes the Company is proposing to rate structures and the charges supported by the cost of service study.

### D. RESIDENTIAL RATE DESIGN & INCREASE

- Q. Does the Company propose to change its Residential Service, Rate RS, rate structure?
- A. No. The rate structure will remain the same and consist of a Basic Service Charge and a flat volumetric, per-kWh energy charge. But as I discuss below, the Company is separating the energy charge into two components solely on the tariff sheets—not on customers' bills—for Rate RS and a few other rate schedules to begin to educate

customers, stakeholders and employees about the two kinds of costs (fixed and variable) recovered through the Company's volumetric energy charge.

- Q. Does the Company propose to bring the rate components in residential rates morein line with the cost of service study?
- 5 A. Yes. KU proposes to increase the monthly residential basic service charge for Rates 6 RS, RTOD-Demand, and RTOD-Energy from \$10.75 to \$22.00. This charge has not 7 increased for Rate RS since January 2013 (when new rates from the Company's 2012) 8 rate case first appeared on customers' bills) even though the Company's customer-9 related fixed costs of providing service were greater than \$10.75 at that time and have 10 increased since then. (Rates RTOD-Demand and RTOD-Energy were not available to 11 customers until July 2015.) As Mr. Seelye discusses in his testimony, the Company's 12 cost of service study indicates that the customer-related cost for the residential class is 13 \$23.93 per customer per month. KU is therefore proposing to increase the basic service 14 charge in a direction that will more accurately reflect the actual cost of providing 15 service. This cost is discussed more thoroughly in Mr. Seelye's testimony and is 16 derived in his Exhibit WSS-2.
- Would recovering a larger proportion of customer-specific fixed cost through the
  basic service charge rather than through the energy charge (or demand charge
  for Rate RTOD-Demand) have the effect of stabilizing customers' monthly bills?

  Yes. Increasing the basic service charge will reduce the spikes that customers see in
  their bills during high-usage months and cause customer bills to be somewhat more
  level throughout the course of a year. Unexpected surges in utility usage caused by

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extreme weather conditions can create additional hardships for customers who already

have difficulty paying their utility bills in high-usage seasons and can cause other customers to have difficulties for the first time. Increasing the basic service charge to more closely align with customer-specific fixed costs will reduce the amount of fixed costs embedded in energy rates. This relative reduction of volumetric energy rates will help mitigate bill fluctuations caused by energy-usage spikes, including the impacts of any future extreme weather events.

#### 7 Q. Is the Company proposing any changes to Rate RTOD-Demand?

A.

- Yes. As Mr. Seelye explains further in his testimony, the Company is changing the structure of the demand charges from separate on-peak and off-peak charges, each of which applies only during certain hours each week, to a base demand charge applicable at all times and an on-peak demand charge that supplements the base demand charge during certain hours of the week. This structure is consistent with other demand rate schedules for large customers. The Company has made small text changes to the text of Rate RTOD-Demand to reflect this change in approach.
- E. CHANGES TO TARIFF SHEETS FOR RATES RS, VFD, GS, AND AES

  What changes does the Company propose to make to Rate RS, Volunteer Fire

  Department Service (Rate VFD), General Service (Rate GS), and All-Electric

  Schools Service (Rate AES)?
- A. For Rates RS, VFD, GS, and AES, the Company is proposing to split the energy charge into two components—fixed-cost recovery and variable-cost recovery—on the tariff sheets solely for educational purposes. The Company does not propose to bill customers two separate energy charges related to the two kinds of cost recovery; indeed, the Company does not propose to show the two components on customers' bills at all at this time. Rather, splitting the energy charge solely on the tariff sheets as

proposed will allow the Commission and interested customers to see how much fixed-cost recovery versus truly variable-cost recovery is embedded in the Company's volumetric energy rate for those rate schedules. The Company plans to provide additional educational material on this issue to customers periodically by discussing it in bill inserts or customer newsletters enclosed in customers' bills.

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Please explain further the difference between the Company's fixed and variable costs of providing electric service, and why splitting the energy charge on certain tariff sheets better reflects those costs.

The utility industry, and especially the electric utility industry, is a highly capitalintensive business that requires the purchase, operation, and maintenance of large capital assets—fixed costs—to produce a product with comparatively low variable costs per unit (mostly fuel). The large capital assets include generating units (and associated environmental facilities) to make electricity, transmission facilities to move the electricity in bulk and over long distances, and distribution facilities to move the electricity at lower voltages and over shorter distances to the Company's customers. Also included in fixed-cost assets are the Company's meters, customer-service and administrative facilities, operations and maintenance facilities and vehicles, and numerous other assets required simply to have an electric utility available for customers to use at all. The Company chooses the appropriate capacities for its various assets based on customers' demands on the total system: generation, transmission, and distribution. Because it is uneconomical to store large quantities of electricity to meet fluctuations in customers' collective demand, the Company must size its facilities to be ready to meet the considerable demand hundreds of thousands of residential,

commercial, and industrial customers can place on the Company's system, all without prior notice: customers expect electricity to be available instantaneously and in any quantity. To provide that kind of service safely, reliably, and economically requires large investments in capital assets and ongoing fixed operations and maintenance costs just to ensure service is available for customers even when they choose not to use much of it at any given time.

But the truly variable cost of providing any given unit of electricity is relatively small. Indeed, compared to the fixed costs of the facilities and people necessary to ensure the ability to produce any electricity, the variable cost of producing a unit of electricity (i.e., fuel and other consumables) is quite small, less than four cents per kWh according to Mr. Seelye's cost of service study.

In a sense, the Company's operations are similar to buying and owning a car or truck: there is a significant initial capital investment (the cost of the car) required just to have the ability—the capacity—to have a car available at all times; there are certain ownership costs that do not change based on usage (e.g., insurance and taxes); and there are relatively small costs actually to use the car (e.g., a few cents per mile for gas). And part of determining how much to invest in a car or truck depends in large part on what kinds of demands will be placed on it: will a small commuter vehicle suffice, or does the vehicle need to haul heavy loads off-road? Just as with cars or trucks, the capital costs of utility facilities tend to increase with the demands expected to be placed on them, but there is some component of fixed cost that does not vary with demand and is simply the cost of having any capacity available at all.

Therefore, looking at the Company's actual costs, as well as the automotive analogy, three basic categories of costs emerge naturally: a portion of fixed costs that do not vary with demand, fixed costs that are related to demand, and variable cost; these are the categories Mr. Seelye addresses in his testimony and cost of service study. And most of the Company's standard rate schedules have rate structures that reflect these three categories of costs: a fixed monthly Basic Service Charge to collect customerspecific and demand-invariant fixed costs (i.e. a minimum amount of a transformer, service lines, meters, meter reading, customer service); a demand charge to collect demand-variant fixed costs (i.e. generation capacity, transmission lines, distribution lines, transformers) that is expressed in dollars per kW or kVA of instantaneous demand; and a relatively low energy charge of a few cents per kWh for energy consumed irrespective of demand, which recovers base fuel and other consumable costs of providing energy. Such rate schedules follow basic principles of cost causation by having charges reflect the Company's underlying costs.

But the Company has also a number of rate schedules that do not have a demand charge. As Mr. Seelye notes, the historical reason for that absence is that meters capable of measuring a customer's demand have previously been uneconomical to use for smaller customers. Therefore, the Company's rate schedules that do not have a demand charge (Rates RS, RTOD-Energy, VFD, GS, and AES) recover significant amounts of the Company's fixed costs of serving customers through the schedules' volumetric energy rates. For example, KU's Rate RS currently has an energy rate of \$0.08870 per kWh, of which less than \$0.04 per kWh is the truly variable cost of producing a kWh of electricity (primarily fuel cost); the remaining charge per kWh

provides the Company fixed-cost recovery that the Rate RS Basic Service Charge of \$10.75 per month does not cover. But as I discussed above, the Company incurs fixed costs regardless of whether customers actually consume any energy. As discussed in the testimony of Mr. Seelye and as I noted above, the production facilities, transmission and distribution lines, transformers and other facilities, as well as the Company's personnel, must be in place at all times for customers to receive energy instantaneously when they desire to cool or heat their homes, turn on their lights, power their computers, or watch television. The costs of these facilities and personnel are fixed relative to energy consumption, but to the extent the Company does not recover those costs through the Basic Service Charge, it must recover them through the volumetric energy charge for rate classes that lack a demand charge. Recovering fixed costs through volumetric energy rates can result in unintended but unavoidable subsidies inside each rate class: customers with high usage pay more in fixed-cost recovery, which likely subsidizes customers with low usage.

The Company is therefore proposing in this proceeding to split the energy charge into fixed-cost (Infrastructure Energy Charge) and variable-cost (Variable Energy Charge) components solely on its tariff sheets for rate schedules that currently lack a demand charge except RTOD-Energy. This Variable Energy Charge will now represent only the variable cost of production, including base fuel expense. The Company believes this approach will help educate the customers, stakeholders and employees about the amount of fixed-cost recovery inherent in the energy charge for these rate schedules, enabling a better understanding of intra-class subsidies, and more generally the nature of the charges customers pay. Also, the Company hopes this will

begin helpful discussions about possible rate structure changes in the future that might better reflect the Company's underlying cost of service and reduce intra-class subsidies.

#### F. CLOSING THE CURTAILABLE SERVICE RIDER

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### 4 Q. Why is the Company closing its Curtailable Service Rider to new participation?

First, eligible KU customers have now signed up with the Company a total of 100 MVA of curtailable load under the Curtailable Service Rider ("CSR"). Under the terms of the existing CSR, no more curtailable load may receive credits once the 100 MVA cap has been reached. Therefore, KU's CSR is already temporarily closed as a practical matter.

Second and more importantly, as David S. Sinclair explains in his testimony, the Company does not need additional load participating in CSR to help ensure it can maintain an adequate reserve margin. Moreover, the Company does not currently anticipate needing additional capacity (in the form of curtailable load or otherwise) through the end of the forecasted test period. Therefore, the Company proposes to close the rider to new participation (i.e., no new participants and no additional curtailable load to be compensated under the rider from existing participants), allowing existing curtailable load under contract as of the date new rates go into effect resulting from this proceeding to continue receiving credits under the rider in return for the Company's ability to curtail that load under the conditions stated in the CSR tariff sheets; this closure is reflected in Sheet No. 50 of the Company's proposed tariff. In doing so, the Company is not proposing to "grandfather" or continue to allow the current customers under the CSR service schedule to remain CSR customers for an indefinite period of time, though the Company is not proposing to remove CSR from its tariff at this time.

#### 0. Does the Company propose to change the CSR credits?

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2 Α Yes. The Company is proposing new CSR credits of \$3.20 per kVA of curtailable 3 demand at transmission voltages and \$3.31 per kVA of curtailable demand at primary 4 voltages, while maintaining the current non-compliance charge of \$16.00 per kVA. As 5 Mr. Seelye explains in his testimony, the new credits are based on the capacity cost of 6 the Company's existing resources rather than a potential new generating unit because 7 the Company does not anticipate needing new capacity through the end of the 8 forecasted test period; Mr. Sinclair explains why this change in methodology is 9 appropriate based on the Company's load forecast and existing generating resources. 10 This results in lower credits than the Company has provided in recent years, but is appropriate due to the Company's current and likely future generating capacity as 12 compared to its expected load.

#### Q. Does the Company propose any other change to Rider CSR?

Yes. As Mr. Sinclair discusses in his testimony, the Company is proposing to change the Natural Gas Price ("NGP") component of the Automatic Buy-Through Price provision to better reflect the natural gas spot prices the Company actually faces in the marketplace. The Automatic Buy-Through Price applies to service CSR participants receive during any of the up to 275 hours of curtailments with a buy-through option the Company may request each year. The Company is proposing to change the NGP from the midpoint price for natural gas posted for the day in *Platts Gas Daily* for Dominion-South Point to the Cash Price for "Natural Gas, Henry Hub" as posted in The Wall Street Journal on-line for the most recent day for which a price is posted that precedes the day in which the buy-through occurred.

The Company is also proposing a non-substantive text addition to clarify that a CSR customer's choice to curtail rather than buy through during any of the 275 hours of Company-requested curtailment with a buy through option each year does not reduce the 100 hours of physical curtailment the Company may request each year.

#### G. THE COMPANY'S CURRENT AMS CUSTOMER OFFERING

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A.

Now that the Company is proposing to deploy AMS metering across its service territory, what does it propose to do concerning its existing AMS customer offering provided as part of the Company's demand-side management and energy-efficiency ("DSM-EE") programs?

As Mr. Malloy explains in his testimony, the full deployment of AMS metering across the Company's service territory obviates the need for any further AMS deployments under the existing AMS customer offering available as a DSM-EE program today. Instead, if the Commission approves the Companies' proposed full deployment of AMS, customers requesting AMS meters ahead of the Companies' deployment schedule will receive such meters within a reasonable time to the extent feasible, and will receive it as part of the full AMS deployment, not as part of the AMS Customer Offering. Customers already being served by the DSM-EE AMS customer offering will continue to enjoy the benefits of that offering, and the Company proposes to continue recovering the costs of the offering through its DSM-EE mechanism through the end of the Commission-approved period for the offering, i.e., through the end of 2018. This will ensure the AMS Customer Offering's participants can continue receiving the offering's benefits while the Companies fully deploy AMS to all customers.

# H. PROPOSAL TO ELIMINATE SUPPLEMENTAL OR STANDBY SERVICE RIDER (RIDER SS)

#### Q. What is the Company proposing concerning Rider SS?

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A.

The Company proposes to eliminate the rider; currently there is one customer that takes service under it. The purpose of the rider is to ensure that customers whose primary source of power is their own generating resources but who desire the Company to provide what is essentially firm backup service pay the full fixed cost associated with the facilities and personnel necessary to provide that service. But Rider SS is, by its own terms, a voluntary rider, and it depends upon customers self-reporting their use of the Company as a backup service provider; the Company would rarely, if ever, have independent knowledge of a customer's making such use of the Company's system. This creates a potential opportunity for customers using the Company for back-up service to free-ride on the Company's system due to the current demand-charge structures of Rates TODS, TODP, RTS, and FLS.

To address this problem, the Company is proposing to eliminate Rider SS and revise the demand charges of Rates TODS, TODP, RTS, and FLS to attempt to eliminate the possibility of having free riders. To accomplish this, the Company proposes for the Base Demand Period for each of the rates to make the demand charge the greatest of: (a) the maximum measured load in the current billing period, but not less than the minimum load required to take service under the rate schedule; (b) the highest measured load in the preceding eleven monthly billing periods; and (c) the contract capacity based on the maximum load expected on the system or on facilities specified by the customer. This approach will ensure that a customer that accurately informs the Company about the customer's potential demand (contract capacity) will

pay appropriately to have that capacity available. Similarly, if a customer using the Company for backup service actually makes use of the Company's facilities for such service and exceeds the contract capacity, the customer will pay a demand charge for that increased amount of capacity for at least 12 months (assuming the customer does not again equal or exceed that demand in the following 12 months). This approach should help ensure customers pay for the service they are receiving without depending on customers to self-report their desire for backup service from the Company. Further details are discussed in the testimony of Mr. Seelye.

#### I. OTHER STANDARD RATE SCHEDULES

- 10 Q. Please explain the changes shown on Sheet No. 10 concerning General Service
  11 (Rate GS).
- 12 A. In addition to the proposed increase to the Rate GS basic service charge and energy
  13 charge to bring them more into line with the Company's cost of service study, as well
  14 as the splitting of the Rate GS energy charge on the tariff sheets as discussed above,
  15 the Company proposes to add a section titled "Determination of Load," which states
  16 that Rate GS service will be metered except by agreement of the Company and the
  17 customer. Such unmetered service will be billed on calculated consumption based on
  18 the kind of equipment being served.
  - Q. Please explain the changes shown on Sheet No. 15 concerning Power Service (Rate PS).
- 21 A. In addition to the proposed rate changes to bring them more into line with the Company's cost of service study, the Company proposes to add wording to the monthly billing demand portion of the "Rate" section to clarify that, because not all Rate PS customers take service under contracts, a "contract capacity" cannot be used in all cases

1	to help set monthly billing demand. The Company proposes also to change the term
2	"billing demand" to "measured load" in part (b) of the demand charge section to match
3	the "measured load" terminology used in part (a). This is solely a terminology change,
4	not a substantive change.

- Q. Please explain the changes shown on Sheet Nos. 35 35.3 concerning Lighting
   Service (Rate LS).
- 7 A. The Company proposes to add four energy-efficient LED lighting offerings to
  8 customers under Rate LS. The Company further proposes to move some of its current
  9 metal-halide light offerings (both overhead and underground offerings) to Restricted
  10 Lighting Service (Rate RLS) due to limited availability of new and replacement parts
  11 for such lights from their manufacturer.
- Q. Please explain the changes shown on Sheet Nos. 36 36.3 concerning Restricted
   Lighting Service (Rate RLS).

A.

Except for high-pressure sodium and metal-halide lights, the Company will no longer offer spot replacements for Rate RLS bulbs or fixtures due to lack of availability from manufacturers. The first proposed text change to the "Availability of Service" section of Sheet No. 36 reflects this changed policy.

The second proposed text addition to the Availability of Service section on Sheet No. 36 is identical to text in the Availability of Service section of Rate LS that precludes the Company from offering certain lighting options in residential neighborhoods except when requested by municipal authorities. The Company is adding this text to Rate RLS because it is moving certain metal-halide lights from Rate LS to Rate RLS, and those lights were subject to this restriction under Rate LS.

1		The other changes to Rate RLS reflect the Company's proposal to move some
2		of its current Rate LS metal-halide light offerings to Rate RLS.
3	Q.	Please explain the changes shown on Sheet No. 38 concerning Traffic Energy
4		Service (Rate TE).
5	A.	The Company proposes to add text to the "Availability of Service" section to clarify
6		that service under Rate TE is available for all manner of traffic-control devices, not
7		only those specifically listed on Sheet No. 38.
8 9 10		J. CHANGES TO CABLE TELEVISION ATTACHMENT CHARGES (RATE CTAC), RENAMED POLE AND STRUCTURE ATTACHMENT CHARGES (RATE PSA)
11	Q.	Is the Company proposing changes to the structure and rates of Rate CTAC?
12	A.	Yes, the Company is proposing numerous changes to the existing CTAC rate schedule
13		that broadens its scope to reflect the technological advancements in the facilities being
14		attached to our poles. This overarching change is reflected in the proposed name of the
15		tariff, which is now "Pole and Structure Attachment Charges," Rate PSA. The
16		Company has proposed to revise how "attachment" is defined to expressly include
17		telecommunication wireline and wireless facilities, which are not included in the
18		current rate schedule and served under license agreements.
19		In addition, the Company is clarifying its terms of service with respect to the
20		application and permit process, as well as construction and maintenance requirements
21		and specifications. The revisions serve the dual purpose of improving the safety of the
22		attachments with respect to the Company's property, and instituting additional

measures to reduce the likelihood of electric reliability concerns resulting from a pole

attachment. Moreover, the Company is including the terms and conditions of service

23

in its rate schedule to apprise the Commission and interested parties of these requirements.

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Α.

# Q. Does the Company have a plan for how attachers not presently included in the rate schedule will begin taking service under the revised Rate PSA?

Yes. As I mentioned, the current CTAC rate schedule only applies to cable television attachments. As technology has evolved, parties providing different forms of wireline and wireless service have sought to attach on the Company's poles. Because the Company does not have a tariff that addresses many of these services, it has executed license agreements with each of these entities. Because the license agreements were executed at different times, the license agreements have different expiration dates. Once a license agreement expires, if that customer seeks to continue attaching facilities to the Company's poles and falls within the availability of service, it must then take service under the revised PSA rate schedule. The customer will then execute an agreement that incorporates Rate PSA's terms of service. Under this transition plan, virtually all entities that attach to the Company's poles will take service under Rate PSA within ten years, based on the remaining time periods on those contracts.

If approved by the Commission, customers currently receiving service under Rate CTAC and new customers falling within the availability of service that do not have a current contract will take service under the revised rate schedule from the effective date forward.

#### Q. Are certain types of attachments excluded from the revised rate schedule?

Yes. As set forth in the availability of service on Sheet No. 40, the tariff applies to the facilities of cable television system operators and telecommunications carriers, except

(1) facilities of incumbent local exchange carriers with joint use agreements with the Company; (2) facilities subject to a fiber exchange agreement; and (3) Macro Cell Facilities. These attachments are not included in the PSA rate schedule due to their unique nature and pricing arrangements. As new agreements are made, these attachments will be governed by special contracts that will be filed with the Commission.

#### Q. Are there proposed changes to the attachment fees?

Α

Yes. In the existing rate schedule, there is a single flat fee per attachment regardless of the type of attachment. In the proposed rate schedule, there is a fee for each pole attachment, a separate fee for each linear foot of duct, and a fee for each wireless facility. With respect to attachments to ducts, the proposed rate schedule expressly disallows attaching to duct systems that support transmission lines due to safety and reliability concerns.

The Company is proposing to maintain the current fee of \$7.25 per year for each pole attachment as contained in the current CTAC rate schedule. The Company is proposing a charge of \$0.81 per year for each linear foot of duct, and \$84.00 per year for each for each wireless facility. The Company has adhered to the formula prescribed in the Commission's Order in Administrative Case No. 251 in proposing the yearly pole attachment fee. As required in the settlement agreement for the Company's last base rate case, the Companies met with the Kentucky Cable Telecommunication Association (KCTA) to discuss methodological differences in the calculation of the attachment rates. Although the Companies and KCTA were not able to reach a complete agreement on methodology to be proposed in this base rate application, the

1 Companies have modified certain parts of its calculation to address the differences. A
2 discussion of these changes and the calculations of the proposed charges are discussed
3 in the testimony of Mr. Seelye.

### 4 Q. Does the revised rate schedule change the manner in which customers are billed?

Customers will continue to be billed semi-annually for the preceding six month period based on the type and number of a user's attachments reflected in the Company's records on December 1 and July 1. In addition, the Company is proposing that bills not paid within sixty days will incur a late fee of 3 percent, similar to what applies to the general service customer class. Presently, customers taking service under Rate CTAC are one of the only customer classes not paying a late fee on bills that are not paid by the due date. Also, the Company is proposing a ten-year term of service, with renewal options thereafter.

#### K. CHANGES TO SPECIAL CHARGES

- Q. Does the Company propose to change any of the Special Charges shown on Sheet
- No. 45 of its tariff?

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16 A. The only existing Special Charge the Company proposes to change is its Meter Data 17 Processing Charge, which the Company proposes to remove. Customers paying this 18 charge have received from the Company paper reports concerning their usage profiles 19 using data from the recorder metering equipment installed by the Company. The 20 Company proposes to stop offering this service in favor of transitioning to having 21 customers receive the same information at no cost via a portal on the Company's web 22 site, negating the need for the charge. Removing this charge will not have a material 23 impact on the Company's revenues; for the 12-months ending May 31, 2016, the 24 Company received about \$5,000 in revenue from this charge.

29		Rider (Rider EDR) at Sheet No. 71.1?
28	Q.	What changes does the Company propose to make to its Economic Development
27		L. CHANGES TO OTHER RIDERS
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25		Mr. Seelye provides support for these charges in his testimony.
22 23 24		(5) A charge of \$177.00 for tampering or an unauthorized connection or reconnection that requires the replacement of a three-phase meter.
19 20 21		(4) A charge of \$174.00 for tampering or an unauthorized connection or reconnection that requires the replacement of a single-phase Automatic Meter System (AMS) meter; or
16 17 18		(3) A charge of \$110.00 for tampering or an unauthorized connection or reconnection that requires the replacement of a single-phase Automatic Meter Reading (AMR) meter;
13 14 15		(2) A charge of \$90.00 for tampering or an unauthorized connection or reconnection that requires the replacement of a single-phase standard meter;
10 11 12		(1) A charge of \$70.00 for tampering or an unauthorized connection or reconnection that does not require the replacement of the meter;
9		issue:
8		making such corrections in recent years, as well as the type of meter and damage at
7		an authorized reconnection. This charge is based on the Company's experience with
6		Company's service and ensure the service stays disconnected until the Company makes
5		must incur costs to correct the customer's unauthorized physical connection to the
4		customer reconnects to the Company's service without authorization the Company
3		in excess of back-billing customers for unauthorized service received. When a
2		This charge would allow the Company to recoup its cost of addressing theft of service
1		The Company further proposes to add an Unauthorized Reconnect Charge.

The Company proposes to revise one of the criteria for determining whether an existing Α. customer is eligible for Rider EDR. Rider EDR currently requires an existing customer to contract for a minimum monthly billing load at least 1,000 kVA or kW above the customer's Existing Base Load, which is calculated by "averaging Customer's previous three years' monthly billing loads, subject to any mutually agreed upon adjustments thereto." This creates challenges for customers who have not taken service for a full three years and invites possible disputes between the Company and an existing customer concerning reasonable adjustments to the customer's three-year average demand. Moreover, a three-year average might not reflect accurately an existing customer's current demand. To address these concerns, the Company proposes to revise the above-quoted text so the Existing Base Load is simply a 12-month rolling average of the customer's measured demand; no adjustments will be permitted. This should minimize potential disputes between the Company and customers seeking to take part in Rider EDR, and should ensure the Existing Base Load accurately reflects each customer's current level of demand.

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# Q. Please explain how the Company proposes to address its Solar Share Program Standard Rate Rider ("Rider SSP").

A. On November 4, 2016, the Commission approved the Companies' joint application for approval of its proposed Solar Share Program and its associated Rider SSP, and ordered the Companies to file Rider SSP tariff sheets within 20 days of the Commission's order.<sup>2</sup> Because Rider SSP was so recently approved and the tariff sheets were just filed, the Company is not proposing any changes to Rider SSP. But the Company

<sup>&</sup>lt;sup>2</sup> In the Matter of: Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Approval of an Optional Solar Share Program Rider, Case No. 2016-00274, Order (Nov. 4, 2016).

- recognizes that there may be revisions to the Solar Capacity Charge and Solar Energy

  Credit resulting from this case, and that those revised rates will become effective with

  the rest of the rates approved in this proceeding. Indeed, the Commission's final order

  in the Solar Share Program case appears to contemplate this approach.<sup>3</sup>
- 6 Q. Please explain the text changes the Company proposes to make to Adjustment
- 7 Clause ECR (Environmental Cost Recovery Surcharge) at Sheet No. 87.

CHANGES TO ADJUSTMENT CLAUSES

- 8 A. The Company proposes to replace "CTAC" with "PSA" in the Availability of Service
- 9 section to reflect the proposed change of that rate's name. The Company further
- proposes to add Rates EVSE (Electric Vehicle Supply Equipment) and EVC (Electric
- 11 Vehicle Charging Service) to Group 2 for ECR rate calculation purposes, which
- accords with the Commission's final order approving electric vehicle rates in Case No.
- 13 2015-00355.4

M.

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- 14 Q. Please explain the text change the Company proposes to make to Adjustment
- 15 Clause HEA (Home Energy Assistance) at Sheet No. 92.
- 16 A. The charge applies to residential customers only, and the current Rate section of
- 17 Adjustment Clause HEA states that the rate is \$0.25 per meter per month. In fact, some
- residential customers have more than one meter. The Company proposes to delete "per
- meter" to reflect that each residential customer pays only one HEA charge per month.

#### 20 N. CHANGES TO CUSTOMER DEPOSITS

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<sup>&</sup>lt;sup>3</sup> See, e.g., id. at 11-12.

<sup>&</sup>lt;sup>4</sup> In the Matter of: Application of Louisville Gas and Electric Company and Kentucky Utilities Company to Install and Operate Electric Charging Stations in their Certified Territories, for Approval of an Electric Vehicle Supply Equipment Rider, and Electric Vehicle Supply Equipment Rate, an Electric Vehicle Charging Rate, Depreciation Rate, and for a Deviation from the Requirements of Certain Commission Regulations, Case No. 2015-00355, Order (Apr. 11, 2016).

- Q. Does the Company propose to increase customer deposits for Residential and
- **2** General Service Rates?

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3 A. No, the Company proposes to keep customer deposits at their current levels for 4 Residential Rates RS, RTOD-Energy and RTOD-Demand (\$160.00), and General 5 Service Rate GS (\$240.00). The Commission's regulations (807 KAR 5:006 Section 8(d)(2)) state that a utility may establish a deposit of an equal amount for each customer 6 7 class based on the average bill of customers in that class, and that such a deposit cannot 8 exceed two-twelfths of the average bill of customers in the class where bills are 9 rendered monthly. Although Exhibit RMC-1 demonstrates the Company could support 10 customer deposits as high as \$255 for residential customers and \$503 for general 11 service customers consistent with the Commission's regulations, the Company believes 12 its existing deposit levels are sufficient and strike the correct balance between 13 protecting against uncollectible debts while minimizing burdens on customers paying 14 deposits.

#### V. <u>CHANGES TO TERMS AND CONDITIONS</u>

- 16 Q. Please explain the proposed text addition to the Customer Bill of Rights at Sheet
  17 No. 95.
- The Company's Customer Bill of Rights applies to service to residential customers.

  The relevant provision of the Company's Customer Bill of Rights currently states,

  "You have the right to participate in equal, budget payment plans for your natural gas

  and electric service." But since the Commission approved the Company's tariff

  resulting from the Company's 2014 base rate case, the Company's tariff has contained

  two optional residential rates, Residential Time-of-Day Energy (RTOD-Energy) and

  Residential Time-of-Day Demand (RTOD-Demand), explicitly stating that service

under those rates is not eligible for the Company's Budget Payment Plan. Offering a Budget Payment Plan to a customer under RTOD-Energy or RTOD-Demand would undermine the purpose of the rates, which is to provide time-differentiated price signals to customers to encourage reduced demand or consumption at different times of day. Allowing customers to participate in a Budget Payment Plan while taking service under those rates would reduce or eliminate the effectiveness of the pricing signal. The Commission apparently agreed with that view and approved the Company's tariff containing the Budget Payment Plan restriction for RTOD-Energy and RTOD-Demand. Therefore, to ensure clarity and consistency across the Company's tariff, it is proposing to revise the quoted portion of the Customer Bill of Rights to clarify that a customer has a right to participate in a Budget Payment Plan unless the standard rate schedule under which the customer takes service explicitly states otherwise.

Α.

# Q. Please explain the text addition to the Company Terms and Conditions provision at Sheet No. 96.

The Company has added text to this provision to clarify how the Company already interprets and applies terms and conditions set out in specific rate schedules as compared to the terms and conditions set out at the end of the Company's tariff, the latter of which are generally applicable. Consistent with basic contract and legal principles, the proposed text states that to the extent the specific terms and conditions of a particular rate schedule conflict with the tariff's generally applicable terms and conditions, the specific terms and conditions will control.

#### Q. Please explain the new Customer Generation provision at Sheet No. 96.

A. The Company has added this provision to require customers to report to the Company all customer-installed generation designed to run in parallel with the Company's service irrespective of the length of time the customer intends such generation to run. Having this information will aid the Company in ensuring safe and reliable grid operations, including helping ensure the Company is aware of generating units that might inadvertently deliver power to the distribution system during system restoration efforts and could affect the safety of the public and the Company's restoration personnel.

A.

- 9 Q. Please explain the changes to the Application for Service provision at Sheet No.10 97.
  - The proposed revision is intended to clarify the kinds of information the Company may request when a person applies for service, and to clarify that the Company may refuse service to an applicant who refuses to provide requested information. The immediate cause of the proposed revision is a recent change in policy by the nation's major credit reporting agencies requiring new accounts reported to them to include the applicant's date of birth to help ensure the accuracy of the credit rating agencies' credit tracking and reporting, as well as the date of birth of any authorized user added to an existing account. These credit-reporting-agency policy changes apply to accounts opened, or authorized users added, after September 15, 2017. The Company therefore seeks to have the proposed clarifying text added in this rate case to ensure it may request the needed information by the credit rating agencies' September 15, 2017 deadline.
  - Q. Please explain the changes to the Contracted Demands provision at Sheet No. 97.

A. The proposed text changes describe how the Company will establish a monthly billing demand for a customer that takes service at a particular location under a rate with a demand charge, then stops taking service entirely at that location (for example, by leasing the facility to another entity), then later reestablishes service at the same location. The purpose of the text is to ensure that customers facing demand charges cannot take service and establish demand charges based on historical demand, leave the system, and then reestablish service at the same location in hopes of establishing new demand charges based on projected, rather than historical, demand. The proposed text permits the Company to set demand charges for a returning customer based on a contracted demand or load data sheet when the Company determines that the customer's facilities, processes, or practices justify setting a different contract demand than the historical demand data might indicate.

### 13 Q. Please explain the changes to the Metering provision at Sheet No. 98.

14 A. The Company proposes to add a sentence to the Metering provision to clarify that the
15 Company may install whatever metering equipment it deems necessary for a
16 customer's service. The Company believes this concept was already implicit in the
17 Metering provision, but it is helpful to make this right explicit before the Company
18 begins its proposed full deployment of AMS meters.

#### 19 Q. Please explain the changes to the Firm Service provision at Sheet No. 98.1.

A. Because the Company has proposed to remove Rider SS (Standby or Supplemental Service), the Company proposes to delete the references to Rider SS from this provision.

- 1 Q. Please explain the changes to the Power Requirement provision of the Residential
- 2 Rate Specific Terms and Conditions at Sheet No. 100.
- 3 A. The Company's proposed text addition simply adds the two other residential rates
- 4 (RTOD-Demand and RTOD-Energy) to the Power Requirement provision alongside
- 5 Rate RS. The same Power Requirement provisions should apply to those two elective
- 6 residential rates; nothing about serving customers under those rates would justify
- 7 having different Power Requirement provisions.
- 8 Q. Please explain the changes to the Meter Readings and Bills provision at Sheet No.
- 9 101.
- 10 A. The proposed text addition clarifies that a "meter reading" for all tariff purposes
- includes usage data provided by automated meter reading, automated meter
- infrastructure, advanced metering systems, and other electronic meter equipment or
- systems capable of delivering usage data to Company. Therefore, a physical, manual
- reading of a meter is not required to constitute a "meter reading." This provision is
- intended to obviate the need for a deviation from the physical, manual meter-reading
- requirements of 807 KAR 5:006 Section 7, though the Company has requested one out
- of an abundance of caution as I discuss below.
- 18 Q. Please explain the changes to the Discontinuance of Service provision at Sheet No.
- 19 **105.2.**
- 20 A. Because the Company has proposed to add an Unauthorized Reconnect Charge to its
- 21 Special Charges, it is appropriate to revise the Discontinuance of Service provision to
- replace the requirement that a fraudulent user pay "the cost to the Company incurred
- by reason of the fraudulent use" with "assessment of the charges under the

Unauthorized Reconnect Charge provision of Special Charges." Whereas the Company previously had authority under its tariff to charge fraudulent users for costs incurred related to any damage caused by fraudulent use, the Company will now have a set of standard tariff rates to charge for such damage, if any, and it is appropriate to refer to those charges in this Discontinuance of Service provision.

#### VI. CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

A.

## Q. Why is the Company seeking CPCNs for its proposed AMS and DA deployments?

The Commission stated in its final order in Case No. 2012-00428, which was its most recent case concerning smart-grid standards, "With regard to CPCNs, the Commission finds it appropriate for jurisdictional electric utilities to obtain CPCNs for major AMR or AMI meter investments and distribution grid investments for DA [distribution automation], SCADA or volt/var resources." Together, LG&E and KU are proposing to deploy AMS metering across their service territories (as Mr. Malloy describes in his testimony) and to conduct a significant DA deployment across their service territories (as Mr. Thompson describes in his testimony). Therefore, each of the Companies is requesting CPCNs for its part of the AMS and DA deployments based on the Commission's final order noted above.

### Q. Why should the Commission grant the CPCNs the Companies are requesting?

A. The Commission should grant the CPCNs the Companies are requesting because the proposed deployments meet all of the criteria for granting a CPCN. As Mr. Malloy explains in his testimony, the AMS deployment will provide numerous benefits to

<sup>&</sup>lt;sup>5</sup> In the Matter of: Consideration of the Implementation of Smart Grid and Smart Meter Technologies, Case No. 2012-00428, Order at 11 (Apr. 13, 2016).

customers and will provide net savings compared to continuing to operate the Companies' existing metering infrastructure of almost \$470 million nominal dollars (\$30.2 million net present value to 2016) through 2039.<sup>6</sup> As documents attached to Mr. Thompson's testimony explain, the Companies' proposed DA deployment will significantly improve the performance of the distribution system, resulting in fewer outages and faster restoration times for customers.<sup>7</sup> Therefore, the Companies' proposed AMS and DA will provide large benefits to customers and are entirely consistent with the public convenience and necessity as required by 807 KAR 5:001 Sec. 15(2)(a).

- Q. Will the Companies' AMS and DA deployments require the issuance of any permits or franchises by any public authority, and have the Companies attached copies of such permits or franchises (if any) to their applications in these cases as required by 807 KAR 5:001 Sec. 15(2)(b)?
- 14 A. No. There are no permits or franchises that need to be procured by the Companies to deploy AMS or DA equipment.
- 16 Q. Have the Companies provided a full description of the proposed location, route,
  17 or routes of the proposed AMS and DA deployments, including a description of
  18 the manner of the construction, as well as the names of all public utilities,
  19 corporations, or persons with whom the proposed deployments are likely to
  20 compete, as required by 807 KAR 5:001 Sec. 15(2)(c)?

<sup>6</sup> See Exhibit JPM-1, "Electric and Gas Advanced Metering Systems Business Case for Louisville Gas & Electric Company and Kentucky Utilities Company."

<sup>&</sup>lt;sup>7</sup> See Exhibit PWT-5, "LG&E and KU Electric Distribution Operations Distribution Reliability & Resiliency Improvement Program." See also Exhibit PWT-7 concerning costs and benefits of the proposed DA deployment.

Yes. The proposed full AMS deployment will occur across the entirety of the Companies' Kentucky service territories, as it will eventually require replacing nearly all of the Companies' existing electric meters, deploying related gas indices, and installing a variety of related support and communications systems. Exhibit JPM-1 to Mr. Malloy's testimony more fully and precisely describes the proposed locations, timing, and sequencing of the full AMS deployment.

A.

Similarly, the Companies' proposed DA deployment will occur across the Companies' Kentucky service territories: approximately 20% of the Companies' distribution circuits and 50% of the Companies' customers will be targeted for DA implementation. In addition to the description of the proposed DA deployment in Mr. Thompson's testimony and the LG&E and KU Electric Distribution Operations Distribution Reliability & Resiliency Improvement Program document attached as Exhibit PWT-5 to his testimony, attached to Mr. Thompson's testimony as Exhibit PWT-3 is a map showing the locations of the electronic reclosers the Companies will deploy as part of their proposed DA deployment.

Concerning the names of all public utilities, corporations, or persons with whom either deployment is likely to compete, there are no such public utilities, corporations, or persons; the deployments will occur entirely inside the Companies' existing Kentucky electric service territories. Therefore, the proposed AMS and DA deployments necessarily will not compete with any other person or entity.

Q. Have the Companies provided the maps, plans, specifications, and drawings required by 807 KAR 5:001 Sec. 15(2)(d)(1) and (2)?

1	A.	Yes. The required maps for the AMS deployment are included in Exhibit JPM-1,
2		Section 8.1, Electric Meter and Gas Index Installations, an illustration of the planned
3		AMS system architecture is included as Appendix A-2 to Exhibit JPM-1, and data
4		sheets for various AMS system components are included as Appendices A- $3.1 - 3.8$ to
5		Exhibit JPM-1. The required map for the DA deployment is included in Exhibit PWT-
6		3, and drawings of various DA-related components are included in Exhibit PWT-4.
7	Q.	As required by 807 KAR 5:001 Sec. 15(2)(e), how do the Companies plan to
8		finance the proposed AMS and DA deployments?
9	A.	The Companies expect to finance the costs of the AMS and DA deployments with a
10		combination of new debt and equity. The mix of debt and equity used to finance the
11		project will be determined so as to allow the Companies to maintain their strong
12		investment-grade credit ratings.
13	Q.	As required by 807 KAR 5:001, Section 15(2)(f), what are the estimated annual
14		operating costs of the proposed AMS and DA deployments?
15	A.	The estimated annual operating costs of the full AMS deployment are shown in the
16		AMS Business Case (Mr. Malloy's Exhibit JPM-1) at section 7.2. The estimated
17		annual operating costs of the DA deployment are shown in Exhibit PWT-6 of Mr.
18		Thompson's testimony.
19 20 21	VII.	REQUEST FOR DEVIATIONS FROM CERTAIN METER-RELATED COMMISSION REGULATIONS TO ACCOMMODATE THE COMPANY'S PROPOSED AMS DEPLOYMENT
22	Q.	Why is the Company requesting deviations from certain meter-related
23		Commission regulations?
24	A.	The AMS equipment the Company proposes to deploy throughout its service territory

will achieve the safety and reliability objectives that certain Commission regulations

pertaining to meter inspection and testing were intended to ensure, and will either obviate the need for continued compliance with those regulations or, in certain cases, render strict, literal compliance impracticable or impossible. The Company is therefore asking the Commission to authorize a deviation from those regulations.

#### 5 Q. What is the Company requesting concerning 807 KAR 5:006 Section 7(5)?

Α.

Section 7(5)(a) requires a utility to read each customer's meter at least quarterly except if prevented by reasons beyond its control and excepting customer-read meters subject to Section 7(5)(b). In turn, Section 7(5)(b) requires that a meter be read manually at least once during each calendar year. Commission Staff has previously opined that solid-state metering systems that record meter readings at least daily and transmit such meter readings directly to a utility's central office comply with this regulation without requiring a manual reading. The Company therefore requests an order confirming that interpretation and declaring that the Company will be in compliance with 807 KAR 5:006 Section 7(5)(a) and (b) even if it does not physically read AMS electric meters. In the alternative, the Company requests a permanent deviation from this regulation because AMS metering equipment will transmit at least daily the same information to the Company as it provides at a customer's location, eliminating the need to manually read AMS electric meters.

#### Q. What is the Company requesting concerning 807 KAR 5:006 Section 14(3)?

A. Section 14(3) requires a utility to "inspect the condition of its meter and service connections before making service connections to a new customer so that prior or fraudulent use of the facilities shall not be attributed to the new customer." AMS

<sup>&</sup>lt;sup>8</sup> Letter from Beth O'Donnell, Executive Director, Kentucky Public Service Commission, to Ron Sheets, President, Kentucky Association of Electrical Cooperatives (Sept. 27, 2006).

l		electric meters are capable of sensing meter tampering and other defects, and can
2		transmit that information to the Company. This capability renders physical inspections
3		of meter and service connections unnecessary. Therefore, the Company requests a
4		permanent deviation from 807 KAR 5:006 Section 14(3) for its AMS electric meters.
5	Q.	What is the Company requesting concerning 807 KAR 5:006 Section 26(4)(e)?
6	A.	Section 26(4)(e) requires an electric utility to inspect its meters at least every two years.
7		An AMS electric meter provides information on its condition on a daily basis and has
8		systems to promptly alert the utility of tampering or of malfunctions, allowing a utility
9		to know when it should conduct a physical inspection. This capability eliminates the
10		need for biennial physical inspections. The Company estimates that the elimination of
11		this requirement will result in annual savings of \$1.2 million, which are in addition to
12		the savings the Companies have projected as resulting from the full AMS deployment.
13		Therefore, the Company requests a permanent deviation from the inspection
14		requirements of 807 KAR 5:006 Section 26(4)(e).
15	Q.	What is the Company requesting concerning 807 KAR 5:041 Sections 15(3) and
16		16, as well as 807 KAR 5:006 Section 19?
17	A.	807 KAR 5:041 Sections 15(3) and 16 require that single-phase electric meters must
18		be tested every eight years or in accordance with a Commission-approved sample-
19		meter testing plan; the Company has such a testing plan, which the Commission
20		approved in Case No. 2005-00276.9 Because the Company proposes to replace all of

<sup>&</sup>lt;sup>9</sup> In the Matter of: The Joint Amended Application of the Utilities: Inter-County Energy Cooperative Corp., Kentucky Power Company, Kentucky Utilities Company, Louisville Gas and Electric Company, Owen Electric Cooperative, Inc., Shelby Energy Cooperative, Inc., and the Union Light, Heat and Power Company for Approval of a Pilot Meter Testing Plan pursuant to 807 KAR 5:041, Sections 13, 15, 16, 17, and 22, Case No. 2005-00276, Order (Nov. 10, 2005).

its existing non-AMS single-phase meters within a two-year period with new AMS equipment, continued testing during this period appears unnecessary. The Company therefore requests a deviation from these regulations to suspend testing immediately and to resume testing in accordance with its existing Commission-approved testing plan after completion of AMS deployment. The Commission has permitted other electric utilities to suspend testing for similar deployments. <sup>10</sup>

Similarly, Section 15(3) requires electric utilities to test metering equipment when removed from service. The Company intends during its AMS deployment to remove all of its existing non-AMS meters and immediately to dispose of the vast majority of the removed meters without testing them. Testing all of the removed meters would cost approximately \$3.3 million and would likely serve little or no purpose, particularly because over the last six years more than 99% of the Companies' electric meters tested have been within +-2%, and of the <1% that were fast or slow, 82% were slow and 18% were fast, meaning that less than 0.18% of electric meters tested were fast. Granting this requested waiver would result in saving the \$3.3 million that would be necessary to test all the removed meters, which savings are in addition to the savings the Companies have projected as resulting from the full AMS deployment. Therefore, the Company requests a deviation from Section 15(3) to permit the Company's proposed meter-testing approach concerning the removed non-AMS meters, with the

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The Application of Big Sandy Rural Electric Cooperative Corporation for Deviation from the Provisions of 807 KAR 5:006, Section 6(5) and 807 KAR 5:041, Section 15(3), Case No. 2005-00048 (Ky. PSC Apr. 21, 2005) (approving a suspension of meter testing for four years while the AMR program was deployed); The Application of Owen Electric Cooperative, Inc. for a Deviation from Approved Meter Testing Program, Case No. 2006-00468 (Ky. PSC Dec. 13, 2006) (approving a deviation from its Sample Meter Testing Plan for a period of 3 years during the installation of solid-state meters); Request of Shelby Energy Cooperative, Inc. for a Temporary Deviation from its Sample Meter Testing Plan, Case No. 2010-00331 (Ky. PSC Aug. 3, 2011) (approving deviation from sample meter testing plan for two years during the installation of an AMI system).

resumption of full compliance with Section 15(3) after the proposed AMS deployment has been completed.

Finally, the Company requests a deviation from 807 KAR 5:006 Section 19 to the extent it applies to the meters the Company will remove from service as part of its full AMS deployment. The regulation states, "A utility shall make a test of a meter upon written request of a customer if the request is not made more frequently than once each twelve (12) months." On its face, this requirement would appear to apply only to meters still in service, not to meters already removed from service. But out of an abundance of caution, the Company asks the Commission to grant the Company a deviation from the entirety of 807 KAR 5:006 Section 19 with regard to all meters the Company removes—and only with regard to the meters it removes—as part of the full AMS deployment; the reasons for the deviation are the same as those given above for the Company's requested deviation from 807 KAR 5:041 Section 15(3) concerning testing of meters removed from service.

#### VIII. **LOW-INCOME CUSTOMER ASSISTANCE**

#### Q. Does the Company provide assistance to its low-income customers?

Yes. The Company is aware of its low-income customers' needs through direct contact A. with such customers and through the Company's relationships with a number of organizations engaged in community-assistance programs and efforts, including the Community Action Council for Lexington-Fayette, Bourbon, Harrison, and Nicholas Counties, Inc. ("CAC"). Using forums and processes described in Mr. Malloy's testimony, the Company meets and communicates with these groups on a regular basis

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<sup>&</sup>lt;sup>11</sup> 807 KAR 5:006 Section 19(1).

to understand low-income customers' needs, how community organizations are working to meet those needs, and how the Company can help.

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The Company has used its experience and knowledge gained from these interactions as it has worked on its own and in conjunction with community groups to provide various forms of assistance to low-income customers over the years. For example, KU matches customer donations to the WinterCare Energy Assistance Fund, which assists low-income customers with their utility bills during winter months. In the 2015-16 heating season alone, KU's shareholders contributed \$37,678 to WinterCare. Since 2009, customer donations and matching funds from the Companies have raised nearly \$3 million for WinterCare and LG&E's Winterhelp. For the 2016-2017 heating season, KU's shareholders will once again match \$1.00 for every \$1.00 donated by KU's residential customers to WinterCare. Moreover, Moreover, KU's employees participate in Winterblitz, an annual weatherization effort performed in conjunction with CAC. Each November, hundreds of employees join volunteers and community organizations to weatherize the homes of low-income senior citizens and the disabled. KU provides the weatherization materials for Winterblitz, and in 2015, KU employees assisted in weatherizing approximately 45 homes through their participation and donations.

In addition, KU committed in its most recent base rate case (Case No. 2014-00371) to make annual shareholder contributions of \$470,000 per year beginning in 2015 through the effective date of new base rates for KU.<sup>12</sup> The \$470,000 comprises a

<sup>&</sup>lt;sup>12</sup> In the Matter of: Application of Kentucky Utilities Company for an Adjustment of its Electric Rates, Case No. 2014-00371, Order at 5 (June 30, 2015).

\$100,000 contribution to WinterCare and a \$370,000 contribution to the Home Energy Assistance ("HEA") program.<sup>13</sup> KU further agreed in that case to maintain its monthly residential charge for the HEA program of \$0.25 through the effective date of new base rates for KU.<sup>14</sup> Because KU's shareholder-contribution commitments will continue only until the effective date of the new base rates proposed in this proceeding, they will cease thereafter absent a settlement extending the contributions.<sup>15</sup>

#### 7 Q. Does KU propose to continue the HEA charge?

- 8 A. Yes, although KU maintains discretion to discontinue or reduce the monthly residential
  9 HEA charge, KU proposes to continue its HEA charge at a level of \$0.25 per customer
  10 per month.
- 11 Q. In addition to KU's significant shareholder contributions and the support the
  12 HEA charge provides to low-income customers, has KU implemented any policy
  13 or tariff measures to assist fixed- and low-income customers?
  - A. Yes. KU provides all customers at least 22 calendar days to pay their bills after the issuance date, but goes even further to assist fixed- and low-income customers. First, KU's FLEX Program allows residential customers with limited incomes to pay their bill 28 days from issuance. This helps prevent the fixed- and low-income customers from incurring late payment charges, increases the time in which such customers may seek financial aid, and helps reduce the issuance of disconnection notices to these customers. The popularity of the FLEX Program indicates it is achieving its intended

<sup>&</sup>lt;sup>13</sup> *Id*.

<sup>&</sup>lt;sup>14</sup> *Id*.

<sup>&</sup>lt;sup>15</sup> *Id*.

aims: since KU implemented the program in December 2009 through October 31, 2016, a total of 13,434 KU customers have used it.

Second, since October 1, 2010, a KU residential customer who has received a pledge or notice of low-income assistance from an authorized agency is not assessed or required to pay a late-payment charge for the bill for which the pledge or notice is received. Moreover, the customer will not be assessed or required to pay a late-payment charge in any of the 11 months following receipt of the pledge or notice. This waiver of the late-payment charge has provided significant benefits to low-income customers. From November 2015 through October 2016, KU waived approximately \$488,000 in late-payment charges, helping to alleviate the financial burden KU's fixed-and low-income customers are facing.

In addition, KU offers a DSM-EE program to assist low-income customers. Specifically, the Companies' Low-Income Weatherization Program ("WeCare") is an education and weatherization program designed to reduce the energy consumption of KU's low-income customers. The program provides energy audits, energy education, and blower door tests, and installs weatherization and energy conservation measures. A qualified low-income customer can receive—at no direct cost to the customer—energy conservation measures with a value of up to \$2,100. WeCare is now LG&E and KU's second largest DSM-EE program by budget: over \$25.5 million total for both Companies for program years 2015-18, an average of over \$6.35 million for both

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<sup>&</sup>lt;sup>16</sup> In the Matter of: Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Review, Modification, and Continuation of Existing, and Addition of New, Demand-Side Management and Energy Efficiency Programs, Case No. 2014-00003, Application Exhibit MEH-1 at 17 (Jan. 17, 2014).

<sup>&</sup>lt;sup>17</sup> Kentucky Utilities Company, P.S.C. No. 17, Original Sheet No. 86.4 (KU's Kentucky tariff).

Companies for each program year for that period. <sup>18</sup> In addition, KU offers DSM-EE programming for multi-family households, providing yet another opportunity for many low-income customers to participate in KU's DSM-EE offerings. KU's Residential Conservation / Home Energy Performance Program is available to multi-family properties, offering financial incentives to customers who implement energy-efficiency measures identified during on-site audits. <sup>19</sup> Moreover, KU's program includes a tier structure specifically for multi-family properties. <sup>20</sup> In approving KU's DSM-EE programming for 2015-18 the Commission noted its appreciation for "the Companies' efforts in offering low-income programs for its customers" and that the record in the DSM-EE "proceeding reflects the Companies' efforts to work with [community action agencies] and other interested parties to encourage participation by low-income customers in programs such as the WeCare and Residential Conservation/Home Energy Performance programs, which encourage EE and energy savings and aid in reducing the cost of customers' energy bills." <sup>21</sup>

In an effort to further increase low-income customers' awareness of these efforts and DSM-EE offerings, KU conducts outreach specifically focused low-income customers. This outreach includes advertisements on the interior and exterior of city buses in Louisville providing information on how to access these programs. In addition, the Company has held meetings with various community agencies and low-income advocates to further inform these representatives of the programs and discuss

<sup>&</sup>lt;sup>18</sup> Case No. 2014-00003, Rebuttal Testimony of Michael E. Hornung at 13 (June 16, 2014).

<sup>&</sup>lt;sup>19</sup> *Id.* at 39-42.

<sup>&</sup>lt;sup>20</sup> Id

<sup>&</sup>lt;sup>21</sup> Case No. 2014-00003, Order at 27 (Nov. 14, 2014).

how these advocates can assist low-income customers with their participation in the programs.

All of these efforts demonstrate KU's commitment to assisting its fixed- and low-income customers. Through the WeCare Program, KU works to weatherize the homes of low-income customers to decrease their monthly energy bills. KU's FLEX program extends a low-income customers' bill-due date to 28 days from bill issuance. To the extent further assistance is required, KU has generously increased giving to agencies that provide financial support, and KU waives the late payment charges for customers receiving assistance from such agencies. In short, KU provides a wide array of assistance to its fixed- and low-income customers, from before the time a customer uses energy until after KU issues a bill.

#### IX. CONCLUSION

Α.

#### 13 Q. What are your conclusion and recommendation?

Based on the evidence provided above and in the Company's application in this proceeding, I conclude the rates, revenue allocation, and proposed changes to the Company's tariff is reasonable and will aid the Company in continuing to provide safe, reliable, and economical service to its customers. I further conclude that the Company's proposed AMS and DA deployments will serve the public convenience and necessity by providing significant benefits to customers, and that the Commission should grant the requested CPCNs for the deployments. Therefore, I recommend the Commission approve the Company's proposed rates, revenue allocation, changes to the Company's tariffs, the Company's requested CPCNs, and the rest of the relief the Company is requesting in this proceeding.

- 1 Q. Does this conclude your testimony?
- 2 A. Yes, it does.

#### VERIFICATION

COMMONWEALTH OF KENTUCKY	)	
	)	SS:
COUNTY OF JEFFERSON	1	

The undersigned, **Robert M. Conroy**, being duly sworn, deposes and says that he is Vice President – State Regulation and Rates for Louisville Gas and Electric Company and Kentucky Utilities Company, an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.

Robert M. Conroy

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 1644 day of November 2016.

Stedy Schooler (SEAL)

My Commission Expires:
JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2018
Notary ID # 512743

#### APPENDIX A

#### Robert M. Conroy

Vice President, State Regulation and Rates LG&E and KU Services Company 220 West Main Street Louisville, Kentucky 40202

Telephone: (502) 627-3324

#### **Previous Positions**

Director, Rates	Feb 2008 – Feb 2016
Manager, Rates	April 2004 – Feb 2008
Manager, Generation Systems Planning	Feb. 2001 – April 2004
Group Leader, Generation Systems Planning	Feb. 2000 – Feb. 2001
Lead Planning Engineer	Oct. 1999 – Feb. 2000
Consulting System Planning Analyst	April 1996 – Oct. 1999
System Planning Analyst III & IV	Oct. 1992 - April 1996
System Planning Analyst II	Jan. 1991 - Oct. 1992
Electrical Engineer II	Jun. 1990 - Jan. 1991
Electrical Engineer I	Jun. 1987 - Jun. 1990

### **Professional/Trade Memberships**

Registered Professional Engineer in Kentucky, 1995 Financial Research Institutes Advisory Board Edison Electric Institute - Rates and Regulatory Affairs Committee Southeastern Energy Exchange - Rates and Regulation Committee

### **Education**

Essentials of Leadership, London Business School, 2004

Masters of Business Administration

Indiana University (Southeast campus), December 1998

Center for Creative Leadership, Foundations in Leadership program, 1998

Bachelor of Science in Electrical Engineering; Rose Hulman Institute of Technology, May 1987

# Exhibit RMC-1

# Customer Deposit Requirements

# **Kentucky Utilities Company**

Customer Deposit Requirements

## Residential Electric -- Rates RS, RTOD

(1) Forecasted Test Period Revenue (Schedule M-2.3 page 3/4)	\$ 622,809,852
(2) Proposed Increase (Schedule M-2.3 page 3/4)	\$ 37,000,063
(3) Total Revenues $[(1) + (2)]$	\$ 659,809,915
(4) Customer Months (Schedule M-2.3, page 3/4)	5,167,850
(5) Average Bill [(3) / (4)]	128
(6) Residential Electric Deposit Requirement [(5) * 2 months]	\$ 255
(7) Proposed Deposit Requirement	\$ 160

# **Kentucky Utilities Company**

Customer Deposit Requirements

### **General Service -- Rate GS**

(1) Forecasted Test Period Revenue (Schedule M-2.3 page 5)	\$ 239,171,377
(2) Proposed Increase (Schedule M-2.3 page 5)	\$ 12,094,454
(3) Total Revenues [(1) + (2)]	\$ 251,265,831
(4) Customer Months (Schedule M-2.3, page 5)	999,948
(5) Average Bill [(3) / (4)]	251
(6) General Service Deposit Requirement [(5) * 2 months]	\$ 503
(7) Proposed Deposit Requirement	\$ 240

#### **COMMONWEALTH OF KENTUCKY**

#### BEFORE THE PUBLIC SERVICE COMMISSION

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APPLICATION OF KENTUCKY	)
UTILITIES COMPANY FOR AN	)
ADJUSTMENT OF ITS RATES AND FOR	) CASE NO. 2016-00370
CERTIFICATES OF PUBLIC	)
CONVENIENCE AND NECESSITY	)
	)

DIRECT TESTIMONY OF WILLIAM STEVEN SEELYE MANAGING PARTNER THE PRIME GROUP, LLC

Filed: November 23, 2016

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#### **Exhibits**

Exhibit WSS-1 – Qualifications

Exhibit WSS-2 – Cost Components for Residential Service Rate RS

Exhibit WSS-3 – Cost Support for CSR Credits

Exhibit WSS-4 – Cost Support for Lighting Rates LS and RLS

Exhibit WSS-5 – Cost Support for LED Lighting Rates

Exhibit WSS-6 – Cost Support for Redundant Capacity Charge

Exhibit WSS-7 – Cost Support for Pole Attachment Charge

Exhibit WSS-8 – Cost Support for Duct Attachment Charge

Exhibit WSS-9 – Change in Miscellaneous Revenues for Attachment Charges

Exhibit WSS-10 – Cost Support for Unauthorized Reconnection Charge

Exhibit WSS-11 – COS BIP Methodology

Exhibit WSS-12 – COS LOLP Methodology

Exhibit WSS-13 – Zero Intercept Overhead Conductor

Exhibit WSS-14 – Zero Intercept Underground Conductor

Exhibit WSS-15 – Zero Intercept Line Transformers

Exhibit WSS-16 – COS Functional Assignment BIP Methodology

Exhibit WSS-17-COS Functional Assignment LOLP Methodology

Exhibit WSS-18 – COS Class Allocation BIP Methodology

Exhibit WSS-19 - COS Class Allocation LOLP Methodology

#### I. INTRODUCTION

1

- 2 Q. Please state your name and business address.
- 3 A. My name is William Steven Seelye. My business address is 6001 Claymont Village
- 4 Drive, Suite 8, Crestwood, Kentucky 40014.
- 5 Q. By whom and in what capacity are you employed?
- 6 A. I am the managing partner for The Prime Group, LLC, a firm located in Crestwood,
- 7 Kentucky, providing consulting and educational services in the areas of utility
- 8 regulatory analysis, revenue requirement support, cost of service, rate design and
- 9 economic analysis.
- 10 Q. On whose behalf are you testifying in this proceeding?
- 11 A. I am testifying on behalf of Kentucky Utilities Company ("KU" or "the Company"),
- which provides electric service in Kentucky.
- 13 Q. What is the purpose of your testimony?
- 14 A. The purpose of my testimony is (i) to describe the proposed allocation of the revenue
- increases for KU's operations; (ii) to support KU's proposed rates, and (iii) to sponsor
- the fully allocated cost of service studies based on KU's embedded cost of providing
- service for the fully forecasted test year, which is the 12 months ending June 30,
- 18 2018.
- 19 Q. Please summarize your testimony.
- 20 A. In developing its proposed rates in this proceeding, KU relied heavily on the results
- of the cost of service studies. For the most part, the Company's class cost of service
- studies were prepared using methodologies that have been accepted by the Kentucky

Public Service Commission ("Commission") in previous rate cases. In this proceeding, however, KU is presenting two versions of the cost of service study. In one version, the Base-Intermediate-Peak ("BIP") methodology used in prior cost of service studies for time-differentiating and allocating fixed production costs will be utilized. In the other version, a methodology is used to allocate fixed production costs that is more reflective of the way generation resources are planned by the Company. This alternative version allocates costs by weighting hourly class loads by the hourly Loss of Load Probability ("LOLP"), which is a key measure that has been used by KU and Louisville Gas and Electric Company ("LG&E") (collectively, the "Companies") for planning their generation resources for many years. I will present information comparing the results of the LOLP version of the cost of service study to the BIP version that has been used in prior rate cases.

The purpose of a class cost of service study is to determine the contribution that each customer class is making towards KU's overall rate of return. Rates of return are calculated for each rate class. A class cost of service study is also used as a tool for developing unit charges for electric service. Cost of service is a standard measure of reasonableness for utility rate design.

In this filing, KU is proposing rate design changes to begin to address fundamental changes that are taking place within the electric utility industry. Across the United States, electric utilities are beginning to see competitive pressures from various forms of distributed generation (e.g., solar generation, natural gas generation, and wind generation). As a result of customers installing behind-the-meter electric

generation, and also customers finding ways to conserve energy or use energy more efficiently, many utilities are experiencing steep declines in their sales per customer. Regardless of the environmental benefits that may result from these initiatives, it is important that the utility ensure that the rate design is structured in a way that recovers the actual cost of serving customers who install distributed generation and pursue behind-the-meter energy efficiency measures. With improperly designed rates, it is possible for the utility's other customers (for example, customers who cannot or do not install distributed generation) to be unduly penalized by having costs improperly shifted onto them from customers who install distributed generation or reduce their energy consumption. Therefore, it is important for the utility to design its rates so that the actual cost of providing service is recovered through rates even when customers reduce their energy consumption but still require the same utility infrastructure to serve them. For example, if a customer reduces its energy consumption through the installation of solar generation, but falls back on the utility to deliver power to the customer when the solar generation is not operating, the utility still needs the same distribution infrastructure to serve the customer even though the customer might be using less energy.

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KU is therefore taking some initial steps toward implementing rate changes that will provide appropriate and equitable cost recovery in a changing utility industry. We are proposing to separate out the infrastructure and variable cost components of the energy charge for Residential Service (RS), General Service (GS) and other two-part rates that include only a customer charge and an energy charge.

The purpose of this change in the presentation of these rate schedules is to provide more information to customers, stakeholders and employees about which costs are avoidable through the installation of distributed generation (i.e., the variable cost component) and which costs are less likely to be avoided (i.e., the fixed cost component). We are also proposing changes to the large customer rates, specifically Time-of-Day Secondary Service (TODS), Time-of-Day Primary Service (TODP), Retail Transmission Service (RTS), and Fluctuating Load Service (FLS), to provide better assurance that the actual costs of transmission and distribution service are recovered from customers that install distributed generation. I will discuss these changes in greater detail later in my testimony.

# Q. Are you supporting certain information required by Commission Regulations 807 KAR 5:001, Section 16(7) and 16(8)?

- 13 A. Yes. I am sponsoring the following schedules for the corresponding Filing
  14 Requirements:
- Cost of Service Studies Section 16(7)(v) Tab 52
- Revenue Summary Section 16(8)(m) Tab 66

#### 17 O. How is your testimony organized?

A. My testimony is divided into the following sections: (I) Introduction, (II)

Qualifications, (III) Rate Design and the Allocation of the Increase, (IV) Increase in

Miscellaneous Service Charges, and (VI) Cost of Service Study.

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#### II. QUALIFICATIONS

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#### 2 Q. Please describe your educational and professional background.

I received a Bachelor of Science degree in Mathematics from the University of Louisville in 1979. I have also completed 54 hours of graduate level course work in Industrial Engineering and Physics. From 2014 through 2015 I completed an additional 12 hours of Electrical Engineering coursework at the University of Louisville's Speed School of Engineering (courses in computer design, microcontroller programming, digital signal processing, and computer communications). In addition, from 2012 through 2015, I was an instructor at Louisville's Walden School and a private tutor and instructor in advanced placement calculus, linear algebra, pre-calculus, college algebra and differential equations.

Concerning my professional background, from May 1979 until July 1996, I was employed by LG&E. From May 1979 until December, 1990, I held various positions within the Rate Department of LG&E. In December 1990, I became Manager of Rates and Regulatory Analysis. In May 1994, I was given additional responsibilities in the marketing area and was promoted to Manager of Market Management and Rates. I left LG&E in July 1996 to form The Prime Group, LLC, with two other former employees of LG&E. Since leaving LG&E, I have performed or supervised the preparation of cost of service and rate studies for over 150 investor-owned utilities, rural electric distribution cooperatives, generation and transmission cooperatives, and municipal utilities. Therefore, including my time at LG&E, I have more than 35 years of experience in the utility industry. A more detailed description

2	Q.	Have you ever testified before any state or federal regulatory commissions?
3	A.	Yes. I have testified in over 50 regulatory and court proceedings in 13 different
4		jurisdictions including the Kentucky Public Service Commission. I have testified on
5		behalf of both KU and LG&E on numerous occasions. A listing of my testimony in
6		other proceedings is included in Exhibit WSS-1.
7	Q.	Please describe your work and testimony experience as they relate to topics
8		addressed in your testimony?
9	A.	I have performed or supervised the development of cost of service and rate studies for
10		over 150 utilities throughout North America. I have also testified on numerous
11		occasions regarding the rates proposed by electric, gas and water utilities, including
12		KU.
13		
14	III.	RATE DESIGN AND THE ALLOCATION OF THE INCREASE
15		A. ALLOCATION OF THE REVENUE INCREASE
16	Q.	Please summarize how KU proposes to allocate the revenue increase to the
17		classes of service.
18	A.	KU relied on the results of the cost of service studies to determine the revenue
19		increases allocated to the classes of service. Specifically, larger relative portions of
20		the overall revenue increase are allocated to the rate classes with low rates of return
21		on rate base, and smaller relative portions of the overall increase are allocated to the
22		rate classes with high rates of return. In other words, KU is proposing higher

of my qualifications is included in Exhibit WSS-1.

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percentage increases for rate classes that have low rates of return and lower percentage increases for rate classes that have higher rates of return. KU is proposing rate increases for all rate classes except for Lighting Energy Service. A comparison of the rate of return at current rates and the percentage revenue increase proposed for each rate class is shown below in Table 1:

	Rate of Return on Rate Base		Revenue
Rate Class	BIP Version	LOLP Version	Increase
Residential Service	4.16%	4.36%	5.94%
General Service	9.10%	9.20%	5.06%
All Electric Schools	5.27%	6.77%	5.34%
Primary Service-Secondary	9.61%	9.26%	5.06%
Primary Service-Primary	11.83%	10.70%	4.71%
Time-of-Day Secondary Service	6.42%	6.06%	5.55%
Time-of-Day Primary Service	4.48%	4.05%	6.61%
Retail Transmission Service	4.55%	4.50%	6.71%
Fluctuating Load Service	1.50%	1.24%	7.25%
Lighting Energy Service	9.83%	18.57%	0.00%
Traffic Energy Service	10.02%	11.34%	4.71%
Lighting Service & Restricted Lighting Service	7.67%	8.44%	6.14%
Total All Classes	5.56%	5.56%	6.45%

8 Table 1

Table 2 shows the same results as Table 1 except that the data is sorted from the highest to the lowest percentage increase:

	Rate of Return on Rate Base		Revenue
Rate Class	BIP Version	LOLP Version	Increase
Fluctuating Load Service	1.50%	1.24%	7.25%
Retail Transmission Service	4.55%	4.50%	6.71%
Time-of-Day Primary Service	4.48%	4.05%	6.61%
Lighting Service & Restricted Lighting Service	7.67%	8.44%	6.14%
Residential Service	4.16%	4.36%	5.94%
Time-of-Day Secondary Service	6.42%	6.06%	5.55%
All Electric Schools	5.27%	6.77%	5.34%
Primary Service-Secondary	9.61%	9.26%	5.06%
General Service	9.10%	9.20%	5.06%
Primary Service-Primary	11.83%	10.70%	4.71%
Traffic Energy Service	10.02%	11.34%	4.71%
Lighting Energy Service	9.83%	18.57%	0.00%
Total All Classes	5.56%	5.56%	6.45%

2 Table 2

As illustrated in Table 2, the percentage increases allocated to the rate classes are essentially inversely proportional to the class rate of return. In allocating the revenue increase to the classes, one of the Company's objectives was to limit the maximum increase to any class to approximately one percentage point above the overall increase. This results in the class with the lowest rate of return receiving a 7.25 percent increase and the class with the highest rate of return receiving a zero percent increase. The decision was made not to assign an increase for any rate class with a rate of return exceeding 15 percent. All other rate classes with a rate of return under 15 percent were allocated a rate increase within a bandwidth of approximately 1 to 1.75 percentage points of the average increase.

#### Q. Are there any rate classes that are not shown on the above table?

14 A. Yes. Residential Time of Day Service (RTOD) is a small rate class currently serving 15 only 25 customers. This rate class was included with Rate RS in the cost of service

1		study. KU is proposing an increase of 5.91 percent for this rate class.
2	Q.	Are classes with the higher rates of return subsidizing classes with low rates of
3		return?
4	A.	Yes, from a cost of service perspective, they are. Of course, cost of service is just one
5		factor that must be considered. Economic factors such as job creation and retention
6		are also important considerations.
7	Q.	Is KU proposing to eliminate all subsidies in this proceeding?
8	A.	No. KU's objective is to eliminate subsidies gradually over time. While KU does
9		want to address the issue of subsidies, the Company proposes to do so in a manner
10		that doesn't create unduly large increases for any one major rate class.
11	Q.	Have you prepared schedules showing the proposed revenue increase for each
12		standard rate schedule?
13	A.	Yes. The revenue increase for each rate class is shown on Schedule M-2.1 of Section
14		16(8)(m) of the Filing Requirements. The detailed billing calculations for each rate
15		schedule are shown on Schedule M-2.3. The proposed unit charges for each rate
16		schedule are shown on Schedule M-2.3.
17		
18		B. RESIDENTIAL SERVICE (RS)
19	Q.	Please provide a brief description of Rate RS.
20	A.	Rate RS is the standard rate schedule available to single-family residential service.
21		Approximately 431,000 residential customers are served under this rate schedule.

- Rate RS has a two-part rate structure that includes a Basic Service Charge and an
- Energy Charge.
- 3 Q. What are the charges that KU is proposing for Rate RS?
- 4 A. KU is proposing to *increase* the Basic Service Charge from \$10.75 per month to
- 5 \$22.00 per month. The Company is proposing to *decrease* the energy charge from
- 6 \$0.08870 per kWh to \$0.08523 per kWh.
- 7 Q. Is the Company proposing any changes in the presentation of the charges for
- 8 Rate RS?
- 9 A. Yes, KU is proposing that the energy charge be broken down into a variable cost
- 10 component (Variable Energy Charge) and a fixed cost component (Infrastructure
- 11 Energy Charge). The Variable Energy Charge is \$0.03508 per kWh and the
- 12 Infrastructure Energy Charge is \$0.05015 per kWh. These charges would also apply
- to Volunteer Fire Department Service (Rate VFD).
- 14 Q. Why is the Company proposing this change?
- 15 A. The purpose of showing the energy charge as consisting of both a variable cost
- 16 component and a fixed cost component is solely educational and informational at this
- point in time. The Company wants customers, stakeholders and employees to be
- aware that two types of costs are included in the energy charge for Rate RS and other
- rates that have a two-part rate structure consisting of a Basic Service Charge and an
- 20 Energy Charge. The energy cost component consists of costs, such as fuel expenses
- and variable operation and maintenance expenses, that vary directly with the kWh
- 22 usage of customers. The fixed cost component consists of demand-related costs that

do not vary directly with energy usage, such as depreciation expenses, return, taxes, and fixed operation and maintenance expenses related to utility infrastructure. It is important for customers, stakeholders and employees to understand that not all costs are automatically reduced when customers use less energy. For example, the fixed costs associated with poles, transformers, conductors, power plants, office buildings, etc., are not automatically reduced when consumers reduce their energy usage. As greater emphasis is placed on distributed generation and energy conservation in our society, it is important for customers, stakeholders and utility employees to understand the distinction between fixed and variable costs.

#### 10 Q. What is the breakdown of total costs among these three cost components for Rate RS?

The following table shows how the cost of providing service to customers under Rate RS is broken down between customer-related fixed costs, demand-related fixed costs, and energy-related variable costs:

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Cost Component	Percentage of Cost
Customer-Related Fixed Costs	20.9%
Demand-Related Fixed Costs (Infrastructure Demand Costs)	43.0%
Energy-Related Variable Costs	36.1%

Table 3

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#### Q. How are these costs currently recovered from Rate RS customers?

Rate RS, as well as a number of other KU rate schedules that serve smaller commercial and industrial customers (for example Rate GS), are currently structured as a two-part rate consisting of a customer charge (Basic Service Charge) and an energy charge. The Basic Service Charge is billed as a flat monthly charge per customer, and the energy charge is a variable charge billed on a cents-per-kWh basis. Under a two-part rate design, all three cost components (customer costs, demand costs and energy costs) are recovered through two rate components (customer charge and energy charge). Unlike the three- and multi-part rates that are used for KU's larger customers, the two-part rate for Rate RS does not utilize a demand charge. Therefore, demand costs (costs associated with transformers, overhead and underground conductor, transmission lines, and generation capacity) must be recovered through either the customer charge or the energy charge. For Rate RS, all demand costs and a portion of the customer costs are currently being recovered through the energy charge. The following table compares the percentage of costs broken down by component (customer cost, demand cost, and energy cost) to the percentage of recovery through the rate components (customer charge and energy charge):

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Component	Percentage of Cost	Rate Design
Customer	20.9%	9.3%
Demand	43.0%	0.0%
Energy	36.1%	90.7%

2 Table 4

A.

As can be seen from this table, all demand costs and a significant portion of customer costs are currently recovered through a variable energy charge.

### 6 Q. What are three- and multi-part rate designs?

A three-part rate is a rate structure that includes a customer charge, energy charge and demand charge. KU's rate for medium commercial and industrial customers (Rate PS) is a three-part rate consisting of a customer charge, energy charge and demand charge. The rates for large commercial and industrial customers (Rate TODS, TODP, RTS, and FLS) are structured as a multi-part rate consisting of a customer charge, energy charge and multi-part demand charge that is unbundled between production fixed cost components and transmission/distribution fixed cost components. The reason that a two-part rate structure traditionally has been used in the industry for residential and small commercial and industrial accounts is that the cost of the metering technology necessary to bill a three- or multi-part rate for small

customers has been prohibitive. This is changing in the industry. As utilities install advanced metering technology for all types of customers, it becomes more feasible to use three- or multi-part rates for residential and general service (small commercial and small industrial) customers.

# 5 Q. Does recovering fixed customer and demand costs through a variable energy charge create problems?

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Yes, it certainly does. The Company must install generation, transmission and distribution infrastructure to serve customers. The costs associated with this infrastructure are fixed. As explained earlier, some of these fixed costs are demandrelated and are thus related to utility infrastructure that is sized to meet maximum loads that customers place on the system, while other fixed costs are customer-related and are thus related to the number of customers that the utility serves. These fixed costs typically will not change if a customer uses more energy or if a customer uses less energy. For example, once the Company installs a distribution line, transformer, service line, and meter to serve a customer, the operation and maintenance expenses, depreciation expenses, property taxes, interest expenses, and other such costs are not decreased if a customer uses less energy. Once the facilities are installed they are invariant to customer usage and are therefore fixed. If the costs are improperly recovered through a volumetric charge rather than a fixed charge, then when a customer uses less energy these fixed costs will not be recovered from the customer, and those costs must be recovered from other customers. This is particularly problematic if a customer reduces energy consumption by installing distributed generation technology such as solar panels or a wind turbine but falls back on the utility when sunlight is unavailable or when the wind isn't blowing. In those instances, the customer will have reduced its energy usage with distributed generation but will still require the same generation, transmission and distribution capacity to meet its demand requirements. The customer will have reduced the billing of fixed costs collected through the energy charge but will not have caused the utility to reduce its fixed costs. In those instances, the fixed costs are thus shifted to customers who have not installed distributed generation technology.

#### Q. At this point, has distributed generation created problems for KU?

A.

Nothing significant. However, the installation of customer-owned distributed generation is already creating problems with the erosion of fixed cost recovery for utilities in western states, such as New Mexico, Arizona, Nevada, and Colorado. At this point, it is important for KU to be aware of what is going on in other jurisdictions and to begin educating its customers, stakeholders and employees about the kinds of costs that are fixed and those that are variable and thus avoidable. In the short term, only variable costs are avoidable as a result of self-generation and conservation efforts by consumers. But even if distributed generation never becomes a major factor on KU's system, the changes that KU is proposing are still beneficial because the Company is moving toward a more cost-based rate structure. Thus, KU's rates provide for a more fair and equitable recovery of costs from customers.

Q. With the emergence of customer-owned distributed generation, what ratemaking frameworks are other utilities and commissions exploring to ensure

#### that costs are fairly and equitably recovered from customers?

A.

They are looking into a number of options. In a recent rate case in New Mexico for which I was a witness, the commission staff proposed a rate design that would insure that all production, transmission and distribution fixed costs would be recovered fully from customers with distributed generation. Other utilities are considering the implementation of three- and multi-part rates for residential and small commercial and industrial customers. Under some of the approaches being adopted by utilities, residential customers would be billed under a rate that includes one or more types of demand charges; for example, the residential rate could include a demand charge that is billed on the basis of the customer's maximum monthly demand (that recovers transmission and distribution fixed costs) and a demand charge billed on the basis of the customer's demand determined at the time of the utility's system peak (coincident peak demand) (that recovers generation fixed costs.) Ultimately, rates that make use of multi-part rate structures allow utilities to price electric service in a more cost-based manner, thus greatly reducing, if not eliminating, intra-class subsidies.

Some utilities are also considering the use of straight-fixed variable ("SFV") rate designs that would collect all transmission and distribution costs through a monthly customer charge. An SFV rate is a rate design in which all the utility's fixed costs, or fixed transmission and distribution costs, would be recovered through a flat monthly charge, such as a customer charge. SFV rate designs have been used extensively in the natural gas industry to deal with declining usage, downward spiraling margins, and the equitable recovery of fixed costs. An SFV rate design

would not only help protect the utility against lost revenue due to energy conservation and the installation of distributed generation but it would also ensure that fixed costs are fairly and reasonably distributed. Only the utility's avoidable costs would be recovered through an energy charge, specifically, the utility's variable energy costs. All fixed costs would be recovered through the customer charge or other fixed charge, thus fully ensuring the fixed costs are inappropriately shifted onto customers that do not implement distributed generation.

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Other utilities are proposing revenue decoupling mechanisms to allow the utility to encourage the introduction of behind-the-meter distributed generation technologies without resulting in an erosion of fixed cost recovery. decoupling is designed to decouple the link between energy usage and the amount of net revenues collected by the utility. It is generally implemented as a rate adjustment mechanism that operates with annual surcharges or surcredits. With decoupling, the annual amount of net revenues, or fixed cost revenues, (total revenues less variable energy expenses) for a rate class would be compared to the fixed-cost revenue requirement determined from the utility's rate case for that rate class, as adjusted to reflect increases or decreases in the number of customers served. If the net revenues collected from the customer class for a 12-month period is less than the fixed-cost revenue requirement for the customer class determined from the rate case (as adjusted for changes in the number of customers served) then a surcharge is calculated based on the deficiency and then applied to kWh sales in a subsequent 12-month period. Likewise, if the net revenues collected from the customer class for a 12-month period are greater than the fixed cost revenue requirement for the customer class determined from the rate case (again, as adjusted for changes in the number of customers served) then a surcredit is calculated based on the excess revenues and applied sales in a subsequent 12-month period. Since decoupling allows the utility to collect net revenues equivalent to the fixed-cost revenue requirement from its last case, the utility would be protected against the loss of revenues due to the adoption of distributed generation technologies by customers. Decoupling and other lost revenue mechanisms have been implemented by several utilities in conjunction with energy conservation and demand-side management programs. Decoupling is often identified as a way to align the interests of the utility and customers in the adoption of energy saving technologies.

#### 12 Q. Are these options that KU and LG&E should be evaluating?

13 A. Yes. It is important for the Companies to continue to monitor developments in the
14 industry. But at this point, breaking out the energy charge in the Company's two-part
15 rates into fixed and variable cost components is a good first step toward educating
16 customers, stakeholders and employees about what makes up the cost of providing
17 service to customers.

# Q. What is the basis for the proposed increase in the Basic Service Charge for RateRS?

A. The Company is proposing a cost-based Basic Service Charge that reflects the customer-related costs from the Company's cost of service study. As will be explained in greater detail in the portion of my testimony dealing with the cost of

service study, the methodology that is used to classify costs as customer related corresponds to the methodology that has been accepted by the Commission in the past. The methodology for classifying costs as customer-related also corresponds to one of the standard methodologies set forth in the *Electric Utility Cost Allocation Manual* published by the National Association of Utility Regulatory Commissioners ("NARUC").

# Q. Have you prepared an exhibit showing the calculation of the cost components for

Yes. Exhibit WSS-2 shows the calculation of the unit customer cost, demand related cost, and energy costs from the BIP version of the cost of service study. From this calculation, the customer cost is \$23.93 per customer per month; the demand-related cost is \$0.04849/kWh; and the energy cost is \$0.03508/kWh. In the proposed rate, KU is proposing a Basic Service Charge of \$22.00 which is below the unit cost from the cost of service study. The difference is recovered through the Infrastructure Energy Charge which KU is proposing to be \$0.05015/kWh. The Company is proposing a Variable Energy Charge of \$0.03508/kWh, which is the same as calculated from the cost of service study.

#### Q. Why is the Basic Service Charge rounded?

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Rate RS?

The Basic Service Charge is rounded to keep the charge as simple and easy to use as possible. The Companies are also proposing that the Basic Service Charge be the same for both KU and LG&E. The Companies are proposing a residential customer charge that represents the lowest rate that can be cost supported for KU and LG&E.

Because LG&E's customer cost is equal to \$22.04 per month and KU's is equal to \$23.93 per month, a customer charge of \$22.00 was selected for the Companies because it reflected the lowest of the two unit costs after giving effect to rounding.

#### Q. Please explain the costs that are recovered through the Basic Service Charge.

The Basic Service Charge recovers the minimum system that each customer must have in place to access the electric grid. The customer charge also recovers the cost of operating and maintaining this minimum system as well as other costs not related to customer usage, such as meter reading, billing and customer service costs. The minimum system comprises the meter, service drop from the transformer, the transformer, the minimum size of wire, and poles extending to the distribution substation that is necessary to provide a customer with access to the electric grid. Once the cost of this minimum system is determined using the zero-intercept methodology (discussed later in my testimony), it can be allocated to each customer.

#### O. What other costs need to be recovered from customers?

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A.

Customers often need more equipment than the minimum system in order to receive adequate service. The cost of this equipment above the minimum is related to the customer's usage level and is a demand-related fixed cost that is recovered through either a demand or energy charge. A cost of service study is performed for the purpose of allocating costs as accurately as possible based on cost causation. In a cost of service study, it is important to distinguish the distribution system costs related to demand from the distribution system costs that are related to the minimum system which are not related to demand, as discussed in the NARUC Electric Utility

Cost Allocation Manual. As discussed earlier, the Company must install the minimum amount of equipment to provide customers with access to the electric grid. This minimum amount of equipment is not related to the volume of electricity used by the customer, and each customer must have that minimum amount of equipment in place to obtain electric service. These non-volumetric fixed distribution costs are associated with serving the customer and therefore should be borne by the customer through a fixed customer charge regardless of usage. The remainder of the distribution costs, which are related to installed capacity, are classified as demandrelated and are collected through a kWh energy charge for Rate RS or through a kW charge for customer classes billed under a three- or multi-part rate that has a demand charge. This split of distribution system costs between volumetric and fixed assures that customers only have to pay for what they are actually using, namely the basic minimum system that all customers require plus as much additional equipment as required to meet their needs.

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# Q. Does the current Basic Service Charge of \$10.75 recover all KU's customer-related costs for Rate RS?

No. The current Basic Charge of \$10.75 per customer per month does not recover all of the customer-related fixed costs of \$23.93. Based on Exhibit WSS-2, there are \$13.18 in customer-related fixed costs per customer per month (calculated as \$23.93 - \$10.75 = \$13.18) that are not being collected through the Basic Service Charge. When this under-recovery of \$13.18 per customer per month is multiplied by the billing units of 5,167,560 customer months for Rate RS during the test year, the result is \$68,108,441 in

fixed customer-related costs that are not being recovered through the Basic Service Charge under the current rate design. When these customer charge fixed costs are recovered through the Energy Charge instead, the result is about 1.1 cents per kWh of non-volumetric fixed cost collected through the Energy Charge (calculated as \$68,108,441/6,091,291,833 kWh = \$0.011/kWh). Thus, the current Basic Service Charge is \$13.18 per customer per month too low and the Energy Charge is 1.1 cents per kWh too high based on data from the cost of service study. This recovery of non-volumetric fixed costs through the energy charge assessed on a kWh basis results in intra-class subsidies and in unrecovered fixed costs if kWh usage declines due to energy efficiency, conservation or mild weather.

#### Q. Will KU's proposed residential rate help to eliminate subsidies?

A.

Yes. There are two types of subsidies that need to be considered – inter-class subsidies and intra-class subsidies. The term "inter-class subsidies" refers to subsidies that are provided from or to one class of customers to or from another class of customers, and the "intra-class subsidies" refers to subsidies that are provided from or to customers within the same rate class. KU's proposed rates are designed to make progress towards reducing both inter- and intra-class rate subsidies. As will be discussed, the apportionment of the total revenue increase to the customers was developed in such a manner as to provide a reduction in inter-class subsidies.

The rate making principle to follow to avoid *intra-class subsidies* is that fixed costs should be recovered through fixed charges (such as the customer charge and demand charge), and variable costs should be recovered through variable charges (such

as the energy charge and the fuel adjustment charge). If fixed costs are recovered through variable charges, such as the energy charge assessed on a kWh basis, each kWh contains a component of fixed costs and customers using more energy than the average customer in the class are paying more than their fair share of the utility's fixed costs, while customers using less energy than the average customer in the class are paying less than their fair share of the utility's fixed costs. These fixed costs should be collected through the billing units associated with the appropriate cost driver, and energy usage clearly is not the correct cost driver for collecting fixed costs.

The collection of fixed costs through the energy charge typically results in customers with above-average usage subsidizing customers with below-average usage. In order to eliminate this source of intra-class subsidies, KU proposes a rate design that more closely follows the ratemaking principle of recovering fixed costs through fixed charges and variable costs through variable charges than does its current rate design.

Increasing the Basic Service Charge will eliminate subsidies by bringing the charges toward the actual cost of providing service. Increasing the Basic Service Charge from \$10.75 to \$22.00 will eliminate subsidies that high usage customers are currently providing low usage customers.

#### C. RESIDENTIAL TIME-OF-DAY ENERGY AND DEMAND SERVICES

- Q. Please provide a brief description of KU's residential time-of-day rates.
- 21 A. KU offers two time-of-day rates, RTOD-Energy and RTOD-Demand. Rate RTOD-
- Energy is a time-of-day rate that includes a time differentiated energy charge. Under

the rate, customers are charged a significantly lower energy charge for off-peak
usage. There are approximately 25 customers currently taking service under RTODEnergy. The Company is not proposing any structural changes to Rate RTODEnergy.

Rate RTOD-Demand is a time-of-day rate that includes a flat energy charge but a time differentiated demand charge. There are currently no customers taking service under RTOD-Demand. KU is proposing structural changes to Rate RTOD-Demand to more accurately reflect costs and thus encourage customers to sign up for the rate.

#### Q. What are the charges that KU is proposing for Rate RTOD-Energy?

A.

A. KU is proposing to *increase* the Basic Service Charge from \$10.75 per month to \$22.00 per month and to *decrease* the off-peak energy charge from \$0.05740 per kWh to \$0.05266 per kWh. The Company is proposing to increase the Basic Service Charge to the same level as being proposed for Rate RS. The off-peak energy charge is being reduced to a level that yields a revenue increase for Rate RTOD-Energy that is approximately equal to the percentage increase for Rate RS.

#### Q. What structural changes is KU proposing for Rate RTOD-Demand?

KU is proposing to eliminate the off-peak demand charge and replace it with a base demand charge that is applied to the customer's maximum usage whenever it occurs. This is the same structure that has been used for several years for KU's large customer rates and seems to operate effectively. Using a base demand charge rather than an off-peak demand charge prevents customers from being penalized for

improvements in load factor. KU is proposing to *increase* the Basic Service Charge from \$10.75 per month to \$22.00 per month and to *decrease* the off-peak energy charge from \$0.04370 per kWh to \$0.03508 per kWh. The Company is proposing to replace the demand charge for off peak hours of \$3.70 per kW with a demand charge for all hours of \$3.44 per kW, and to decrease the demand charge for on peak hours from \$13.05 per kW to \$7.87 per kW.

A.

## D. GENERAL SERVICE (GS) AND ALL ELECTRIC SCHOOLS SERVICE

**(AES)** 

#### 10 Q. Please provide a brief description of Rate GS.

11 A. Rate GS is the standard rate schedule available to small commercial and industrial
12 customers served at secondary voltages (available voltages *less than* 2,400/4,160Y
13 volts). The rate schedule is limited to customers whose 12-month average monthly
14 demands do not exceed 50 kW. Approximately 83,000 small commercial and
15 industrial customers are served under this rate schedule. Rate GS has a two-part rate
16 structure that includes a Basic Service Charge and an Energy Charge.

#### Q. What are the charges that KU is proposing for Rate GS?

KU is proposing to increase the Basic Service Charge for Rate GS from \$25.00 per month to \$31.50 per month for single-phase service and from \$40.00 to \$50.40 per month for three-phase service. The Company is proposing to increase the energy charge from \$0.10426 per kWh to \$0.10685 per kWh. As with Rate RS, the energy charge for Rate GS will be broken down into Variable Energy Charge and

Infrastructure Energy Charge. The Variable Energy Charge is \$0.03548 per kWh and the Infrastructure Energy Charge is \$0.07137 per kWh.

#### Q. Please provide a brief description of Rate AES.

Rate AES is a rate generally available for school buildings, although the rate is closed to new customers and is limited to customers that were qualified for, and being served on, Rate AES as of July 1, 2011. There are approximately 590 schools taking service under Rate AES. KU is proposing to increase the Basic Service Charge for Rate AES from \$25.00 per month to \$85.00 per month for single-phase service and from \$40.00 to \$140.00 per month for three-phase service. The Company is proposing to increase the energy charge from \$0.08369 per kWh to \$0.08519 per kWh. As with Rates RS and GS, the energy charge for Rate AES will be broken down into Variable Energy Charge and Infrastructure Energy Charge. The Variable Energy Charge is \$0.03523 per kWh and the Infrastructure Energy Charge is \$0.04996 per kWh.

A.

A.

#### E. POWER SERVICE (PS)

#### Q. What are the charges that KU is proposing for PS?

PS is a rate available for large commercial and industrial customers served at secondary voltages (available voltages *less than* 2,400/4,160Y volts) whose 12-month average loads exceed 50 kW but do not exceed 250 kW and for large commercial and industrial customers served at primary voltages (2,400/4,160Y volts, 7,200/12,470Y volts, or 34,500 volts) whose 12-month average do not exceed 250 kW. KU is not proposing an increase to Basic Service Charge for customers served at secondary

voltages. Therefore, the Basic Service will remain at \$90 per customer per month for secondary voltage customers. The Company is proposing to increase the Basic Service Charge from \$200.00 to \$240.00 per customer per month for customers served at primary voltages. The Company is not proposing to change the Energy Charge for either secondary voltage customers. Thus, the energy charge will remain at \$0.03572 per kWh for secondary voltage service. KU is proposing to increase the energy charge from \$0.03446 to \$0.03472 per kWh for primary voltage service. For secondary voltage service, the Company is proposing to increase the Summer Demand Charge from \$19.05 to \$20.71/kW/Mo and to increase the Winter Demand Charge from \$16.95 to \$18.43/kW/Mo. For primary voltage service, the Company is proposing to increase the Summer Demand Charge from \$19.51 to \$20.78/kW/Mo and to increase the Winter Demand Charge from \$19.51 to \$20.78/kW/Mo

- In its Order in Case No. 2015-00417 dated June 29, 2016, the Commission ordered KU to include in its next application for a general adjustment in rates testimony in support of the monthly billing demand provisions of Rate PS. Will you be the witness addressing this issue?
- 17 A. Yes.

Q.

- 18 Q. How is the billing demand determined under Rate PS?
- 19 A. For Rate PS, the monthly billing demand is determined as the greater of the following:
  - a) the maximum measured load in the current billing period but not less than 50 kW for secondary service or 25 kW for primary service, or

1		b) a minimum of 50% of the highest measured demand in the preceding
2		eleven (11) monthly billing periods, or
3		c) a minimum of 60% of the contract capacity based on the maximum load
4		expected on the system or on facilities specified by Customer.
5	Q.	Is this a standard provision in the electric utility industry?
6	A.	Yes. It is common for utilities to determine billing demands on the basis of a
7		minimum demand (as in provisions (a) and (c) as shown above) or based on a
8		percentage of the highest demands during a previous 11-month period (as in provision
9		(b) as shown above) or both. Determining billing demands on the basis of a
10		percentage of the highest demand during a previous 11-month or other period is
11		referred to as a "demand ratchet" in the electric utility industry, and is a standard
12		practice in the industry. In a standard treatise on electric utility ratemaking,
13		Lawrence J. Vogt, Electricity Pricing: Engineering Principles and Methodologies
14		(CRC Press: 2009), the author states:
15 16 17 18 19 20 21		A demand ratchet processes a customer's metered maximum demand for the prior eleven months by applying a specified percentage to those demands in all or a portion of those months and then selects the highest resulting calculated demand as the current month's billing demand – if it exceeds the current month's maximum demand. ( <i>Id.</i> , at pp. 312.)
22		Not only are demand ratchets standard provisions in the industry, but the use of a
23		demand ratchet percentage of 50% or greater is also common.
24	Q.	Do other utilities in Kentucky, Indiana, and Ohio have demand ratchets?

Yes. The medium and large power tariffs of the major utilities in the region use some

form of a demand ratchet. Below is a summary of the ratchets used by investorowned utilities in Kentucky, Indiana, and Ohio:

- i) For Kentucky Power Company's Medium General Service Tariff M.G.S., the monthly billing demand is the maximum of (a) the minimum billing demand of 6 kW or (b) 60% of the greater of (1) the customer's contract capacity in excess of 100 kW or (2) the customer's highest previously established monthly billing demand during the past 11 months in excess of 100 kW.
- DS Service at Secondary Voltage, the billing demand is the higher of (a) 85% of the highest monthly kW demand established in the summer period and effective for the next succeeding 11 months or (b) 1 kW for single phase secondary voltage service and 5 kW for three-phase secondary voltage service.
- iii) For Indianapolis Power & Light Company's Rate PL Primary Service, the billing demand cannot be less than 60% of the highest billing demand that has been established in any of the immediately preceding 11 months and in no case less than 500 kW.
- iv) For Indiana Michigan Power Company, the monthly billing demand in Indiana cannot be less than 60% of the customer's highest previously established monthly billing demand during the past 11 months, or 100 kVA.

v) For Ohio Edison, the monthly billing demand is the maximum of 1) the measured demand during the month; 2) 5 kW; or 3) the contract demand (where the contract demand is 60% of the customer's expected, typical monthly peak load.)

#### 5 Q. Is the ratchet provision in KU's Rate PS in line with these other utilities?

A. Yes. All of these utilities except Duke Energy Kentucky and Duke Energy Ohio have a 60% ratchet provision. Duke Energy Kentucky and Duke Energy Ohio have an even higher ratchet percentage of 85%, but the ratchet is only applied to demands metered during the summer months. The ratchet percentage used in KU's Rate PS is lower than these other utilities.

# Q. What is the justification for including a demand ratchet in a large power tariff such as Rate PS?

A.

A utility must install distribution, transmission, and generation facilities to serve a customer's demand. Just because a customer's demand is not always at the maximum level does not mean that the fixed costs of the facilities installed to meet the customer's maximum demand will disappear. The fixed costs of the facilities installed to meet a customer's maximum demand will be incurred even when the customer has a lower demand. In the case of localized facilities, such as primary and secondary distribution lines, transformers, substations, and transmission facilities, the utility must install sufficient capacity to meet the customer's maximum demand, whenever the demand occurs. Therefore, a utility's transmission and distribution fixed costs are correlated to the customers' maximum demands, not their average

monthly demands. Generation fixed costs are correlated to customer demands at the time of the system peak. For most but not all customers, the customer's maximum demands occur near the system peak. For system peak demands, which drive the cost of generation fixed assets, customer load diversity has an effect on the generation requirements that individual customer demands place on the system. Therefore, while a 100% ratchet percentage is justified for the recovery of transmission and distribution fixed costs, a lower ratchet could possibly be justified for the recovery of generation fixed costs. For this reason, in an unbundled rate environment in which generation fixed costs are billed separately from transmission and distribution fixed costs, a 100% ratchet percentage would be justified for the transmission and distribution component, while a lower percentage, such as 50%, would typically be used for the generation fixed cost component of the rate. With a bundled rate, such as KU's Rate PS, in which generation, transmission and distribution fixed costs are recovered through a single demand charge, it is not uncommon to see demand ratchets for a bundled demand charge in the 50 to 90% range.

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#### Q. Do demand ratchets more accurately reflect the actual cost of providing service?

Yes, in general they do. Because demand-related fixed costs do not disappear when customers have lower demands during the year, demand ratchets ensure that customers with month-to-month fluctuations in their demand pay an appropriate share of fixed costs. Without demand ratchets, customers with demands that fluctuate from month to month end up being subsidized by customers with steady demands.

Q. Can you provide an example that shows how, without a demand ratchet,

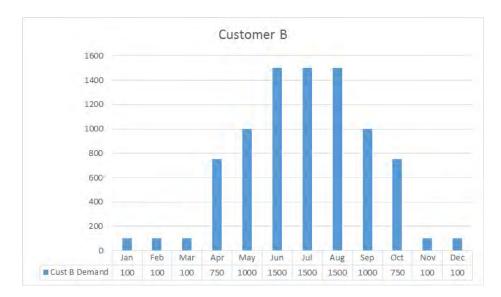
# customers with steady demands end up subsidizing customers with fluctuating demands?

Yes. Consider two customers – Customer A and Customer B – both with a maximum demand of 1,500 kW during the year. In this example, Customer A has a steady demand of 1,500 kW every month. Customer B has a demand of 1,500 kW that only occurs during the summer peak months, but during the non-summer months Customer B's demands are significantly lower. For purposes of this example, we will assume that both customers' summer demands are coincident with the summer system peak. This is a simplifying but not unrealistic assumption. The following two graphs show the monthly demands for Customer A and Customer B.

A.



13 Graph 1



2 Graph 2

In this example, if there are no significant topographical differences between serving the two customers, the fixed generation, transmission and distribution costs would be essentially the same for both customers. Both customers have a 1,500 kW demand coincident with the summer system peak; therefore, the generation fixed costs necessary to serve both customers would be the same. Both customers have a maximum non-coincident demand of 1,500 kW; therefore, the transmission and distribution delivery costs would be the same for both customers. Therefore, in this example, the fixed generation, transmission and distribution costs are the same to serve both customers. Yet, even though it costs the same to serve both customers, without a demand ratchet, the demand charge revenues collected from the two customers are starkly different. The following table shows the demand charge revenue that would be collected from the two customers under the current Rate PS Secondary demand charges without a ratchet:

	Customer A		Customer B		В	
			Demand			Demand
	kW	Demand	Charge	kW	Demand	Charge
Month	Demand	Charge	Revenue	Demand	Charge	Revenue
Jan	1,500	16.95	\$ 25,425	100	16.95	\$ 1,695
Feb	1,500	16.95	25,425	100	16.95	1,695
Mar	1,500	16.95	25,425	100	16.95	1,695
Apr	1,500	16.95	25,425	750	16.95	12,713
May	1,500	19.05	28,575	1000	19.05	19,050
Jun	1,500	19.05	28,575	1500	19.05	28,575
Jul	1,500	19.05	28,575	1500	19.05	28,575
Aug	1,500	19.05	28,575	1500	19.05	28,575
Sep	1,500	19.05	28,575	1000	19.05	19,050
Oct	1,500	16.95	25,425	750	16.95	12,713
Nov	1,500	16.95	25,425	100	16.95	1,695
Dec	1,500	16.95	25,425	100	16.95	1,695
Total			\$ 320,850			\$ 157,725

2 Table 6

A.

As can be seen from the table, KU would collect less than half the revenue in demand charges from Customer B than from Customer A, even though the fixed costs associated with serving the two customers are the same. Without a ratchet Customer A would be overpaying and Customer B would be underpaying for service. In other words, Customer A would be subsidizing Customer B.

# Q. What happens in the example if the Company's current demand ratchet for Rate PS is used?

Under the demand ratchet for Rate PS, the billing demand cannot fall below 50% of the customer's monthly demands during the preceding 11 months. If the same load pattern used in the example reoccurs year after year, then Customer B's billing demand could not fall below 750 kW (1,500 x 50% = 750 kW). Of course, Customer

A's billing demand could not fall below 750 kW either, but in this example Customer A's demand is a constant 1,500 kW and thus Customer A is unaffected by the demand ratchet. The table below shows the demand charge revenue that would be collected from the two customers under the current Rate PS demand charges with the current ratchet:

	Customer A			Customer B		
			Demand			Demand
	kW	Demand	Charge	kW	Demand	Charge
Month	Demand	Charge	Revenue	Demand	Charge	Revenue
Jan	1,500	16.95	\$ 25,425	750	16.95	\$ 12,713
Feb	1,500	16.95	25,425	750	16.95	12,713
Mar	1,500	16.95	25,425	750	16.95	12,713
Apr	1,500	16.95	25,425	750	16.95	12,713
May	1,500	19.05	28,575	1000	19.05	19,050
Jun	1,500	19.05	28,575	1500	19.05	28,575
Jul	1,500	19.05	28,575	1500	19.05	28,575
Aug	1,500	19.05	28,575	1500	19.05	28,575
Sep	1,500	19.05	28,575	1000	19.05	19,050
Oct	1,500	16.95	25,425	750	16.95	12,713
Nov	1,500	16.95	25,425	750	16.95	12,713
Dec	1,500	16.95	25,425	750	16.95	12,713
Total			\$ 320,850			\$212,813

7 Table 7

A.

As can be seen, the demand ratchet in Rate PS significantly reduces the subsidies received by Customer B. In this example, the subsidies still exist but they are reduced.

# Q. Would it be possible to eliminate all fixed-cost subsidies?

In this idealized example it would be possible to eliminate all subsidies. This can be done by increasing the ratchet percentage to 100%. If a 100% demand ratchet is applied, Customer B's billing demand would be 1,500 kW each month (100% x 1,500 kW).

kW = 1,500 kW). Again, Customer A's billing demands would be unchanged. With a 100% ratchet, the demand billings would be the same for both customers, as illustrated in the following table:

	Customer A		Customer B			
			Demand			Demand
	kW	Demand	Charge	kW	Demand	Charge
Month	Demand	Charge	Revenue	Demand	Charge	Revenue
Jan	1,500	16.95	\$ 25,425	1500	16.95	\$ 25,425
Feb	1,500	16.95	25,425	1500	16.95	25,425
Mar	1,500	16.95	25,425	1500	16.95	25,425
Apr	1,500	16.95	25,425	1500	16.95	25,425
May	1,500	19.05	28,575	1500	19.05	28,575
Jun	1,500	19.05	28,575	1500	19.05	28,575
Jul	1,500	19.05	28,575	1500	19.05	28,575
Aug	1,500	19.05	28,575	1500	19.05	28,575
Sep	1,500	19.05	28,575	1500	19.05	28,575
Oct	1,500	16.95	25,425	1500	16.95	25,425
Nov	1,500	16.95	25,425	1500	16.95	25,425
Dec	1,500	16.95	25,425	1500	16.95	25,425
Total			\$ 320,850			\$ 320,850

5 Table 8

A.

Q. If a 100% percent demand ratchet would eliminate all of the subsidies in the example, then why isn't KU proposing to use a 100% demand ratchet percentage?

As mentioned earlier, the example is somewhat idealized. Specifically, it was assumed that both customers' maximum demands occur at the time of the system peak. This means that the cost of the generation capacity installed to serve both customers would be the same. Not all customers with a load pattern that fluctuates like Customer B will have a maximum demand that occurs at the time of the Companies' system peak. Some low-load factor customers will have a maximum

demand that coincides with the system peak and others may not. The relationship between a customer's demand at the time of the system peak and the customer's maximum demand is referred to as the coincidence factor. Coincidence factors for commercial and industrial customers during a month will typically range from 50% to 100%. Because coincidence factors are on average less than 100% it is reasonable to use a demand ratchet for generation fixed costs that is less than 100%. This is the reason that demand ratchets for generation fixed costs are typically between 50% to 90% for rates that are not billed based on a coincident peak demand.

# Q. Do demand ratchets encourage customers to use power more efficiently?

Yes. Demand ratchets encourage customers to manage their peak demands and purchase energy at a more constant rate. If a customer avoids monthly spikes in its demands, then the customer can avoid the application of the ratchet. Therefore, a ratchet provides an incentive for customers to maintain more steady demands, without month-to-month load fluctuations, which will result in a lower average cost of providing service. Because a utility must install capacity to meet spikes in a customer's demands, if a customer avoids demand spikes the utility can then install less distribution, transmission and generation capacity to serve the customer's load. Demand ratchets induce customers to use power more efficiently and allow demand rates to send a better price signal.

A.

# F. LARGE CUSTOMER RATES (TODS, TODP, RTS, FLS)

#### Q. What are the standard large customer rates offered by KU?

A. KU offers four standard rates for large commercial and industrial customers: Timeof-Day Secondary Service (TODS), Time-of-Day Primary Service (TODP), Retail Transmission Service (RTS), and Fluctuating Load Service (FLS). TODS is available to customers served at secondary voltages (available voltages less than 2,400/4,160Y volts) with average demands between 250 kW to 5,000 kW. TODP is available to customers served at primary voltages (2,400/4,160Y volts, 7,200/12,470Y volts, or 34,500 volts) with average demands greater than 250 kVA. RTS is available to customers served at transmission voltages (69,000 volts or higher) with average demands greater than 250 kVA. FLS is available to customers served at primary or transmission voltage whose demands are 20,000 kW or greater. Customers with demands of 20,000 kW or greater whose loads either increase or decrease 20 MVA or more per minute or whose load either increase or decrease 70 MVA or more in ten minutes, when any such increases or decreases occur more than once during any hour of the month, are required to take service under FLS. The proposed charges for TODS, TODP, RTS, and FLS are shown on pages 9, 10, 11, and 12, respectively, of Schedule M-2.3 of the Filing Requirements.

#### Q. Do all of these rate schedules have the same basic rate structure?

18 A. Yes. All four of these rates have a rate structure consisting of a Basic Service
19 Charge, an Energy Charge, and a Maximum Load Charge comprising a Peak Demand
20 Charge, an Intermediate Demand Charge, and a Base Demand Charge. For example,
21 the unit charges for TODS are *currently* as follows:

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1	Basic Service Charge	\$200.00 per customer
2	Energy Charge	\$0.03527 per kWh
3	Maximum Load Charge:	
4	Peak Demand Charge	\$6.13/kW/Mo.
5	Intermediate Demand Charge	\$4.53/kW/Mo.
6	Base Demand Charge	\$5.20/kW/Mo.

The Peak Demand Charge applies to billing demands (maximum demands) that occur during the weekday hours ("Peak Demand Period") from 1:00 PM to 7:00 PM during the summer months of May through September (summer peak months") and during the weekday hours from 6:00 AM to 12:00 Noon during winter months of October through April (winter peak months). The Intermediate Demand Charge applies to billing demands that occur during the weekday hours ("Intermediate Demand Period") from 10:00 AM to 10:00 PM during the summer peak months and from 6:00 AM to 10:00 PM during the winter peak months. The Base Demand Charge applies to the billing demands that occur at any time during the month.

#### Q. Is there a cost basis for this rate structure?

A.

Yes. KU and LG&E must install sufficient generation resources to meet its peak demands. Peak demand conditions occur during the summer peak months and the winter peak months. Furthermore, peak conditions occur during hours between 6:00 AM in the morning and 10:00 PM at night, but varying by season. KU and LG&E must also install sufficient transmission and distribution facilities to deliver the power to the individual customers, no matter when they need power, whether it is during the

peak or intermediate period or otherwise. Over the years, the Companies have structured the Peak Demand Charge and the Intermediate Demand Charge so that these charges would essentially provide recovery of generation fixed costs. The Base Demand Charge was structured so that the charge would basically provide recovery of transmission and distribution demand-related costs. (The structure was initially developed by LG&E and included only a peak and base charge, but was eventually adopted by KU and modified to include an intermediate charge to give customers greater opportunities to control their demands and reduce their demand costs.) Therefore, the Maximum Load Charge was, and is, essentially unbundled between generation fixed costs, which are recovered through the Peak and Intermediate Demand Charges, and transmission and distribution demand-related fixed costs, which are recovered through the Base Demand Charge.

#### Q. How are the billing demands determined?

A.

The billing demands for the Peak and Intermediate Demand Charges are determined as the greater of (a) the maximum measured load during the Peak or Intermediate Demand Periods, or (b) 50% of the highest measured demand for the Peak or Intermediate Demand Periods during the preceding 11 monthly billing periods. This means that a 50% demand ratchet applies to the Peak and Intermediate Demand Charges. The billing demands for the Base Demand Charge is determined as the greater of (a) the maximum measured load during the month (i.e., all hours of the months), (b) 75% of the highest measured demand determined the same way in the preceding 11 monthly billing periods, or (c) 75% of the contract capacity based on the

customer's maximum load. This means that a 75% demand ratchet applies to the Base Demand Charge. A higher ratchet was implemented for the Base Demand Charge because the charge was designed to recover transmission and distribution demand-related costs which must be adequately sized to meet the customer's maximum demand whenever the demand occurs.

### 6 Q. What changes is KU proposing to the rate structure?

A. KU proposes to keep the same basic rate structure but to increase the demand ratchet for the Base Demand Charge to 100%. The Company is not proposing to change the demand ratchets for the Peak and Intermediate Charges at this time.

## Q. Why is KU proposing this change?

A.

The modification to the demand ratchets for the large customer rates is being proposed in conjunction with the elimination of the Company's standard rider for Supplemental or Standby Service (Rider SS). The Company has concluded that Rider SS is not adequate in light of fundamental changes that are taking place in the electric utility industry. Rider SS is available to customers who are regularly supplied with electric energy from generating facilities (distributed generation) owned by the customer and who desire to contract with KU for reserve, breakdown, supplemental or standby service. Fundamental changes are taking place in the electric utility industry whereby more customers are installing distributed generation to meet their power needs and falling back on the utility to supply power when their facilities are not operating. In some jurisdictions, there has been a surge in the installation of customer-owned renewable distributed generation such as solar generation or wind

generation. In general, utilities are supportive of these initiatives as long as the utility's other customers are not subsidizing customers that install distributed generation facilities. Therefore, it is important for utilities to have a rate structure that prevents the subsidization of distributed generation by customers who have chosen not to install distributed generation.

It is also important for a utility to implement rates that allow the utility to recover the appropriate amount of fixed costs associated with serving customers who have installed distributed generation facilities but who want to rely on the utility to provide generation, transmission and distribution service when the distributed generation facilities are not operating. But KU also wants to offer a rate design that provides reasonable cost recovery while not discriminating against customers who install distributed generation and that isn't excessively harsh or onerous to customers who install distributed generation but want backup service.

#### O. Why is the current standby rate inadequate?

A.

In addition to the administrative problems with the rider that are addressed in the Direct Testimony of Robert M. Conroy, there has generally been an unwillingness on the part of customers with distributed generation to sign up under the rider because it is viewed as "too harsh" or "too onerous". Rider SS, which is a rider that would generally be applicable to customers served under Rates PS, TODS, TODP, RTS, or FLS, requires a standby customer to establish a contract demand for its entire load. The customer would then be billed a minimum demand charge that is the greater of (1) the customer's total demand charge billed under the customer's primary rate

schedule (PS, TODS, TODP, RTS, or FLS), or (2) the demand charge calculated by applying the demand charges set forth in Rider SS to the customer's contact demand.

Currently, the demand charges set forth in Rider SS are as follows:

Secondary Voltage: \$12.84 per kW (or kVA) per month

Primary Voltage: \$11.63 per kW (or kVA) per month

Transmission Voltage: \$10.58 per kW (or kVA) per month

A.

These charges were designed to provide full recovery of all production, transmission, and distribution fixed costs. Therefore, for a customer who has installed its own distributed generation facilities, the customer will have paid for its own generation facilities plus the full fixed costs per kW (or kVA) of KU's generation facilities on a monthly basis. From the customer's perspective, under this arrangement the customer will view this as paying for the cost of generation assets twice.

- Q. But if the utility is standing ready to provide generation backup service to customers who have installed their own generation, then shouldn't the customer pay a portion of the fixed costs?
  - Yes, they should. The challenge, though, is determining the appropriate level of fixed costs that the customer should pay. The amount that a distributed generator should pay largely depends on the operating characteristics of the distributed generation facilities that are installed. In all cases, a standby customer should pay for all of the transmission and distribution plant installed to serve the customer's maximum

demand. As discussed earlier in the portion of my testimony addressing the demand ratchet for Rate PS, sufficient transmission and distribution capacity needs to be installed to deliver power to the customer whenever the customer needs it. For a customer who has installed distributed generation facilities, the utility must have transmission and distribution capacity to deliver sufficient power to meet the customer's load requirements whenever the customer's distributed generation facilities aren't operating. But for generation capacity, the cost of backing up the customer depends on the operating characteristics of the customer's generating facilities. For example, if the customer has installed solar generation, then the utility would be called upon to provide backup power whenever there isn't sufficient sunlight to energize the solar panels, which is likely to occur during periods when the utility is experiencing peak load conditions, such as during a winter system peak which typically occurs during nighttime hours. Likewise, if the customer has installed wind generation, then the utility would be called upon to provide backup power whenever the wind isn't blowing, which is also likely to occur during summer and winter system peak load conditions. Therefore, for these types of distributed generation facilities, it is highly likely that the utility would be called upon to provide backup power during time periods when the utility is experiencing peak load conditions. On the other hand, if the customer has installed a coal- or gas-fired generating facility that operates basically continuously at a low forced outage rate, then it is less likely that the utility would be called upon to provide generation backup power during peak load conditions. Therefore, it would, in general, be less costly to

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- provide generation backup service to a customer who has a generating facility that is operated 24 hours per day, seven days per week, but with a random forced outage rate than to provide generation backup service to a customer whose generating facility is subject to wind conditions and available sunlight.
- 5 Q. How will the costs of providing backup service be addressed if Rider SS is 6 eliminated?
- 7 A. Under KU's proposal, a customer with distributed generation facilities who relies on 8 KU to provide backup service to its generating facilities would be served on the same 9 rate as any other customer. Therefore, the Company will not discriminate between a 10 customer who has distributed generation facilities and any other customer with 11 similar fluctuating load requirements. If a customer with distributed generation meets 12 the load requirements for one of the Company's standard rate schedules, then the 13 customer will be served under that rate schedule. However, this policy necessitates a 14 change in the demand ratchet for Rates TODS, TODP, RTS, and FLS.
- Q. Please explain how serving standby customers under TODS, TODP, RTS, and FLS and changing the ratchet will help provide proper recovery of fixed generation, transmission, and distribution demand-related costs.
- A. As explained earlier, generation fixed costs are essentially recovered through the Peak and Intermediate Demand Charges. A 50% demand ratchet is applied in determining the billing demand for these rate components. Importantly, the billing demands are based on measured demands during the Peak and Intermediate Billing Periods.

  Therefore, if a standby or other customer has a demand that occurs during the peak

and intermediate hours (and most customers do), then the Peak and Intermediate Demand Charges will apply to those demands. But if the customer's demand occurs outside of the Peak and Intermediate Billing Periods, then there will be no measured demands during those periods and the Peak and Intermediate Demand Charges will not apply.

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Furthermore, the 50% ratchet will be applied based on the maximum demands that have occurred during the preceding 11 months. KU is not proposing to change the ratchet percentages applicable to the Peak and Intermediate Demand Charges at this time. The structure for determining the billing demand allows the Company to recover at least 50% of a maximum demand that occurred during the peak and intermediate periods for the current and preceding 11 months. This demand ratchet therefore provides recovery of at least 50% of the annual fixed generation costs that the Company has incurred to supply generation capacity to the customer. At this point, the Company believes that the 50% demand ratchet, along with the change to the proposed ratchet for the Base Demand Charge, strikes a reasonable balance between (i) providing a pricing structure for recovering a reasonable portion of the annual fixed generation costs incurred to provide service to standby customers and to customers with intermittent loads that fluctuate from month to month and (ii) offering a pricing structure that isn't unduly harsh or onerous to standby or customers with intermittent loads. It should be kept in mind that the two components that provide recovery of generation fixed costs - the Peak and Intermediate Demand Charges represent most of the total demand charges billed under Rates TODS, TODP, RTS,

and FLS. Under KU's current rates, the peak and intermediate demand charges represent from approximately 67% to 75% of the total demand charges. (For example, by calculating a simple percentage of the peak and intermediate demand charges to the total of the peak, intermediate and base demand charges for Rate TODS, the percentage is 67% [(\$4.53 + \$6.13)  $\div$  (\$4.53 + \$6.13 + \$5.20) = 67%]. For Rate TODP, the percentage to the total is 75% [(\$4.39 + \$5.89)  $\div$  (\$5.89 + \$4.39 + \$3.34) = 75%]. Therefore, peak and intermediate demand charges, which represent most of the demand charges for these rate schedules, will be unaffected by the proposed change in the ratchet.

For transmission and distribution costs, it is important to increase the ratchet percentage to provide assurance that the fixed costs of the transmission and distribution facilities installed to deliver power to customers any time they need the power are appropriately recovered from standby customers and from customers with large month-to-month fluctuations in their loads. As explained in the portion of my testimony dealing with the demand ratchets for Rate PS, transmission and distribution facilities must be sized to deliver the maximum load that the customer creates on the system. Unlike generation facilities, transmission and distribution facilities are designed to meet localized demands placed on the system by customers. The Company is therefore proposing to implement a 100% ratchet for the component of the demand charge that provides for recovery of transmission and distribution fixed costs. The 100% ratchet will only apply to the Base Demand Charge which currently represents between 25% and 33% of the total demand charges (based on the above

- 1 calculations).
- 2 Q. What is the effective *overall* demand ratchet if you consider all three rate
- 3 components?

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- 4 A. As I explained, for TODS, TODP, RTS, and FLS, the 100% ratchet would only apply 5 to the Base Demand Charge and the current 50% ratchet would continue to apply to 6 the Peak and Intermediate Demand Charges. Based on a simple analysis, since the 7 50% ratchet would apply to the demand charge components (Peak and Intermediate 8 Demand Charge) that represent between 67% to 75% of the demand charges, whereas 9 the 100% ratchet would apply to the demand charge component (Base Demand 10 Charge) that represents between 25% and 33% of the cost, the simple weighted effect 11 of both ratchets works out to be equivalent to a demand ratchet of 62.5% to 66.5%.  $[75\% \times 50\% + 25\% \times 100\% = 62.5\% \text{ and } 67\% \times 50\% + 33\% \times 100\% = 66.5\%.]$ 12 13 These effective ratchet percentages are not out of line with demand ratchet 14 percentages typically included in rates applicable to large commercial and industrial 15 customers.
  - Q. Will changing the demand ratchet for the Base Demand Charge have a large impact on customer's bills?
    - A. Because the impact will be factored into the determination of the revenue requirement for the rate classes, the change will not result in any more or any less revenue calculated for the class. Specifically, the revenues calculated at the proposed rates are determined by applying the proposed Base Demand Charges for TODS, TODP, RTS and FLS to billing demands for the test year that are reflective of the revised ratchet.

In other words, in determining the proposed revenue for the Base Demand Charges the charges are multiplied by billing demands that are higher than what would otherwise be billed during the forecasted test year. Therefore, from the Company's perspective, the change is revenue neutral. The Company is not expected to collect any more revenue from customers as a result of making this change. While the proposed demand ratchet may protect against revenue erosion if customers install distributed generation, it is not anticipated that the Company will collect additional revenues coming out of the rate case as a result of this change. However, on an individual customer basis, the change will affect some customers more than others. Specifically, the change will result in larger increases to customers with large fluctuations in their monthly demands and in smaller increases to customers with steady demands that don't fluctuate from month to month. A number of manufacturing customers on KU and LG&E's system will benefit from the change, particularly high-load-factor manufacturing or commercial customers with relatively constant demands from month to month. Of course, customers with intermittent loads will see a larger increase.

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# Q. Do you have any other comments about the proposed change in the demand ratchet?

Yes. It is important to note that this proposal will create a level playing field for customers who install distributed generation and rely on KU for backup service and customers with large fluctuations in their monthly demands. From the utility's perspective there is not much difference between serving either type of customer.

Therefore, the proposed rate structure represents a non-discriminatory approach to serving both types of customers while helping to ensure that the utility's other customers are not subsidizing standby customers or customers with large swings in their monthly demands.

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### G. CURTAILABLE SERVICE RIDER (CSR)

### 7 Q. Please describe the proposed changes to CSR.

The Curtailable Service Rider is a rider that provides a credit to industrial or commercial customers that will interrupt a portion of their load when called upon by KU. Curtailable customers receive a discount in the form of a credit to their demand charges in exchange for their willingness to receive curtailable service on a designated portion of their load. A customer taking service under CSR is subject to a maximum of 375 hours of curtailment (or interruption) during a 12-month period. KU is proposing to lower the CSR credit from \$6.40 to \$3.20 per kVA of curtailable billing demand for transmission voltage service and from \$6.50 to \$3.31 per kVA for primary voltage service. As also discussed in Mr. Conroy's testimony, the Company is proposing to restrict the rider so that it will only be available to customers served under the schedule as of the date new rates go into effect as a result of this proceeding.

# 20 Q. What is the basis for the proposed credit?

As also discussed in the Direct Testimony of David S. Sinclair, KU is proposing to determine the credit based on the fixed carrying costs of the large-frame combustion

turbines jointly owned by KU. Specifically, the credit is based on Brown Units 8, 9, 10, and 11, which are wholly owned by KU, and on KU's portion of the fixed costs of the jointly-owned Brown Units 5, 6, and 7, Trimble County Units 5, 6, 7, 8, 9, and 10, and Paddy's Run Unit 13. These units were installed during the late 1990s and early 2000s. It is appropriate to use the fixed carrying costs of these combustion turbine units because these units would be dispatchable for a similar number of hours as the hours of curtailment set forth in the CSR tariff. These units are typically dispatched after KU and LG&E's base load coal-fired steam units, gas-fired combined cycle facility, solar generation facility, and hydro-electric units. Traditionally, load designated to be served under CSR has been used to avoid or defer the installation of peaking units such as combustion turbines which have been dispatched fewer hours of the year than coal-fired steam generating units or gas-fired combined cycle generating units. In the past, the CSR credit has been based on the avoidance or deferral of a hypothetical combustion turbine unit. The Companies currently expect they will have no need to install peaking or other generation capacity through the end of the forecasted test year. Therefore, instead of using the cost of a hypothetical future combustion turbine unit that may or may not be installed during the next decade or more to establish the credit, the Company is proposing to use the fixed carrying costs of the most-recently installed conventional combustion turbines as the basis for the CSR credits.

#### Q. What do you mean by a "conventional combustion turbine"?

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A. A conventional combustion turbine, as opposed to a combined-cycle combustion

1 turbine, is a single cycle turbine for which there is no heat-recovery system that 2 allows heat from the combustion gas to be reused to operate at higher efficiencies. 3 Combined-cycle units have higher fixed costs but operate at greater capability and 4 higher efficiencies, which allows the units to be operated for more hours during the 5 year. KU's combined cycle unit will typically operate for more than 8,000 hours 6 during the year. The operational hours of a combined cycle generating unit or of a 7 coal-fired steam generating unit are in no way comparable to the hours of curtailment 8 set forth in the CSR tariff.

# 9 Q. What is a "large-frame combustion turbine"?

- 10 A. Beginning in the 1980s, utilities began installing larger combustion turbines that
  11 achieved higher efficiencies than their earlier, and typically smaller, counterparts.
  12 Large-frame combustion turbines operate at higher capabilities and higher pressures
  13 allowing the units to achieve higher efficiencies. All the combustion turbines that KU
  14 installed since 1999 have been large-frame units.
- 15 Q. How many hours are these combustion turbines dispatched during a 12-month period?
- 17 A. It varies from year to year, but the Companies' large-frame combustion turbines will
  18 typically be dispatched from 200 to 1,500 hours during a 12-month period. The
  19 following table shows the number of hours that the large-frame Brown, Trimble and
  20 Paddy's Run combustion turbines owned or jointly-owned by KU were dispatched
  21 during the 12 months ended June 30, 2016:

Kentucky Utilities Company's Large-Scale Conventional Combustion Turbine Units				
Generating Unit	Hours of Operations			
Brown Unit 5	644			
Brown Unit 6	270			
Brown Unit 7	257			
Brown Unit 8	1465			
Brown Unit 9	1341			
Brown Unit 10	1958			
Brown Unit 11	678			
Trimble 5	1614			
Trimble 6	982			
Trimble 7	1632			
Trimble 8	371			
Trimble 9	1081			
Trimble 10	382			
Paddy's Run 13	973			

2 Table 9

These units will typically operate for more hours than the maximum number of hours of annual curtailment under the CSR tariff, and they typically have start-up times that are shorter than the 30-minute period that CSR customers can respond to a curtailment. Brown 8, 9, 10, and 11 and Trimble 8 and 10 are quick-start units that can be brought on line and fully loaded in 10 minutes or less. Trimble 8 and 10 are often held in reserve as quick-start capacity for emergencies. While the combustion turbine units listed in Table 9 have operating characteristics that offer greater flexibility than curtailable load, these are still the generating units in the Companies' fleet that are the most comparable in terms of the hours' use of the units and the startup times to the terms and conditions of the CSR rate schedule. The Companies'

- combined-cycle and coal-fired base load units will typically operate over 8,000 hours

  per year and have longer startup times, and the Company's older combustion turbines

  will typically operate less than 100 hours during a 12-month period. Furthermore, the

  large-frame units listed in the above table are the most recent combustion turbines
- 5 installed by the Companies.

# 6 Q. How are the fixed carrying costs for the large-frame combustion turbine units 7 calculated?

- A. The carrying costs are calculated based on the total fixed cost of the units for the fully-forecasted test-year. The fixed carrying charges for the units include the following standard cost-of-service components: (1) return on net investment (rate base), (2) income taxes, (3) depreciation expenses, (4) operation and maintenance expenses, and (5) property taxes. These are the standard items included in a utility's revenue requirements.
- 14 Q. Have you prepared an exhibit showing the derivation of the CSR credits?
- 15 A. Yes. Exhibit WSS-3 shows the calculation of the CSR credit based on the fixed
  16 carrying costs of the Brown, Trimble County, and Paddy's Run 13 combustion
  17 turbines. This analysis shows that the credit should be \$3.20/kVA/Month for
  18 transmission voltage service and \$3.31/kVA/Month for primary voltage service.
- 19 Q. Why is KU proposing to restrict the CSR schedule so that it will only be 20 available to existing customers after the new rates go into effect?
- A. As mentioned earlier, KU has no need for additional generation capacity during the next decade or so. The Companies have not issued any curtailments under Rider

CSR since January 2015. Because the current generation mix was planned to take into account CSR capacity and its use in avoiding combustion turbine capacity, the Companies believe that it is appropriate to provide *current* CSR customers a credit based on the actual fixed cost of the most recent combustion turbines that were installed by the Companies.

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#### H. LIGHTING RATES

### 8 Q. Explain how the rate increases were determined for the lighting rates?

KU offers two rates that include the lighting fixture along with the delivered energy to operate the lights. Those two rates are Lighting Service (LS) and Restricted Lighting Service (RLS). The Company also offers two types of delivered energy service to customers who own their own lighting fixtures or traffic lights. Those two rates are Lighting Energy Service (LE) and Traffic Lighting Service (TE).

The proposed rates for each type of light under Rate LS and Rate RLS were determined by allocating the revenue requirement for the lighting class to each light type based on the cost of each type of lighting fixture. Those costs include the carrying charges, distribution energy costs, and operation and maintenance expenses. The maximum increase for any type of fixture was capped at 20%. KU is proposing comparatively smaller increases for mercury vapor lights because incandescent and mercury vapor lights are no longer being replaced and, in some cases, they are approaching their depreciable lives. The current unit revenue requirement of fixtures under Rate LS and Rate RLS is shown in Exhibit WSS-4. The proposed charge for

each fixture type is shown on pages 16 through 21 of Schedule M-2.3 of the Filing
Requirements.

KU is not proposing an increase to Rate LE. Therefore, the Energy Charge for Rate LE remains at \$0.07328/kWh. For Rate TE, the Company is not proposing to increase the Basic Service Charge from its current level of \$4.00 per delivery point per month; however, KU is proposing to increase the Energy Charge from \$0.08740/kWh to \$0.09289/kWh.

# 8 Q. Is KU proposing to offer any new types of lights?

A.

Yes. KU wants to be proactive in encouraging energy efficiency by offering light emitting diode ("LED") lights. The lights being offered correspond to the size and style of the most popular conventional lights offered by the Company. The new lights to be offered are: (1) 50 Watt Open Bottom Overhead Yard Light; (2) 80 Watt Overhead Cobra Head Light; (3) 134 Watt Overhead Cobra Head Light; (4) 228 Watt Overhead Cobra Head Light; (5) 80 Watt Underground Cobra Head Light; (6) 134 Watt Underground Cobra Head Light; (7) 228 Watt Underground Cobra Head Light; and (8) 68 Watt Underground Colonial Light. While LED lights are more energy efficient than traditional lighting fixtures, the cost of an LED fixture tends to be higher than the cost of a conventional fixture, and the average service life ("ASL") for an LED fixture is expected to be lower. This could ultimately result in higher depreciation expenses for all lights.

# 21 Q. How did KU develop the proposed charges for these new lights?

22 A. The rates for these lights were determined using a standard revenue requirement

approach, with carrying charges, distribution energy costs, and operation and maintenance expenses included as revenue requirements for the monthly rates. The carrying charges include depreciation expenses, return on investment, income taxes and property taxes. The support for the proposed rates for LED lights is included in Exhibit WSS-5.

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#### I. REDUNDANT CAPACITY (RC)

### 8 Q. Please describe KU's Redundant Capacity rider.

The Redundant Capacity rider allows customers that have one or more redundant distribution feeds to reserve back-up capacity on the distribution system. This rider would typically be used by customers who want greater assurance that their service will not be interrupted because of an outage on a distribution line. These customers would want a redundant feed along with automatic relay equipment capable of switching from a principal circuit to a backup circuit if electric service from the primary feed is lost. With the greater use of technology, some customers are finding it increasingly difficult to tolerate electrical outages for even short periods of time.

# Q. How is a customer charged for redundant capacity?

A customer who wants a second feed must pay the cost of the customer-specific facilities required to provide the feed, including the second distribution line, automatic relay equipment, or other customer-specific facilities that may be required. Customers can pay for the customer-specific facilities by either making a contribution-in-aid-of-construction or by taking service under the Company's Excess Facilities rider. If the

customer wants to have full backup capacity on the second feed, there are additional costs incurred by KU of ensuring that there is sufficient network distribution capacity to provide full backup if a relay occurs on the automatic switchgear. To ensure that there is sufficient capacity on the redundant feed to serve the load if the primary feed goes down, the utility must plan the distribution facility as if there were two customers placing demands on the system. For this reason, KU assesses a demand charge to cover the distribution demand-related cost of providing backup service for new customers with redundant feeds. The demand charge is applied to the customer's monthly billing demand determined under the standard rate schedule under which the customer receives service. Rider RC includes a charge for customers taking service at primary voltages and a charge for customers taking service at secondary voltages.

## 12 Q. What changes is KU proposing to the Redundant Capacity charges?

A. KU is proposing to decrease the demand charge for primary voltage customers from \$1.11 to \$0.90 per kW per month and from \$1.12 to \$1.09 per kW per month for secondary voltage customers. The cost support for the proposed redundant capacity charges is included in Exhibit WSS-6.

#### IV. MISCELLANEOUS SERVICE CHARGES

### A. POLE AND STRUCTURE ATTACHMENTS (RATE PSA)

# 20 Q. Is the Company proposing to adjust the pole attachment charge?

21 A. Yes. Changes to the tariff language are discussed in Mr. Conroy's testimony. As 22 described in Mr. Conroy's testimony, the Company is broadening the tariff to include

not only charges for cable television attachments but also charges for telecommunication wireline and wireless facilities that are attached to KU's poles and cable television and telecommunications wireline facilities utilizing the Company's underground infrastructure. In the proposed schedule, the Company is proposing three charges: (1) an annual charge per standard pole attachment which is based on one foot of the usable space on the pole; (2) an annual charge per attachment for wireless telecommunication facilities such as antennas, risers, transmitters, and receivers when they are attached to the Company's poles; (3) an annual charge per linear foot of duct that will be applicable when the Company's underground infrastructure is utilized for cable television or telecommunication wireline facilities. Cable television companies are currently covered by the Company's rate schedule, but other telecommunication attachments are billed pursuant to individual contracts with the companies or organizations that attach to KU's poles. KU is proposing that as these individual contracts expire then the attachments would be transitioned to and covered by Rate PSA. I will address the derivation of the charges for the rate schedule in my testimony below.

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# Q. Is KU proposing any increases to the attachment charges that would be applicable to cable television companies?

No. The Company is proposing to maintain the pole attachment charge applicable to cable television companies at the current level of \$7.25 per attachment. When I calculated the attachment charges using forecasted costs based on a revenue requirements reflecting net cost plant (net cost rate base), the analysis resulted in a

unit cost for KU and LG&E of \$7.45 per attachment. Because the current charge reasonably reflects the updated cost based on forecasted net plant, the Company decided not to propose a change in the rate at this time.

# Q. Is the Company proposing to apply this same rate to other wireline attachments?

5 A. Yes.

A.

### 6 Q. Please describe the methodology used to calculate the charges.

In its Order in Administrative Case No. 251, the Commission prescribed a methodology for determining the attachment charges. The calculations set forth in Exhibit WSS-7 follow the guidelines established in Administrative Case No. 251. In this exhibit, the weighted average carrying costs are calculated for 35, 40 and 45 foot poles. The charge is calculated by multiplying a usage factor of 0.0759 by the annual carrying costs of a bare pole. The 0.0759 usage factor was the prescribed percentage for a three-user pole set forth in the Commission's Order in Administrative Case No. 251 dated September 17, 1982, and assumes that a cable television attachment would utilize one foot of the usable space on the pole. In calculating bare pole costs, 15% of the pole costs have been removed from plant in service costs for 35, 40 and 45 foot poles to reflect the elimination of appurtenances.

The calculations set forth in Exhibit WSS-8 for the duct attachment charge follow the same carrying charge methodology except the cost of conduit investment is utilized. In calculating the cost per foot of duct, the methodology for determining the applicable linear feet of duct is consistent with the methodology described in the *Report and Order* issued in CS Docket No. 97-98 by the Federal Communications

1 Commission on April 3, 2000.

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#### 2 Q. How are the carrying charges calculated?

3 A. They are calculated using a standard revenue requirement (cost of service)

4 methodology. The carrying charges include the following cost-of-service

5 components: (1) return on net investment (rate base), (2) income taxes, (3)

depreciation expenses, (4) O&M expenses, and (5) property taxes. These are the

standard items included in a utility's revenue requirements.

#### 8 Q. Are the charges based on net depreciated plant?

9 A. Yes. Net depreciated plant (or rate base), along with straight line depreciation, is

used in the carrying charge calculation. This approach is consistent with the way that

all other revenue requirements are determined in this proceeding. Therefore, the

charges shown in Exhibits WSS-7 and WSS-8 are reflective of current revenue

requirements associated with the cost of providing attachment service.

#### 14 Q. What is the proposed charge for attaching wireless facilities to a pole?

15 A. The proposed charge for attaching a wireless facility is \$84.00 per year per

attachment. This charge was determined by multiplying the annual charge for a

standard attachment by 11.585 feet, which corresponds to the average space currently

18 used for each wireless facility.

### 19 Q. What is the proposed duct attachment charge?

20 A. The proposed charge for a duct attachment is \$0.81 per year per linear foot of duct.

### 21 Q. Is there a revenue impact for these changes?

22 A. Yes. There is a small revenue impact. While KU is not proposing to change the rate

applicable to cable television companies, the Company will apply the rate to all other wireline attachments as the contracts that are currently in place for such attachments expire. For purposes of calculating the impact on miscellaneous revenues in this proceeding, the Company assumes that all wireline contracts will expire during the test year, resulting in an increase in miscellaneous revenue of \$19,720. (For LG&E, there is a revenue decrease that is approximately equal to this amount.) The support for the change in miscellaneous revenues is shown in Exhibit WSS-9.

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#### B. UNAUTHORIZED RECONNECTION CHARGE

#### Q. Is KU proposing an Unauthorized Reconnection Charge and what is it?

Yes. KU is proposing to add an Unauthorized Reconnection Charge to its tariffs that will allow the Company to recover the cost of addressing theft of service in excess of any back-billing of energy and/or demand charges for stolen service. Specifically, the Unauthorized Reconnection Charge is a set of charges that would apply when a customer either connects or reconnects to the Company's service without authorization. Because these reconnects will typically involve some type of meter tampering, the charge will vary depending on whether the Company's metering equipment has been damaged and needs to be replaced. The need for the charge is discussed in Mr. Conroy's testimony. I will discuss the calculation of the standard charges that would apply.

Q. Please describe the various Unauthorized Reconnection Charges that KU is proposing and how they are calculated?

A. The Company is proposing the following charges: (1) an Unauthorized Reconnection Charge of \$70.00 for an unauthorized connection or reconnection that does not require the replacement of the meter; (2) an Unauthorized Reconnection Charge of \$90.00 for an unauthorized connection or reconnection that requires the replacement of a single-phase standard meter; (3) an Unauthorized Reconnection Charge of \$110.00 for an unauthorized connection or reconnection that requires the replacement of a single-phase Automatic Meter Reading ("AMR") meter; (4) an Unauthorized Reconnection Charge of \$174.00 for an unauthorized connection or reconnection that requires the replacement of a single-phase Automatic Metering System ("AMS") meter; and (5) an Unauthorized Reconnection Charge of \$177.00 for an unauthorized connection or reconnection that requires the replacement of a three-phase meter. The cost support for these charges is included in Exhibit WSS-10. The charge includes the labor cost of a field investigator and back-office support, transportation costs, cost associated with the installation of a locking device to prevent future meter tampering, and the cost of replacing the meter if necessary.

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#### Q. Will implementing this rate result in increased miscellaneous revenues?

No. The Company has been recovering the costs from customers who have tampered with their meter based on the out-of-pocket expenses incurred by the Company. Since the proposed rate is determined on the same basis (i.e., on the basis of average out-of-pocket expenses), there will be no difference between the forecasted charges reflected in the determination of revenue requirements and the revenues that would be collected from the implementation of a standard charge in the tariff.

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#### V. COST OF SERVICE STUDY

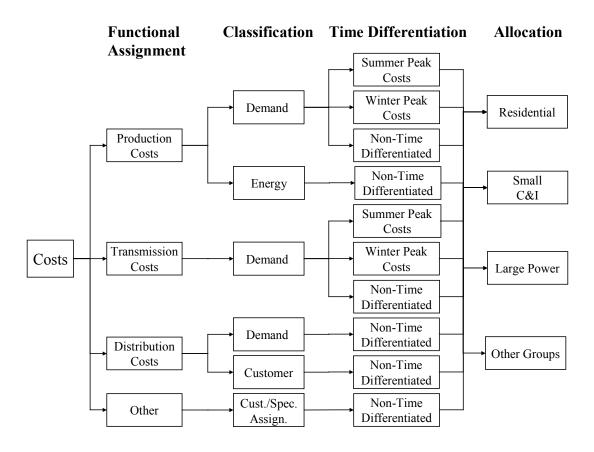
Q. Did The Prime Group prepare a cost of service study for KU's operations based on forecasted financial and operating results for the 12 months beginning July 1, 2017?
A. Yes. The Prime Group prepared a fully allocated embedded cost of service study based on a forecasted test year beginning July 1, 2017. The cost of service study corresponds to the pro-forma financial exhibits that the Company has provided to meet the requirements of Section 16(8). The objective in performing the cost of service study is to allocate KU's revenue requirement as fairly as possible to all of the classes of customers that KU serves, to determine the rate of return on rate base that KU is earning from each customer class, and to provide the data necessary to develop rate components that more accurately reflect cost causation.

The Prime Group prepared two versions of the cost of service study using alternative methodologies to time-differentiate and allocate fixed production costs. In the first version of the cost of service study, the modified Base-Intermediate-Peak ("BIP") methodology used in prior KU and LG&E cost of service studies was utilized. In the second version of the study, a Loss-of-Load-Probability ("LOLP") methodology was utilized. I will describe the two methodologies later in my testimony. All other costs, including variable production costs, transmission costs, and general plant are handled the same way in both versions of the study.

#### Q. What model was used to perform the cost of service study?

- 1 A. The cost of service study was performed using an EXCEL<sup>TM</sup> spreadsheet model that
  2 was developed by The Prime Group and that has been utilized in previous filings by
  3 KU to support requests for adjustments in its rates.
- 4 Q. What procedure was used in performing the cost of service study?

A. Regardless of whether a historic test year or a forecasted test year is used to develop a cost of service study, the methodology for developing a cost of service study is basically the same. However, because KU operates in multiple jurisdictions, it is necessary to identify costs for the Kentucky jurisdiction prior to developing a cost of service study. Therefore, the spreadsheet model used to perform the cost of service study also includes a jurisdictional separation analysis. The three traditional steps of an embedded cost of service study – functional assignment, classification, and allocation – were augmented to include a fourth step, assigning costs to costing periods which time differentiates the costs. The cost of service study was therefore prepared using the following procedure: (1) costs were functionally assigned (functionalized) to the major functional groups; (2) costs were then classified as commodity-related, demand-related, or customer-related; (3) costs were assigned to the costing periods; and then finally (4) costs were allocated to the rate classes. These steps are depicted in the following diagram (Figure 1).



2 Figure 1

The following functional groups were identified in the cost of service study: (1) Production, (2) Transmission, (3) Distribution Substation (4) Distribution Primary Lines, (5) Distribution Secondary Lines (6) Distribution Line Transformers, (7) Distribution Services, (8) Distribution Meters, (9) Distribution Street and Customer Lighting, (10) Customer Accounts Expense, (11) Customer Service and Information, and (12) Sales Expense.

Q. How were costs time differentiated and allocated in the version of the study that utilized the BIP methodology?

The BIP method is used to assign production costs to the relevant costing periods. Using this methodology, production demand-related costs (fixed costs) were assigned to three categories of capacity – base, intermediate, and peak. The percentages of production fixed cost that were assigned to the base period were determined by dividing the minimum system demand by the maximum demand. The percentages of production fixed cost that were assigned to the intermediate period were calculated by dividing the winter peak demand by the summer peak demand and subtracting the base component. Peak costs included all costs not assigned to base and intermediate components.

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Costs that were assigned as base, intermediate, and peak were then either assigned to the summer or winter peak periods or assigned as non-time-differentiated. Base costs were assigned as non-time-differentiated. Intermediate costs were prorated to the winter and summer peak periods in the same ratio as the number of hours contained in each costing period to the total. Peak costs are assigned to the summer peak period.

#### Q. In applying the modified BIP methodology, what demands were used?

Demands for the combined KU and LG&E systems were used to determine the costing periods and in determining the percentages of production fixed cost assigned to the costing periods. Since the two systems are planned and operated jointly, developing costing periods and assigning costs to the costing periods based on the

<sup>&</sup>lt;sup>1</sup> In Case No. 90-158, the Commission found LG&E's cost of service study, which utilized the modified BIP methodology, to be "acceptable and suitable for use as a starting point for electric rate design." (Order in Case No. 90-158, dated December 21, 1990, at 58.)

combined loads for KU and LG&E accurately reflects cost causation. Developing the costing periods and allocation factors in the cost of service study based on the combined loads for KU and LG&E does not result in any shifting of booked expenses from one utility to the other. LG&E's cost of service study relied on LG&E's accounting costs, and KU's cost of service study relied on KU's accounting costs. The modified BIP methodology simply affects how costs are assigned to the costing periods within the KU and LG&E cost of service studies.

#### 8 Q. What percentages were assigned to the costing periods using the BIP methodology?

A.

- 9 A. Exhibit WSS-11 shows the application of the BIP methodology. Using this methodology 34.38% of KU's production and transmission fixed costs were assigned to the winter peak period, 36.02% to the summer peak period, and 29.60% as base period costs that are non-time-differentiated.
- 13 Q. How were costs time differentiated and allocated in the version of the study that
  14 utilized the LOLP?

LOLP represents the probability that a utility system's total demand will exceed its generation capacity during a given hour. Loss of load probability therefore takes into consideration the magnitude of the load, installed generation capacity, forced outage rates, maintenance schedules, and ramp-up rates of generating units. LOLP can be calculated for any period – an hour, a day, a week, etc. LOLP is a critical measurement used by KU and LG&E in planning its generation resources. Specifically, it is used to evaluate the level of reserve margins that the Companies target. Therefore, LOLP can serve as a foundation for allocating fixed production

costs to the classes of customers. In other words, allocating fixed production costs on the basis of LOLP links the cost-of-service allocation methodology to a key measurement used by KU and LG&E to plan the system.

For the cost of service study, LOLP was calculated for each hour of the test year based on the hourly loads for the test year and the characteristics of KU and LG&E's generating facilities, including capacity, forced outage rates, and maintenance schedules. Hourly loads for each rate class were then weighted by the LOLP for each hour to determine LOLP weighted hourly load for each rate class. The weighted loads for each rate class are then summed for the test year to determine a production fixed cost allocator. Mathematically, this is equivalent to calculating an allocation vector for fixed production costs using the following formula:

$$\overline{PROD\ ALLOCATOR} = \sum_{i=1}^{8760} LOLP_i * \overline{LOAD}_i$$

15 Where:  $\overline{PROD\ ALLOCATOR}$  is the allocation vector for production fixed costs in the cost of service study; 17  $LOLP_i$  is the Loss of Load Probability for hour i; 18  $\overline{LOAD}_i$  is a vector of hourly load (in kW) for each rate class at hour i; for example,  $\overline{LOAD}_i = (\text{load for Rate RS})$  20 at hour i, load for Rate GS for hour i, load for Rate PS at hour i, ...);

1		i is the hour of the year;
2		
3		The allocation vector $\overline{PROD\ ALLOCATOR}$ is then used to allocate fixed production
4		costs to the customer classes in the cost of service study.
5	Q.	But is the LOLP approach a time-differentiated methodology?
6	A.	Yes, and at a fine level of granularity. With the LOLP methodology, costs are
7		differentiated for each hour of the test year. The approach can also be adapted to
8		calculate costs for any set of time periods during the test year, including the base
9		intermediate and off-peak periods used in the BIP, or the approach can be adapted to
10		calculate costs for other time periods that may be more appropriate for rate design
11		Exhibit WSS-12 is a summary of the production fixed cost allocators used in the
12		LOLP version of the study.
13	Q.	Why are you presenting an alternative methodology for allocating fixed production
14		costs?
15	A.	While the BIP methodology has been accepted by the Commission as a basis of
16		developing rates in prior rate cases, the LOLP methodology more closely reflects how
17		KU and LG&E's generation resources have been planned over the past 30 years or so
18		and how the Companies' generation resources are currently planned. Therefore, the
19		LOLP version of the study provides useful information for the development of rates.
20	Q.	How were costs classified as energy-related, demand-related or customer-related?

Classification involves utilizing the appropriate cost driver for each functionally

assigned cost which provides a method of arranging costs so that the service

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characteristics that give rise to the costs can serve as a basis for allocation. For costs classified as *energy-related*, the appropriate cost driver is the amount of kilowatthours consumed. Fuel and purchased power expenses are examples of costs typically classified as energy costs. Costs classified as demand-related tend to vary with the capacity needs of customers, such as the amount of generation, transmission or distribution equipment necessary to meet a customer's needs. The costs of production plant and transmission lines are examples of costs typically classified as demand-related costs. Costs classified as customer-related include costs incurred to serve customers regardless of the quantity of electric energy purchased or the peak requirements of the customers and include the cost of the minimum system necessary to provide a customer with access to the electric grid. As will be discussed later in my testimony, a portion of the costs related to Distribution Primary Lines, Distribution Secondary Lines and Distribution Line Transformers were classified as demand-related and customer-related using the zero-intercept methodology. Distribution Services, Distribution Meters, Distribution Street and Customer Lighting, Customer Accounts Expense, Customer Service and Information and Sales Expense were classified as customer-related because these costs do not vary with customers' capacity or energy usage.

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- Q. What methodologies are commonly used to classify distribution plant between customer-related and demand-related components?
- A. Two commonly used methodologies for determining demand/customer splits of distribution plant are the "minimum system" methodology and the "zero-intercept"

methodology. In the minimum system approach, "minimum" standard poles, conductor, and line transformers are selected and the minimum system is obtained by pricing all of the applicable distribution facilities at the unit cost of the minimum size plant. The minimum system determined in this manner is then classified as customer-related and allocated on the basis of the average number of customers in each rate class. All costs in excess of the minimum system are classified as demand-related. The theory supporting this approach maintains that in order for a utility to serve even the smallest customer, it would have to install a minimum size system. Therefore, the costs associated with the minimum system are related to the number of customers that are served, instead of the demand imposed by the customers on the system.

In preparing this study, the "zero-intercept" methodology was used to determine the customer components of overhead conductor, underground conductor, and line transformers. Because the zero-intercept methodology is less subjective than the minimum system approach, the zero-intercept methodology is preferred over the minimum system methodology when the necessary data is available. Additionally, KU has utilized the zero-intercept methodology in determining customer-related costs in prior rate case filings before this Commission. With the zero-intercept methodology, we are not forced to choose a minimum size conductor or line transformer to determine the customer-related component of distribution costs. In the zero-intercept methodology, the estimated cost of a zero-size conductor or line transformer is the absolute minimum system for determining customer-related costs.

#### Q. What is the theory behind the zero-intercept methodology?

A. The theory behind the zero-intercept methodology is that there is a linear relationship between the unit cost of conductor (\$/ft) or line transformers (\$/kVA of transformer size) and the load flow capability of the plant measured as the cross-sectional area of the conductor or the kVA rating of the transformer. After establishing a linear relation, which is given by the equation:

$$y = a + bx$$

where:

y is the unit cost of the conductor or transformer,

x is the size of the conductor (MCM) or transformer (kVA), and

**a**, **b** are the coefficients representing the intercept and slope, respectively

it can be determined that, theoretically, the unit cost of a foot of conductor or transformer with zero size (or conductor or transformer with zero load carrying capability) is **a**, the zero-intercept. The zero-intercept is essentially the cost component of conductor or transformers that is invariant to the size and load carrying capability of the plant.

Like most electric utilities, the feet of conductor and the number of transformers on KU's system are not uniformly distributed over all sizes of wire and transformer. For this reason, it was necessary to use a weighted linear regression analysis, instead of a standard least-squares analysis, in the determination of the zero intercept. Without performing a weighted linear regression analysis all types of

conductor and transformers would have the same impact on the analyses, even though the quantity of conductor and transformers are not the same for each size and type.

Using a weighted linear regression analysis, the cost and size of each type of conductor or transformer is weighted by the number of feet of installed conductor or the number of transformers. In a weighted linear regression analysis, the following weighted sum of squared differences

$$\sum_{i} w_i (y_i - \hat{y}_i)^2$$

A.

is minimized, where  $\mathbf{w}$  is the weighting factor for each size of conductor or transformer, and  $\mathbf{y}$  is the observed value and  $\mathbf{\hat{y}}$  is the predicted value of the dependent variable.

#### Q. Has the Commission accepted the use of the zero-intercept methodology?

Yes. The Commission found LG&E's cost of service studies submitted in Case No. Case No. 90-158 to be reasonable, thus providing a means of measuring class rates of return that are suitable for use as a guide in developing appropriate revenue allocations and rate design. The cost of service studies in both proceedings utilized a zero-intercept methodology to calculate the splits between demand-related and customer-related distribution costs. The Commission also found the embedded cost of service study submitted by Union Light Heat and Power in Case No. 2001-00092, which utilized a zero-intercept methodology, to be reasonable. Furthermore, the zero-intercept methodology has been used in every cost of service study filed by both KU and LG&E since the early 1980s, including the cost of service studies filed in Case Nos. 2014-00371 and 2014-00372, the Companies' last general rate case filings.

#### Q. Have you prepared exhibits showing the results of the zero-intercept analysis?

- 2 A. Yes. The zero-intercept analysis for overhead conductor, underground conductor,
- 3 and line transformers are included in Exhibits WSS-13, WSS-14 and WSS-15,
- 4 respectively.

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- 5 Q. Have you prepared an exhibit showing summarizing the results of the functional
- 6 assignment, time-differentiation and classification steps of the cost of service study?
- A. Yes. Exhibit WSS-16 shows the results of the first three steps of the cost of service study for the BIP version of the study, namely functional assignment, classification, and time differentiation. Exhibit WSS-17 shows the same three steps for the LOLP version of the study. The first column of numbers in these two exhibits reflect plant costs and expenses for KU's Kentucky retail jurisdiction. In the cost of service model used in this study, the calculations for functionally assigning, classifying and time 12 differentiating KU's accounting costs are made using what are referred to in the 14 model as "functional vectors". These vectors are multiplied (using scalar multiplication<sup>2</sup>) by the dollar amount in the various accounts to simultaneously functionally assign, classify and time differentiate KU's accounting costs. These calculations are made in the portion of the cost of service model included in Exhibits WSS-16 and WSS-17. In these exhibits, KU's accounting costs are functionally

assigned, classified and time differentiated using explicitly determined functional

vectors and using internally generated functional vectors. The explicitly determined

<sup>&</sup>lt;sup>2</sup> "Scalar multiplication" is the multiplication of each element of a vector by a constant (scalar). Scalar

multiplication is different from "vector multiplication," in which one vector is multiplied by another vector either as a dot product (whose product is a scalar) or as a cross product (whose product is another vector).

functional vectors, which are primarily used to direct where costs are functionally assigned, classified, and time differentiated, are shown on pages 49 through 52 of Exhibits WSS-16 and WSS-17. Internally generated functional vectors are utilized throughout the study to functionally assign, classify and time differentiate costs on the basis of similar costs or on the basis of internal cost drivers. The internally generated functional vectors are also shown on pages 49 through 52 of Exhibits WSS-16 and WSS-17. An example of this process is the use of total O&M expenses less purchased power ("OMLPP") to allocate cash working capital included in rate base. Because cash working capital is determined on the basis of 12.5% of operation and maintenance expenses, exclusive of purchased power expenses, it is appropriate to functionally assign, classify and time differentiate these costs on the same basis. (See Exhibits WSS-16 and WSS-17, pages 9 through 12, for the functional assignment, classification and time differentiation of cash working capital on the basis of OMLPP shown on pages 25 through 28.) The functional vector used to allocate a specific cost is identified in the column of the model labeled "Vector" and refers to a vector identified elsewhere in the analysis by the column labeled "Name".

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- Q. Please describe how the functionally assigned, classified and time differentiated costs were allocated to the various classes of customers that KU serves.
- A. Exhibits WSS-18 and WSS-19 show the allocation of the functionally assigned, classified and time differentiated costs to the various classes of customers that KU serves using the BIP methodology and the LOLP methodology, respectively. For a forecasted test year, the average number of customers is used for allocating customer-

related costs rather than the year end number of customers that is used for a historic test year. The following allocation factors were used in the cost of service study to allocate the functionally assigned, classified and time differentiated costs:

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- E01 The energy cost component of purchased power costs was allocated on the basis of the loss adjusted kWh sales to each class of customers during the test year.
- PPWDA and PPSDA The winter demand and summer demand cost components of production fixed costs were allocated on the basis of each class's contribution to the coincident peak demand during the winter and summer peak hour of the test year.
- NCPT The demand cost component is allocated based on the maximum class demands for transmission, primary and secondary voltage customers. This allocation vector is used to allocate transmission costs.
- NCPP The demand cost component is allocated on the basis of the maximum class demands for primary and secondary voltage customers. This allocation vector is used to allocate distribution substations and primary distribution demand-related costs.
- SICD The demand cost component is allocated on the

1	basis of the sum of individual customer demands for
2	secondary voltage customers.
3	C02 - The customer cost component of customer
4	services is allocated on the basis of the average number
5	of customers for the test year.
6	C03 - Meter costs were specifically assigned by
7	relating the costs associated with various types of
8	meters to the class of customers for whom these meters
9	were installed.
10	Cust04 - Customer-related costs associated with
11	lighting systems were specifically assigned to the
12	lighting class of customers.
13 •	Cust05 and Cust06 - Meter reading, billing costs and
14	customer service expenses were allocated on the basis
15	of a customer weighting factor calculated using the
16	average number of customers for the test year based on
17	discussions with KU's meter reading, billing and
18	customer service departments.
19 •	Cust07 - Customer-related costs are allocated on the
20	basis of the average number of customers using line
21	transformers and secondary voltage conductor.

• Cust08 - Customer-related costs are allocated on the

- basis of the average number of customers using primary voltage conductor.
- Q. Once costs are functionally assigned, classified and time differentiated, what calculations are used to allocate these costs to the various customer classes that KU serves?

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A. Once costs for all of the major accounts are functionally assigned, classified, and time differentiated, the resultant cost matrix for the major cost groupings (e.g., Plant in Service, Rate Base, O&M Expenses) is then transposed and allocated to the customer classes using "allocation vectors" or "allocation factors". A transpose of a matrix is formed by turning all the rows of a given matrix into columns and vice-versa. This process results in the columns of functionally assigned, classified and time differentiated costs becoming rows in the transposed matrix which then can be allocated to the various classes of customers that KU serves. This process is illustrated in Figure 2 below.

Transposed Costs Cost Allocated by Cost Matrix Costs Account Matrix Steps 1, 2 and 3 Matrix Step 4 Functional Transposition Allocation Assignment, Classification, and Time Differentiation Figure 2

The results of the class allocation step of the cost of service study are included in Exhibits WSS-18 and WSS-19. The costs shown in the column labeled "Total System" in Exhibits WSS-18 and WSS-19 were carried forward from the functionally assigned, classified and time differentiated costs shown in Exhibits WSS-16 and WSS-17, respectively. The column labeled "Ref" in Exhibits WSS-18 and WSS-19 provides a reference to the results included in Exhibits WSS-16 and WSS-17.

### 8 Q. Please summarize the results of the cost of service study.

A.

The following table (Table 14) summarizes the rates of return for each customer class after reflecting the rate adjustments proposed by KU under the BIP version of the study and the LOLP version of the study. The Actual Adjusted Rate of Return was calculated by dividing the adjusted net operating income by the adjusted net cost rate base for each customer class. The adjusted net operating income and rate base reflect the rate base, income and expenses discussed in the testimony of Mr. Garrett. The Proposed Rates of Return were calculated by dividing the net operating income adjusted for the proposed rate increase by the adjusted net cost rate base.

	Rate of Retur	n on Rate Base	Rate of Return on Rate Base					
	at Curre	ent Rates	at Proposed Rates					
Rate Class	BIP Version	LOLP Version	BIP Version	LOLP Version				
Residential Service	4.16%	4.36%	5.64%	5.85%				
General Service	9.10%	9.20%	10.95%	11.05%				
All Electric Schools	5.27%	6.77%	7.07%	8.75%				
Primary Service-Secondary	9.61%	9.26%	11.51%	11.12%				
Primary Service-Primary	11.83%	10.70%	13.77%	12.55%				
Time-of-Day Secondary Service	6.42%	6.06%	8.30%	7.91%				
Time-of-Day Primary Service	4.48%	4.05%	6.57%	6.10%				
Retail Transmission Service	4.55%	4.50%	6.76%	6.72%				
Fluctuating Load Service	1.50%	1.24%	3.44%	3.14%				
Lighting Energy Service	9.83%	18.57%	9.82%	18.56%				
Traffic Energy Service	10.02%	11.34%	11.66%	13.11%				
Lighting Service & Restricted Lighting Service	7.67%	8.44%	8.83%	9.66%				
Total All Classes	5.56%	5.56%	7.29%	7.29%				

2 **Table 14** 

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The determination of the actual adjusted and proposed rates of return are detailed on pages 29 and 30 and pages 33 through 34, respectively, of Exhibits WSS-18 and WSS-19.

## 7 Q. Does this conclude your testimony?

8 A. Yes, it does.

#### VERIFICATION

COMMONWEALTH OF KENTUCKY	)	
	)	SS:
COUNTY OF JEFFERSON	)	

The undersigned, William Steven Seelye, being duly sworn, deposes and states that he is the Managing Partner with The Prime Group, LLC, and that he has personal knowledge of the matters set forth in the foregoing testimony and exhibits, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

William Steven Seelye

Subscribed and sworn to before me, a Notary Public in and before said County and State, this /st day of //outmber 2016.

Jacoby Schooler (SEAL)

My Commission Expires:

JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2018
Notary ID # 512743

# **Exhibit WSS-1**

Qualifications

#### WILLIAM STEVEN SEELYE

#### **Summary of Qualifications**

Provides consulting services to numerous investor-owned utilities, rural electric cooperatives, and municipal utilities regarding utility rate and regulatory filings, cost of service and wholesale and retail rate designs; and develops revenue requirements for utilities in general rate cases, including the preparation of analyses supporting pro-forma adjustments and the development of rate base.

#### **Employment**

Principal and Managing Partner The Prime Group, LLC (1996 to 2012) (2015-Present) (Associate Member 2012-2015) Provides consulting services in the areas of tariff development, regulatory analysis, revenue requirements, cost of service studies, rate design, fuel and power procurement, depreciation studies, lead-lag studies, and mathematical modeling.

Assists utilities with developing strategic resource and marketing plans. Assist with resource planning and cost benefit analyses for generation investment projects. Performs economic analyses evaluating the costs and benefits of an electric generation projects; performs business practice audits for electric utilities, gas utilities, and independent transmission organizations, including audits of production cost modeling, fuel procurement practices and controls, and wholesale marketing procedures. Assists investor-owned utilities in the development of testimony regarding the prudence of power supply decisions and of investments in specific generation and distribution assets.

Provides utility clients assistance regarding regulatory policy and strategy; project management support for utilities involved in complex regulatory proceedings; process audits; state and federal regulatory filing development; cost of service development and support; the development of innovative rates to achieve strategic objectives; unbundling of rates and the development of menus

of rate alternatives for use with customers; performance-based rate development.

Prepared retail and wholesale rate schedules and filings submitted to the Federal Energy Regulatory Commission (FERC) and state regulatory commissions for numerous of electric and gas utilities. Performed cost of service or rate studies for over 150 utilities throughout North America. Prepared market power analyses in support of market-based rate filings submitted to the FERC for utilities and their marketing affiliates. Performed business practice audits for electric utilities, gas utilities, and independent transmission organizations (ISOs), including audits of production cost modeling, retail utility tariffs, retail utility billing practices, and ISO billing processes and procedures.

Instructor in Mathematics
Walden School and Private Instruction
(2012-2015)

Taught advanced placement calculus, linear algebra, pre-calculus, college algebra and differential equations.

Manager of Rates and Other Positions Louisville Gas & Electric Co. (May 1979 to July 1996)

Held various positions in the Rate Department of LG&E. In December 1990, promoted to Manager of Rates and Regulatory Analysis. In May 1994, given additional responsibilities in the marketing area and promoted to Manager of Market Management and Rates.

#### Education

Bachelor of Science Degree in Mathematics, University of Louisville, 1979 66 Hours of Graduate Level Course Work in Electrical and Industrial Engineering and Physics.

#### **Associations**

Member of the Society for Industrial and Applied Mathematics

#### **Expert Witness Testimony**

Alabama: Testified in Docket 28101 on behalf of Mobile Gas Service Corporation

concerning rate design and pro-forma revenue adjustments.

Colorado:

Testified in Consolidated Docket Nos. 01F-530E and 01A-531E on behalf of Intermountain Rural Electric Association in a territory dispute case.

Submitted expert report in No. 14-CV-30031 before District Court, Prowers County, State of Colorado, on behalf of Arkansas River Power Authority in the *City of Lamar et al v. Arkansas River Power Authority* regarding power planning and operations.

FERC:

Submitted direct and rebuttal testimony in Docket No. EL02-25-000 et al. concerning Public Service of Colorado's fuel cost adjustment.

Submitted direct and responsive testimony in Docket No. ER05-522-001 concerning a rate filing by Bluegrass Generation Company, LLC to charge reactive power service to LG&E Energy, LLC.

Submitted testimony in Docket Nos. ER07-1383-000 and ER08-05-000 concerning Duke Energy Shared Services, Inc.'s charges for reactive power service.

Submitted testimony in Docket No. ER08-1468-000 concerning changes to Vectren Energy's transmission formula rate.

Submitted testimony in Docket No. ER08-1588-000 concerning a generation formula rate for Kentucky Utilities Company.

Submitted testimony in Docket No. ER09-180-000 concerning changes to Vectren Energy's transmission formula rate.

Submitted testimony in Docket No. ER11-2127-000 concerning transmission rates proposed by Terra-Gen Dixie Valley, LLC.

Submitted testimony in Docket No. ER11-2779 on behalf of Southern Illinois Power Cooperative concerning wholesale distribution service charges proposed by Ameren Services Company.

Submitted testimony in Docket No. ER11-2786 on behalf of Norris Electric Cooperative concerning wholesale distribution service charges proposed by Ameren Services Company.

Florida:

Testified in Docket No. 981827 on behalf of Lee County Electric Cooperative, Inc. concerning Seminole Electric Cooperative Inc.'s wholesale rates and cost of service.

Illinois:

Submitted direct, rebuttal, and surrebuttal testimony in Docket No. 01-0637 on behalf of Central Illinois Light Company ("CILCO") concerning the modification of interim supply service and the implementation of black start service in connection with providing unbundled electric service.

Indiana:

Submitted direct testimony and testimony in support of a settlement agreement in Cause No. 42713 on behalf of Richmond Power & Light regarding revenue requirements, class cost of service studies, fuel adjustment clause and rate design.

Submitted direct and rebuttal testimony in Cause No. 43111 on behalf of Vectren Energy in support of a transmission cost recovery adjustment.

Submitted direct testimony in Cause No. 43773 on behalf of Crawfordsville Electric Light & Power regarding revenue requirements, class cost of service studies, fuel adjustment clause and rate design.

Kansas:

Submitted direct and rebuttal testimony in Docket No. 05-WSEE-981-RTS on behalf of Westar Energy, Inc. and Kansas Gas and Electric Company regarding transmission delivery revenue requirements, energy cost adjustment clauses, fuel normalization, and class cost of service studies.

Kentucky:

Testified in Administrative Case No. 244 regarding rates for cogenerators and small power producers, Case No. 8924 regarding marginal cost of service, and in numerous 6-month and 2-year fuel adjustment clause proceedings.

Submitted direct and rebuttal testimony in Case No. 96-161 and Case No. 96-362 regarding Prestonsburg Utilities' rates.

Submitted direct and rebuttal testimony in Case No. 99-046 on behalf of Delta Natural Gas Company, Inc. concerning its rate stabilization plan.

Submitted direct and rebuttal testimony in Case No. 99-176 on behalf of Delta Natural Gas Company, Inc. concerning cost of service, rate design and expense adjustments in connection with Delta's rate case.

Submitted direct and rebuttal testimony in Case No. 2000-080, testified on behalf of Louisville Gas and Electric Company concerning cost of service, rate design, and pro-forma adjustments to revenues and expenses.

Submitted rebuttal testimony in Case No. 2000-548 on behalf of Louisville Gas and Electric Company regarding the company's prepaid metering program.

Testified on behalf of Louisville Gas and Electric Company in Case No. 2002-00430 and on behalf of Kentucky Utilities Company in Case No. 2002-00429 regarding the calculation of merger savings.

Submitted direct and rebuttal testimony in Case No. 2003-00433 on behalf of Louisville Gas and Electric Company and in Case No. 2003-00434 on behalf of Kentucky Utilities Company regarding pro-forma revenue, expense and plant adjustments, class cost of service studies, and rate design.

Submitted direct and rebuttal testimony in Case No. 2004-00067 on behalf of Delta Natural Gas Company regarding pro-forma adjustments, depreciation rates, class cost of service studies, and rate design.

Testified on behalf of Kentucky Utilities Company in Case No. 2006-00129 and on behalf of Louisville Gas and electric Company in Case No. 2006-00130 concerning methodologies for recovering environmental costs through base electric rates.

Testified on behalf of Delta Natural Gas Company in Case No. 2007-00089 concerning cost of service, temperature normalization, year-end normalization, depreciation expenses, allocation of the rate increase, and rate design.

Submitted testimony on behalf of Big Rivers Electric Corporation and E.ON U.S. LLC in Case No 2007-00455 and Case No. 2007-00460 regarding the design and implementation of a Fuel Adjustment Clause, Environmental Surcharge, Unwind Surcredit, Rebate Adjustment, and Member Rate Stability Mechanism for Big Rivers Electric Corporation in connection with the unwind of a lease and purchase power transaction with E.ON U.S. LLC.

Submitted testimony in Case No. 2008-00251 on behalf of Kentucky Utilities Company and in Case No. 2008-00252 on behalf of Louisville Gas and Electric Company regarding pro-forma revenue and expense adjustments, electric and gas temperature normalization, jurisdictional separation, class cost of service studies, and rate design.

Submitted testimony in Case No. 2008-00409 on behalf of East Kentucky Power Cooperative, Inc., concerning revenue requirements, pro-forma adjustments, cost of service, and rate design.

Submitted testimony in Case No. 2009-00040 on behalf of Big Rivers Electric Corporation regarding revenue requirements and rate design.

Submitted testimony on behalf of Columbia Gas Company of Kentucky in Case No. 2009-00141 regarding the demand side management program costs and cost recovery mechanism.

Submitted testimony in Case No. 2009-00548 on behalf of Kentucky Utilities Company and in Case No. 2009-00549 on behalf of Louisville Gas and Electric

Company regarding pro-forma revenue and expense adjustments, electric and gas temperature normalization, jurisdictional separation, class cost of service studies, and rate design.

Submitted testimony in Case No. 2010-00116 on behalf of Delta Natural Gas Company concerning cost of service, temperature normalization, year-end normalization, depreciation expenses, allocation of the rate increase, and rate design.

Submitted testimony in Case No. 2011-00036 on behalf of Big Rivers Electric Cooperative concerning cost of service, rate design, pro-forma TIER adjustments, temperature normalization, and support of MISO Attachment O.

Submitted testimony in Case No. 2016-00107 on behalf of Columbia Gas Company of Kentucky regarding a tariff application to the continue its energy efficiency and conservation rider and programs.

Submitted testimony in Case No. 2016-00274 on behalf of Kentucky Utilities Company and Louisville Gas and Electric Company in support of community solar rates.

Maryland

Submitted direct testimony in PSC Case No. 9234 on behalf of Southern Maryland Electric Cooperative regarding a class cost of service study.

Nevada:

Submitted direct and rebuttal testimony in Case No. 03-10001 on behalf of Nevada Power Company regarding cash working capital and rate base adjustments.

Submitted direct and rebuttal testimony in Case No. 03-12002 on behalf of Sierra Pacific Power Company regarding cash working capital.

Submitted direct and rebuttal testimony in Case No. 05-10003 on behalf of Nevada Power Company regarding cash working capital for an electric general rate case.

Submitted direct and rebuttal testimony in Case No. 05-10005 on behalf of Sierra Pacific Power Company regarding cash working capital for a gas general rate case.

Submitted direct and rebuttal testimony in Case Nos. 06-11022 and 06-11023 on behalf of Nevada Power Company regarding cash working capital for a gas general rate case.

Submitted direct and rebuttal testimony in Case No. 07-12001 on behalf of Sierra Pacific Power Company regarding cash working capital for an electric general rate case.

Submitted direct testimony in Case No. Docket No. 08-12002 on behalf of Nevada Power Company regarding cash working capital for an electric general rate case.

Submitted direct testimony in Case No. Docket No. 10-06001 on behalf of Sierra Pacific Power Company regarding cash working capital for an electric general rate cases.

Submitted direct testimony in Case No. Docket No. 11-06006 on behalf of Nevada Power Company regarding cash working capital for an electric general rate case.

New Mexico Submitted testimony in support of filing of Advice Notice No. 60 on behalf of Kit Carson Electric Cooperative, Inc.

> Submitted direct testimony in Case No. 15-00375-UT on behalf of Kit Carson Electric Cooperative, Inc. regarding revenue requirements, the need for a rate increase, class cost of service study, apportionment of the revenue increase to the classes of service, and rate design.

Submitted testimony in Advice Notices in Case No. 15-00087-UT on behalf of Jemez Mountain Electric Cooperative in support of tribal right of way cost recovery surcharge mechanisms.

Submitted direct testimony in Case. No. 16-00065-UT on behalf of Kit Carson Electric Cooperative in support of an application for continuation of its fuel and purchased power cost adjustment clause.

Nova Scotia: Testified on behalf of Nova Scotia Power Company in NSUARB – NSPI – P-887 regarding the development and implementation of a fuel adjustment mechanism.

> Submitted testimony in NSUARB – NSPI – P-884 regarding Nova Scotia Power Company's application to approve a demand-side management plan and cost recovery mechanism.

Submitted testimony in NSUARB – NSPI – P-888 regarding a general rate application filed by Nova Scotia Power Company.

Submitted testimony on behalf of Nova Scotia Power Company in the matter of the approval of backup, top-up and spill service for use in the Wholesale Open Access Market in Nova Scotia.

Submitted testimony in NSUARB – NSPI – P-884 (2) on behalf of Nova Scotia Power Company's regarding a demand-side management cost recovery mechanism.

Virginia:

Submitted testimony in Case No. PUE-2008-00076 on behalf of Northern Neck Electric Cooperative regarding revenue requirements, class cost of service, jurisdictional separation and an excess facilities charge rider.

Submitted testimony in Case No. PUE-2009-00029 on behalf of Old Dominion Power Company regarding class cost of service, jurisdictional separation, allocation of the revenue increase, general rate design, time of use rates, and excess facilities charge rider.

Submitted testimony in Case No. PUE-2009-00065 on behalf of Craig-Botetourt Electric Cooperative regarding revenue requirements, class cost of service, jurisdictional separation and an excess facilities charge rider.

Submitted testimony in Case No. PUE-2011-00013 on behalf of Old Dominion Power Company regarding class cost of service, jurisdictional separation, allocation of the revenue increase, and rate design.

## **Exhibit WSS-2**

# Cost Components for Residential Service Rate RS

#### **Kentucky Utilities Company**

#### Unit Cost of Service Based on the Cost of Service Study For the 12 Months Ended June 30, 2018

#### Rate RS

				Produ	ctio	n		Transmission	Distribution		Cust Service Expenses					
	İ															
	l _															
Description	R	eference Total	De	emand-Related	E	nergy-Related	D	emand-Related	D	emand-Related	Cı	ustomer-Related		Customer-Related		Total
(1) Rate Base	s	1,666,639,443	\$	791,919,086	¢.	24,137,273	¢	220,794,890	e	229,433,648	¢	395,881,330	¢	4,473,217	\$	1,666,639,443
(2) Rate Base Adjustments	\$	1,000,039,443	Ф	791,919,080	Ф	24,137,273	Ф	220,794,690	Ф	229,433,046	Ф	393,861,330	Ф	4,473,217	Φ	1,000,039,443
(3) Rate Base as Adjusted	\$	1,666,639,443	\$	791,919,086	e	24,137,273	•	220,794,890	e	229,433,648	¢	395,881,330	¢	4,473,217	\$	1,666,639,443
(3) Rate base as Adjusted	Ф	1,000,039,443	Ф	/91,919,080	Ф	24,137,273	Ф	220,794,890	Ф	229,433,048	Ф	393,881,330	Ф	4,473,217	Ф	1,000,039,443
(4) Rate of Return		5.64%		5.64%		5.64%		5.64%		5.64%		5.64%		5.64%		
(5) Return	\$	93,978,376	\$	44,654,691	\$	1,361,051	\$	12,450,170	\$	12,937,292	\$	22,322,935	\$	252,236	\$	93,978,376
(6) Interest Expenses	\$	39,274,989	\$	18,661,873	\$	568,804	\$	5,203,115	\$	5,406,691	\$	9,329,093	\$	105,413	\$	39,274,989
(7) Net Income	\$	54,703,387	\$	25,992,818	\$	792,247	\$	7,247,055	\$	7,530,602	\$	12,993,842	\$	146,822	\$	54,703,387
(8) Income Taxes	\$	37,450,706	\$	17,795,048	\$	542,384	\$	4,961,436	\$	5,155,555	\$	8,895,766	\$	100,517	\$	37,450,706
(9) Operation and Maintenance Expenses	\$	367,458,386	\$	41,725,441	S	214,989,646	\$	18,726,398	\$	17,939,245	\$	36,930,529	\$	37,147,127	s	367,458,386
(10) Depreciation Expenses	\$		\$	58,850,232		-	\$	10,232,822		11,870,817		20,456,684		-	\$	101,410,555
(11) Other Taxes	\$	17,253,162	\$	8,768,731		_	\$	2,160,223		2,322,280		4,001,928		_	\$	17,253,162
(12) Curtailable Service Credit	\$	-	\$	-	Ψ		Ψ	2,100,223	Ψ	2,022,200	Ψ	.,001,,20	Ψ		\$	
(13) Expense Adjustments - Prod. Demand	\$	_	\$	_	s	_	\$	_	\$	_	\$	_	\$	_	\$	_
(14) Expense Adjustments - Energy	\$	_	\$	_	s	_	\$	_	\$	_	\$	_	\$	_	\$	_
(15) Expense Adjustments - Trans. Demand		_	\$	_	s	_	\$	_	\$	_	\$	_	\$	_	\$	_
(16) Expense Adjustments - Distribution	\$	_	\$	_	s	_	\$	_	\$	_	\$	_	\$	_	\$	_
(17) Expense Adjustments - Other	\$	552,393	\$	262,475	\$	8.000	\$	73,181	\$	76,044	\$	131.211	\$	1,483	\$	552,393
(18) Revenue Adjustments	\$	(3,559,496)		(3,549,839.02)	\$	(266.49)	-	(2,437.71)		(2,533.09)		(4,370.77)		(49.39)		(3,559,496)
(19) Expense Adjustments - Total	\$	(3,007,103)	\$	(3,287,364)	\$	7,734	\$	70,743	\$	73,511	\$	126,841	\$	1,433	\$	(3,007,103)
(20) Total Cost of Service	\$	614,544,081	\$	168,506,780	\$	216,900,814	\$	48,601,791	\$	50,298,700	\$	92,734,683	\$	37,501,312	\$	614,544,081
(21) Less: Misc Revenue - Prod Demand	\$	7,089,946	\$	7,089,946	\$	_	\$	_	\$	_	\$	_	\$	_	\$	7,089,946
(22) Less: Misc Revenue - Energy	\$	(2,827,720)	\$	-	\$	(2,827,720)	\$	_	\$	_	\$	_	\$	_	\$	(2,827,720)
(23) Less: Misc Revenue - Other	\$		\$	(12,954,292)		(394,840)		(3,611,785)		(3,753,099)		(6,475,867)	\$	(73,173)	\$	(27,263,056)
(24) Less: Misc Revenue - Total	\$	(23,000,830)		(5,864,346)		(3,222,560)		(3,611,785)		(3,753,099)		(6,475,867)		(73,173)		(23,000,830)
(25) Net Cost of Service	\$	591,543,251	\$	162,642,434	\$	213,678,254	\$	44,990,006	\$	46,545,601	\$	86,258,817	\$	37,428,139	\$	591,543,251
(26) Billing Units				6,091,971,051		6,091,971,051		6,091,971,051		6,091,971,051		5,168,140		5,168,140		
(27) Unit Costs				0.026697834		0.035075389		0.007385131		0.007640483	\$	16.69	\$	7.24	\$	23.93
													Cus	stomer Cost		23.93

Customer Cost	23.93
Infrastructure Energy Cost	0.041723
ECR Base Rates	0.006770
Total Infrastructure Energy	0.048493
Variable Energy Cost	0.035075

# **Exhibit WSS-3**

# **Cost Support for CSR Credits**

#### Kentucky Utilities Company

Fixed Cost of Large-Frame Combustion Turbines Based on 12 Months Ended June 30, 2018

Description		Brown CTs	Trimble County CTs	Paddys Run 13 CTs	Total
Plant	\$	285,515,838	\$ 248,172,766	\$ 39,574,165	573,262,768
Accumulated Depreciation	\$	162,922,503	\$ 111,210,802	\$ 15,526,405	\$ 289,659,711
Net Plant	\$	122,593,334	\$ 136,961,964	\$ 24,047,759	\$ 283,603,057
Accumulated Deferred Income Taxes		37,916,634	45,143,182	8,170,625	\$ 91,230,442
Net Cost Rate Base	\$	84,676,700	\$ 91,818,782	\$ 15,877,134	\$ 192,372,616
Rate of Return		7.29%	7.29%	7.29%	7.29%
Return	\$	6,172,826	\$ 6,693,475	\$ 1,157,423	\$ 14,023,725
Depreciation Expenses	\$	13,397,159	\$ 10,663,309	\$ 1,886,537	\$ 25,947,005
Non-Burdened Non-Fuel Operation and Maintenance I	Expenses \$	3,417,067	\$ 1,560,485	\$ 358,517	\$ 5,336,069
Burdened Non-Fuel Operation and Maintenance Expen	ses \$	110,382	\$ 439,142	\$ 129,138	\$ 678,662
Income Taxes 0.3	385574631 \$	2,895,210	\$ 3,139,407	\$ 542,860	\$ 6,577,477
Property Taxes	\$	197,748	\$ 216,317	\$ 38,727	\$ 452,792
Revenue Requirement	\$	26,190,393	\$ 22,712,135	\$ 4,113,203	\$ 53,015,730
Nameplate Capacity		781,431	783,666	83,754	1,648,851
Cost per kW per Month (Nameplate Capacity)	\$	2.79	\$ 2.42	\$ 4.09	\$ 2.68
Net Peak Demand on Plant (Form 7, Pages 402-403, li	ne 6)	726,140	626,460	69,090	1,421,690
Cost per kW per Month (Net Peak Demand on Plant)	\$	3.01	\$ 3.02	\$ 4.96	\$ 3.11
Loss Factor (Transmission)		0.0281	0.0281	0.0281	0.0281
Cost per kW per Month (Transmission)	\$	3.09	\$ 3.11	\$ 5.10	\$ 3.20
Loss Factor (Primary)		0.0613	0.0613	0.0613	0.0613
Cost per kW per Month (Primary)	\$	3.20	\$ 3.22	\$ 5.28	\$ 3.31

# **Exhibit WSS-4**

# Cost Support for Lighting Rates LS and RLS

#### KENTUCKY UTILITIES COMPANY

## Estimated Unit Cost of Lighting Fixtures Rate LS and Rate RLS

Description	Carry Charge	RLS	RLS	RLS	RLS
		413 Decorative Smooth Coach 117 9,500 hps	412 Decorative Smooth Coach 83 5,800 hps	466 Decorative Smooth Colonial 60 4,000 hps	410 Historic Fluted Acorn 60 4,000 hps
Estimated Investment per Unit (\$)		\$2,819.92	\$2,819.25	\$1,553.34	\$3,157.57
Fixed Charges (\$ / yr)	16.27%	\$458.80	\$458.69	\$252.73	\$513.74
Distribution Energy per kWh (\$ / yr)	\$0.07328	\$34.30	\$24.33	\$24.33	\$24.33
Operation and Maintenance (\$ / yr)		\$8.23	\$8.15	\$8.15	\$8.15
Monthly Unit Cost (\$ / mo)		\$41.78	\$40.93	\$23.77	\$45.52

#### KENTUCKY UTILITIES COMPANY

## Estimated Unit Cost of Lighting Fixtures Rate LS and Rate RLS

Description	RLS	RLS	RLS	RLS	RLS
	440	470	469	460	404
	Decorative Smooth Acorn 60 4,000 hps	Decorative Smooth Directional 1,080 107,800 metal halide	Decorative Smooth Directional 350 32,000 metal halide	Decorative Smooth Directional 150 12,000 metal halide	Fixture Only Open Bottom 207 7,000 mv
Estimated Investment per Unit (\$)	\$1,772.75	\$2,728.47	\$2,589.38	\$2,577.62	<b>\$462.74</b>
Fixed Charges (\$ / yr)	\$288.43	\$443.92	\$421.29	\$419.38	\$75.29
Distribution Energy per kWh (\$ / yr)	\$24.33	\$316.57	\$102.59	\$43.97	\$60.68
Operation and Maintenance (\$ / yr)	\$8.15	\$8.48	\$8.23	\$8.15	\$7.89
Monthly Unit Cost (\$ / mo)	\$26.74	\$64.08	\$44.34	\$39.29	\$11.99

Description	RLS	RLS	RLS	RLS	RLS
	458	448	457	447	456
	Fixture and Pole	Fixture Only	Fixture and Pole	Fixture Only	Fixture and Pole
	Cobra Head 453 20,000 mv	Cobra Head 453 20,000 mv	Cobra Head 294 10,000 mv	Cobra Head 294 10,000 mv	Cobra Head 207 7,000 mv
Estimated Investment per Unit (\$)	\$4,038.99	\$548.66	\$4,036.15	\$545.81	\$3,982.86
Fixed Charges (\$ / yr)	\$657.14	\$89.27	\$656.68	\$88.80	\$648.01
Distribution Energy per kWh (\$ / yr)	\$132.78	\$132.78	\$86.18	\$86.18	\$60.68
Operation and Maintenance (\$ / yr)	\$8.19	\$8.19	\$8.03	\$8.03	\$7.89
Monthly Unit Cost (\$ / mo)	\$66.51	\$19.19	\$62.57	\$15.25	\$59.71

Description	RLS	RLS	RLS	RLS	RLS
	446 Fixture Only	459 Fixture and Pole	455 Fixture and Pole	454 Fixture and Pole	426 Fixture Only
	Cobra Head 207 7,000 mv	Directional 1,080 107,800 metal halide	Directional 350 32,000 metal halide	Directional 150 12,000 metal halide	Open Bottom 83 5,800 hps
Estimated Investment per Unit (\$)	\$492.52	\$1,400.34	\$1,261.24	\$1,249.49	<b>\$447.79</b>
Fixed Charges (\$ / yr)	\$80.13	\$227.84	\$205.20	\$203.29	\$72.86
Distribution Energy per kWh (\$ / yr)	\$60.68	\$316.57	\$102.59	\$43.97	\$24.33
Operation and Maintenance (\$ / yr)	\$7.89	\$8.48	\$8.23	\$8.15	\$8.15
Monthly Unit Cost (\$ / mo)	\$12.39	\$46.07	\$26.34	\$21.28	\$8.78

Description	RLS	RLS	RLS	RLS	LS
	409	471	461	360	496
	Fixture Only	Fixture and Pole	Fixture Only	Decorative Smooth	Decorative Smooth
	Cobra Head 471 50,000 hps	Cobra Head 60 4,000 hps	Cobra Head 60 4,000 hps	Granville 181 16,000 hps	Contemporary 1,080 107,800 Metal Halide
Estimated Investment per Unit (\$)	\$725.39	\$1,203.28	\$669.76	\$2,829.19	\$2,580.60
Fixed Charges (\$ / yr)	\$118.02	\$195.77	\$108.97	\$460.31	\$419.86
Distribution Energy per kWh (\$ / yr)	\$138.06	\$17.59	\$17.59	\$53.05	\$316.57
Operation and Maintenance (\$ / yr)	\$8.37	\$8.23	\$8.23	\$8.95	\$8.48
Monthly Unit Cost (\$ / mo)	\$22.04	\$18.47	\$11.23	\$43.53	\$62.08

Description	LS	LS	LS	LS	LS
	493	495	491	494	490
	Fixture Only	Decorative Smooth	Fixture Only	Decorative Smooth	Fixture Only
	Contemporary 1,080 107,800 Metal Halide	Contemporary 350 32,000 Metal Halide	Contemporary 350 32,000 Metal Halide	Contemporary 150 12,000 Metal Halide	Contemporary 150 12,000 Metal Halide
Estimated Investment per Unit (\$)	\$662.56	\$2,695.74	\$777.70	\$2,192.00	\$689.18
Fixed Charges (\$ / yr)	\$107.80	\$438.60	\$126.53	\$356.64	\$112.13
Distribution Energy per kWh (\$ / yr)	\$316.57	\$102.59	\$102.59	\$43.97	\$43.97
Operation and Maintenance (\$ / yr)	\$8.48	\$8.23	\$8.23	\$8.15	\$8.15
Monthly Unit Cost (\$ / mo)	\$36.07	\$45.78	\$19.78	\$34.06	\$13.69

Description	LS	LS	LS	LS	LS
	301 Decorative Smooth Dark Sky 117 9,500 hps	300 Decorative Smooth Dark Sky 60 4,000 hps	479 Decorative Smooth Contemporary 471 50,000 hps	499 Fixture Only Contemporary 471 50,000 hps	478  Decorative Smooth  Contemporary 242 22,000 hps
Estimated Investment per Unit (\$)  Fixed Charges (\$ / yr)  Distribution Energy per kWh (\$ / yr)	\$1,817.14	\$1,793.41	\$2,599.74	\$681.71	\$2,580.60
	\$295.65	\$291.79	\$422.98	\$110.91	\$419.86
	\$34.30	\$17.59	\$138.06	\$138.06	\$70.94
Operation and Maintenance (\$ / yr)  Monthly Unit Cost (\$ / mo)	\$8.23	\$8.15	\$8.37	\$8.37	\$8.48
	\$28.18	\$26.46	\$47.45	\$21.45	\$41.61

Description	LS	LS	LS	LS	LS
	498	477	497	476	492
	Fixture Only	Decorative Smooth	Fixture Only	Decorative Smooth	Fixture Only
	Contemporary 242 22,000 hps	Contemporary 117 9,500 hps	Contemporary 117 9,500 hps	Contemporary 83 5,800 hps	Contemporary 83 5,800 hps
		*******	444-74		2000 10
Estimated Investment per Unit (\$)	\$662.56	\$2,585.14	\$667.10	\$2,169.25	\$666.43
Fixed Charges (\$ / yr)	\$107.80	\$420.60	\$108.54	\$352.94	\$108.43
Distribution Energy per kWh (\$ / yr)	\$70.94	\$34.30	\$34.30	\$24.33	\$24.33
Operation and Maintenance (\$ / yr)	\$8.48	\$8.23	\$8.23	\$8.15	\$8.15
Monthly Unit Cost (\$ / mo)	\$15.60	\$38.59	\$12.59	\$32.12	\$11.74

Description	LS	LS	LS	LS	LS
	415 Historic Fluted Victorian 117 9,500 hps	414 Historic Fluted Victorian 83 5,800 hps	430 Historic Fluted Acorn 117 9,500 hps	420 Decorative Smooth Acorn 117 9,500 hps	411 Historic Fluted Acorn 83 5,800 hps
Estimated Investment per Unit (\$)  Fixed Charges (\$ / yr)	\$2,819.92	\$2,819.25	\$3,197.11	\$1,707.81	\$3,157.57
	\$458.80	\$458.69	\$520.17	\$277.86	\$513.74
Distribution Energy per kWh (\$ / yr)  Operation and Maintenance (\$ / yr)  Monthly Unit Cost (\$ / mo)	\$34.30	\$24.33	\$34.30	\$34.30	\$24.33
	\$8.23	\$8.15	\$8.23	\$8.23	\$8.15
	\$41.78	\$40.93	\$46.89	\$26.70	\$45.52

Description	LS	LS	LS	LS	LS
	401	468	467	452	451
	Decorative Smooth	Decorative Smooth	Decorative Smooth	Fixture Only	Fixture Only
	Acorn	Colonial	Colonial	Directional	Directional
	83	117	83	1,080	350
	5,800	9,500	5,800	107,800	32,000
	hps	hps	hps	metal halide	metal halide
Estimated Investment per Unit (\$)	\$1,772.75	\$1,508.77	\$1,553.34	\$798.68	\$659.58
Fixed Charges (\$\frac{1}{2}\text{in})	¢200 42	\$245.48	¢252.72	\$420.04	6407.24
Fixed Charges (\$ / yr)	\$288.43	<b>\$245.46</b>	\$252.73	\$129.94	\$107.31
Distribution Energy per kWh (\$ / yr)	\$24.33	\$34.30	\$24.33	\$316.57	\$102.59
	00.45	** **	20.45	20.40	** **
Operation and Maintenance (\$ / yr)	\$8.15	\$8.23	\$8.15	\$8.48	\$8.23
Monthly Unit Cost (\$ / mo)	\$26.74	\$24.00	\$23.77	\$37.92	\$18.18

Description	LS	LS	LS	LS	LS
	450	428	489	488	487
	Fixture Only				
	Directional	Open Bottom	Directional	Directional	Directional
	150	117	471	242	117
	12,000	9,500	50,000	22,000	9,500
	metal halide	hps	hps	hps	hps
Estimated Investment per Unit (\$)	\$647.83	\$456.91	\$629.93	\$633.81	\$597.66
Fixed Charges (\$ / yr)	\$105.40	\$74.34	\$102.49	\$103.12	\$97.24
					·
Distribution Energy per kWh (\$ / yr)	\$43.97	\$34.30	\$138.06	\$70.94	\$34.30
Operation and Maintenance (\$ / yr)	\$8.15	\$8.23	\$8.37	\$8.48	\$8.23
	, , , , ,	7-1-0	75.0.	75.10	7-1-0
Monthly Unit Cost (\$ / mo)	\$13.13	\$9.74	\$20.74	\$15.21	\$11.65

Description	LS	LS	LS	LS	LS
	475	465	474	464	473
	Ornamental	Fixture Only	Ornamental	Fixture Only	Ornamental
	Cobra Head 471 50,000 hps	Cobra Head 471 50,000 hps	Cobra Head 242 22,000 hps	Cobra Head 242 22,000 hps	Cobra Head 117 9,500 hps
Estimated Investment per Unit (\$)	\$2,148.08	<b>\$</b> 725.39	\$2,088.52	\$665.90	\$2,048.97
Fixed Charges (\$ / yr)	\$349.49	\$118.02	\$339.80	\$108.34	\$333.37
Distribution Energy per kWh (\$ / yr)	\$138.06	\$138.06	\$70.94	\$70.94	\$34.30
Operation and Maintenance (\$ / yr)	\$8.37	\$8.37	\$8.48	\$8.48	\$8.23
Monthly Unit Cost (\$ / mo)	\$41.33	\$22.04	\$34.93	\$15.65	\$31.32

Description	LS	LS	LS
	463	472	462
	Fixture Only	Ornamental	Fixture Only
	Cobra Head	Cobra Head	Cobra Head
	117	83	83
	9,500	5,800	5,800
	hps	hps	hps
Estimated Investment per Unit (\$)	\$626.25	\$1,830.06	\$623.38
,,	·	. ,	
Fixed Charges (\$ / yr)	\$101.89	\$297.75	\$101.42
Distribution Energy per kWh (\$ / yr)	\$34.30	\$24.33	\$24.33
Distribution Energy per kwii (\$\psi\$ yi)	\$04.00	ΨΣ4.00	Ψ24.00
Operation and Maintenance (\$ / yr)	\$8.23	\$8.15	\$8.15
Monthly Unit Cost (\$ / mo)	\$12.03	\$27.52	\$11.16

**Cost Support for LED Lighting Rates** 

# Cost Support for LED Lighting Charges

Description	Carry Charge	LED	LED	LED	LED	
			Overhead			
		Open Bottom Yard Light 50 WATT 5,007 Lumen 393	Cobra 80 WATT 8,179 Lumen 390	<b>Cobra</b> 134 WATT 14,166 Lumen 391	Cobra 228 WATT 23,214 lumen 392	
		Fixture, Arm & Wire	Fixture, Arm & Wire	Fixture, Arm & Wire	Fixture, Arm & Wire	
Estimated Investment per Unit (\$)		\$550.60	\$830.36	\$932.84	\$1,334.01	
Fixed Charges (\$ / yr)	16.27%	\$89.61	\$135.14	\$151.82	\$217.11	
Distribution Energy per kWh (\$ / yr)	\$0.07328	\$14.66	\$23.45	\$39.28	\$66.83	
Operation and Maintenance (\$ / yr)		\$17.29	\$23.94	\$29.89	\$53.18	
Monthly Unit Cost (\$ / mo)		\$10.13	\$15.21	\$18.42	\$28.09	

# Cost Support for LED Lighting Charges

Description	LED	LED	LED	LED
		Underground		Underground Decorative
	Cobra 80 WATT 8,179 Lumen 396 Pole, Fixture, Arm & Wire	Cobra 134 WATT 14,166 Lumen 397 Pole, Fixture, Arm & Wire	Cobra 228 WATT 23,214 lumen 398 Pole, Fixture, Arm & Wire	Colonial 68 WATT 5,665 Lumen 399 Fixture, Pole & Wire
Estimated Investment per Unit (\$)	\$2,383.01	\$2,485.50	\$2,886.67	\$2,329.56
Fixed Charges (\$ / yr)	\$387.83	\$404.51	\$469.80	\$379.13
Distribution Energy per kWh (\$ / yr)	\$23.45	\$39.28	\$66.83	\$19.93
Operation and Maintenance (\$ / yr)	\$23.94	\$29.89	\$53.18	\$60.83
Monthly Unit Cost (\$ / mo)	\$36.27	\$39.47	\$49.15	\$38.32

# Cost Support for Redundant Capacity Charge

Derivation of Distribution Demand-Related Cost for Redundant Capacity Based on the 12 Months Ended June 30, 2018

# **Secondary Service**

Distributio	on Demand Costs			
	PSS	\$ 4,415,062		
	TODS	\$ 3,395,528	<u>.</u>	
	Total Cost	\$ 7,810,590		
Billing De	omand			
Diffillig DC	PSS	6,098,096		
	TODS	5,210,823		
	Total Cost	 11,308,919		
	10141 0051	11,500,515		
Unit Cost			\$	0.69
Rate Base				
	PSS	\$ 35,016,143		
	TODS	\$ 26,444,079		
	Total Cost	\$ 61,460,222	•	
Return		\$ 4,480,450		
Unit Retu	°n		\$	0.40
Omi Retui	.11		Ψ	0.10
Capacity (	Charge		\$	1.09 / KW

Derivation of Distribution Demand-Related Cost for Redundant Capacity Based on the 12 Months Ended June 30, 2018

#### **Primary Service**

<b>Distribution Demand Cost</b>
---------------------------------

PSP \$ 281,809 TODP \$ 6,417,729 Total Cost \$ 6,699,539

Billing Demand

PSP 486,738 TODP 10,909,236 Total Cost 11,395,974

Unit Cost \$ 0.59

Rate Base

PSP \$ 2,049,422 TODP \$ 46,666,872 Total Cost \$ 48,716,294

Return \$ 3,551,418

Unit Return \$ 0.31

Capacity Charge \$ 0.90 / KW

# Cost Support for Pole Attachment Charge

### Kentucky Utilities Company and Louisvillle Gas & Electric Company

Cost Support for Attachment Charges for Wireline Pole Attachments Based on 12 Months Ended June 30, 2018

Pole Description		35'		40'		45'		Total
Carrie Phart	,	26 250 270	,	120 200 710	,	142 705 205	,	277 426 204
Gross Plant	\$	36,350,278 15%	\$	128,380,719 15%	\$	112,705,295 15%	\$	277,436,291
Remove Appurtenances Gross Plant less Appurtenances	\$		\$	109,123,611	ć	95,799,500	ć	235,820,847
Accumulated Depreciation	ڔ	(14,287,553)	ڔ	(50,460,312)	ڔ	(44,299,054)	ڔ	(109,046,920)
Remove Appurtenances		15%		15%		15%		(103,040,320)
Accumulated Depreciation less Appurtenances	\$	(12,144,420)	\$	(42,891,266)	\$	(37,654,196)	\$	(92,689,882)
Net Plant	\$	18,753,316	\$	66,232,345	\$	58,145,305	\$	143,130,966
Accumulated Deferred Income Taxes	\$	(4,870,028)	\$	(17,199,804)	\$	(15,099,689)	\$	(37,169,520)
Cash Working Capital		284,427		1,004,530		881,876		2,170,833
Common Plant		1,053,963		3,722,352		3,267,849		8,044,164
Net Cost Rate Base	\$	15,221,678	\$	53,759,424	\$	47,195,340	\$	116,176,442
Rate of Return		7.27%		7.27%		7.27%		
Return	\$	1,106,082	\$	3,906,424	\$	3,429,445	\$	8,441,951
Income Taxes 38.59%	\$	521,284	\$	1,841,055	\$	1,616,260	\$	3,978,599
Property Taxes	\$	213,257	\$	753,175	\$	661,212	\$	1,627,644
Depreciation Expenses	\$	857,942	\$	3,030,050	\$	2,660,078	\$	6,548,069
Maintenance of Poles	\$	458,229	\$	1,618,358	\$	1,420,754	\$	3,497,341
Tree Trimming of Poles		1,497,833		5,289,996		4,644,082	\$	11,431,911
A&G Expense Allocation to Poles		297,181		1,049,573		921,419	\$	2,268,173
Revenue Requirement	\$	4,951,807	\$	17,488,631	\$	15,353,250	\$	37,793,688
Quantity		103,454		192,111		89,471		385,036
Average Installed Cost	\$	47.86	\$	91.03	\$	171.60	\$	98.16
Space Usage Factor		0.0759		0.0759		0.0759		0.0759
Pole Attachment Rate	\$	3.63	\$	6.91	\$	13.02	\$	7.45

# Cost Support for **Duct Attachment Charge**

# Kentucky Utilities Company and Louisvillle Gas & Electric Company

Calculation Of Attachment Charges for Underground Conduit Based on 12 Months Ended June 30, 2018

Pole Description			Total
Gross Plant		\$	79,957,770
Remove Appurtenances		Ψ	15%
Gross Plant less Appurtenances		\$	67,964,105
Accumulated Depreciation		*	(23,190,169)
Remove Appurtenances			15%
Accumulated Depreciation less Appurtenances		\$	(19,711,644)
, , , , , , , , , , , , , , , , , , ,		,	(,, -,
Net Plant		\$	48,252,461
Accumulated Deferred Income Taxes		\$	(11,956,770)
Cash Working Capital			673,647
Common Plant			5,747,707
Net Cost Rate Base		\$	42,717,045
Rate of Return			7.27%
Return		\$	3,104,030
Income Taxes	38.59%	\$	1,462,896
Property Taxes		\$	498,222
Depreciation Expenses		\$	1,061,872
Maintenance of UG Lines		\$	694,791
A&G Expense Allocation to UG Lines			580,351
Revenue Requirement		\$	7,402,163
Quantity			4,557,311
Quantity			4,557,511
Average Installed Cost		\$	1.62
Space Usage Factor			0.50
		_	
Underground Conduit Attachment Rate		\$	0.81

# **Change in Miscellaneous Revenues for Attachment Charges**

#### Kentucky Utilities Company and Louisville Gas and Electric Company

Forecasted Miscellaneous Revenue at Proposed Attachment Charges For the 12 Months Ended June 30, 2018

Attachment Type	Tot	al Attachments		Annual Revenue	!	Current Rate		Proposed Rate		Annual Revenue It Proposed Rate		Increase (Decrease) in Revenue
Telecom Wireline												
Telecom Wireline (KU)		11,067	¢	61,750.83	¢	5.58	ς.	7.25	ς.	80,236	¢	18,485
Telecom Wireline (LG&E)		4,344		54,201.15		12.48		7.25		31,494		(22,707)
relecon Wheline (LGQL)	\$	15,411.00		115,951.98	_	12.40	ڔ	7.25	ڔ	31,434	Ą	(22,707)
		•	-		-							
Total CATV												
CATV (KU)		149,547	\$	1,083,117.44	\$	7.25	\$	7.25				
CATV (LG&E)		88,362		639,921.25		7.25		7.25				
, ,	\$	237,909.00		1,723,038.69	- ` -							
Wireless												
Telecom Wireless (KU)							\$	84.00	\$	1,235	\$	1,235
Telecom Wireless (LG&E)							\$	84.00	•	317		317
. c.coo.n will cicos (Louz)							Y	57.00	Y	317	7	317
Total KU											\$	19,720
Total LG&E											\$	(22,391)

# Cost Support for Unauthorized Reconnection Charge

Kentucky Utilities Company
Unauthorized Meter Reconnect Charges Cost Justification

Charge Description	Cost
Field Investigator - (1/2 hour) Transportation - (1/2 hour) Back Office Admin Labor - (1/2 hour) Lock Costs Total Charge without meter replacement at August 31, 2016	\$ 34.39 3.15 21.04 11.82 70.41
Total Charge if meter replacement necessary: UAR Charge for 1/0 Standard Meter Replacement Charge without meter replacement Charge for 1/0 Standard Meter Replacement	\$ 70.41 19.18 89.59
UAR Charge for 1/0 AMR Meter Replacement Charge without meter replacement Charge for 1/0 AMR Meter Replacement	\$ 70.41 40.01 110.41
UAR Charge for 1/0 AMS Meter Replacement Charge without meter replacement Charge for 1/0 AMS Meter Replacement	\$ 70.41 103.70 174.10
UAR Charge for 3/0 Standard Meter Replacement Charge without meter replacement Charge for 3/0 Standard Meter Replacement	\$ 70.41 106.73 177.13

# BIP Analysis for Electric Cost of Service Study

29.60%

### LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES

Assignment of Production and Transmission Demand-Related Costs Based on Forecasted 12 Months Ended June 30, 2018

Minimum System Demand Winter System Peak Demand Summer System Peak Demand	2,303 6,021 6,698		
Assignment of Production and Transmission Demand-Related Costs to the Costing Periods			
Non-Time-Differentiated Capacity Costs			
1. Minimum System Demand		2,303	
2. Maximum System Demand		6,698	
3. Non-Time-Differentiated Capacity Factor (Line	: 1/Line 2)	0.3438	
4. Non-Time-Differentiated Cost (Line 3)			34.38%
Winter Peak Period Costs			
5. Maximum Winter System Demand		6,021	
6. Intermediate Peak Period Capacity Factor (Lin	ne 5/Line2 - Line 3)	0.5551	
7. Winter Peak Period Hours		2,416	
8. Summer Peak Period Hours		1,308	
9. Total Summer and Winter Peak Period Hours	(Line 7 + Line 8)	3,724	
10. Winter Peak Period Costs (Line 8/Line 9 x Lin	ne 6)		36.02%
Summer Peak Period Costs			
11. Peak Capacity Factor (1.0000 - Line 3 - Line 6	3)	0.1011	

12. Summer Peak Period Costs (Line 11 + Line 7/Line 9 x Line 6)

# LOLP Analysis for Electric Cost of Service Study

LOLP Fixed Production Cost Allocation Factor For the 12 Months Ended June 30, 2018

Rate Class	Weighted LOLP
	$\sum_{i=1}^{8760} LOLP_i * \overline{LOAD}_i$
Residential	16,742.80
General Service	4,922.40
All Electric Schools	321.46
TOD Secondary	3,942.05
TOD Primary	9,204.19
PS Secondary	5,377.62
PS Primary	407.89
RTS	3,150.82
FLS	1,222.99
Unmetered Lighting	6.02
Traffic Energy Service	2.31
Lighting Energy Service	0.02
Total	45,300.58

# Zero Intercept Overhead Conductor

# Zero Intercept Analysis Account 365 -- Overhead Conductor

#### **Weighted Linear Regression Statistics**

Weighted Einear Regression Statistics				
		Standard		
	Estimate	Error	LINEST ARRA	Y
Cina Confficient (frankACNA)	0.0042201	0.0007242	0.00400070	1 110100
Size Coefficient (\$ per MCM)	0.0042381	0.0007242	0.004238076	1.148169
Zero Intercept (\$ per Unit)	1.1481694	0.2165379	0.000724158	0.216538
			0.8382354	1682.393
R-Square	0.8382354		82.90915541	32
'			469339999.2	90574315
Plant Classification			10000000.2	0001 1010
Total Number of Units		98,977,688		
Zero Intercept		1.1481694		
Zero Intercept Cost		\$ 113,643,149		
Total Cost of Sample		\$ 191,986,396		
Percentage of Total		0.591933343		
Percentage Classified as Customer-Related		59.19%		
Percentage Classified as Demand-Related		40.81%		

# Zero Intercept Analysis Account 365 -- Overhead Conductor

Description	Size	Cost	Quantity	Avg Cost
#2 Triplex	66.369	12,049,980.44	9,444,024.00	1.275937
#4 Aluminum Poly	41.74	107,147.80	24,198.00	4.427961
1 CONDUCTOR	83.69	1,411,598.65	182,059.00	7.753523
1/0 CONDUCTOR	105.6	4,290,230.09	690,429.00	6.213861
1/0 Triplex	105.6	4,992.80	1,000.00	4.9928
1/0 Aluminum	105.6	19,519.07	5,787.00	3.372917
123,270 ACAR WIRE	123.27	16,001,355.25	9,030,733.00	1.771878
195,700 ACAR WIRE	195.7	2,350,342.57	1,867,358.00	1.258646
2/0 COPPER CONDUCTOR	133.1	814,744.67	619,229.00	1.31574
20 M.A.W. MESSENGER WIRE	20	2,835,873.99	1,331,916.00	2.129169
336,400 19 STR. ALL ALUMINUM	336.4	8,877,286.87	5,632,629.00	1.576047
350 MCM COPPER CONDUCTOR	350	1,343,426.45	74,915.00	17.93268
392,500 24/13 ACAR WIRE	392.5	1,018,369.50	863,538.00	1.179299
4 COPPER CONDUCTOR	41.74	17,171,210.51	11,636,815.00	1.475594
4A COPPER CONDUCTOR	41.74	619,277.91	70,532.00	8.780099
6 COPPER CONDUCTOR	26.25	9,672,518.55	15,184,951.00	0.636981
6A COPPER CONDUCTOR	26.25	752,935.77	101,691.00	7.404153
750 MCM COPPER CONDUCTOR	750	854,930.69	26,529.00	32.22627
795 MCM ALUMINUM CONDUCTOR	795	50,420,186.86	10,820,405.00	4.659732
8 COPPER CONDUCTOR	16.51	692,062.17	334,246.00	2.070517
840,200 24/13 ACAR WIRE	840.2	580,130.00	211,997.00	2.736501
1/0 CABLE	105.6	40,927,306.48	22,040,786.00	1.85689
101 MCM ACSR CONDUCTOR	101	1,181.18	250.00	4.72472
1272 MCM ACSR CONDUCTOR	1272	80,155.38	31,063.00	2.580413
200 MCM CABLE	200	3,238.76	500.00	6.47752
3/0 CONDUCTOR	167.8	5,943,955.85	2,037,913.00	2.916688
300 MCM COPPER CONDUCTOR	300	3,564.60	260.00	13.71
4/0 CONDUCTOR	211.6	12,422,874.97	6,559,680.00	1.893823
520 MCM CONDUCTOR	520	688.25	112.00	6.145089
600 MCM CONDUCTOR	600	105,138.81	15,810.00	6.650146
636 MCM ALUMINUM CONDUCTOR	636	21,911.09	3,040.00	7.207595
7/C CONDUCTOR	20.92	18,059.98	4,050.00	4.459254
80 MCM ACSR CONDUCTOR	80	16,623.99	7,500.00	2.216532
954 MCM ACSR CONDUCTOR	954	553,575.80	121,743.00	4.547085

# Zero Intercept Analysis Account 365 -- Overhead Conductor

9,444,024         1,27594         66.37         1,429         3921,09894         3,073,11         2039594           24,198         4,42796         41,74         1,325         688,8006086         155.56         6492,952           182,059         7,75352         83,69         1,503         3308,302079         426,68         35709,16           690,429         6,21386         105,60         1,596         5163,225253         830,92         87745,21           1,000         4,99280         105,60         1,596         5163,225253         830,92         87745,21           1,000         4,99280         105,60         1,596         5163,22553         330,92         87745,21           1,000         4,99280         105,60         1,596         516,8565699         76,07         8033,238           9,030,733         1,7188         123,27         1,671         5324,701495         3,005,12         370440,9           1,867,358         1,25865         195,70         1,978         1719,956145         1,366,51         267426,6           619,229         1,31574         20,00         1,233         2457,24529         1,154,09         23081,73           5,52,2629         1,57605         336,40	n	у	x	est y	y*n^.5	n^.5	xn^.5
182,059         7.75352         83.69         1.503         3308.302079         426.68         35709.16           690,429         6.21386         105.60         1.596         5163.225253         830.92         87745.21           1,000         4.99280         105.60         1.596         256.5856596         76.07         8033.238           9,030,733         1.77188         123.27         1.671         5324.701495         3,005.12         370440.9           1,867,358         1.25865         195.70         1.978         1719.956145         1,366.51         267426.6           619,229         1.31574         133.10         1.712         1035.370733         786.91         104737.9           1,331,916         2.12917         20.00         1.233         2457.24529         1,164.09         23081.73           5,632,629         1.57605         336.40         2.574         374.0457124         2,373.32         798383.5           74,915         17.93268         350.00         2.812         1095.884179         929.27         364737.5           11,636,815         1.47559         41.74         1.325         5033.65965         3,411.28         142386.7           70,532         8.78010         41.74	9,444,024	1.27594	66.37	1.429	3921.09894	3,073.11	203959.4
690,429         6.21386         105.60         1.596         5163.225253         830.92         87745.21           1,000         4.99280         105.60         1.596         157.886199         31.62         3333.365           5,787         3.37292         105.60         1.596         256.5866596         76.07         8033.238           9,030,733         1.77188         123.27         1.671         5324.701495         3,005.12         370440.9           1,867,358         1.25865         195.70         1.978         1719.956145         1,366.51         267426.6           619,229         1.31574         133.10         1.712         1035.370733         786.91         104737.9           1,331,916         2.12917         20.00         1.233         2457.24529         1,154.09         23081.73           5,632,629         1.57605         336.40         2.574         3740.457124         2,373.32         798383.5           74,915         17.93268         350.00         2.631         4908.281955         273.71         95797.12           863,538         1.17930         392.50         2.812         1095.884179         929.27         364737.5           71,6532         8.78010         41.74	24,198	4.42796	41.74	1.325	688.8006086	155.56	6492.952
1,000         4.99280         105.60         1.596         157.886199         31.62         3339.365           5,787         3.37292         105.60         1.596         256.8856596         76.07         8033.238           9,030,733         1.77188         123.27         1.671         5324.701495         3,005.12         370440.9           1,867,358         1.25865         195.70         1.978         1719.956145         1,366.51         267426.6           619,229         1.31574         133.10         1.712         1035.370733         786.91         104737.9           1,331,916         2.12917         20.00         1.233         2457.24529         1,154.09         23081.73           5,632,629         1.57605         336.40         2.574         3740.457124         2,373.32         798383.5           74,915         17,93268         350.00         2.631         4908.281955         273.71         95797.12           863,538         1.17930         392.50         2.812         1095.884179         929.27         36473.5           11,636,815         1.47559         41.74         1.325         5033.65965         3,411.28         142386.7           70,532         8.78010         41.74	182,059	7.75352	83.69	1.503	3308.302079	426.68	35709.16
5,787         3.37292         105.60         1.596         256.5856596         76.07         8033.238           9,030,733         1.77188         123.27         1.671         5324.701495         3,005.12         370440.9           1,867,358         1.25865         195.70         1.978         1719.956145         1,366.51         267426.6           619,229         1.31574         133.10         1.712         1035.370733         786.91         104737.9           1,331,916         2.12917         20.00         1.233         2457.24529         1,154.09         23081.73           5,632,629         1.57605         336.40         2.574         3740.457124         2,373.32         798383.5           74,915         17.93268         350.00         2.631         4908.281955         273.71         95797.12           863,538         1.17930         392.50         2.812         1095.884179         929.27         364737.5           11,636,815         1.47559         41.74         1.325         5033.65965         3,411.28         142386.7           70,532         8.78010         41.74         1.325         2331.806397         265.58         11.589         2361.112448         318.89         8370.869      <	690,429	6.21386	105.60	1.596	5163.225253	830.92	87745.21
9,030,733         1.77188         123.27         1.671         5324.701495         3,005.12         370440.9           1,867,358         1.25865         195.70         1.978         1719.956145         1,366.51         267426.6           6 19,229         1.31574         133.10         1.712         1035.370733         786.91         104737.9           1,331,916         2.12917         20.00         1.233         2457.24529         1,154.09         23081.73           5,632,629         1.57605         336.40         2.574         3740.457124         2,373.32         798383.5           74,915         17.93268         350.00         2.631         4908.281955         273.71         95797.12           863,538         1.17930         392.50         2.812         1095.884179         929.27         364737.5           11,636,815         1.47559         41.74         1.325         5033.65965         3,411.28         142386.7           70,532         8.78010         41.74         1.325         2331.806397         265.58         11085.25           15,184,951         0.63698         26.25         1.259         2482.177725         3,896.79         102290.7           101,691         7.40415         26.	1,000	4.99280	105.60		157.886199	31.62	3339.365
1,867,358         1.25865         195.70         1.978         1719.956145         1,366.51         267426.6         619,229         1.31574         133.10         1.712         1035.370733         786.91         104737.9         1,331,916         2.12917         20.00         1.233         2457.24529         1,154.09         23081.73         5632,629         1.57605         336.40         2.574         3740.457124         2,373.32         798383.5         74,915         17.93268         350.00         2.631         4908.281955         273.71         95797.12         863,538         1.17930         392.50         2.812         1095.884179         929.27         364737.5         11,636,815         1.47559         41.74         1.325         5033.65965         3,411.28         142386.7         70,532         8.78010         41.74         1.325         5033.65965         3,411.28         142386.7         70,532         8.70010         41.74         1.325         5033.65965         3,411.28         142386.7         70,532         8.70010         41.74         1.325         5033.65965         3,411.28         142386.7         70,532         8.70010         41.74         1.325         2331.806397         265.58         11.080         26,529         2361.112448         318.89         8370.	5,787	3.37292	105.60	1.596	256.5856596	76.07	8033.238
619,229         1.31574         133.10         1.712         1035.370733         786.91         104737.9           1,331,916         2.12917         20.00         1.233         2457.24529         1,154.09         23081.73           5,632,629         1.57605         336.40         2.574         3740.457124         2,373.32         798383.5           74,915         17.93268         350.00         2.631         4908.281955         273.71         95797.12           863,538         1.17930         392.50         2.812         1095.884179         929.27         364737.5           11,636,815         1.47559         41.74         1.325         5033.65965         3,411.28         142386.7           70,532         8.78010         41.74         1.325         2381.806397         265.58         11085.25           15,184,951         0.63698         26.25         1.259         2361.112448         318.89         3870.869           26,529         32.22627         750.00         4.327         5248.926212         162.88         122157.9           10,820,405         4.65973         795.00         4.517         15327.90121         3,289.44         2615104           334,246         2.07052         16.51	9,030,733	1.77188	123.27	1.671	5324.701495	3,005.12	370440.9
1,331,916         2.12917         20.00         1.233         2457.24529         1,154.09         23081.73           5,632,629         1.57605         336.40         2.574         3740.457124         2,373.32         798383.5           74,915         17.93268         350.00         2.631         4908.281955         273.71         95797.12           863,538         1.17930         392.50         2.812         1095.884179         929.27         364737.5           11,636,815         1.47559         41.74         1.325         5033.65965         3,411.28         142386.7           70,532         8.78010         41.74         1.325         2331.806397         265.58         11085.25           15,184,951         0.63698         26.25         1.259         2482.177725         3,896.79         102290.7           101,691         7.40415         26.25         1.259         2361.112448         318.89         8370.869           26,529         32.22627         750.00         4.327         5248.926212         162.88         122157.9           10,820,405         4.65973         795.00         4.517         15327.90121         3,289.44         2615104           22,040,786         1.85689         105.60	1,867,358	1.25865	195.70	1.978	1719.956145	1,366.51	267426.6
5,632,629         1.57605         336.40         2.574         3740.457124         2,373.32         798383.5           74,915         17.93268         350.00         2.631         4908.281955         273.71         95797.12           863,538         1.17930         392.50         2.812         1095.884179         929.27         364737.5           11,636,815         1.47559         41.74         1.325         5033.65965         3,411.28         142386.7           70,532         8.78010         41.74         1.325         2331.806397         265.58         11085.25           15,184,951         0.63698         26.25         1.259         2482.177725         3,896.79         102290.7           101,691         7.40415         26.25         1.259         2361.112448         318.89         8370.869           26,529         32.22627         750.00         4.327         5248.926212         162.88         122157.9           10,820,405         4.65973         795.00         4.517         15327.90121         3,289.44         2615104           334,246         2.07052         16.51         1.218         1197.0492         578.14         9545.093           211,997         2.73650         840.20	619,229	1.31574	133.10	1.712	1035.370733	786.91	104737.9
74,915         17,93268         350.00         2.631         4908.281955         273.71         95797.12           863,538         1.17930         392.50         2.812         1095.884179         929.27         364737.5           11,636,815         1.47559         41.74         1.325         5033.65965         3,411.28         142386.7           70,532         8.78010         41.74         1.325         2331.806397         265.58         11085.25           15,184,951         0.63698         26.25         1.259         2482.177725         3,896.79         102290.7           101,691         7.40415         26.25         1.259         2361.112448         318.89         8370.869           26,529         32.22627         750.00         4.327         5248.926212         162.88         122157.9           10,820,405         4.65973         795.00         4.517         15327.90121         3,289.44         2615104           334,246         2.07052         16.51         1.218         1197.0492         578.14         9545.093           211,997         2.73650         840.20         4.709         1259.970761         460.43         386854.4           22,040,786         1.85689         105.60	1,331,916	2.12917	20.00	1.233	2457.24529	1,154.09	23081.73
863,538         1.17930         392.50         2.812         1095.884179         929.27         364737.5           11,636,815         1.47559         41.74         1.325         5033.65965         3,411.28         142386.7           70,532         8.78010         41.74         1.325         2331.806397         265.58         11085.25           15,184,951         0.63698         26.25         1.259         2482.177725         3,896.79         102290.7           101,691         7.40415         26.25         1.259         2361.112448         318.89         8370.869           26,529         32.22627         750.00         4.327         5248.926212         162.88         122157.9           10,820,405         4.65973         795.00         4.517         15327.90121         3,289.44         2615104           334,246         2.07052         16.51         1.218         1197.0492         578.14         9545.093           211,997         2.73650         840.20         4.709         1259.970761         460.43         386854.4           22,040,786         1.85689         105.60         1.596         8717.653933         4,694.76         495766.8           250         4.72472         101.00	5,632,629	1.57605	336.40	2.574	3740.457124	2,373.32	798383.5
11,636,815         1.47559         41.74         1.325         5033.65965         3,411.28         142386.7           70,532         8.78010         41.74         1.325         2331.806397         265.58         11085.25           15,184,951         0.63698         26.25         1.259         2482.177725         3,896.79         102290.7           101,691         7.40415         26.25         1.259         2361.112448         318.89         8370.869           26,529         32.22627         750.00         4.327         5248.926212         162.88         122157.9           10,820,405         4.65973         795.00         4.517         15327.90121         3,289.44         2615104           334,246         2.07052         16.51         1.218         1197.0492         578.14         9545.093           211,997         2.73650         840.20         4.709         1259.970761         460.43         386854.4           22,040,786         1.85689         105.60         1.596         8717.653933         4,694.76         499766.8           250         4.72472         101.00         1.576         74.70438253         15.81         1596.95           31,063         2.58041         1,272.00	74,915	17.93268	350.00	2.631	4908.281955	273.71	95797.12
70,532         8.78010         41.74         1.325         2331.806397         265.58         11085.25           15,184,951         0.63698         26.25         1.259         2482.177725         3,896.79         102290.7           101,691         7.40415         26.25         1.259         2361.112448         318.89         8370.869           26,529         32.22627         750.00         4.327         5248.926212         162.88         122157.9           10,820,405         4.65973         795.00         4.517         15327.90121         3,289.44         2615104           334,246         2.07052         16.51         1.218         1197.0492         578.14         9545.093           211,997         2.73650         840.20         4.709         1259.970761         460.43         386854.4           22,040,786         1.85689         105.60         1.596         8717.653933         4,694.76         495766.8           250         4.72472         101.00         1.576         74.70438253         15.81         1596.95           31,063         2.58041         1,272.00         6.539         454.7900756         176.25         224186.2           500         6.47752         200.00         1	863,538	1.17930	392.50	2.812	1095.884179	929.27	364737.5
15,184,951         0.63698         26.25         1.259         2482.177725         3,896.79         102290.7           101,691         7.40415         26.25         1.259         2361.112448         318.89         8370.869           26,529         32.22627         750.00         4.327         5248.926212         162.88         122157.9           10,820,405         4.65973         795.00         4.517         15327.90121         3,289.44         2615104           334,246         2.07052         16.51         1.218         1197.0492         578.14         9545.093           211,997         2.73650         840.20         4.709         1259.970761         460.43         386854.4           22,040,786         1.85689         105.60         1.596         8717.653933         4,694.76         495766.8           250         4.72472         101.00         1.576         74.70438253         15.81         1596.95           31,063         2.58041         1,272.00         6.539         454.7900756         176.25         224186.2           500         6.47752         200.00         1.996         144.8417505         22.36         4472.136           2,037,913         2.91669         167.80 <t< td=""><td>11,636,815</td><td>1.47559</td><td>41.74</td><td>1.325</td><td>5033.65965</td><td>3,411.28</td><td>142386.7</td></t<>	11,636,815	1.47559	41.74	1.325	5033.65965	3,411.28	142386.7
101,691         7.40415         26.25         1.259         2361.112448         318.89         8370.869           26,529         32.22627         750.00         4.327         5248.926212         162.88         122157.9           10,820,405         4.65973         795.00         4.517         15327.90121         3,289.44         2615104           334,246         2.07052         16.51         1.218         1197.0492         578.14         9545.093           211,997         2.73650         840.20         4.709         1259.970761         460.43         386854.4           22,040,786         1.85689         105.60         1.596         8717.653933         4,694.76         495766.8           250         4.72472         101.00         1.576         74.70438253         15.81         1596.95           31,063         2.58041         1,272.00         6.539         454.7900756         176.25         224186.2           500         6.47752         200.00         1.996         144.8417505         22.36         4472.136           2,037,913         2.91669         167.80         1.859         4163.731874         1,427.55         239543.7           260         13.71000         300.00         2.4	70,532	8.78010	41.74	1.325	2331.806397	265.58	11085.25
26,529         32,22627         750.00         4.327         5248,926212         162,88         122157.9           10,820,405         4.65973         795.00         4.517         15327,90121         3,289,44         2615104           334,246         2.07052         16.51         1.218         1197,0492         578,14         9545,093           211,997         2.73650         840,20         4.709         1259,970761         460,43         386854,4           22,040,786         1.85689         105.60         1.596         8717,653933         4,694,76         495766,8           250         4.72472         101.00         1.576         74.70438253         15.81         1596,95           31,063         2.58041         1,272.00         6.539         454,7900756         176.25         224186,2           500         6.47752         200.00         1.996         144,8417505         22.36         4472,136           2,037,913         2.91669         167.80         1.859         4163,731874         1,427,55         239543,7           260         13,71000         300.00         2,420         221,0671075         16.12         4837,355           6,559,680         1,89382         211.60         2	15,184,951	0.63698	26.25	1.259	2482.177725	3,896.79	102290.7
10,820,405         4.65973         795.00         4.517         15327.90121         3,289.44         2615104           334,246         2.07052         16.51         1.218         1197.0492         578.14         9545.093           211,997         2.73650         840.20         4.709         1259.970761         460.43         386854.4           22,040,786         1.85689         105.60         1.596         8717.653933         4,694.76         495766.8           250         4.72472         101.00         1.576         74.70438253         15.81         1596.95           31,063         2.58041         1,272.00         6.539         454.7900756         176.25         224186.2           500         6.47752         200.00         1.996         144.8417505         22.36         4472.136           2,037,913         2.91669         167.80         1.859         4163.731874         1,427.55         239543.7           260         13.71000         300.00         2.420         221.0671075         16.12         4837.355           6,559,680         1.89382         211.60         2.045         4850.436099         2,561.19         541947.2           112         6.14509         520.00         3.3	101,691	7.40415	26.25	1.259	2361.112448	318.89	8370.869
334,246         2.07052         16.51         1.218         1197.0492         578.14         9545.093           211,997         2.73650         840.20         4.709         1259.970761         460.43         386854.4           22,040,786         1.85689         105.60         1.596         8717.653933         4,694.76         495766.8           250         4.72472         101.00         1.576         74.70438253         15.81         1596.95           31,063         2.58041         1,272.00         6.539         454.7900756         176.25         224186.2           500         6.47752         200.00         1.996         144.8417505         22.36         4472.136           2,037,913         2.91669         167.80         1.859         4163.731874         1,427.55         239543.7           260         13.71000         300.00         2.420         221.0671075         16.12         4837.355           6,559,680         1.89382         211.60         2.045         4850.436099         2,561.19         541947.2           112         6.14509         520.00         3.352         65.03351214         10.58         5503.163           15,810         6.65015         600.00         3.691 <td>26,529</td> <td>32.22627</td> <td>750.00</td> <td>4.327</td> <td>5248.926212</td> <td>162.88</td> <td>122157.9</td>	26,529	32.22627	750.00	4.327	5248.926212	162.88	122157.9
211,997         2.73650         840.20         4.709         1259.970761         460.43         386854.4           22,040,786         1.85689         105.60         1.596         8717.653933         4,694.76         495766.8           250         4.72472         101.00         1.576         74.70438253         15.81         1596.95           31,063         2.58041         1,272.00         6.539         454.7900756         176.25         224186.2           500         6.47752         200.00         1.996         144.8417505         22.36         4472.136           2,037,913         2.91669         167.80         1.859         4163.731874         1,427.55         239543.7           260         13.71000         300.00         2.420         221.0671075         16.12         4837.355           6,559,680         1.89382         211.60         2.045         4850.436099         2,561.19         541947.2           112         6.14509         520.00         3.352         65.03351214         10.58         5503.163           15,810         6.65015         600.00         3.691         836.174891         125.74         75442.69           3,040         7.20760         636.00         3.844 <td>10,820,405</td> <td>4.65973</td> <td>795.00</td> <td>4.517</td> <td>15327.90121</td> <td>3,289.44</td> <td>2615104</td>	10,820,405	4.65973	795.00	4.517	15327.90121	3,289.44	2615104
22,040,786       1.85689       105.60       1.596       8717.653933       4,694.76       495766.8         250       4.72472       101.00       1.576       74.70438253       15.81       1596.95         31,063       2.58041       1,272.00       6.539       454.7900756       176.25       224186.2         500       6.47752       200.00       1.996       144.8417505       22.36       4472.136         2,037,913       2.91669       167.80       1.859       4163.731874       1,427.55       239543.7         260       13.71000       300.00       2.420       221.0671075       16.12       4837.355         6,559,680       1.89382       211.60       2.045       4850.436099       2,561.19       541947.2         112       6.14509       520.00       3.352       65.03351214       10.58       5503.163         15,810       6.65015       600.00       3.691       836.174891       125.74       75442.69         3,040       7.20760       636.00       3.844       397.3993852       55.14       35066.62         4,050       4.45925       20.92       1.237       283.7852072       63.64       1331.341         7,500       2.21653	334,246	2.07052	16.51	1.218	1197.0492	578.14	9545.093
250         4.72472         101.00         1.576         74.70438253         15.81         1596.95           31,063         2.58041         1,272.00         6.539         454.7900756         176.25         224186.2           500         6.47752         200.00         1.996         144.8417505         22.36         4472.136           2,037,913         2.91669         167.80         1.859         4163.731874         1,427.55         239543.7           260         13.71000         300.00         2.420         221.0671075         16.12         4837.355           6,559,680         1.89382         211.60         2.045         4850.436099         2,561.19         541947.2           112         6.14509         520.00         3.352         65.03351214         10.58         5503.163           15,810         6.65015         600.00         3.691         836.174891         125.74         75442.69           3,040         7.20760         636.00         3.844         397.3993852         55.14         35066.62           4,050         4.45925         20.92         1.237         283.7852072         63.64         1331.341           7,500         2.21653         80.00         1.487 <td< td=""><td>211,997</td><td>2.73650</td><td>840.20</td><td>4.709</td><td>1259.970761</td><td>460.43</td><td>386854.4</td></td<>	211,997	2.73650	840.20	4.709	1259.970761	460.43	386854.4
31,063       2.58041       1,272.00       6.539       454.7900756       176.25       224186.2         500       6.47752       200.00       1.996       144.8417505       22.36       4472.136         2,037,913       2.91669       167.80       1.859       4163.731874       1,427.55       239543.7         260       13.71000       300.00       2.420       221.0671075       16.12       4837.355         6,559,680       1.89382       211.60       2.045       4850.436099       2,561.19       541947.2         112       6.14509       520.00       3.352       65.03351214       10.58       5503.163         15,810       6.65015       600.00       3.691       836.174891       125.74       75442.69         3,040       7.20760       636.00       3.844       397.3993852       55.14       35066.62         4,050       4.45925       20.92       1.237       283.7852072       63.64       1331.341         7,500       2.21653       80.00       1.487       191.957302       86.60       6928.203	22,040,786	1.85689	105.60	1.596	8717.653933	4,694.76	495766.8
500         6.47752         200.00         1.996         144.8417505         22.36         4472.136           2,037,913         2.91669         167.80         1.859         4163.731874         1,427.55         239543.7           260         13.71000         300.00         2.420         221.0671075         16.12         4837.355           6,559,680         1.89382         211.60         2.045         4850.436099         2,561.19         541947.2           112         6.14509         520.00         3.352         65.03351214         10.58         5503.163           15,810         6.65015         600.00         3.691         836.174891         125.74         75442.69           3,040         7.20760         636.00         3.844         397.3993852         55.14         35066.62           4,050         4.45925         20.92         1.237         283.7852072         63.64         1331.341           7,500         2.21653         80.00         1.487         191.957302         86.60         6928.203	250	4.72472	101.00	1.576	74.70438253	15.81	1596.95
2,037,913       2.91669       167.80       1.859       4163.731874       1,427.55       239543.7         260       13.71000       300.00       2.420       221.0671075       16.12       4837.355         6,559,680       1.89382       211.60       2.045       4850.436099       2,561.19       541947.2         112       6.14509       520.00       3.352       65.03351214       10.58       5503.163         15,810       6.65015       600.00       3.691       836.174891       125.74       75442.69         3,040       7.20760       636.00       3.844       397.3993852       55.14       35066.62         4,050       4.45925       20.92       1.237       283.7852072       63.64       1331.341         7,500       2.21653       80.00       1.487       191.957302       86.60       6928.203	31,063	2.58041	1,272.00	6.539	454.7900756	176.25	224186.2
260       13.71000       300.00       2.420       221.0671075       16.12       4837.355         6,559,680       1.89382       211.60       2.045       4850.436099       2,561.19       541947.2         112       6.14509       520.00       3.352       65.03351214       10.58       5503.163         15,810       6.65015       600.00       3.691       836.174891       125.74       75442.69         3,040       7.20760       636.00       3.844       397.3993852       55.14       35066.62         4,050       4.45925       20.92       1.237       283.7852072       63.64       1331.341         7,500       2.21653       80.00       1.487       191.957302       86.60       6928.203	500	6.47752	200.00	1.996	144.8417505	22.36	4472.136
6,559,680       1.89382       211.60       2.045       4850.436099       2,561.19       541947.2         112       6.14509       520.00       3.352       65.03351214       10.58       5503.163         15,810       6.65015       600.00       3.691       836.174891       125.74       75442.69         3,040       7.20760       636.00       3.844       397.3993852       55.14       35066.62         4,050       4.45925       20.92       1.237       283.7852072       63.64       1331.341         7,500       2.21653       80.00       1.487       191.957302       86.60       6928.203	2,037,913	2.91669	167.80	1.859	4163.731874	1,427.55	239543.7
112     6.14509     520.00     3.352     65.03351214     10.58     5503.163       15,810     6.65015     600.00     3.691     836.174891     125.74     75442.69       3,040     7.20760     636.00     3.844     397.3993852     55.14     35066.62       4,050     4.45925     20.92     1.237     283.7852072     63.64     1331.341       7,500     2.21653     80.00     1.487     191.957302     86.60     6928.203	260	13.71000	300.00	2.420	221.0671075	16.12	4837.355
15,810     6.65015     600.00     3.691     836.174891     125.74     75442.69       3,040     7.20760     636.00     3.844     397.3993852     55.14     35066.62       4,050     4.45925     20.92     1.237     283.7852072     63.64     1331.341       7,500     2.21653     80.00     1.487     191.957302     86.60     6928.203	6,559,680	1.89382	211.60	2.045	4850.436099	2,561.19	
3,040     7.20760     636.00     3.844     397.3993852     55.14     35066.62       4,050     4.45925     20.92     1.237     283.7852072     63.64     1331.341       7,500     2.21653     80.00     1.487     191.957302     86.60     6928.203	112	6.14509	520.00	3.352	65.03351214	10.58	5503.163
4,050       4.45925       20.92       1.237       283.7852072       63.64       1331.341         7,500       2.21653       80.00       1.487       191.957302       86.60       6928.203	15,810	6.65015	600.00	3.691	836.174891	125.74	75442.69
7,500 2.21653 80.00 1.487 191.957302 86.60 6928.203	3,040	7.20760	636.00	3.844	397.3993852	55.14	35066.62
·	4,050	4.45925	20.92	1.237	283.7852072	63.64	1331.341
121,743 4.54709 954.00 5.191 1586.55487 348.92 332866.7	7,500	2.21653	80.00	1.487	191.957302	86.60	6928.203
	121,743	4.54709	954.00	5.191	1586.55487	348.92	332866.7

Pri/Sec Splits for Overhead Conductor

		Customer	Demand
Overhead		59.19%	40.81%
Primary	65.21%	0.3860	0.2661
Secondary	34.79%	0.2059	0.1420

# Zero Intercept Underground Conductor

### Zero Intercept Analysis Account 367 -- Underground Conductor

#### Weighted Linear Regression Statistics

		Standard		
	Estimate	Error	LINEST	ARRAY
Size Coefficient (\$ per MCM)	0.0102572	0.0030099	0.010257168	4.674835997
Zero Intercept (\$ per Unit)	4.6748360	0.5168983	0.003009929	0.516898278
			0.906339753	2008.459481
R-Square	0.9063398		125.7995482	26
			1014927981	104881646.6
Plant Classification				
Total Number of Units		28,072,832		
Zero Intercept		4.6748360		
Zero Intercept Cost		\$131,235,886		
Total Cost of Sample		164,853,919		
Percentage of Total		0.796073799		
Percentage Classified as Customer-Related		79.61%	]	
Percentage Classified as Demand-Related		20.39%	]	

### **Kentucky Utilities Company**

### Zero Intercept Analysis Account 367 -- Underground Conductor

Description	Size	Cost	Quantity	Avg Cost
#12 CABLE	13.12	89,006.20	39,823.00	2.235045074
#2 Triplex	66.36	79,989,007.18	15,404,958.00	5.192419686
1 CONDUCTOR	83.69	1,250,374.51	120,419.00	10.38353175
1/0 CABLE	105.6	9,840,505.50	773,491.00	12.7221978
1/0 CONDUCTOR	105.6	4,118,279.86	207,683.00	19.82964354
1/0 Triplex	105.6	44,974.14	7,912.00	5.684294742
1000 MCM CONDUCTOR	1000	4,879,316.51	366,565.00	13.3109176
1500 MCM UGAL CABLE	1500	44,861.19	4,026.00	11.14286885
2/0 COPPER CONDUCTOR	133.1	34,766,450.69	6,361,132.00	5.465450283
20 M.A.W. MESSENGER WIRE	20	1,880.60	2,834.00	0.663585039
200 MCM CABLE	200	44,255.13	5,194.00	8.520433192
2000 MCM 1/C 1000V CABLE	2000	501.81	578.00	0.868183391
266 MCM ACSR CONDUCTOR	266	7,717.86	400.00	19.29465
3/0 CONDUCTOR	167.8	994,247.11	224,357.00	4.431540402
300 MCM COPPER CONDUCTOR	300	8,963.91	126.00	71.14214286
350 MCM COPPER CONDUCTOR	350	3,544,244.42	403,573.00	8.782164367
397 MCM ACSR CONDUCTOR	397	117,135.66	9,339.00	12.54263412
4 COPPER CONDUCTOR	41.74	374,991.52	45,767.00	8.19349138
4/0 CONDUCTOR	211.6	21,298,803.39	2,820,181.00	7.552282421
4A COPPER CONDUCTOR	41.74	9,810.69	4,140.00	2.369731884
500 MCM COPPER CONDUCTOR	500	725,216.67	62,790.00	11.5498753
520 MCM CONDUCTOR	520	451.53	75.00	6.0204
6 COPPER CONDUCTOR	26.25	1,037,863.57	770,088.00	1.347720741
600 MCM CONDUCTOR	600	76,600.45	3,983.00	19.23184785
6A COPPER CONDUCTOR	26.25	377,669.81	334,569.00	1.128824876
750 MCM COPPER CONDUCTOR	750	1,171,289.16	95,550.00	12.25838995
795 MCM ALUMINUM CONDUCTOR	795	38,247.86	2,606.00	14.67684574
8 COPPER CONDUCTOR	795	1,252.12	673.00	1.860505201

### **Kentucky Utilities Company**

### Zero Intercept Analysis Account 367 -- Underground Conductor

n	y	X	est y	y*n^.5	n^.5	xn^.5
39,823	2.23505	13.12	4.809	446.0189109	199.56	2618.187963
15,404,958	5.19242	66.36	5.356	20379.80607	3,924.92	260457.3615
120,419	10.38353	83.69	5.533	3603.235133	347.01	29041.63588
773,491	12.72220	105.60	5.758	11188.96141	879.48	92873.44399
207,683	19.82964	105.60	5.758	9036.814795	455.72	48124.29635
7,912	5.68429	105.60	5.758	505.6147422	88.95	9393.059157
366,565	13.31092	1,000.00	14.932	8059.043368	605.45	605446.1165
4,026	11.14287	1,500.00	20.061	707.0235899	63.45	95176.15248
6,361,132	5.46545	133.10	6.040	13784.56774	2,522.13	335695.2989
2,834	0.66359	20.00	4.880	35.32616628	53.24	1064.706532
5,194	8.52043	200.00	6.726	614.0626015	72.07	14413.8822
578	0.86818	2,000.00	25.189	20.87254435	24.04	48083.26112
400	19.29465	266.00	7.403	385.893	20.00	5320
224,357	4.43154	167.80	6.396	2099.058417	473.66	79480.7156
126	71.14214	300.00	7.752	798.568573	11.22	3367.491648
403,573	8.78216	350.00	8.265	5579.080305	635.27	222345.8848
9,339	12.54263	397.00	8.747	1212.101368	96.64	38365.48515
45,767	8.19349	41.74	5.103	1752.851901	213.93	8929.531375
2,820,181	7.55228	211.60	6.845	12682.84583	1,679.34	355348.2284
4,140	2.36973	41.74	5.103	152.47526	64.34	2685.669798
62,790	11.54988	500.00	9.803	2894.16	250.58	125289.6644
75	6.02040	520.00	10.009	52.13819341	8.66	4503.3321
770,088	1.34772	26.25	4.944	1182.687727	877.55	23035.59772
3,983	19.23185	600.00	10.829	1213.741406	63.11	37866.60798
334,569	1.12882	26.25	4.944	652.9342053	578.42	15183.5092
95,550	12.25839	750.00	12.368	3789.210903	309.11	231833.7227
2,606	14.67685	795.00	12.829	749.2382406	51.05	40583.95188
673	1.86051	795.00	12.829	48.26567903	25.94	20624.08362

### **Kentucky Utilities Company**

Pri/Sec Splits for Underground Conductor

		Customer	Demand
Underground		79.61%	20.39%
Primary	91.81%	0.7309	0.1872
Secondary	8.19%	0.0652	0.0167

### **Exhibit WSS-15**

Zero Intercept Line Transformers

### **KENTUCKY UTILITIES COMPANY**

### Zero Intercept Analysis Account 368 - Line Transformers

### Weighted Linear Regression Statistics

		Standard		
	 Estimate	Error	LINEST A	Array
			11.05450218	426.2180274
Size Coefficient (\$ per kVA)	11.0545022	0.4496801	0.449680101	55.55395735
Zero Intercept (\$ per Unit)	426.22	55.5539573	0.948747147	26299.78697
			453.5221726	49
R-Square	0.9487471		6.27383E+11	33892260941
Plant Classification				
Total Number of Units	255,549			
Zero Intercept	\$ 426.22			
Zero Intercept Cost	\$ 108,919,591			
Total Cost of Sample	\$ 231,317,736			
Percentage of Total	0.470865713			
Percentage Classified as Customer-Related	47.09%			
Percentage Classified as Demand-Related	52.91%			

### **KENTUCKY UTILITIES COMPANY**

### Zero Intercept Analysis Account 368 - Line Transformers

	Size	Cost	Quantity	Avg Cost
TRANSFORMERS - OH 1P6 KVA	0.6	6,350.91	5	1270.18
TRANSFORMERS - OH 1P - 1 KVA	1	7,213.02	17	424.30
TRANSFORMERS - OH 1P - 1.5 KVA	1.5	1,516.80	22	68.95
TRANSFORMERS - OH 1P - 10 KVA	10	9,385,213.20	27,058	346.86
TRANSFORMERS - OH 1P - 100 KVA	100	6,031,328.08	4,248	1419.80
TRANSFORMERS - OH 1P - 1250 KVA	1250	148,540.75	14	10610.05
TRANSFORMERS - OH 1P - 15 KVA	15	27,800,803.47	54,618	509.00
TRANSFORMERS - OH 1P - 150 KVA	150	8,633.26	5	1726.65
TRANSFORMERS - OH 1P - 167 KVA	167	4,105,405.83	2,250	1824.62
TRANSFORMERS - OH 1P - 25 KVA	25	39,922,144.76	62,932	634.37
TRANSFORMERS - OH 1P - 250 KVA	250	995,942.04	297	3353.34
TRANSFORMERS - OH 1P - 3 KVA	3	97,135.32	793	122.49
TRANSFORMERS - OH 1P - 333 KVA	333	498,154.29	134	3717.57
TRANSFORMERS - OH 1P - 37.5 KVA	37.5	23,229,188.04	30,639	758.16
TRANSFORMERS - OH 1P - 5 KVA	5	804,677.62	5,314	151.43
TRANSFORMERS - OH 1P - 50 KVA	50	22,526,634.76	18,853	1194.86
TRANSFORMERS - OH 1P - 500 KVA	500	1,079,113.11	230	4691.80
TRANSFORMERS - OH 1P - 667 KVA	667	92,692.95	17	5452.53
TRANSFORMERS - OH 1P - 7.5 KVA	7.5	4,794.01	14	342.43
TRANSFORMERS - OH 1P - 75 KVA	75	7,792,123.39	6,654	1171.04
TRANSFORMERS - OH 1P - 833 KVA	833	255,840.52	25	10233.62
TRANSFORMERS - PM 1P - 10 KVA	10	119,797.83	156	767.93
TRANSFORMERS - PM 1P - 100 KVA	100	2,620,877.58	1,410	1858.78
TRANSFORMERS - PM 1P - 15 KVA	15	2,512,954.32	2,860	878.66
TRANSFORMERS - PM 1P - 150 KVA	150	70,726.30	15	4715.09
TRANSFORMERS - PM 1P - 167 KVA	167	2,208,351.44	972	2271.97
TRANSFORMERS - PM 1P - 225 KVA	225	24,046.73	7	3435.25
TRANSFORMERS - PM 1P - 25 KVA	25	9,557,478.42	9,683	987.04
TRANSFORMERS - PM 1P - 250 KVA	250	1,850,305.59	485	3815.06
TRANSFORMERS - PM 1P - 333 KVA	333	3,901.90	2	1950.95
TRANSFORMERS - PM 1P - 37.5 KVA	37.5	10,048,725.05	9,363	1073.24
TRANSFORMERS - PM 1P - 50 KVA	50	8,556,238.09	7,415	1153.91
TRANSFORMERS - PM 1P - 500 KVA	500	6,978.58	1	6978.58
TRANSFORMERS - PM 1P - 75 KVA	75	4,419,304.21	3,062	1443.27
TRANSFORMERS - PM 3P - 1000 KVA	1000	4,303,893.22	359	11988.56
TRANSFORMERS - PM 3P - 112 KVA	112	79,190.82	29	2730.72
TRANSFORMERS - PM 3P - 112.5 KVA	112.5	801,067.83	224	3576.20
TRANSFORMERS - PM 3P - 1250 KVA	1250	14,355.37	2	7177.69
TRANSFORMERS - PM 3P - 150 KVA	150	3,688,490.25	872	4229.92
TRANSFORMERS - PM 3P - 1500 KVA	1500	4,766,436.89	279	17084.00
TRANSFORMERS - PM 3P - 2000 KVA	2000	2,812,618.87	120	23438.49
TRANSFORMERS - PM 3P - 225 KVA	225	2,660,782.26	574	4635.51
TRANSFORMERS - PM 3P - 2500 KVA	2500	3,483,061.89	167	20856.66
TRANSFORMERS - PM 3P - 300 KVA	300	5,565,402.43	1,007	5526.72
TRANSFORMERS - PM 3P - 3000 KVA	3000	573,153.95	15	38210.26
TRANSFORMERS - PM 3P - 333 KVA	333	117,861.40	33	3571.56
TRANSFORMERS - PM 3P - 45 KVA	45	374,141.61	117	3197.79
TRANSFORMERS - PM 3P - 500 KVA	500	7,621,986.26	1,012	7531.61
TRANSFORMERS - PM 3P - 75 KVA	75	2,300,583.50	645	3566.80
TRANSFORMERS - PM 3P - 750 KVA	750	5,345,163.66	521	10259.43
TRANSFORMERS - PM 3P - 833 KVA	833	16,413.78	3	5471.26
111101 000 11111	000	- 5, 5 5		2.,1.20

### **KENTUCKY UTILITIES COMPANY**

### Zero Intercept Analysis Account 368 - Line Transformers

n	y	X	est y	y*n^.5	n^.5	xn^.5
5	1,270	0.60	267	2840.213296	2.24	1.341640786
17	424	1.00	437	1749.414314	4.12	4.123105626
22	69	1.50	650	323.3828466	4.69	7.03562364
27,058	347	10.00	4,273	57055.33984	164.49	1644.93161
4,248	1,420	100.00	42,633	92538.12571	65.18	6517.668295
14	10,610	1,250.00	532,784	39699.18532	3.74	4677.071733
54,618	509	15.00	6,404	118956.8488	233.70	3505.574133
5	1,727	150.00	63,944	3860.911245	2.24	335.4101966
2,250	1,825	167.00	71,189	86549.55428	47.43	7921.505539
62,932	634	25.00	10,667	159139.5399	250.86	6271.562804
297	3,353	250.00	106,566	57790.4186	17.23	4308.421985
793	122	3.00	1,290	3449.376352	28.16	84.48076704
134	3,718	333.00	141,942	43033.97622	11.58	3854.753689
30,639	758	37.50	15,994	132707.8876	175.04	6563.999829
5,314	151	5.00	2,142	11038.5276	72.90	364.4859394
18,853	1,195	50.00	21,322	164061.2756	137.31	6865.311355
230	4,692	500.00	213,120	71154.61133	15.17	7582.875444
17	5,453	667.00	284,298	22481.34256	4.12	2750.111452
14	342	7.50	3,208	1281.253066	3.74	28.0624304
6,654	1,171	75.00	31,977	95524.42294	81.57	6117.904053
25	10,234	833.00	355,051	51168.104	5.00	4165
156	768	10.00	4,273	9591.502674	12.49	124.89996
1,410	1,859	100.00	42,633	69797.068	37.55	3754.996671
2,860	879	15.00	6,404	46989.58155	53.48	802.1845174
15	4,715	150.00	63,944	18261.45214	3.87	580.9475019
972	2,272	167.00	71,189	70832.90546	31.18	5206.544728
7	3,435	225.00	95,910	9088.809632	2.65	595.294045
9,683	987	25.00	10,667	97126.63892	98.40	2460.055894
485	3,815	250.00	106,566	84018.04883	22.02	5505.678886
2	1,951	333.00	141,942	2759.05995	1.41	470.9331163
9,363	1,073	37.50	15,994	103849.2709	96.76	3628.597353
7,415	1,154	50.00	21,322	99363.59209	86.11	4305.519713
1	6,979	500.00	213,120	6978.58	1.00	500
3,062	1,443	75.00	31,977	79864.04536	55.34	4150.1506
359	11,989	1,000.00	426,229	227150.7963	18.95	18947.29532
29	2,731	112.00	47,747	14705.3661	5.39	603.1384584
224	3,576	112.50	47,961	53523.59578	14.97	1683.745824
2	7,178	1,250.00	532,784	10150.77947	1.41	1767.766953
872	4,230	150.00	63,944	124908.0411	29.53	4429.446918
279	17,084	1,500.00	639,338	285359.1124	16.70	25054.93963
120	23,438	2,000.00	852,447	256755.8001	10.76	21908.9023
574	4,636	225.00	95,910	111058.9058	23.96	5390.616848
167	20,857	2,500.00	1,065,556	269527.4211	12.92	32307.11996
1,007	5,527	300.00	127,876	175380.7157	31.73	9519.978992
15	38,210	3,000.00	1,278,665	147987.7135	3.87	11618.95004
33	3,572	333.00	1,278,003	20517.03624	5.74	1912.939361
33 117	3,372 3,198	45.00	19,191		10.82	486.7494222
1,012	7,532	500.00	213,120	34589.40408	31.81	15905.97372
				239595.0853		
645	3,567	75.00	31,977	90585.38685	25.40	1904.763765
521	10,259	750.00	319,675	234175.8717	22.83	17119.06832
3	5,471	833.00	355,051	9476.500301	1.73	1442.798323

### **Exhibit WSS-16**

# Electric Cost of Service Study Functional Assignment and Classification BIP Methodology

					_							
					1				1			
		Functional		m . •	1	-	roduction Demand		1	ъ.	tion En	
Description	Name	Functional Vector		Total System	Щ	Base	roduction Demand Inter.	Peak		Produc Base	tion Energy Inter.	Peak
Description .	мате	vector		system		Dase	inter.	reak		Dasc	mer.	геак
Plant in Service												
Intangible Plant												
301.00 ORGANIZATION	P301	PT&D	\$	39,493		8,275	8,668	7,125		-	-	-
302.00 FRANCHISE AND CONSENTS	P301	PT&D		55,919		11,716	12,273	10,089		-	-	-
303.00 SOFTWARE	P302	PT&D		102,982,045		21,576,997	22,603,270	18,579,812		-	-	-
Total Intangible Plant	PINT		\$	103,077,457	\$	21,596,988 \$	\$ 22,624,212 \$	18,597,026	\$	- \$	- \$	-
Steam Production Plant												
Total Steam Production Plant	PSTPR	F017	\$	3,145,206,425		1,081,326,073	1,132,757,504	931,122,848		-	-	-
Hydraulic Production Plant												
Total Hydraulic Production Plant	PHDPR	F017	\$	36,962,631		12,707,801	13,312,226	10,942,605		-	-	-
Other Production Plant												
Total Other Production Plant	POTPR	F017	\$	894,751,299		307,616,664	322,247,926	264,886,709		-	-	-
Total Production Plant	PPRTL		\$	4,076,920,355	\$	1,401,650,538 \$	\$ 1,468,317,655 \$	1,206,952,162	\$	- \$	- \$	-
Transmission												
KENTUCKY SYSTEM PROPERTY	P350	F011	\$	873,007,848		-	-	-		-	-	-
VIRGINIA PROPERTY - 500 KV LINE	P352	F011		8,230,400		-	-	-		-	-	-
Total Transmission Plant	PTRAN		\$	881,238,248	\$	- \$	s - s	-	\$	- s	- \$	-
Distribution												
TOTAL ACCTS 360-362	P362	F001	\$	209,650,161		-	-	-		-	-	_
364 & 365-OVERHEAD LINES	P365	F003	•	717,117,865		-	-	-		-	-	-
366 & 367-UNDERGROUND LINES	P367	F004		200,924,821		-	-	-		-	-	-
368-TRANSFORMERS - POWER POOL	P368	F005		5,414,628		-	-	-		-	-	-
368-TRANSFORMERS - ALL OTHER	P368a	F005		303,128,639		-	-	-		-	-	-
369-SERVICES	P369	F006 F007		97,262,577		-	-	-		-	-	-
370-METERS 371-CUSTOMER INSTALLATION	P370 P371	F007 F008		82,987,729 282,792		-	-	-		-	-	-
373-STREET LIGHTING	P371 P373	F008		114,827,799		-	-	-		-	-	-
Total Distribution Plant	PDIST		\$	1,731,597,011	\$	- 5	s - s	-	\$	- \$	- \$	-
Total Prod, Trans, and Dist Plant	PT&D		\$	6,689,755,615	\$	1,401,650,538 \$	\$ 1,468,317,655 \$	1,206,952,162	\$	- s	- \$	-

			_							
	-	Functional		Transmission Demand	Dis	stribution Poles	Distribution Substation		ntion Primary Line	
Description	Name	Vector		Demand		Specific	General	Specific	Demand	Customer
Plant in Service										
Intangible Plant	2001	PT 0 P		5 202			1.000		1.240	2.501
301.00 ORGANIZATION	P301	PT&D		5,202		-	1,238	-	1,349	2,501
302.00 FRANCHISE AND CONSENTS	P301	PT&D		7,366		-	1,752	-	1,910	3,541
303.00 SOFTWARE	P302	PT&D		13,565,775		-	3,227,353	-	3,516,821	6,521,627
Total Intangible Plant	PINT		\$	13,578,343	\$	- \$	3,230,343 \$	- \$	3,520,079 \$	6,527,669
Steam Production Plant										
Total Steam Production Plant	PSTPR	F017		-		-	-	-	-	-
Hydraulic Production Plant										
Total Hydraulic Production Plant	PHDPR	F017		-		-	-	-	-	-
Other Production Plant										
Total Other Production Plant	POTPR	F017		-		-	-	-	-	-
Total Production Plant	PPRTL		\$	-	\$	-	\$	- \$	-	
Transmission										
KENTUCKY SYSTEM PROPERTY	P350	F011		873,007,848		-	-	-	-	-
VIRGINIA PROPERTY - 500 KV LINE	P352	F011		8,230,400		-	-	-	-	-
Total Transmission Plant	PTRAN		\$	881,238,248	\$	- \$	- \$	- \$	- \$	-
Distribution										
TOTAL ACCTS 360-362	P362	F001		-		-	209,650,161	-	-	-
364 & 365-OVERHEAD LINES	P365	F003 F004		-		-	-	-	190,840,848	276,791,712
366 & 367-UNDERGROUND LINES 368-TRANSFORMERS - POWER POOL	P367 P368	F004 F005		-		-	-	-	37,613,245	146,855,833
368-TRANSFORMERS - ALL OTHER	P368a	F005				-	-	_	-	-
369-SERVICES	P369	F006		-		-	-	_	_	_
370-METERS	P370	F007		-		-	-	-	-	-
371-CUSTOMER INSTALLATION	P371	F008		-		-	-	-	-	-
373-STREET LIGHTING	P373	F008		-		-	-	-	-	-
Total Distribution Plant	PDIST		\$	-	\$	- \$	209,650,161 \$	- \$	228,454,093 \$	423,647,545
Total Prod, Trans, and Dist Plant	PT&D		\$	881,238,248	\$	- \$	209,650,161 \$	- \$	228,454,093 \$	423,647,545

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								Distri		Di-4il4i	Di-4ib4i 64 8
		Functional	Distribution S	Sec. Lin	es	Distribution Lin	e Trans.		ibution ervices	Distribution Meter	
Description	Name	Vector	Demand	(	ustomer	Demand	Customer	Cu	stomer		0 0
Plant in Service											
Intangible Plant											
301.00 ORGANIZATION	P301	PT&D	621		949	964	858		574	490	680
302.00 FRANCHISE AND CONSENTS	P301	PT&D	879		1,344	1,365	1,214		813	694	962
303.00 SOFTWARE	P302	PT&D	1,618,990	2	,474,904	2,513,236	2,236,477	1,4	97,259	1,277,512	1,772,012
Total Intangible Plant	PINT		\$ 1,620,490	\$ 2	,477,197	\$ 2,515,564 \$	2,238,549	\$ 1,4	98,647	\$ 1,278,696	\$ 1,773,653
Steam Production Plant											
Total Steam Production Plant	PSTPR	F017	-		-	-	-		-	-	-
Hydraulic Production Plant											
Total Hydraulic Production Plant	PHDPR	F017	-		-	-	-		-	-	-
Other Production Plant											
Total Other Production Plant	POTPR	F017	-		-	-	-		-	-	-
Total Production Plant	PPRTL					\$ - \$	-				s -
Transmission											
KENTUCKY SYSTEM PROPERTY	P350	F011	-		-	-	-		-	_	-
VIRGINIA PROPERTY - 500 KV LINE	P352	F011	-		-	-	-		-	-	-
Total Transmission Plant	PTRAN		\$ - 5	\$	-	\$ - \$	-	\$	-	\$ -	\$ -
Distribution											
TOTAL ACCTS 360-362	P362	F001	<del>-</del>			-	-		-	-	-
364 & 365-OVERHEAD LINES	P365	F003	101,814,953		,670,352	-	-		-	-	-
366 & 367-UNDERGROUND LINES	P367	F004	3,355,326	13	,100,417	-	-		-	-	-
368-TRANSFORMERS - POWER POOL 368-TRANSFORMERS - ALL OTHER	P368 P368a	F005 F005	-		-	2,865,065 160,395,756	2,549,563		-	-	-
	P369		-		-		142,732,883	07.2	-	-	-
369-SERVICES 370-METERS	P369 P370	F006 F007	-		-	-	-	91,2	62,577	82,987,729	-
371-CUSTOMER INSTALLATION	P371	F008	_			-	_		_	02,707,729	282,792
373-STREET LIGHTING	P373	F008	-		-	-	-		-	-	114,827,799
Total Distribution Plant	PDIST		\$ 105,170,279	\$ 160	,770,769	\$ 163,260,822 \$	145,282,445	\$ 97,2	62,577	\$ 82,987,729	\$ 115,110,592
Total Prod, Trans, and Dist Plant	PT&D		\$ 105,170,279	\$ 160	,770,769	\$ 163,260,822 \$	145,282,445	\$ 97,2	62,577	\$ 82,987,729	\$ 115,110,592

Description	Name	Functional Vector	Accoun	Customer ts Expense	Customer Service & Info.	s	ales Expense
Plant in Service							
Intangible Plant 301.00 ORGANIZATION 302.00 FRANCHISE AND CONSENTS 303.00 SOFTWARE	P301 P301 P302	PT&D PT&D PT&D		- - -	- - -		- - -
Total Intangible Plant	PINT		\$	-	\$ -	\$	-
Steam Production Plant							
Total Steam Production Plant	PSTPR	F017		-	-		-
Hydraulic Production Plant							
Total Hydraulic Production Plant	PHDPR	F017		-	-		-
Other Production Plant							
Total Other Production Plant	POTPR	F017		-	-		-
Total Production Plant	PPRTL		\$	-	\$ -	\$	-
Transmission							
KENTUCKY SYSTEM PROPERTY	P350	F011		-	-		-
VIRGINIA PROPERTY - 500 KV LINE	P352	F011		-	-		-
Total Transmission Plant	PTRAN		\$	-	\$ -	\$	-
Distribution							
TOTAL ACCTS 360-362	P362	F001		_	_		_
364 & 365-OVERHEAD LINES	P365	F003		-	_		-
366 & 367-UNDERGROUND LINES	P367	F004		-	-		-
368-TRANSFORMERS - POWER POOL	P368	F005		-	-		-
368-TRANSFORMERS - ALL OTHER	P368a	F005		-	-		-
369-SERVICES	P369	F006		-	-		-
370-METERS	P370	F007		-	-		-
371-CUSTOMER INSTALLATION 373-STREET LIGHTING	P371 P373	F008 F008		-	-		-
575-STREET EIGHTING	13/3	1.000		-	-		-
Total Distribution Plant	PDIST		\$	-	\$ -	\$	-
Total Prod, Trans, and Dist Plant	PT&D		\$	-	\$ -	\$	-

				_								
		Functional	Total		Pro	oduction Demand			Produc	tion Energ	2V	
Description	Name	Vector	System		Base	Inter.	Peak	Ba		Inter	,,,	Peak
Plant in Service (Continued)												
General Plant												
Total General Plant	PGP	PT&D	\$ 177,535,196		37,197,518	38,966,754	32,030,541	-		-		-
TOTAL COMMON PLANT	PCOM	PT&D	\$ -		-	-	-	-		-		-
106.00 COMPLETED CONSTR NOT CLASSIFIED	P106	PT&D	\$ -		-	-	-	-		-		-
105.00 PLANT HELD FOR FUTURE USE - PRODUCTION	P105	PPRTL	\$ 271,089		93,201	97,634	80,255	-		-		-
105.00 PLANT HELD FOR FUTURE USE - DISTRIBUTION	P105	PDIST	\$ 113,882		-	-	-	-		-		-
OTHER		PDIST	-		-	-	-	-		-		-
Total Plant in Service	TPIS		\$ 6,970,753,239	\$	1,460,538,245 \$	1,530,006,255 \$	1,257,659,983 \$	-	\$	-	\$	-
Construction Work in Progress (CWIP)												
CWIP Production	CWIP1	F017	\$ 28,153,069		9,679,062	10,139,430	8,334,577	-		_		_
CWIP Transmission	CWIP2	F011	30,190,923		-	-	-	-		-		-
CWIP Distribution Plant	CWIP3	PDIST	32,868,652		-	-	-	-		-		-
CWIP General Plant	CWIP4	PT&D	27,491,296		5,760,029	6,033,995	4,959,924	-		-		-
RWIP	CWIP5	F004	-		-	-	-	-		-		-
Total Construction Work in Progress	TCWIP		\$ 118,703,941	\$	15,439,091 \$	16,173,426 \$	13,294,501 \$	-	\$	-	\$	-
Total Utility Plant			\$ 7,089,457,179	\$	1,475,977,336 \$	1,546,179,681 \$	1,270,954,484 \$	-	\$	-	\$	-

Description	Name	Functional Vector	Transmission Demand Demand	Distribution Sp	Poles	Distribution Substation General	Distrib Specific	ution Primary Line Demand	Customer
Plant in Service (Continued)									
General Plant									
Total General Plant	PGP	PT&D	23,386,625		-	5,563,773	-	6,062,799	11,242,914
TOTAL COMMON PLANT 106.00 COMPLETED CONSTR NOT CLASSIFIED 105.00 PLANT HELD FOR FUTURE USE - PRODUCTION 105.00 PLANT HELD FOR FUTURE USE - DISTRIBUTION OTHER	PCOM P106 P105 P105	PT&D PT&D PPRTL PDIST PDIST	- - -		-	13,788	- - - -	15,025	- - 27,862 -
Total Plant in Service	TPIS		\$ 918,203,216	\$	- \$	218,458,065 \$	- \$	238,051,995 \$	441,445,991
Construction Work in Progress (CWIP)									
CWIP Production CWIP Transmission CWIP Distribution Plant CWIP General Plant RWIP	CWIP1 CWIP2 CWIP3 CWIP4 CWIP5	F017 F011 PDIST PT&D F004	30,190,923 - 3,621,415		- - - -	3,979,516 861,549	- - - -	- 4,336,447 938,823 -	8,041,550 1,740,963
<b>Total Construction Work in Progress</b>	TCWIP		\$ 33,812,338	\$	- \$	4,841,066 \$	- \$	5,275,270 \$	9,782,513
Total Utility Plant			\$ 952,015,555	\$	- \$	223,299,131 \$	- \$	243,327,265 \$	451,228,504

		Functional		Distribution Se	ec. Lines		Distribution Lin	e Trans.	Distribution Services	Distribution Meters	Distribution St. & Cust. Lighting
Description	Name	Vector	_	Demand	Custon	ier	Demand	Customer	Customer		8 . 8
Plant in Service (Continued)											
General Plant											
Total General Plant	PGP	PT&D		2,791,048	4,266,5	94	4,332,676	3,855,559	2,581,190	2,202,359	3,054,847
TOTAL COMMON PLANT 106.00 COMPLETED CONSTR NOT CLASSIFIED 105.00 PLANT HELD FOR FUTURE USE - PRODUCTION 105.00 PLANT HELD FOR FUTURE USE - DISTRIBUTION	PCOM P106 P105 P105	PT&D PT&D PPRTL PDIST		- - - 6,917	- - 10,5	73	10,737	- - - 9,555	- - - 6,397	- - - 5,458	- - - 7,570
OTHER		PDIST		-	-		-	-	-	-	-
Total Plant in Service	TPIS		\$	109,588,734 \$	167,525,1	33 \$	170,119,799 \$	151,386,108	\$ 101,348,810	\$ 86,474,242	\$ 119,946,663
Construction Work in Progress (CWIP)											
CWIP Production CWIP Transmission CWIP Distribution Plant CWIP General Plant RWIP	CWIP1 CWIP2 CWIP3 CWIP4 CWIP5	F017 F011 PDIST PT&D F004		1,996,311 432,193	3,051,7 660,6		3,098,968 670,914	2,757,708 597,033	- 1,846,209 399,697 -	1,575,248 341,035	2,184,995 473,043
<b>Total Construction Work in Progress</b>	TCWIP		\$	2,428,504 \$	3,712,3	84 \$	3,769,882 \$	3,354,740	\$ 2,245,906	\$ 1,916,283	\$ 2,658,037
Total Utility Plant			\$	112,017,238 \$	171,237,5	17 \$	173,889,681 \$	154,740,848	\$ 103,594,716	\$ 88,390,525	\$ 122,604,700

		Functional	A	Customer its Expense	Custo Service &		Sales Expense
Description	Name	Vector	Accoun	its Expense	service &	1110.	Sales Expense
Description	Name	vector					
Plant in Service (Continued)							
General Plant							
Total General Plant	PGP	PT&D		-		-	-
TOTAL COMMON PLANT	PCOM	PT&D		_			-
106.00 COMPLETED CONSTR NOT CLASSIFIED	P106	PT&D		-		-	_
105.00 PLANT HELD FOR FUTURE USE - PRODUCTION	P105	PPRTL		-		_	_
105.00 PLANT HELD FOR FUTURE USE - DISTRIBUTION	P105	PDIST		-		-	-
OTHER		PDIST		-		-	-
Total Plant in Service	TPIS		\$	-	\$	- \$	-
Construction Work in Progress (CWIP)							
CWIP Production	CWIP1	F017		_		_	_
CWIP Transmission	CWIP2	F011		-		_	-
CWIP Distribution Plant	CWIP3	PDIST		-		-	-
CWIP General Plant	CWIP4	PT&D		-		-	-
RWIP	CWIP5	F004		-		-	-
Total Construction Work in Progress	TCWIP		\$	-	\$	- \$	-
Total Utility Plant			\$	-	\$	- s	-

		Functional		Total		Pro	oduction Demand			Produ	iction E	nerg	y	
Description	Name	Vector		System		Base	Inter.	Peak		Base	]	Inter.		Peak
Rate Base														
Utility Plant														
Plant in Service			\$	6,970,753,239	\$	1,460,538,245 \$		1,257,659,983	\$	- \$		-	\$	-
Construction Work in Progress (CWIP)				118,703,941		15,439,091.47	16,173,425.52	13,294,501.24		-		-		-
Total Utility Plant	TUP		\$	7,089,457,179	\$	1,475,977,336 \$	1,546,179,681 \$	1,270,954,484	\$	- \$		-	\$	-
Less: Acummulated Provision for Depreciation			_											
Steam Production Hydraulic Production	ADEPREPA RWIP	F017 F017	\$	1,351,527,013 11,357,150		464,656,751 3,904,603	486,757,357 4,090,319	400,112,906 3,362,228		-		-		-
Other Production	KWIP	F017		279,457,486		96,077,848	100,647,627	82,732,010		-		-		-
Transmission - Kentucky System Property	ADEPRTP	PTRAN		303,777,627		-	-	-		_		_		_
Transmission - Virginia Property	ADEPRD1	PTRAN		4,014,978		-	-	-		-		-		-
Distribution	ADEPRD11	PDIST		637,170,341		-	-	-		-		-		-
General Plant	ADEPRD12	PT&D		60,263,984		12,626,626	13,227,190	10,872,706		-		-		-
Intangible Plant	ADEPRGP	PT&D		51,974,185		10,889,732	11,407,683	9,377,077		-		-		-
Total Accumulated Depreciation	TADEPR		\$	2,699,542,764	\$	588,155,561 \$	616,130,177 \$	506,456,928	\$	- \$		-	\$	-
Net Utility Plant	NTPLANT		\$	4,389,914,415	\$	887,821,776 \$	930,049,504 \$	764,497,556	\$	- \$		-	\$	-
Working Capital														
Cash Working Capital - Operation and Maintenance Expenses	CWC	OMLPP	\$	106,348,560		4,228,864	4,012,925	4,067,104		71,897,457		-		-
Materials and Supplies	M&S	TPIS		119,808,344		25,102,692	26,296,658	21,615,764		-		-		-
Prepayments	PREPAY	TPIS		16,171,254		3,388,261	3,549,418	2,917,610		-		-		-
Total Working Capital	TWC		\$	242,328,157	\$	32,719,817 \$	33,859,002 \$	28,600,478	\$	71,897,457 \$		-	\$	-
Emission Allowance	EMALL	PROFIX		-		-	-	-		-		-		-
Deferred Debits														
Service Pension Cost	PENSCOST	TLB	\$	-		-	-	-		-		-		-
Accumulated Deferred Income Tax														
Total Production Plant	ADITPP	F017		511,060,465		175,703,255	184,060,280	151,296,930		-		-		-
Total Transmission Plant	ADITTP	F011		129,909,095		-	-	-		-		-		-
Total Distribution Plant	ADITDP	PDIST		241,830,055		-	-	-		-		-		-
Total General Plant	ADITGP	PT&D		27,628,083		5,788,689	6,064,018	4,984,603		-		-		-
<b>Total Accumulated Deferred Income Tax</b>	ADITT			910,427,698		181,491,944	190,124,299	156,281,533		-		-		-
Accumulated Deferred Investment Tax Credits														
Production	ADITCP	F017	\$	81,185,411		27,911,650	29,239,220	24,034,541		-		_		_
Transmission	ADITCT	F011		· · ·		· · ·	· -	· · · · ·		_		_		_
Transmission VA	ADITCTVA	F011		-		-	-	-		-		-		-
Distribution VA	ADITCDVA	PDIST		_		-	-	-		-		-		-
Distribution Plant KY,FERC & TN	ADITCDKY	PDIST		-		-	-	-		-		-		-
General	ADITCG	PT&D		-		-	-	-		-		-		-
Total Accum. Deferred Investment Tax Credits	ADITCTL			81,185,411		27,911,650	29,239,220	24,034,541		-		-		_
Total Deferred Debits			\$	991,613,109	\$	209,403,594 \$	219,363,519 \$	180,316,073	2	- S		_	\$	
Less: Customer Advances	CSTDEP	F027	\$	1,549,704	φ	202,703,327 3	219,303,319 \$	100,510,075	v	- 3		-	٠	-
Less: Asset Retirement Obligations	CDIDLI	F017	Ψ	1,5-75,704		-	-	<u>-</u>		-		-		-
Net Rate Base	RB		\$	3,639,079,759	s	711,137,998 \$	744,544,987 \$	612,781,961	s	71,897,457 \$		_	\$	_
net hate base	KD		φ	5,059,019,139	φ	/11,15/,550 \$	777,207	012,701,701	v	11,071,731		-	٠	-

				Transmission			Distribution				
		Functional		Demand	Distr	ibution Poles	Substation	Dist	tribut	ion Primary Line	s
Description	Name	Vector		Demand	_	Specific	General	Specific	:	Demand	Customer
Rate Base											
Utility Plant											
Plant in Service			\$	918,203,216	\$	- S	218,458,065	S -	\$	238,051,995 \$	441,445,991
Construction Work in Progress (CWIP)				33,812,338.16		-	4,841,065.50	-		5,275,270.10	9,782,513.43
Total Utility Plant	TUP		\$	952,015,555	\$	- S	223,299,131	s -	\$	243,327,265 \$	451,228,504
Less: Acummulated Provision for Depreciation											
Steam Production	ADEPREPA	F017		-		-	-	-		-	-
Hydraulic Production	RWIP	F017		-		-	-	-		-	-
Other Production		F017		-		-	-	-		-	-
Transmission - Kentucky System Property	ADEPRTP	PTRAN		303,777,627		-	-	-		-	-
Transmission - Virginia Property	ADEPRD1	PTRAN		4,014,978		-	-	-		-	-
Distribution	ADEPRD11	PDIST		-		-	77,144,315	-		84,063,539	155,888,263
General Plant	ADEPRD12	PT&D		7,938,545		-	1,888,612	-		2,058,005	3,816,386
Intangible Plant	ADEPRGP	PT&D		6,846,534		-	1,628,818	-		1,774,910	3,291,411
Total Accumulated Depreciation	TADEPR		\$	322,577,684	\$	- \$	80,661,745	s -	\$	87,896,454 \$	162,996,060
Net Utility Plant	NTPLANT		\$	629,437,870	\$	- S	142,637,386	s -	\$	155,430,811 \$	288,232,444
Working Capital											
Cash Working Capital - Operation and Maintenance Expenses	CWC	OMLPP		5,301,675		-	894,425	-		1,652,866	2,645,269
Materials and Supplies	M&S	TPIS		15,781,423		-	3,754,702	-		4,091,468	7,587,259
Prepayments	PREPAY	TPIS		2,130,114		-	506,795	-		552,250	1,024,098
Total Working Capital	TWC		\$	23,213,212	\$	- \$	5,155,922	s -	\$	6,296,585 \$	11,256,626
Emission Allowance	EMALL	PROFIX		-		-	-	-		-	-
Deferred Debits											
Service Pension Cost	PENSCOST	TLB		-		-	-	-		-	-
Accumulated Deferred Income Tax											
Total Production Plant	ADITPP	F017		_		_	_	_		_	_
Total Transmission Plant	ADITTP	F011		129,909,095		_	_	_		_	_
Total Distribution Plant	ADITOP	PDIST		122,702,023			29,279,162	_		31,905,267	59,165,446
Total General Plant	ADITOF	PT&D		3,639,434		-	865,836	-		943,495	1,749,626
Total Accumulated Deferred Income Tax	ADITT			133,548,529		_	30,144,998	_		32,848,762	60,915,072
Accumulated Deferred Investment Tax Credits											
Production	ADITCP	F017		-		-	-	-		-	-
Transmission	ADITCT	F011		-		-	-	-		-	_
Transmission VA	ADITCTVA	F011		-		-	-	-		-	-
Distribution VA	ADITCDVA	PDIST		_		_	_	_		-	_
Distribution Plant KY,FERC & TN	ADITCDKY			_		_	_	_		_	
General	ADITCG	PT&D		-		-	-	-		-	-
Total Accum. Deferred Investment Tax Credits	ADITCTL			-		-	-	-		-	-
Total Deferred Debits			\$	133,548,529	s	- S	30,144,998	•	s	32,848,762 \$	60,915,072
	CSTDEP	F027	3	133,348,329	J.	- 3	30,144,998		٥	32,848,762 \$	715,139
Less: Customer Advances Less: Asset Retirement Obligations	CSIDEP	F027 F017		-		-	-	-		383,042	/15,139
-	D.D.		é	£10 100 550			117 (40 300	e	6	120 402 001 - 6	227 959 969
Net Rate Base	RB		\$	519,102,553	\$	- \$	117,648,309	2 -	\$	128,492,991 \$	237,858,860

										Distribution	Distribution Di	istribution St. &
		Functional		Distribution Se	ec. Lines		Distribution Lin	e Trans.		Services	Meters	Cust. Lighting
Description	Name	Vector		Demand	Customer		Demand	Customer		Customer	•	
Rate Base												
Utility Plant												
Plant in Service			\$	109,588,734 \$	167,525,133	S	170,119,799 \$	151,386,108	S	101,348,810 \$	86,474,242 \$	119,946,663
Construction Work in Progress (CWIP)				2,428,503.78	3,712,383.62		3,769,881.82	3,354,740.25		2,245,905.76	1,916,282.97	2,658,037.14
Total Utility Plant	TUP		\$	112,017,238 \$	171,237,517	\$	173,889,681 \$	154,740,848	\$	103,594,716 \$	88,390,525 \$	122,604,700
Less: Acummulated Provision for Depreciation												
Steam Production	ADEPREPA	F017		_	_		_	_		_	_	_
Hydraulic Production	RWIP	F017		_	_		_	_		_	_	_
Other Production		F017		-	_		-	_		_	_	_
Transmission - Kentucky System Property	ADEPRTP	PTRAN		-	_		-	_		_	_	_
Transmission - Virginia Property	ADEPRD1	PTRAN		-	-		-	-		-	-	-
Distribution	ADEPRD11	PDIST		38,699,179	59,158,317		60,074,574	53,459,127		35,789,406	30,536,735	42,356,885
General Plant	ADEPRD12	PT&D		947,416	1,448,287		1,470,719	1,308,762		876,180	747,587	1,036,962
Intangible Plant	ADEPRGP	PT&D		817,091	1,249,064		1,268,409	1,128,731		755,654	644,750	894,320
Total Accumulated Depreciation	TADEPR		\$	40,463,686 \$	61,855,668	\$	62,813,702 \$	55,896,621	\$	37,421,241 \$	31,929,072 \$	44,288,166
Net Utility Plant	NTPLANT		\$	71,553,552 \$	109,381,849	\$	111,075,979 \$	98,844,227	\$	66,173,475 \$	56,461,453 \$	78,316,533
Working Capital												
Cash Working Capital - Operation and Maintenance Expenses	CWC	OMLPP		836,918	1,235,970		367,121	326,693		215,040	1,485,823	237,305
Materials and Supplies	M&S	TPIS		1,883,533	2,879,303		2,923,898	2,601,917		1,741,911	1,486,258	2,061,558
Prepayments	PREPAY	TPIS		254,232	388,637		394,656	351,196		235,116	200,609	278,261
Total Working Capital	TWC		\$	2,974,683 \$	4,503,910	\$	3,685,675 \$	3,279,806	\$	2,192,067 \$	3,172,689 \$	2,577,123
Emission Allowance	EMALL	PROFIX		-	-		-	-		-	-	-
Deferred Debits												
Service Pension Cost	PENSCOST	TLB		-	-		-	-		-	-	-
Accumulated Deferred Income Tax												
Total Production Plant	ADITPP	F017		-	-		-	-		-	-	-
Total Transmission Plant	ADITTP	F011		-	-		-	-		-	_	-
Total Distribution Plant	ADITDP	PDIST		14,687,791	22,452,801		22,800,555	20,289,745		13,583,423	11,589,837	16,076,027
Total General Plant	ADITGP	PT&D		434,344	663,969		674,252	600,003		401,686	342,732	475,396
Total Accumulated Deferred Income Tax	ADITT			15,122,134	23,116,770		23,474,808	20,889,748		13,985,108	11,932,569	16,551,424
Accumulated Deferred Investment Tax Credits												
Production	ADITCP	F017										
	ADITCE	F011		-	-		-	-		-	-	-
Transmission				-	-		-	-		-	-	-
Transmission VA	ADITCTVA			-	-		-	-		-	-	-
Distribution VA	ADITCDVA			-	-		-	-		-	-	-
Distribution Plant KY,FERC & TN	ADITCDKY			-	-		-	-		-	-	-
General	ADITCG	PT&D			-		-	-		-	-	-
<b>Total Accum. Deferred Investment Tax Credits</b>	ADITCTL			-	-		-	-		-	-	-
Total Deferred Debits			\$	15,122,134 \$	23,116,770	\$	23,474,808 \$	20,889,748	\$	13,985,108 \$	11,932,569 \$	16,551,424
Less: Customer Advances	CSTDEP	F027	-	177,533	271,389			-			-	-
Less: Asset Retirement Obligations		F017		-	-		-	-		-	-	-
Net Rate Base	RB		\$	59,228,567 \$	90,497,599	\$	91,286,846 \$	81,234,285	\$	54,380,434 \$	47,701,574 \$	64,342,233

		Functional	Acco	Customer unts Expense	Ser	Customer vice & Info.		Sales Expense
Description	Name	Vector	Acco	unts Expense	SCI	vice de filito.	<u> </u>	Saks Expense
Rate Base								
Utility Plant								
Plant in Service			\$	-	\$	-	\$	-
Construction Work in Progress (CWIP)				-		-		-
Total Utility Plant	TUP		\$	-	\$	-	\$	-
Less: Acummulated Provision for Depreciation								
Steam Production	ADEPREPA			-		-		-
Hydraulic Production	RWIP	F017		-		-		-
Other Production		F017		-		-		-
Transmission - Kentucky System Property	ADEPRTP	PTRAN		-		-		-
Transmission - Virginia Property	ADEPRD1	PTRAN		-		-		-
Distribution	ADEPRD11	PDIST		-		-		-
General Plant	ADEPRD12	PT&D		-		-		-
Intangible Plant	ADEPRGP	PT&D		-		-		-
Total Accumulated Depreciation	TADEPR		\$	-	\$	-	\$	-
Net Utility Plant	NTPLANT		\$	-	\$	-	\$	-
Working Capital								
Cash Working Capital - Operation and Maintenance Expenses	CWC	OMLPP		6,169,535		773,569		-
Materials and Supplies	M&S	TPIS				-		-
Prepayments	PREPAY	TPIS		-		-		-
Total Working Capital	TWC		\$	6,169,535	\$	773,569	\$	-
Emission Allowance	EMALL	PROFIX		-		-		-
Deferred Debits								
Service Pension Cost	PENSCOST	TLB		-		-		-
Accumulated Deferred Income Tax								
Total Production Plant	ADITPP	F017		_		-		_
Total Transmission Plant	ADITTP	F011		_		_		_
Total Distribution Plant	ADITDP	PDIST		_		_		_
Total General Plant	ADITGP	PT&D		-		-		-
Total Accumulated Deferred Income Tax	ADITT			-		_		-
Accumulated Deferred Investment Tax Credits								
Production	ADITCP	F017		-		-		-
Transmission	ADITCT	F011		-		-		-
Transmission VA	ADITCTVA	F011		-		-		-
Distribution VA	ADITCDVA	PDIST		-		-		-
Distribution Plant KY, FERC & TN	ADITCDKY	PDIST		_		-		_
General	ADITCG	PT&D		-		-		-
Total Accum. Deferred Investment Tax Credits	ADITCTL			-		-		-
Total Deferred Debits			\$	_	\$	_	\$	_
Less: Customer Advances	CSTDEP	F027	9	_	Ψ		Ψ	
Less: Asset Retirement Obligations	CSTELL	F017		-		-		-
Net Rate Base	RB		s	6,169,535	\$	773,569	\$	
THE RAIL DASC	KD		φ	0,102,233	Φ	115,509	φ	-

		F	m · •		n 1 e n				ъ.	. F		
Description	Name	Functional Vector	Total System	Base	Production Demai Inte		Peak	Ba		uction Ener Inte	-	Peak
Operation and Maintenance Expenses												
Steam Power Generation Operation Expenses												
500 OPERATION SUPERVISION & ENGINEERING	OM500	LBSUB1	\$ 9,442,701	2,799,391	2,638,92	3	2,710,193	1,294,19		-		-
501 FUEL	OM501	Energy	372,621,659	2 02 ( 700	2 (74 10	2	2.746.221	372,621,65		-		-
502 STEAM EXPENSES	OM502		15,516,429	2,836,708 2,023,579	2,674,10 1,907,58		2,746,321 1,959,101	7,259,29		-		-
505 ELECTRIC EXPENSES 506 MISC. STEAM POWER EXPENSES	OM505 OM506	PROFIX	7,214,388 14,444,590	4,962,388	1,907,58 4,677,93		4,804,269	1,324,12	4	-		-
500 MISC. STEAM FOWER EXPENSES 507 RENTS	OM507	PROFIX	14,444,390	4,962,388	4,077,93	3	4,804,269	-		-		-
507 RENTS 509 ALLOWANCES	OM509	PROFIX		-	-		-			-		
307 ALLOWANCES	ONISO	TROFIX	_	-	_		-	_		-		-
Total Steam Power Operation Expenses			\$ 419,239,766	\$ 12,622,067	\$ 11,898,54	1 \$	12,219,884	\$ 382,499,27	4 \$	-	\$	-
Steam Power Generation Maintenance Expenses												
510 MAINTENANCE SUPERVISION & ENGINEERING	OM510	LBSUB2	\$ 10,261,750	340,085	320,59	1	329,249	9,271,82	5	-		-
511 MAINTENANCE OF STRUCTURES	OM511	PROFIX	5,959,887	2,047,498	1,930,13	1	1,982,258	-		-		-
512 MAINTENANCE OF BOILER PLANT	OM512	Energy	40,186,142	-	-		-	40,186,14		-		-
513 MAINTENANCE OF ELECTRIC PLANT	OM513	Energy	8,270,033	-	-		-	8,270,03		-		-
514 MAINTENANCE OF MISC STEAM PLANT	OM514	Energy	2,439,522	-	-		-	2,439,52	2	-		-
Total Steam Power Generation Maintenance Expense			\$ 67,117,335	\$ 2,387,584	\$ 2,250,72	2 \$	2,311,507	\$ 60,167,52	2 \$	-	\$	-
Total Steam Power Generation Expense			\$ 486,357,101	\$ 15,009,650	\$ 14,149,26	3 \$	14,531,391	\$ 442,666,79	7 \$	-	\$	-
Hydraulic Power Generation Operation Expenses												
535 OPERATION SUPERVISION & ENGINEERING	OM535	LBSUB3	\$ -	-	-		-	_		-		-
536 WATER FOR POWER	OM536	PROFIX	-	-	-		-	_		-		-
537 HYDRAULIC EXPENSES	OM537	PROFIX	-	-	-		-	-		-		-
538 ELECTRIC EXPENSES	OM538	PROFIX	-	-	-		-	-		-		-
539 MISC. HYDRAULIC POWER EXPENSES	OM539	PROFIX	8,523	2,928	2,76	0	2,835	-		-		-
540 RENTS		PROFIX	-	-	-		-	-		-		-
Total Hydraulic Power Operation Expenses			\$ 8,523	\$ 2,928	\$ 2,76	0 \$	2,835	\$ -	\$	-	\$	-
Hydraulic Power Generation Maintenance Expenses												
541 MAINTENANCE SUPERVISION & ENGINEERING	OM541	LBSUB4	\$ 186,494	64,069	60,39	7	62,028	-		-		-
542 MAINTENANCE OF STRUCTURES	OM542	PROFIX	116,901	40,161	37,85	9	38,881	-		-		-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	OM543	PROFIX	22,497	7,729	7,28	6	7,482	-		-		-
544 MAINTENANCE OF ELECTRIC PLANT	OM544	Energy	33,030	-	-		-	33,03		-		-
545 MAINTENANCE OF MISC HYDRAULIC PLANT	OM545	Energy	9,592	-	-		-	9,59	2	-		-
Total Hydraulic Power Generation Maint. Expense			\$ 368,513	\$ 111,959	\$ 105,54	1 \$	108,392	\$ 42,62	2 \$	-	\$	-
Total Hydraulic Power Generation Expense			\$ 377,036	\$ 114,887	\$ 108,30	1 \$	111,226	\$ 42,62	2 \$	-	\$	-
Other Power Generation Operation Expense												
546 OPERATION SUPERVISION & ENGINEERING	OM546	LBSUB5	\$ 1,071,395	368,074	346,97	5	356,346	_		-		-
547 FUEL	OM547	Energy	130,769,641	-	´-		-	130,769,64	1	-		-
548 GENERATION EXPENSE	OM548	PROFIX	611,306	210,012	197,97	4	203,320	-		-		-
549 MISC OTHER POWER GENERATION	OM549	PROFIX	3,639,052	1,250,183	1,178,52		1,210,348	-		-		-
550 RENTS	OM550	PROFIX	4,421	1,519	1,43	2	1,470	-		-		-
Total Other Power Generation Expenses			\$ 136,095,816	\$ 1,829,789	\$ 1,724,90	1 \$	1,771,485	\$ 130,769,64	1 \$	-	\$	-

				l		1	ı			
		Functional		Transmission Demand	Distrib	oution Poles	Distribution Substation	Distributi	on Primary Lines	
Description	Name	Vector		Demand		Specific	General	Specific	Demand	Customer
Operation and Maintenance Expenses										
Steam Power Generation Operation Expenses										
500 OPERATION SUPERVISION & ENGINEERING 501 FUEL	OM500 OM501	LBSUB1 Energy		-		-	-	-	-	-
502 STEAM EXPENSES	OM502	Energy		_		_		_	-	
505 ELECTRIC EXPENSES	OM505			_		_	-	_	-	_
506 MISC. STEAM POWER EXPENSES	OM506	PROFIX		_		_	_	_	-	_
507 RENTS	OM507	PROFIX		_		-	-	-	-	_
509 ALLOWANCES	OM509	PROFIX		-		-	-	-	-	-
Total Steam Power Operation Expenses			\$	-	\$	- \$	- \$	- \$	- \$	-
Steam Power Generation Maintenance Expenses										
510 MAINTENANCE SUPERVISION & ENGINEERING	OM510	LBSUB2		-		-	-	-	-	-
511 MAINTENANCE OF STRUCTURES	OM511	PROFIX		-		-	-	-	-	-
512 MAINTENANCE OF BOILER PLANT	OM512	Energy		-		-	-	-	-	-
513 MAINTENANCE OF ELECTRIC PLANT 514 MAINTENANCE OF MISC STEAM PLANT	OM513 OM514	Energy Energy		-		-	-	-	-	-
Total Steam Power Generation Maintenance Expense	3.1211	Zalengy	\$		\$	- \$	- <b>\$</b>	- s	- S	_
									-	
Total Steam Power Generation Expense			\$	-	\$	- \$	- \$	- \$	- \$	-
Hydraulic Power Generation Operation Expenses										
535 OPERATION SUPERVISION & ENGINEERING	OM535	LBSUB3		-		-	-	-	-	-
536 WATER FOR POWER	OM536	PROFIX		-		-	-	-	-	-
537 HYDRAULIC EXPENSES	OM537	PROFIX PROFIX		-		-	-	-	-	-
538 ELECTRIC EXPENSES 539 MISC. HYDRAULIC POWER EXPENSES	OM538 OM539	PROFIX		-		-	-	-	-	-
540 RENTS	ONISS	PROFIX		_		-	_	-	-	-
Total Hydraulic Power Operation Expenses			\$		s	- \$	- \$	- \$	- \$	
			3	-	J	- 4	- 3	- 3	- 3	-
Hydraulic Power Generation Maintenance Expenses										
541 MAINTENANCE SUPERVISION & ENGINEERING	OM541	LBSUB4		-		-	-	-	-	-
542 MAINTENANCE OF STRUCTURES	OM542	PROFIX		-		-	-	-	-	-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS 544 MAINTENANCE OF ELECTRIC PLANT	OM543 OM544	PROFIX Energy		-		-	-	-	-	-
545 MAINTENANCE OF MISC HYDRAULIC PLANT	OM545	Energy		-		-	-	-	-	-
Total Hydraulic Power Generation Maint. Expense			\$	-	s	- \$	- \$	- \$	- \$	_
Total Hydraulic Power Generation Expense			\$	-	s	- \$	- \$	- \$	- \$	_
							•			
Other Power Generation Operation Expense 546 OPERATION SUPERVISION & ENGINEERING	OM546	LBSUB5		_		_	_	_	_	_
546 OPERATION SUPERVISION & ENGINEERING	OM547	Energy		-		-	-	-	-	-
548 GENERATION EXPENSE	OM548	PROFIX		-		_	-	-	_	_
549 MISC OTHER POWER GENERATION	OM549	PROFIX		-		_	_	-	-	_
550 RENTS	OM550	PROFIX		-		-	-	-	-	-
Total Other Power Generation Expenses			\$	-	s	- S	- s	- s	- S	_

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									Dietuibutie :-	Dietuibe-+!	Distuibut!	C+ 0
		Functional		Distribution	n Sec	Lines	Distribution Lin	e Trans	Distribution Services	Distribution Meters		
Description	Name	Vector		Demand		Customer	Demand	Customer	Customer	Meter	Cust. Eq	,mem <sub>g</sub>
Description	- Tume	7000		Demand		Customer	Demand	customer	Customer			
Operation and Maintenance Expenses												
Steam Power Generation Operation Expenses												
500 OPERATION SUPERVISION & ENGINEERING	OM500	LBSUB1		-		-	-	-	-	-		-
501 FUEL	OM501	Energy		-		-	-	-	-	-		-
502 STEAM EXPENSES	OM502			-		-	-	-	-	-		-
505 ELECTRIC EXPENSES	OM505			-		-	-	-	-	-		-
506 MISC. STEAM POWER EXPENSES	OM506	PROFIX		-		-	-	-	-	-		-
507 RENTS	OM507	PROFIX		_		_	-	-	-	-		-
509 ALLOWANCES	OM509	PROFIX		-		-	-	-	-	-		-
Total Steam Power Operation Expenses			\$	-	\$	-	\$ - \$	-	\$ - :	\$ -	\$	-
Steam Power Generation Maintenance Expenses												
510 MAINTENANCE SUPERVISION & ENGINEERING	OM510	LBSUB2		-		-	-	-	-	-		-
511 MAINTENANCE OF STRUCTURES	OM511	PROFIX		-		-	-	-	-	-		-
512 MAINTENANCE OF BOILER PLANT	OM512	Energy		-		-	-	-	-	-		-
513 MAINTENANCE OF ELECTRIC PLANT	OM513	Energy		-		-	-	-	-	-		-
514 MAINTENANCE OF MISC STEAM PLANT	OM514	Energy		-		-	-	-	-	-		-
Total Steam Power Generation Maintenance Expense			\$	-	\$	-	\$ - \$	-	\$ -	\$ -	\$	-
Total Steam Power Generation Expense			\$	-	\$	-	\$ - \$	-	\$ -	\$ -	\$	-
Hydraulic Power Generation Operation Expenses												
535 OPERATION SUPERVISION & ENGINEERING	OM535	LBSUB3		-		-	-	-	-	-		-
536 WATER FOR POWER	OM536	PROFIX		-		-	-	-	-	-		-
537 HYDRAULIC EXPENSES	OM537	PROFIX		-		-	-	-	-	-		-
538 ELECTRIC EXPENSES	OM538	PROFIX		-		-	-	-	-	-		-
539 MISC. HYDRAULIC POWER EXPENSES	OM539	PROFIX		-		-	-	-	-	-		-
540 RENTS		PROFIX		-		-	-	-	-	-		-
Total Hydraulic Power Operation Expenses			\$	-	\$	-	\$ - \$	-	\$ - :	\$ -	S	-
Hydraulic Power Generation Maintenance Expenses												
541 MAINTENANCE SUPERVISION & ENGINEERING	OM541	LBSUB4		-		-	-	-	-	-		-
542 MAINTENANCE OF STRUCTURES	OM542	PROFIX		-		-	-	-	-	-		-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	OM543	PROFIX		-		-	-	-	-	-		-
544 MAINTENANCE OF ELECTRIC PLANT	OM544	Energy		-		-	-	-	-	-		-
545 MAINTENANCE OF MISC HYDRAULIC PLANT	OM545	Energy		-		-	-	-	-	-		-
Total Hydraulic Power Generation Maint. Expense			\$	-	\$	-	\$ - \$	-	\$ -	\$ -	\$	-
Total Hydraulic Power Generation Expense			\$	-	\$	-	\$ - S	-	\$ - :	\$ -	\$	-
Other Power Generation Operation Expense												
546 OPERATION SUPERVISION & ENGINEERING	OM546	LBSUB5		-		-	-	_	-	-		-
547 FUEL	OM547	Energy		-		-	-	_	-	-		-
548 GENERATION EXPENSE	OM548	PROFIX		-		-	-	_	-	-		-
549 MISC OTHER POWER GENERATION	OM549	PROFIX		_		_	-	-	-	-		_
550 RENTS	OM550	PROFIX		-		-	-	_	-	-		-
			¢		6		6			¢		
Total Other Power Generation Expenses			\$	-	\$	-	\$ - \$	-	\$ -	\$ -	\$	-

				Customer	Custome	
		Functional	Accoun	ts Expense	Service & Info	Sales Expense
Description	Name	Vector	\ <u></u>			
Operation and Maintenance Expenses						
Steam Power Generation Operation Expenses						
500 OPERATION SUPERVISION & ENGINEERING	OM500	LBSUB1		-	-	-
501 FUEL	OM501	Energy		-	-	-
502 STEAM EXPENSES	OM502			-	-	-
505 ELECTRIC EXPENSES	OM505	PROFIN		-	-	-
506 MISC. STEAM POWER EXPENSES	OM506 OM507	PROFIX PROFIX		-	-	-
507 RENTS 509 ALLOWANCES	OM509	PROFIX		-	-	-
Total Steam Power Operation Expenses			\$	-	\$ -	\$ -
Steam Power Generation Maintenance Expenses						
510 MAINTENANCE SUPERVISION & ENGINEERING	OM510	LBSUB2		-	-	-
511 MAINTENANCE OF STRUCTURES	OM511	PROFIX		-	-	-
512 MAINTENANCE OF BOILER PLANT	OM512	Energy		-	-	-
513 MAINTENANCE OF ELECTRIC PLANT 514 MAINTENANCE OF MISC STEAM PLANT	OM513 OM514	Energy Energy		-	-	-
Total Steam Power Generation Maintenance Expense			\$	-	\$ -	\$ -
Total Steam Power Generation Expense			\$	-	\$ -	\$ -
Hydraulic Power Generation Operation Expenses						
535 OPERATION SUPERVISION & ENGINEERING	OM535	LBSUB3		_	_	_
536 WATER FOR POWER	OM536	PROFIX		_	_	_
537 HYDRAULIC EXPENSES	OM537	PROFIX		-	_	_
538 ELECTRIC EXPENSES	OM538	PROFIX		-	-	-
539 MISC. HYDRAULIC POWER EXPENSES	OM539	PROFIX		-	-	-
540 RENTS		PROFIX		-	-	-
Total Hydraulic Power Operation Expenses			s	-	\$ -	\$ -
Hydraulic Power Generation Maintenance Expenses						
541 MAINTENANCE SUPERVISION & ENGINEERING	OM541	LBSUB4		-	-	-
542 MAINTENANCE OF STRUCTURES	OM542	PROFIX		-	-	-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	OM543	PROFIX		-	-	-
544 MAINTENANCE OF ELECTRIC PLANT 545 MAINTENANCE OF MISC HYDRAULIC PLANT	OM544 OM545	Energy Energy		-	-	-
Total Hydraulic Power Generation Maint. Expense			\$	-	\$ -	\$ -
Total Hydraulic Power Generation Expense			\$	-	\$ -	\$ -
Other Power Generation Operation Expense						
546 OPERATION SUPERVISION & ENGINEERING	OM546	LBSUB5		-	-	_
547 FUEL	OM547	Energy		-	-	-
548 GENERATION EXPENSE	OM548	PROFIX		-	-	-
549 MISC OTHER POWER GENERATION	OM549	PROFIX		-	-	-
550 RENTS	OM550	PROFIX		-	-	-
Total Other Power Generation Expenses			\$	-	\$ -	\$ -

											$\neg$
		Functional		Total	Prod	luction Demand		Prod	uction Energy	,	
Description	Name	Vector		System	Base	Inter.	Peak	Base	Inter.		eak
Other Berner Committee Maintenance Frances											
Other Power Generation Maintenance Expense 551 MAINTENANCE SUPERVISION & ENGINEERING	OM551	PROFIX	\$	257,199	88,360	83,295	85,544	_	_		_
552 MAINTENANCE OF STRUCTURES	OM552	PROFIX	Φ	1,680,721	577,406	544,308	559,008	_			_
553 MAINTENANCE OF GENERATING & ELEC PLANT	OM553	PROFIX		4,895,395	1,681,796	1,585,391	1,628,208	_	_		_
554 MAINTENANCE OF MISC OTHER POWER GEN PLT	OM554	PROFIX		5,139,215	1,765,559	1,664,353	1,709,302	-	-		-
Total Other Power Generation Maintenance Expense			\$	11,972,530	\$ 4,113,121 \$	3,877,347 \$	3,982,062 \$	- \$	-	\$	-
Total Other Power Generation Expense			\$	148,068,346	\$ 5,942,909 \$	5,602,248 \$	5,753,548 \$	130,769,641 \$	-	\$	_
Total Station Expense			\$	634,802,484	\$ 21,067,446 \$	19,859,813 \$	20,396,165 \$	573,479,060 \$	-	\$	_
OH B C LE											
Other Power Supply Expenses 555 PURCHASED POWER	OM555	OMPP	s	50,619,307	2,507,314	2,626,570	2,159,032	43,326,391			
555 PURCHASED POWER OPTIONS	OMO555	OMPP	Ф	30,019,307	2,307,314	2,020,370	2,139,032	45,320,391	-		
555 BROKERAGE FEES	OMB555	OMPP			-	-	-	-	-		
555 MISO TRANSMISSION EXPENSES	OMM555	OMPP			-	-	-		_		_
556 SYSTEM CONTROL AND LOAD DISPATCH	OM556	PROFIX		1,864,717	640,617	603,895	620,205	-	-		•
557 OTHER EXPENSES	OM557	PROFIX		10,369	3,562	3,358	3,449	- -	-		-
Total Other Power Supply Expenses	TPP		\$	52,494,393	\$ 3,151,493 \$	3,233,823 \$	2,782,685 \$	43,326,391 \$	-	\$	-
Total Electric Power Generation Expenses			\$	687,296,876	\$ 24,218,939 \$	23,093,636 \$	23,178,850 \$	616,805,451 \$	-	\$	-
Transmission Expenses											
560 OPERATION SUPERVISION AND ENG	OM560	LBTRAN	\$	1,804,305							
561 LOAD DISPATCHING	OM561	LBTRAN	φ	3,644,052	-	-	-	-	-		
562 STATION EXPENSES	OM562	LBTRAN		1,303,298	-	-	-	-	-		•
563 OVERHEAD LINE EXPENSES	OM563	LBTRAN		1,058,993	-	-	-	-	-		
565 TRANSMISSION OF ELECTRICITY BY OTHERS	OM565	LBTRAN		2,940,449				_			_
566 MISC. TRANSMISSION EXPENSES	OM566	PTRAN		11,948,572	_	_	_	_	_		_
567 RENTS	OM567	PTRAN		112,005	_	_	_	_	_		_
568 MAINTENACE SUPERVISION AND ENG	OM568	LBTRAN			_	_	_	_	_		_
569 STRUCTURES	OM569	LBTRAN		_	_	_	_	_	_		_
570 MAINT OF STATION EQUIPMENT	OM570	LBTRAN		1,986,407	_	_	_	_	_		_
571 MAINT OF OVERHEAD LINES	OM571	LBTRAN		10,570,832	_	_	_	_	_		_
572 UNDERGROUND LINES	OM572	LBTRAN		10,570,052	_	_	_	_	_		_
573 MISC PLANT	OM573	PTRAN		337,099	_	_	_	_	_		_
575 MISO DAY 1&2 EXPENSE	OM575	PTRAN		-	-	-	-	-	-		-
Total Transmission Expenses			\$	35,706,011	\$ - <b>\$</b>	- \$	- \$	- \$	-	\$	-
Distribution Operation Expense											
580 OPERATION SUPERVISION AND ENGI	OM580	LBDO	\$	1,510,424	-	-	-	_	_		_
581 LOAD DISPATCHING	OM581	P362		341,053	_	_	_	_	_		_
582 STATION EXPENSES	OM582	P362		1,798,545	-	_	_	_	_		_
583 OVERHEAD LINE EXPENSES	OM583	P365		4,706,317	-	_	_	_	_		-
584 UNDERGROUND LINE EXPENSES	OM584	P367		· · ·	-	-	-	-	_		-
585 STREET LIGHTING EXPENSE	OM585	P373		-	-	-	-	-	_		-
586 METER EXPENSES	OM586	P370		8,749,183	-	-	-	-	-		-
586 METER EXPENSES - LOAD MANAGEMENT	OM586x	F012		-	-	-	-	-	_		-
587 CUSTOMER INSTALLATIONS EXPENSE	OM587	P371		(142,800)	-	-	-	-	_		-
588 MISCELLANEOUS DISTRIBUTION EXP	OM588	PDIST		6,743,173	-	-	-	-	_		-
588 MISC DISTR EXP MAPPIN	OM588x	PDIST		· · ·	-	-	-	-	_		-
589 RENTS	OM589	PDIST		-	-	-	-	-	-		-
Total Distribution Operation Expense	OMDO		\$	23,705,895	\$ - \$	- \$	- \$	- S	-	\$	-

								т —			
				Transmission			Distributio				
		Functional		Demand	Distrib	oution Poles	Substatio			ıtion Primary I	
Description	Name	Vector		Demand		Specific	Gener	al	Specific	Demand	Custome
Other Bower Consection Maintenance Evnence											
Other Power Generation Maintenance Expense 551 MAINTENANCE SUPERVISION & ENGINEERING	OM551	PROFIX									
552 MAINTENANCE OF STRUCTURES	OM552	PROFIX		-		-	-		-	-	-
553 MAINTENANCE OF STRUCTURES 553 MAINTENANCE OF GENERATING & ELEC PLANT	OM553	PROFIX		-		-	-		-	-	-
554 MAINTENANCE OF GENERATING & ELEC FLANT	OM554	PROFIX		-		-	-		-	-	-
334 MAINTENANCE OF MISC OTHER FOWER GEN FLT	ON1554	FROFIA		-		-	_		-	-	-
Total Other Power Generation Maintenance Expense			\$	-	\$	-	\$ -	\$	- \$	-	\$ -
Total Other Power Generation Expense			\$	-	\$	-	\$ -	\$	- \$	-	\$ -
Total Station Expense			\$	-	\$	-	\$ -	\$	- \$	-	\$ -
Other Power Supply Expenses											
555 PURCHASED POWER	OM555	OMPP		_		_	_		_	_	_
555 PURCHASED POWER OPTIONS	OMO555	OMPP		_		_	_		_	_	_
555 BROKERAGE FEES	OMB555	OMPP				_					
555 MISO TRANSMISSION EXPENSES	OMM555	OMPP		_		_	_		_	_	_
556 SYSTEM CONTROL AND LOAD DISPATCH	OM556	PROFIX									
557 OTHER EXPENSES	OM557	PROFIX		_		-	_		-	_	-
							_		_		_
Total Other Power Supply Expenses	TPP		\$	-	S	-	\$ -	\$	- \$	-	\$ -
Total Electric Power Generation Expenses			\$	-	\$	-	\$ -	\$	- \$	-	\$ -
Transmission Expenses											
560 OPERATION SUPERVISION AND ENG	OM560	LBTRAN		1,804,305		-	_		-	_	-
561 LOAD DISPATCHING	OM561	LBTRAN		3,644,052		-	_		-	_	_
562 STATION EXPENSES	OM562	LBTRAN		1,303,298		-	_		-	_	_
563 OVERHEAD LINE EXPENSES	OM563	LBTRAN		1,058,993		_	_		_	_	_
565 TRANSMISSION OF ELECTRICITY BY OTHERS	OM565	LBTRAN		2,940,449		_	_		_	_	_
566 MISC. TRANSMISSION EXPENSES	OM566	PTRAN		11,948,572		_	_		_	_	_
567 RENTS	OM567	PTRAN		112,005		_	_		_	_	_
568 MAINTENACE SUPERVISION AND ENG	OM568	LBTRAN				_	_		_	_	_
569 STRUCTURES	OM569	LBTRAN		_		_	_		_	_	_
570 MAINT OF STATION EQUIPMENT	OM570	LBTRAN		1,986,407		_	_		_	_	_
571 MAINT OF OVERHEAD LINES	OM571	LBTRAN		10,570,832		_	_		_	_	_
572 UNDERGROUND LINES	OM572	LBTRAN		-		_	_		_	_	_
573 MISC PLANT	OM573	PTRAN		337,099		_	_		_	_	_
575 MISO DAY 1&2 EXPENSE	OM575	PTRAN		-		-	-		-	-	-
Total Transmission Expenses			\$	35,706,011	s	-	s -	\$	- \$	-	s -
Distribution Operation Expense											
580 OPERATION SUPERVISION AND ENGI	OM580	LBDO		_		_	196,412	2	_	123,632	200,94
581 LOAD DISPATCHING	OM581	P362		_		_	341,05		-	125,052	200,94
582 STATION EXPENSES	OM582	P362		_		_	1,798,545		_	_	_
583 OVERHEAD LINE EXPENSES	OM583	P365		_		_	1,790,54.		_	1,252,454	1,816,53
584 UNDERGROUND LINE EXPENSES	OM584	P367								1,232,434	1,010,55
585 STREET LIGHTING EXPENSE	OM585	P373		_		_	_		_		_
586 METER EXPENSES	OM586	P370		-			-		-	-	-
586 METER EXPENSES - LOAD MANAGEMENT	OM586x	F012		-		-	-		-	-	-
587 CUSTOMER INSTALLATIONS EXPENSE		P371		-		-	-		-	-	-
587 CUSTOMER INSTALLATIONS EXPENSE 588 MISCELLANEOUS DISTRIBUTION EXP	OM587 OM588	P3/1 PDIST		-		-	816,418	2	-	889,644	1,649,76
				-		-	810,413	,	-	089,044	1,049,/6
588 MISC DISTR EXP MAPPIN 589 RENTS	OM588x OM589	PDIST PDIST		-		-	-		-	-	-
Total Distribution Operation Expense	OMDO		\$	-	s	_	\$ 3,152,429	) S	- \$	2,265,731	\$ 3,667,24
Operation Empende	00		~				- 5,152,72		ų.	2,203,731	- 5,007,24

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									Dietuil4!-	_[	Distuibut!	Distribution St. &	
		Functional		Distribution S	Sec I	ines	Distribution Line	Trans	Distributio Service		Distribution Meters	Cust. Lighting	
Description	Name	Vector	<u> </u>	Demand	500.1	Customer	Demand	Customer	Custome		ctc13	Custi Lighting	
Other Power Generation Maintenance Expense													
551 MAINTENANCE SUPERVISION & ENGINEERING	OM551	PROFIX		-		-	-	-	-		-	-	
552 MAINTENANCE OF STRUCTURES	OM552	PROFIX		-		-	-	-	-		-	-	
553 MAINTENANCE OF GENERATING & ELEC PLANT	OM553	PROFIX		-		-	-	-	-		-	-	
554 MAINTENANCE OF MISC OTHER POWER GEN PLT	OM554	PROFIX		-		-	-	-	-		-	-	
Total Other Power Generation Maintenance Expense			\$	- :	\$	-	\$ - \$	-	s -	\$	-	S -	
Total Other Power Generation Expense			\$	- :	\$	-	\$ - \$	-	s -	\$	-	s -	
Total Station Expense			\$	- :	\$	-	\$ - \$	- :	s -	\$	-	s -	
Other Power Supply Expenses													
555 PURCHASED POWER	OM555	OMPP		-		-	-	-	-		-	-	
555 PURCHASED POWER OPTIONS	OMO555	OMPP		-		-	-	-	-		-	-	
555 BROKERAGE FEES	OMB555	OMPP		-		-	-	-	-		-	-	
555 MISO TRANSMISSION EXPENSES	OMM555	OMPP		-		-	-	-	-		-	-	
556 SYSTEM CONTROL AND LOAD DISPATCH	OM556	PROFIX		-		-	-	-	-		-	-	
557 OTHER EXPENSES	OM557	PROFIX		-		-	-	-	-		-	-	
Total Other Power Supply Expenses	TPP		\$	- :	\$	-	\$ - \$	-	s -	\$	-	s -	
Total Electric Power Generation Expenses			\$	- :	\$	-	\$ - \$	-	s -	\$	-	s -	
Transmission Expenses													
560 OPERATION SUPERVISION AND ENG	OM560	LBTRAN		_		_	-	_	_		_	_	
561 LOAD DISPATCHING	OM561	LBTRAN		_		_	_	_	_		_	_	
562 STATION EXPENSES	OM562	LBTRAN		_		_	-	_	_		_	_	
563 OVERHEAD LINE EXPENSES	OM563	LBTRAN		_		_	-	_	_		_	-	
565 TRANSMISSION OF ELECTRICITY BY OTHERS	OM565	LBTRAN		-		_	-	-	_		-	-	
566 MISC. TRANSMISSION EXPENSES	OM566	PTRAN		-		_	-	-	_		-	-	
567 RENTS	OM567	PTRAN		-		-	-	-	-		-	-	
568 MAINTENACE SUPERVISION AND ENG	OM568	LBTRAN		-		-	-	-	-		-	-	
569 STRUCTURES	OM569	LBTRAN		-		_	-	-	_		-	-	
570 MAINT OF STATION EQUIPMENT	OM570	LBTRAN		-		-	-	-	-		-	-	
571 MAINT OF OVERHEAD LINES	OM571	LBTRAN		-		-	-	-	-		-	-	
572 UNDERGROUND LINES	OM572	LBTRAN		-		-	-	-	-		-	-	
573 MISC PLANT	OM573	PTRAN		-		-	-	-	-		-	-	
575 MISO DAY 1&2 EXPENSE	OM575	PTRAN		-		-	-	-	-		-	-	
Total Transmission Expenses			\$	- :	\$	-	\$ - \$	-	s -	\$	-	s -	
Distribution Operation Expense													
580 OPERATION SUPERVISION AND ENGI	OM580	LBDO		62,043		91,915	38,256	34,044	22,79	l	713,416	26,974	
581 LOAD DISPATCHING	OM581	P362		-		-	-	-	-		-	-	
582 STATION EXPENSES	OM582	P362		-		-	-	-	-		-	-	
583 OVERHEAD LINE EXPENSES	OM583	P365		668,193		969,134	-	-	-		-	-	
584 UNDERGROUND LINE EXPENSES	OM584	P367		-		-	-	-	-		-	-	
585 STREET LIGHTING EXPENSE	OM585	P373		-		-	-	-	-		<del>-</del>	-	
586 METER EXPENSES	OM586	P370		-		-	-	-	-		8,749,183	-	
586 METER EXPENSES - LOAD MANAGEMENT	OM586x	F012		-		-	-	-	-		-	-	
587 CUSTOMER INSTALLATIONS EXPENSE	OM587	P371				-	-					(142,800)	
588 MISCELLANEOUS DISTRIBUTION EXP	OM588	PDIST		409,553		626,072	635,769	565,758	378,759	)	323,170	448,263	
588 MISC DISTR EXP MAPPIN 589 RENTS	OM588x OM589	PDIST PDIST		-		-	- -	-	-		-	-	
			_				cm1 c=	500			0.80		
Total Distribution Operation Expense	OMDO		\$	1,139,789	\$	1,687,121	\$ 674,026 \$	599,802	\$ 401,55	1 \$	9,785,769	\$ 332,436	

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				Customer	Custome	rl I	
		Functional	Accoun	ts Expense	Service & Info		Sales Expense
Description	Name	Vector					
· ·							
Other Power Generation Maintenance Expense							
551 MAINTENANCE SUPERVISION & ENGINEERING	OM551	PROFIX		-	-		-
552 MAINTENANCE OF STRUCTURES	OM552	PROFIX		-	-		-
553 MAINTENANCE OF GENERATING & ELEC PLANT	OM553	PROFIX		-	-		-
554 MAINTENANCE OF MISC OTHER POWER GEN PLT	OM554	PROFIX		-	-		-
Total Other Power Generation Maintenance Expense			\$	-	\$ -	\$	-
Total Other Power Generation Expense			\$	-	\$ -	\$	-
Total Station Expense			\$	-	\$ -	\$	-
Other Power Supply Expenses							
555 PURCHASED POWER	OM555	OMPP		_	_		_
555 PURCHASED POWER OPTIONS	OMO555	OMPP		_	_		_
555 BROKERAGE FEES	OMB555	OMPP		_	_		_
555 MISO TRANSMISSION EXPENSES	OMM555	OMPP		_	_		_
556 SYSTEM CONTROL AND LOAD DISPATCH	OM556	PROFIX		_	_		_
557 OTHER EXPENSES	OM557	PROFIX		-	-		-
Total Other Power Supply Expenses	TPP		s	_	s -	\$	_
Total Electric Power Generation Expenses			s	_	s -	\$	_
Total Electric Tower deficitation Expenses			•		•	Ψ	
Transmission Expenses							
560 OPERATION SUPERVISION AND ENG	OM560	LBTRAN		-	-		-
561 LOAD DISPATCHING	OM561	LBTRAN		-	-		-
562 STATION EXPENSES	OM562	LBTRAN		-	-		-
563 OVERHEAD LINE EXPENSES	OM563	LBTRAN		-	-		-
565 TRANSMISSION OF ELECTRICITY BY OTHERS	OM565	LBTRAN		-	-		_
566 MISC. TRANSMISSION EXPENSES	OM566	PTRAN		_	_		_
567 RENTS	OM567	PTRAN		_	_		_
568 MAINTENACE SUPERVISION AND ENG	OM568	LBTRAN		_	_		_
569 STRUCTURES	OM569	LBTRAN		_	_		_
570 MAINT OF STATION EQUIPMENT	OM570	LBTRAN		_	_		_
571 MAINT OF OVERHEAD LINES	OM571	LBTRAN		_			_
572 UNDERGROUND LINES	OM572	LBTRAN		_	_		_
573 MISC PLANT	OM573	PTRAN		_			_
575 MISO DAY 1&2 EXPENSE	OM575	PTRAN		-	-		-
Total Transmission Expenses			\$	-	\$ -	\$	-
Distribution Operation Frances							
Distribution Operation Expense	014500	I DDO					
580 OPERATION SUPERVISION AND ENGI	OM580	LBDO		-	-		-
581 LOAD DISPATCHING	OM581	P362		-	-		-
582 STATION EXPENSES	OM582	P362		-	-		-
583 OVERHEAD LINE EXPENSES	OM583	P365		-	-		-
584 UNDERGROUND LINE EXPENSES	OM584	P367		-	-		-
585 STREET LIGHTING EXPENSE	OM585	P373		-	-		-
586 METER EXPENSES	OM586	P370		-	-		-
586 METER EXPENSES - LOAD MANAGEMENT	OM586x	F012		-	-		-
587 CUSTOMER INSTALLATIONS EXPENSE	OM587	P371		-	-		-
588 MISCELLANEOUS DISTRIBUTION EXP	OM588	PDIST		-	-		-
588 MISC DISTR EXP MAPPIN	OM588x	PDIST		-	-		-
589 RENTS	OM589	PDIST		-	-		-
Total Distribution Operation Expense	OMDO		\$	-	\$ -	\$	-

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		Functional		Total		Duad	uction Demand		Duodus	ction Energy	
Description	Name	Vector		System	<u> </u>	Base	Inter.	Peak	Base	Inter.	Peak
escription .	. Tume	, , ,		Djstem		Duşc	THICH:	Tenn	Dusc	THE CO.	T Cuit
Operation and Maintenance Expenses (Continued)											
Distribution Maintenance Expense											
590 MAINTENANCE SUPERVISION AND EN	OM590	LBDM	\$	57,449		-	-	-	-	-	-
591 STRUCTURES	OM591	P362		-		-	-	-	-	-	-
592 MAINTENANCE OF STATION EQUIPME	OM592	P362		1,286,692		-	-	-	-	-	-
593 MAINTENANCE OF OVERHEAD LINES	OM593	P365		30,239,215		-	-	-	-	-	-
594 MAINTENANCE OF UNDERGROUND LIN	OM594	P367		790,500		-	-	-	-	-	-
595 MAINTENANCE OF LINE TRANSFORME	OM595	P368		96,331		-	-	-	-	-	-
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	OM596	P373		-		-	-	-	-	-	-
597 MAINTENANCE OF METERS	OM597	P370		1,371,953		-	-	-	-	-	-
598 MISCELLANEOUS DISTRIBUTION EXPENSES	OM598	PDIST		550,314		-	-	-	-	-	-
Total Distribution Maintenance Expense	OMDM		\$	34,392,454	\$	- \$	- \$	- \$	- \$	- \$	-
Total Distribution Operation and Maintenance Expenses				58,098,349		-	-	-	-	-	-
Transmission and Distribution Expenses				93,804,360		-	-	-	-	-	-
Production, Transmission and Distribution Expenses	OMSUB		\$	781,101,237	\$	24,218,939 \$	23,093,636 \$	23,178,850 \$	616,805,451 \$	- \$	-
Customer Accounts Expense											
901 SUPERVISION/CUSTOMER ACCTS	OM901	F025	\$	3,631,554		_	_	_	_	_	_
902 METER READING EXPENSES	OM902	F025	Φ	5,301,482							
903 RECORDS AND COLLECTION	OM903	F025		20,167,471							
904 UNCOLLECTIBLE ACCOUNTS	OM904	F025		5,566,157							
905 MISC CUST ACCOUNTS	OM903	F025		3,300,137		-	-	-	-	-	-
Total Customer Accounts Expense	OMCA		\$	34,666,664	\$	- S	- S	- \$	- S	- \$	
Total Customer Accounts Expense	OMCA		J	34,000,004	3	- 3	- 3	- 3	- 3	- 3	-
Customer Service Expense											
907 SUPERVISION	OM907	F026	\$	651,425		-	-	-	-	-	-
908 CUSTOMER ASSISTANCE EXPENSES	OM908	F026		450,051		-	-	-	-	-	-
908 CUSTOMER ASSISTANCE EXP-INCENTIVES	OM908x	F026		-		-	-	-	-	-	-
909 INFORMATIONAL AND INSTRUCTIONA	OM909	F026		389,845		-	-	-	-	-	-
909 INFORM AND INSTRUC -LOAD MGMT	OM909x	F026		-		-	-	-	-	-	-
910 MISCELLANEOUS CUSTOMER SERVICE	OM910	F026		1,861,027		-	-	-	-	-	-
911 DEMONSTRATION AND SELLING EXP	OM911	F026		-		-	-	-	-	-	-
912 DEMONSTRATION AND SELLING EXP	OM912	F026		-		-	-	-	-	-	-
913 ADVERTISING EXPENSES	OM913	F026		794,217		-	-	-	-	-	-
916 MISC SALES EXPENSE	OM916	F026		-		-	-	-	-	-	-
Total Customer Service Expense	OMCS		\$	4,146,565	\$	- \$	- \$	- \$	- \$	- \$	-
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service	OMSUB2			819,914,466		24,218,939	23,093,636	23,178,850	616,805,451	-	-

Description	Name	Functional Vector	Transmission Demand Demand	Distribu	ntion Poles Specific	Distribution Substation General	Distril Specific	butio	on Primary Lir Demand	ies	Customer
Operation and Maintenance Expenses (Continued)											
Distribution Maintenance Expense											
590 MAINTENANCE SUPERVISION AND EN	OM590	LBDM	-		-	4,810	-		13,640		21,294
591 STRUCTURES	OM591	P362	-		-		-		-		-
592 MAINTENANCE OF STATION EQUIPME	OM592	P362	-		-	1,286,692	-		<del>-</del>		<del>.</del>
593 MAINTENANCE OF OVERHEAD LINES	OM593	P365	-		-	-	-		8,047,321		11,671,671
594 MAINTENANCE OF UNDERGROUND LIN	OM594	P367	-		-	-	-		147,982		577,776
595 MAINTENANCE OF LINE TRANSFORME	OM595	P368	-		-	-	-		-		-
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	OM596	P373	-		-	-	-		-		-
597 MAINTENANCE OF METERS	OM597	P370	-		-	-	-		-		-
598 MISCELLANEOUS DISTRIBUTION EXPENSES	OM598	PDIST	-		-	66,628	-		72,604		134,638
Total Distribution Maintenance Expense	OMDM		\$ -	\$	-	\$ 1,358,130	\$ - 5	\$	8,281,547	5	12,405,380
Total Distribution Operation and Maintenance Expenses			-		-	4,510,559	-		10,547,278		16,072,622
Transmission and Distribution Expenses			35,706,011		-	4,510,559	-		10,547,278		16,072,622
Production, Transmission and Distribution Expenses	OMSUB		\$ 35,706,011	\$	-	\$ 4,510,559	\$ - 5	\$	10,547,278	\$	16,072,622
Customer Accounts Expense											
901 SUPERVISION/CUSTOMER ACCTS	OM901	F025	_		_	_	-		_		-
902 METER READING EXPENSES	OM902	F025	-		-	_	-		-		-
903 RECORDS AND COLLECTION	OM903	F025	-		-	-	-		-		-
904 UNCOLLECTIBLE ACCOUNTS	OM904	F025	-		-	-	-		-		-
905 MISC CUST ACCOUNTS	OM903	F025	-		-	-	-		-		-
Total Customer Accounts Expense	OMCA		\$ -	\$	-	\$ -	\$ - 5	\$	- 5	5	-
Customer Service Expense											
907 SUPERVISION	OM907	F026	-		-	-	-		-		-
908 CUSTOMER ASSISTANCE EXPENSES	OM908	F026	-		-	-	-		-		-
908 CUSTOMER ASSISTANCE EXP-INCENTIVES	OM908x	F026	-		-	-	-		-		-
909 INFORMATIONAL AND INSTRUCTIONA	OM909	F026	-		-	-	-		-		-
909 INFORM AND INSTRUC -LOAD MGMT	OM909x	F026	-		-	-	-		-		-
910 MISCELLANEOUS CUSTOMER SERVICE	OM910	F026	-		-	-	-		-		-
911 DEMONSTRATION AND SELLING EXP	OM911	F026	-		-	-	-		-		-
912 DEMONSTRATION AND SELLING EXP	OM912	F026	-		-	-	-		-		-
913 ADVERTISING EXPENSES	OM913	F026	-		-	-	-		-		-
916 MISC SALES EXPENSE	OM916	F026	-		-	-	-		-		-
Total Customer Service Expense	OMCS		\$ -	\$	-	\$ -	\$ - 5	\$	- 5	5	-
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service	OMSUB2		35,706,011		-	4,510,559	-		10,547,278		16,072,622

								Distribution	Distribution	Distribution St. &
		Functional	Distribution	Sec Lines		Distribution	Line Trans	Services		
Description	Name	Vector	Demand	Custo	mer	Demand	Customer			
Operation and Maintenance Expenses (Continued)										
Distribution Maintenance Expense										
590 MAINTENANCE SUPERVISION AND EN	OM590	LBDM	7,004	10,	293	216	192	-	-	-
591 STRUCTURES	OM591	P362	-		-	-	-	-	-	-
592 MAINTENANCE OF STATION EQUIPME	OM592	P362	-		-	-	-	-	-	-
593 MAINTENANCE OF OVERHEAD LINES	OM593	P365	4,293,303	6,226,		-	-	-	-	-
594 MAINTENANCE OF UNDERGROUND LIN	OM594	P367	13,201	51,	541	-	-	-	-	-
595 MAINTENANCE OF LINE TRANSFORME	OM595	P368	-		-	50,972	45,359	-	-	-
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	OM596	P373	-		-	-	-	-	-	-
597 MAINTENANCE OF METERS	OM597	P370	-		-	-	-	-	1,371,953	-
598 MISCELLANEOUS DISTRIBUTION EXPENSES	OM598	PDIST	33,424	51,	)94	51,885	46,172	30,911	26,374	36,583
Total Distribution Maintenance Expense	OMDM		\$ 4,346,931	\$ 6,339,	348 \$	103,074	\$ 91,723	\$ 30,911	\$ 1,398,327	\$ 36,583
Total Distribution Operation and Maintenance Expenses			5,486,721	8,026,	969	777,099	691,525	432,461	11,184,096	369,019
Transmission and Distribution Expenses			5,486,721	8,026,	969	777,099	691,525	432,461	11,184,096	369,019
Production, Transmission and Distribution Expenses	OMSUB		\$ 5,486,721	\$ 8,026,	969 \$	\$ 777,099	\$ 691,525	\$ 432,461	\$ 11,184,096	\$ 369,019
Customer Accounts Expense										
901 SUPERVISION/CUSTOMER ACCTS	OM901	F025	-			-	-	-	_	-
902 METER READING EXPENSES	OM902	F025	-		-	-	-	-	-	-
903 RECORDS AND COLLECTION	OM903	F025	-			-	-	-	_	-
904 UNCOLLECTIBLE ACCOUNTS	OM904	F025	-			-	-	-	_	-
905 MISC CUST ACCOUNTS	OM903	F025	-		-	-	-	-	-	-
Total Customer Accounts Expense	OMCA		\$ - :	\$	- \$	-	\$ -	\$ -	\$ -	\$ -
Customer Service Expense										
907 SUPERVISION	OM907	F026	-		-	-	-	-	-	-
908 CUSTOMER ASSISTANCE EXPENSES	OM908	F026	-		-	-	-	-	-	-
908 CUSTOMER ASSISTANCE EXP-INCENTIVES	OM908x	F026	-		-	-	-	-	-	-
909 INFORMATIONAL AND INSTRUCTIONA	OM909	F026	-		-	-	-	-	-	-
909 INFORM AND INSTRUC -LOAD MGMT	OM909x	F026	-		-	-	-	-	-	-
910 MISCELLANEOUS CUSTOMER SERVICE	OM910	F026	-		-	-	-	-	-	-
911 DEMONSTRATION AND SELLING EXP	OM911	F026	-		-	-	-	-	-	-
912 DEMONSTRATION AND SELLING EXP	OM912	F026	-		-	-	-	-	-	-
913 ADVERTISING EXPENSES	OM913	F026	-		-	-	-	-	-	-
916 MISC SALES EXPENSE	OM916	F026	-		-	-	-	-	-	-
Total Customer Service Expense	OMCS		\$ -	\$	- \$	-	S -	\$ -	\$ -	\$ -
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service	OMSUB2		5,486,721	8,026,	969	777,099	691,525	432,461	11,184,096	369,019

Description	Name	Functional Vector	Acce	Customer ounts Expense	Ser	Customer rvice & Info.	Sales Expense
Operation and Maintenance Expenses (Continued)							
Distribution Maintenance Expense							
590 MAINTENANCE SUPERVISION AND EN	OM590	LBDM		_		_	_
591 STRUCTURES	OM591	P362		_		_	_
592 MAINTENANCE OF STATION EQUIPME	OM592	P362		_		_	_
593 MAINTENANCE OF OVERHEAD LINES	OM593	P365		_		_	_
594 MAINTENANCE OF UNDERGROUND LIN	OM594	P367					
595 MAINTENANCE OF LINE TRANSFORME	OM595	P368		-		-	-
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	OM596	P373		-		-	-
597 MAINTENANCE OF ST LIGHTS & SIG STSTEMS	OM597	P370		-		-	-
	OM598	PDIST		-		-	-
598 MISCELLANEOUS DISTRIBUTION EXPENSES	OM598	PDIST		-		-	-
Total Distribution Maintenance Expense	OMDM		\$	-	\$	-	\$ -
Total Distribution Operation and Maintenance Expenses				-		-	-
Transmission and Distribution Expenses				-		-	-
Production, Transmission and Distribution Expenses	OMSUB		\$	-	\$	-	\$ -
Customer Accounts Expense							
901 SUPERVISION/CUSTOMER ACCTS	OM901	F025		3,631,554			
902 METER READING EXPENSES	OM902	F025		5,301,482		-	-
903 RECORDS AND COLLECTION	OM902 OM903	F025		20,167,471		-	-
						-	-
904 UNCOLLECTIBLE ACCOUNTS 905 MISC CUST ACCOUNTS	OM904 OM903	F025 F025		5,566,157		-	_
705 MIBC COST ACCOUNTS	OMDOS	1025					
Total Customer Accounts Expense	OMCA		\$	34,666,664	\$	-	\$ -
Customer Service Expense							
907 SUPERVISION	OM907	F026		-		651,425	-
908 CUSTOMER ASSISTANCE EXPENSES	OM908	F026		-		450,051	-
908 CUSTOMER ASSISTANCE EXP-INCENTIVES	OM908x	F026		-		-	-
909 INFORMATIONAL AND INSTRUCTIONA	OM909	F026		-		389,845	-
909 INFORM AND INSTRUC -LOAD MGMT	OM909x	F026		-		-	-
910 MISCELLANEOUS CUSTOMER SERVICE	OM910	F026		-		1,861,027	-
911 DEMONSTRATION AND SELLING EXP	OM911	F026		-			_
912 DEMONSTRATION AND SELLING EXP	OM912	F026		_		-	_
913 ADVERTISING EXPENSES	OM913	F026		_		794,217	_
916 MISC SALES EXPENSE	OM916	F026		-		-	-
Total Customer Service Expense	OMCS		\$	-	\$	4,146,565	\$ -
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service	OMSUB2			34,666,664		4,146,565	_

				_						
		Functional	Total		Produ	uction Demand		Produ	ction Energy	
Description	Name	Vector	System		Base	Inter.	Peak	Base	Inter.	Peak
Operation and Maintenance Expenses (Continued)										
Administrative and General Expense										
920 ADMIN. & GEN. SALARIES-	OM920	LBSUB7	\$ 33,809,232		3,683,645	3,472,490	3,566,271	7,680,251	-	-
921 OFFICE SUPPLIES AND EXPENSES	OM921	LBSUB7	7,269,104		791,997	746,598	766,761	1,651,281	-	-
922 ADMINISTRATIVE EXPENSES TRANSFERRED	OM922	LBSUB7	(4,414,266)		(480,951)	(453,382)	(465,626)	(1,002,764)	-	-
923 OUTSIDE SERVICES EMPLOYED	OM923	LBSUB7	19,133,213		2,084,637	1,965,141	2,018,213	4,346,383	-	-
924 PROPERTY INSURANCE	OM924	TUP	5,543,869		1,154,196	1,209,094	993,871	-	-	-
925 INJURIES AND DAMAGES - INSURAN	OM925	LBSUB7	3,904,092		425,366	400,983	411,812	886,870	-	-
926 EMPLOYEE BENEFITS	OM926	LBSUB7	38,912,106		4,239,622	3,996,598	4,104,533	8,839,442	-	-
928 REGULATORY COMMISSION FEES	OM928	TUP	1,800,307		374,812	392,639	322,748	-	-	-
929 DUPLICATE CHARGES	OM929	LBSUB7	-		-	-	-	-	-	-
930 MISCELLANEOUS GENERAL EXPENSES	OM930	LBSUB7	5,197,262		566,262	533,802	548,218	1,180,632	-	-
931 RENTS AND LEASES	OM931	PGP	1,831,134		383,663	401,911	330,369	-	-	-
935 MAINTENANCE OF GENERAL PLANT	OM935	PGP	873,720		183,064	191,771	157,635	-	-	-
Total Administrative and General Expense	OMAG		\$ 113,859,773	\$	13,406,311 \$	12,857,643 \$	12,754,806 \$	23,582,096 \$	- \$	-
Total Operation and Maintenance Expenses	TOM		\$ 933,774,239	\$	37,625,250 \$	35,951,279 \$	35,933,656 \$	640,387,547 \$	- \$	-
Operation and Maintenance Expenses Less Purchase Power	OMLPP		\$ 883,154,932	\$	35,117,936 \$	33,324,709 \$	33,774,624 \$	597,061,156 \$	- \$	-

		Functional	Transmission Demand	Distribu	tion Poles	Distribution Substation	Di	stribu	tion Primary Line	s
Description	Name	Vector	 Demand		Specific	General	Specif		Demand	Customer
Operation and Maintenance Expenses (Continued)										
Administrative and General Expense										
920 ADMIN. & GEN. SALARIES-	OM920	LBSUB7	2,272,732		-	847,086	-		923,063	1,711,738
921 OFFICE SUPPLIES AND EXPENSES	OM921	LBSUB7	488,645		-	182,127	-		198,462	368,030
922 ADMINISTRATIVE EXPENSES TRANSFERRED	OM922	LBSUB7	(296,737)		-	(110,599)	-		(120,519)	(223,491)
923 OUTSIDE SERVICES EMPLOYED	OM923	LBSUB7	1,286,177		-	479,380	-		522,377	968,701
924 PROPERTY INSURANCE	OM924	TUP	744,465		-	174,617	-		190,279	352,855
925 INJURIES AND DAMAGES - INSURAN	OM925	LBSUB7	262,442		-	97,817	-		106,590	197,661
926 EMPLOYEE BENEFITS	OM926	LBSUB7	2,615,758		-	974,938	-		1,062,382	1,970,093
928 REGULATORY COMMISSION FEES	OM928	TUP	241,756		-	56,705	-		61,791	114,586
929 DUPLICATE CHARGES	OM929	LBSUB7	-		-	-	-		-	-
930 MISCELLANEOUS GENERAL EXPENSES	OM930	LBSUB7	349,371		-	130,217	-		141,896	263,134
931 RENTS AND LEASES	OM931	PGP	241,214		-	57,386	-		62,533	115,962
935 MAINTENANCE OF GENERAL PLANT	OM935	PGP	115,095		-	27,382	-		29,837	55,331
Total Administrative and General Expense	OMAG		\$ 8,320,918	\$	-	\$ 2,917,056 \$	-	\$	3,178,692 \$	5,894,598
Total Operation and Maintenance Expenses	TOM		\$ 44,026,929	\$	-	\$ 7,427,615 \$	-	\$	13,725,970 \$	21,967,220
Operation and Maintenance Expenses Less Purchase Power	OMLPP		\$ 44,026,929	\$	-	\$ 7,427,615 \$	-	\$	13,725,970 \$	21,967,220

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Administrative and General Expense   Administrative and General Expense   Section 2009   Section 300   Section 3			Functional		Distribution Sec	. Lines	Distribut	ion Line	Trans.			Distribution St. & Cust. Lighting
Administrative and General Expense  920 ADMIN. & GEN. SALARIES- OM920 LBSUB7 424,938 649,590 659,651 587,010 392,987 335,310 465 921 OFFICE SUPPLIES AND EXPENSES OM921 LBSUB7 91,363 139,664 141,827 126,209 84,494 72,093 99 922 ADMINISTRATIVE EXPENSES TRANSFERRED OM922 LBSUB7 (55,482) (84,813) (86,127) (76,642) (51,310) (43,779) (60 923 OUTSIDE SERVICES EMPLOYED OM924 TUP 87,596 133,906 135,980 121,005 81,010 69,120 95 925 INJURIES AND DAMAGES - INSURAN OM925 LBSUB7 49,069 75,011 76,173 67,785 45,380 38,720 53 926 EMPLOYEE BENEFITS OM926 LBSUB7 489,074 747,634 759,213 675,608 452,301 385,919 535 928 REGULATORY COMMISSION FEES OM928 TUP 28,446 43,484 44,158 39,295 26,307 22,446 31 929 DUPLICATE CHARGES OM929 LBSUB7	Description	Name	Vector	•	Demand	Customer	Dema	nd	Customer	Customer		
Administrative and General Expense  920 ADMIN. & GEN. SALARIES- OM920 LBSUB7 424,938 649,590 659,651 587,010 392,987 335,310 465 921 OFFICE SUPPLIES AND EXPENSES OM921 LBSUB7 91,363 139,664 141,827 126,209 84,494 72,093 99 922 ADMINISTRATIVE EXPENSES TRANSFERRED OM922 LBSUB7 (55,482) (84,813) (86,127) (76,642) (51,310) (43,779) (60 923 OUTSIDE SERVICES EMPLOYED OM924 TUP 87,596 133,906 135,980 121,005 81,010 69,120 95 925 INJURIES AND DAMAGES - INSURAN OM925 LBSUB7 49,069 75,011 76,173 67,785 45,380 38,720 53 926 EMPLOYEE BENEFITS OM926 LBSUB7 489,074 747,634 759,213 675,608 452,301 385,919 535 928 REGULATORY COMMISSION FEES OM928 TUP 28,446 43,484 44,158 39,295 26,307 22,446 31 929 DUPLICATE CHARGES OM929 LBSUB7	Operation and Maintenance Expenses (Continued)											
920 ADMIN. & GEN. SALARIES- 921 OFFICE SUPPLIES AND EXPENSES 922 ADMINISTRATIVE EXPENSES TRANSFERRED 923 OUTSIDE SERVICES EMPLOYED 924 OFFICE SERVICES EMPLOYED 925 OUTSIDE SERVICES EMPLOYED 926 OM924 927 OFFICE SERVICES EMPLOYED 928 OUTSIDE SERVICES EMPLOYED 929 OUTSIDE SERVICES EMPLOYED 920 OUTSIDE SERVICES EMPLOYED 921 OFFICE SERVICES EMPLOYED 922 OUTSIDE SERVICES EMPLOYED 923 OUTSIDE SERVICES EMPLOYED 924 PROPERTY INSURANCE 925 INJURIES AND DAMAGES - INSURAN 926 EMPLOYEE BENEFITS 927 OM925 928 EMPLOYEE BENEFITS 929 EMPLOYEE BENEFITS 930 MGSCELLANEOUS GENERAL EXPENSES 930 MISCELLANEOUS GENERAL EXPENSES 931 RENTS AND LEASES 932 MAINTENANCE 933 MAINTENANCE 940 OM931 940 PGP 950 13,736 950 121,005 950 121,	Operation and Maintenance Expenses (Continued)											
921 OFFICE SUPPLIES AND EXPENSES OM921 LBSUB7 91,363 139,664 141,827 126,209 84,494 72,093 99 922 ADMINISTRATIVE EXPENSES TRANSFERRED OM922 LBSUB7 (55,482) (84,813) (86,127) (76,642) (51,310) (43,779) (60 923 OUTSIDE SERVICES EMPLOYED OM923 LBSUB7 240,480 367,614 373,308 332,199 222,398 189,758 263 924 PROPERTY INSURANCE OM924 TUP 87,596 133,906 135,980 121,005 81,010 69,120 95 925 INJURIES AND DAMAGES - INSURAN OM925 LBSUB7 49,069 75,011 76,173 67,785 45,380 38,720 53 926 EMPLOYEE BENEFITS OM926 LBSUB7 489,074 747,634 759,213 675,608 452,301 385,919 535 928 REGULATORY COMMISSION FEES OM928 TUP 28,446 43,484 44,158 39,295 26,307 22,446 31 929 DUPLICATE CHARGES OM929 LBSUB7	Administrative and General Expense											
922 ADMINISTRATIVE EXPENSES TRANSFERED OM922 LBSUB7 (55,482) (84,813) (86,127) (76,642) (51,310) (43,779) (60 923 OUTSIDE SERVICES EMPLOYED OM923 LBSUB7 240,480 367,614 373,308 332,199 222,398 189,758 263 924 PROPERTY INSURANCE OM924 TUP 87,596 133,906 135,980 121,005 81,010 69,120 95 925 INJURIES AND DAMAGES - INSURAN OM925 LBSUB7 49,069 75,011 76,173 67,785 45,380 38,720 53 926 EMPLOYEE BENEFITS OM926 LBSUB7 489,074 747,634 759,213 675,608 452,301 385,919 535 928 REGULATORY COMMISSION FEES OM928 TUP 28,446 43,484 44,158 39,295 26,307 22,446 31 929 DUPLICATE CHARGES OM929 LBSUB7 - 930 MISCELLANEOUS GENERAL EXPENSES OM930 LBSUB7 65,323 99,857 101,404 90,237 60,411 51,545 71 931 RENTS AND LEASES OM931 PGP 28,787 44,007 44,688 39,767 26,623 22,716 31 935 MAINTENANCE OF GENERAL PLANT OM935 PGP 13,736 20,998 21,323 18,975 12,703 10,839 15  Total Administrative and General Expense  OMAG  \$ 1,463,331 \$ 2,236,952 \$ 2,271,598 \$ 2,021,448 \$ 1,353,304 \$ 1,154,685 \$ 1,970	920 ADMIN. & GEN. SALARIES-	OM920			424,938	649,590	659,65	51	587,010	392,987	335,310	465,102
923 OUTSIDE SERVICES EMPLOYED OM923 LBSUB7 240,480 367,614 373,308 332,199 222,398 189,758 263 924 PROPERTY INSURANCE OM924 TUP 87,596 133,906 135,980 121,005 81,010 69,120 95 925 INJURIES AND DAMAGES - INSURAN OM925 LBSUB7 49,069 75,011 76,173 67,785 45,380 38,720 53 926 EMPLOYEE BENEFITS OM926 LBSUB7 489,074 747,634 759,213 675,608 452,301 385,919 535 928 REGULATORY COMMISSION FEES OM928 TUP 28,446 43,484 44,158 39,295 26,307 22,446 31 929 DUPLICATE CHARGES OM929 LBSUB7	921 OFFICE SUPPLIES AND EXPENSES		LBSUB7		91,363	139,664	141,82	27	126,209	84,494	72,093	99,998
924 PROPERTY INSURANCE OM924 TUP 87,596 133,906 135,980 121,005 81,010 69,120 95 925 INJURIES AND DAMAGES - INSURAN OM925 LIBSUB7 49,069 75,011 76,173 67,785 45,380 38,720 53 926 EMPLOYEE BENEFITS OM926 LIBSUB7 489,074 747,634 759,213 675,608 452,301 385,919 535 928 REGULATORY COMMISSION FEES OM928 TUP 28,446 43,484 44,158 39,295 26,307 22,446 31 929 DUPLICATE CHARGES OM929 LIBSUB7	922 ADMINISTRATIVE EXPENSES TRANSFERRED	OM922			(55,482)	(84,813)	(86,12	27)	(76,642)	(51,310)	(43,779)	(60,725)
925 INJURIES AND DAMAGES - INSURAN OM925 LBSUB7 49,069 75,011 76,173 67,785 45,380 38,720 53 926 EMPLOYEE BENEFITS OM926 LBSUB7 489,074 747,634 759,213 675,608 452,301 385,919 535 928 REGULATORY COMMISSION FEES OM928 TUP 28,446 43,484 44,158 39,295 26,307 22,446 31 929 DUPLICATE CHARGES OM929 LBSUB7 - 930 MISCELLANEOUS GENERAL EXPENSES OM930 LBSUB7 65,323 99,857 101,404 90,237 60,411 51,545 71 931 RENTS AND LEASES OM931 PGP 28,787 44,007 44,688 39,767 26,623 22,716 31 935 MAINTENANCE OF GENERAL PLANT OM935 PGP 13,736 20,998 21,323 18,975 12,703 10,839 15 Total Administrative and General Expense  OMAG \$1,463,331 \$2,236,952 \$2,271,598 \$2,021,448 \$1,353,304 \$1,154,685 \$1,601	923 OUTSIDE SERVICES EMPLOYED	OM923	LBSUB7		240,480	367,614	373,30	)8	332,199	222,398	189,758	263,209
926 EMPLOYEE BENEFITS OM926 LBSUB7 489,074 747,634 759,213 675,608 452,301 385,919 535 928 REGULATORY COMMISSION FEES OM928 TUP 28,446 43,484 44,158 39,295 26,307 22,446 31 929 DUPLICATE CHARGES OM929 LBSUB7	924 PROPERTY INSURANCE	OM924	TUP		87,596	133,906	135,98	30	121,005	81,010	69,120	95,875
928 REGULATORY COMMISSION FEES OM928 TUP 28,446 43,484 44,158 39,295 26,307 22,446 31 929 DUPLICATE CHARGES OM929 LISSUBT	925 INJURIES AND DAMAGES - INSURAN	OM925	LBSUB7		49,069	75,011	76,17	73	67,785	45,380	38,720	53,707
929 DUPLICATE CHARGES OM929 LBSUB7	7 - 7				489,074						385,919	535,300
930 MISCELLANEOUS GENERAL EXPENSES OM930 LBSUB7 65,323 99,857 101,404 90,237 60,411 51,545 71 931 RENTS AND LEASES OM931 PGP 28,787 44,007 44,688 39,767 26,623 22,716 31 935 MAINTENANCE OF GENERAL PLANT OM935 PGP 13,736 20,998 21,323 18,975 12,703 10,839 15  Total Administrative and General Expense OMAG \$ 1,463,331 \$ 2,236,952 \$ 2,271,598 \$ 2,021,448 \$ 1,353,304 \$ 1,154,685 \$ 1,601    Total Operation and Maintenance Expenses TOM \$ 6,950,051 \$ 10,263,921 \$ 3,048,697 \$ 2,712,973 \$ 1,785,765 \$ 12,338,781 \$ 1,970	928 REGULATORY COMMISSION FEES	OM928	TUP		28,446	43,484	44,13	58	39,295	26,307	22,446	31,134
931 RENTS AND LEASES OM931 PGP 28,787 44,007 44,688 39,767 26,623 22,716 31 935 MAINTENANCE OF GENERAL PLANT OM935 PGP 13,736 20,998 21,323 18,975 12,703 10,839 15  Total Administrative and General Expense OMAG \$ 1,463,331 \$ 2,236,952 \$ 2,271,598 \$ 2,021,448 \$ 1,353,304 \$ 1,154,685 \$ 1,601    Total Operation and Maintenance Expenses TOM \$ 6,950,051 \$ 10,263,921 \$ 3,048,697 \$ 2,712,973 \$ 1,785,765 \$ 12,338,781 \$ 1,970	929 DUPLICATE CHARGES	OM929	LBSUB7		-	-	-		-	-	-	-
935 MAINTENANCE OF GENERAL PLANT         OM935         PGP         13,736         20,998         21,323         18,975         12,703         10,839         15           Total Administrative and General Expense         OMAG         \$ 1,463,331         \$ 2,236,952         \$ 2,271,598         \$ 2,021,448         \$ 1,353,304         \$ 1,154,685         \$ 1,601           Total Operation and Maintenance Expenses         TOM         \$ 6,950,051         \$ 10,263,921         \$ 3,048,697         \$ 2,712,973         \$ 1,785,765         \$ 12,338,781         \$ 1,970	930 MISCELLANEOUS GENERAL EXPENSES	OM930	LBSUB7		65,323	99,857	101,40	)4	90,237	60,411	51,545	71,497
Total Administrative and General Expense         OMAG         \$ 1,463,331         \$ 2,236,952         \$ 2,271,598         \$ 2,021,448         \$ 1,353,304         \$ 1,154,685         \$ 1,601           Total Operation and Maintenance Expenses         TOM         \$ 6,950,051         \$ 10,263,921         \$ 3,048,697         \$ 2,712,973         \$ 1,785,765         \$ 12,338,781         \$ 1,970	931 RENTS AND LEASES	OM931			28,787	44,007			39,767		22,716	31,508
Total Operation and Maintenance Expenses TOM \$ 6,950,051 \$ 10,263,921 \$ 3,048,697 \$ 2,712,973 \$ 1,785,765 \$ 12,338,781 \$ 1,970	935 MAINTENANCE OF GENERAL PLANT	OM935	PGP		13,736	20,998	21,32	23	18,975	12,703	10,839	15,034
	Total Administrative and General Expense	OMAG		\$	1,463,331 \$	2,236,952	\$ 2,271,59	98 \$	2,021,448 \$	1,353,304	\$ 1,154,685	\$ 1,601,640
Operation and Maintenance Expenses Less Purchase Power OMLPP \$ 6,950,051 \$ 10,263,921 \$ 3,048,697 \$ 2,712,973 \$ 1,785,765 \$ 12,338,781 \$ 1,970	Total Operation and Maintenance Expenses	TOM		\$	6,950,051 \$	10,263,921	\$ 3,048,69	97 \$	2,712,973 \$	1,785,765	\$ 12,338,781	\$ 1,970,659
	Operation and Maintenance Expenses Less Purchase Power	OMLPP		\$	6,950,051 \$	10,263,921	\$ 3,048,69	97 \$	2,712,973 \$	1,785,765	\$ 12,338,781	\$ 1,970,659

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# KENTUCKY UTILITIES COMPANY Cost of Service Study Functional Assignment and Classification 12 Months Ended June 30, 2018

Description Co. vi. 1 No. 1 No	Name	Functional Vector	Acco	Customer punts Expense	Sei	Customer rvice & Info.	Sales Expense
Operation and Maintenance Expenses (Continued)							
Administrative and General Expense							
920 ADMIN. & GEN. SALARIES-	OM920	LBSUB7		5,395,654		741,714	-
921 OFFICE SUPPLIES AND EXPENSES	OM921	LBSUB7		1,160,085		159,471	-
922 ADMINISTRATIVE EXPENSES TRANSFERRED	OM922	LBSUB7		(704,478)		(96,841)	-
923 OUTSIDE SERVICES EMPLOYED	OM923	LBSUB7		3,053,491		419,748	-
924 PROPERTY INSURANCE	OM924	TUP		-		-	-
925 INJURIES AND DAMAGES - INSURAN	OM925	LBSUB7		623,059		85,649	-
926 EMPLOYEE BENEFITS	OM926	LBSUB7		6,210,028		853,662	-
928 REGULATORY COMMISSION FEES	OM928	TUP		-		-	-
929 DUPLICATE CHARGES	OM929	LBSUB7		-		-	-
930 MISCELLANEOUS GENERAL EXPENSES	OM930	LBSUB7		829,437		114,019	-
931 RENTS AND LEASES	OM931	PGP		-		-	-
935 MAINTENANCE OF GENERAL PLANT	OM935	PGP		-		-	-
Total Administrative and General Expense	OMAG		\$	16,567,275	\$	2,277,421	\$ -
Total Operation and Maintenance Expenses	TOM		\$	51,233,939	\$	6,423,986	\$ -
Operation and Maintenance Expenses Less Purchase Power	OMLPP		\$	51,233,939	\$	6,423,986	\$ -

		Functional	Total	Prod	luction Demand		Pr	roduction En	ergy	
Description	Name	Vector	System	Base	Inter.	Peak	Base	In	ter.	Peak
<u>Labor Expenses</u>										
Steam Power Generation Operation Expenses										
500 OPERATION SUPERVISION & ENGINEERING	LB500	F019	\$ 7,176,311	2,127,495	2,005,542	2,059,705	983,568	-		-
501 FUEL	LB501	Energy	2,518,295	-	-	-	2,518,295	-		-
502 STEAM EXPENSES	LB502	PROFIX	8,257,131	2,836,708	2,674,102	2,746,321	-	-		-
505 ELECTRIC EXPENSES	LB505	PROFIX	5,890,264	2,023,579	1,907,583	1,959,101	-	-		-
506 MISC. STEAM POWER EXPENSES	LB506	PROFIX	1,708,296	586,879	553,238	568,179	-	-		-
507 RENTS	LB507	PROFIX	-	-	-	-	-	-		-
Total Steam Power Operation Expenses	LBSUB1		\$ 25,550,297	\$ 7,574,662 \$	7,140,465	\$ 7,333,307	\$ 3,501,864 \$	s -	\$	-
Steam Power Generation Maintenance Expenses										
510 MAINTENANCE SUPERVISION & ENGINEERING	LB510	F020	\$ 8,497,622	281,620	265,477	272,647	7,677,878	-		-
511 MAINTENANCE OF STRUCTURES	LB511	PROFIX	1,238,874	425,611	401,214	412,049	-	-		-
512 MAINTENANCE OF BOILER PLANT	LB512	Energy	9,213,874	-	-	-	9,213,874	-		-
513 MAINTENANCE OF ELECTRIC PLANT	LB513	Energy	1,992,105	-	-	-	1,992,105	-		-
514 MAINTENANCE OF MISC STEAM PLANT	LB514	Energy	397,544	-	-	-	397,544	-		-
Total Steam Power Generation Maintenance Expense	LBSUB2		\$ 21,340,020	\$ 707,231 \$	666,691	\$ 684,696	\$ 19,281,401 \$	-	\$	-
Total Steam Power Generation Expense			\$ 46,890,316	\$ 8,281,893 \$	7,807,156	\$ 8,018,003	\$ 22,783,265	-	\$	-
Hydraulic Power Generation Operation Expenses										
535 OPERATION SUPERVISION & ENGINEERING	LB535	F021	\$ -	-	-	-	-	-		_
536 WATER FOR POWER	LB536	PROFIX	-	-	-	-	-	-		-
537 HYDRAULIC EXPENSES	LB537	PROFIX	-	-	-	-	-	-		-
538 ELECTRIC EXPENSES	LB538	PROFIX	-	-	-	-	-	-		-
539 MISC. HYDRAULIC POWER EXPENSES	LB539	PROFIX	-	-	-	-	-	-		-
540 RENTS	LB540	PROFIX	-	-	-	-	-	-		-
Total Hydraulic Power Operation Expenses	LBSUB3		\$ -	\$ - \$	-	s -	\$ - \$	s -	\$	-
Hydraulic Power Generation Maintenance Expenses										
541 MAINTENANCE SUPERVISION & ENGINEERING	LB541	F022	\$ 166,692	57,266	53,984	55,442	-	-		-
542 MAINTENANCE OF STRUCTURES	LB542	PROFIX	47,185	16,210	15,281	15,694	-	-		-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	LB543	PROFIX	-	-	-	-	-	-		-
544 MAINTENANCE OF ELECTRIC PLANT	LB544	Energy	-	-	-	-	-	-		-
545 MAINTENANCE OF MISC HYDRAULIC PLANT	LB545	Energy	-	-	-	-	-	-		-
Total Hydraulic Power Generation Maint. Expense	LBSUB4		\$ 213,877	\$ 73,477 \$	69,265	\$ 71,135	\$ - \$	-	. \$	-
Total Hydraulic Power Generation Expense			\$ 213,877	\$ 73,477 \$	69,265	\$ 71,135	\$ - 5	-	- \$	-
Other Power Generation Operation Expense										
546 OPERATION SUPERVISION & ENGINEERING	LB546	PROFIX	\$ 848,268	291,419	274,715	282,134	-	-		_
547 FUEL	LB547	Energy	-	-	-	-	-	-		-
548 GENERATION EXPENSE	LB548	PROFIX	327,051	112,357	105,917	108,777	-	-		-
549 MISC OTHER POWER GENERATION	LB549	PROFIX	1,662,761	571,236	538,491	553,034	-	-		-
550 RENTS	LB550	PROFIX	-	-	-	-	-	-		-
Total Other Power Generation Expenses	LBSUB5		\$ 2,838,080	\$ 975,012 \$	919,122	\$ 943,945	\$ - \$	s -	- \$	-

			Transmission		Distribution			
		Functional	Demand	Distribution P			ition Primary Lines	
Description	Name	Vector	Demand	Spec			Demand Demand	Customer
Labor Expenses				•		•		
<u> </u>								
Steam Power Generation Operation Expenses								
500 OPERATION SUPERVISION & ENGINEERING	LB500	F019	-	-	-	-	-	-
501 FUEL	LB501	Energy	-	-	-	-	-	-
502 STEAM EXPENSES	LB502	PROFIX	-	-	-	-	-	-
505 ELECTRIC EXPENSES	LB505	PROFIX	-	-	-	-	-	-
506 MISC. STEAM POWER EXPENSES	LB506	PROFIX	-	-	-	-	-	-
507 RENTS	LB507	PROFIX	-	-	-	-	-	-
Total Steam Power Operation Expenses	LBSUB1		\$ -	\$ -	\$ -	s - s	- \$	-
Steam Power Generation Maintenance Expenses								
510 MAINTENANCE SUPERVISION & ENGINEERING	LB510	F020	-	-	-	-	-	-
511 MAINTENANCE OF STRUCTURES	LB511	PROFIX	-	-	-	-	-	-
512 MAINTENANCE OF BOILER PLANT	LB512	Energy	-	-	_	-	-	-
513 MAINTENANCE OF ELECTRIC PLANT	LB513	Energy	-	-	_	-	-	-
514 MAINTENANCE OF MISC STEAM PLANT	LB514	Energy	-	-	-	-	-	-
Total Steam Power Generation Maintenance Expense	LBSUB2		\$ -	\$ -	\$ -	s - s	- \$	-
Total Steam Power Generation Expense			\$ -	\$ -	\$ -	s - s	- \$	-
Hydraulic Power Generation Operation Expenses								
535 OPERATION SUPERVISION & ENGINEERING	LB535	F021	_	_	_	_	_	_
536 WATER FOR POWER	LB536	PROFIX	_	_	_	_	_	_
537 HYDRAULIC EXPENSES	LB537	PROFIX	_		_	_	_	_
538 ELECTRIC EXPENSES	LB538	PROFIX	_	-	_	_	_	_
539 MISC. HYDRAULIC POWER EXPENSES	LB539	PROFIX	_	-	_	_	_	_
540 RENTS	LB540	PROFIX	-	-	-	-	-	-
Total Hydraulic Power Operation Expenses	LBSUB3		\$ -	\$ -	\$ -	s - s	- \$	-
Hydraulic Power Generation Maintenance Expenses								
541 MAINTENANCE SUPERVISION & ENGINEERING	LB541	F022	_	_	_	_	_	_
542 MAINTENANCE OF STRUCTURES	LB542	PROFIX	_		_	_	_	_
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	LB543	PROFIX	_	-	_	_	_	_
544 MAINTENANCE OF ELECTRIC PLANT	LB544	Energy	-	-	_	_	_	_
545 MAINTENANCE OF MISC HYDRAULIC PLANT	LB545	Energy	-	-	-	-	-	-
Total Hydraulic Power Generation Maint. Expense	LBSUB4		\$ -	\$ -	\$ -	s - s	- \$	-
Total Hydraulic Power Generation Expense			\$ -	\$ -	\$ -	s - s	- \$	-
Other Power Generation Operation Expense 546 OPERATION SUPERVISION & ENGINEERING	LB546	PROFIX						
547 FUEL	LB547		-	•	-	-	-	-
548 GENERATION EXPENSE	LB547 LB548	Energy PROFIX	-	-	-	-	-	-
549 MISC OTHER POWER GENERATION	LB548 LB549	PROFIX	-	-	-	-	-	-
550 RENTS	LB549 LB550	PROFIX	-	-	-	-	-	-
JOU ILLAID	LD330	IKOTIA	-	-	-	-	-	-
Total Other Power Generation Expenses	LBSUB5		\$ -	\$ -	\$ -	s - s	- \$	-

			1						Distribution	Distribution	n Distribution St. o
		Functional		Distributio	n Sec.	Lines	Distribution Lin	e Trans.	Service		
Description	Name	Vector		Demand		Customer	Demand	Customer	Customer	•	
<u>Labor Expenses</u>											
Steam Power Generation Operation Expenses											
500 OPERATION SUPERVISION & ENGINEERING	LB500	F019		_		_	-	_	_	_	-
501 FUEL	LB501	Energy		_		_	-	_	_	_	_
502 STEAM EXPENSES	LB502	PROFIX		_		_	_	_	_	_	_
505 ELECTRIC EXPENSES	LB505	PROFIX		_		_	_	_	_	_	_
506 MISC. STEAM POWER EXPENSES	LB506	PROFIX		_		_	_	_	_	_	_
507 RENTS	LB507	PROFIX		-		-	-	-	-	-	-
Total Steam Power Operation Expenses	LBSUB1		\$	-	\$	-	\$ - \$	-	s -	\$ -	s -
Steam Power Generation Maintenance Expenses											
510 MAINTENANCE SUPERVISION & ENGINEERING	LB510	F020		_		_	-	_	_	_	-
511 MAINTENANCE OF STRUCTURES	LB511	PROFIX		_		_	_	-	_	_	-
512 MAINTENANCE OF BOILER PLANT	LB512	Energy		_		_	_	-	_	_	-
513 MAINTENANCE OF ELECTRIC PLANT	LB513	Energy		_		_	_	_	_	_	_
514 MAINTENANCE OF MISC STEAM PLANT	LB514	Energy		-		-	-	-	-	-	-
Total Steam Power Generation Maintenance Expense	LBSUB2		\$	-	\$	-	\$ - \$	-	s -	\$ -	s -
Total Steam Power Generation Expense			\$	-	\$	-	\$ - S	-	s -	\$ -	s -
Hydraulic Power Generation Operation Expenses											
535 OPERATION SUPERVISION & ENGINEERING	LB535	F021		-		-	-	-	-	-	_
536 WATER FOR POWER	LB536	PROFIX		-		-	-	-	-	-	_
537 HYDRAULIC EXPENSES	LB537	PROFIX		-		-	-	-	_	_	_
538 ELECTRIC EXPENSES	LB538	PROFIX		-		-	-	-	-	-	_
539 MISC. HYDRAULIC POWER EXPENSES	LB539	PROFIX		-		-	-	-	_	_	_
540 RENTS	LB540	PROFIX		-		-	-	-	-	-	-
Total Hydraulic Power Operation Expenses	LBSUB3		\$	-	\$	-	\$ - \$	-	\$ -	\$ -	s -
Hydraulic Power Generation Maintenance Expenses											
541 MAINTENANCE SUPERVISION & ENGINEERING	LB541	F022		-		-	-	-	-	-	-
542 MAINTENANCE OF STRUCTURES	LB542	PROFIX		-		-	-	-	-	-	-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	LB543	PROFIX		-		-	-	-	-	-	-
544 MAINTENANCE OF ELECTRIC PLANT	LB544	Energy		-		-	-	-	-	-	-
545 MAINTENANCE OF MISC HYDRAULIC PLANT	LB545	Energy		-		-	-	-	-	-	-
Total Hydraulic Power Generation Maint. Expense	LBSUB4		\$	-	\$	-	\$ - \$	-	s -	\$ -	\$ -
Total Hydraulic Power Generation Expense			\$	-	\$	-	\$ - \$	-	\$ -	\$ -	s -
Other Power Generation Operation Expense											
546 OPERATION SUPERVISION & ENGINEERING	LB546	PROFIX		-		-	-	-	-	-	-
547 FUEL	LB547	Energy		-		-	-	-	-	-	-
548 GENERATION EXPENSE	LB548	PROFIX		-		-	-	-	-	-	-
549 MISC OTHER POWER GENERATION	LB549	PROFIX		-		-	-	-	-	-	-
550 RENTS	LB550	PROFIX		-		-	-	-	-	-	-
Total Other Power Generation Expenses	LBSUB5		\$	-	\$	-	\$ - \$	-	s -	\$ -	\$ -

				Customer	Custome	4 1	
		Functional	Accoun	ts Expense	Service & Info		Sales Expense
Description	Name	Vector					,
Labor Expenses							
Steam Power Generation Operation Expenses	I D500	E010					
500 OPERATION SUPERVISION & ENGINEERING	LB500	F019		-	-		-
501 FUEL	LB501	Energy		-	-		-
502 STEAM EXPENSES	LB502	PROFIX		-	-		-
505 ELECTRIC EXPENSES	LB505	PROFIX		-	-		-
506 MISC. STEAM POWER EXPENSES	LB506	PROFIX		-	-		-
507 RENTS	LB507	PROFIX		-	-		-
Total Steam Power Operation Expenses	LBSUB1		\$	-	\$ -	\$	-
Steam Power Generation Maintenance Expenses							
510 MAINTENANCE SUPERVISION & ENGINEERING	LB510	F020		-	-		-
511 MAINTENANCE OF STRUCTURES	LB511	PROFIX		_	-		_
512 MAINTENANCE OF BOILER PLANT	LB512	Energy		-	-		_
513 MAINTENANCE OF ELECTRIC PLANT	LB513	Energy		_	_		_
514 MAINTENANCE OF MISC STEAM PLANT	LB514	Energy		-	-		-
Total Steam Power Generation Maintenance Expense	LBSUB2		\$	-	\$ -	\$	-
Total Steam Power Generation Expense			\$	-	\$ -	\$	-
Hadrandia Barran Caranatian Oranatian Frances							
Hydraulic Power Generation Operation Expenses	LB535	F021					
535 OPERATION SUPERVISION & ENGINEERING	LB535 LB536	PROFIX		-	-		-
536 WATER FOR POWER				-	-		-
537 HYDRAULIC EXPENSES	LB537	PROFIX		-	-		-
538 ELECTRIC EXPENSES	LB538	PROFIX		-	-		-
539 MISC. HYDRAULIC POWER EXPENSES 540 RENTS	LB539 LB540	PROFIX PROFIX		-	-		-
JIO NEATE	223 10	11.01.11					
Total Hydraulic Power Operation Expenses	LBSUB3		\$	-	\$ -	\$	-
Hydraulic Power Generation Maintenance Expenses							
541 MAINTENANCE SUPERVISION & ENGINEERING	LB541	F022		-	-		-
542 MAINTENANCE OF STRUCTURES	LB542	PROFIX		-	-		-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	LB543	PROFIX		-	-		-
544 MAINTENANCE OF ELECTRIC PLANT	LB544	Energy		-	-		-
545 MAINTENANCE OF MISC HYDRAULIC PLANT	LB545	Energy		-	-		-
Total Hydraulic Power Generation Maint. Expense	LBSUB4		\$	-	\$ -	\$	-
Total Hydraulic Power Generation Expense			\$	-	\$ -	\$	-
Other Power Generation Operation Expense							
546 OPERATION SUPERVISION & ENGINEERING	LB546	PROFIX					
547 FUEL	LB547			-	-		-
547 FUEL 548 GENERATION EXPENSE	LB547 LB548	Energy PROFIX		-	-		-
	LB548 LB549			-	-		-
549 MISC OTHER POWER GENERATION 550 RENTS	LB549 LB550	PROFIX PROFIX		-	-		-
STREET OCC	LB330	FRUFIA		-	-		-
Total Other Power Generation Expenses	LBSUB5		\$	-	\$ -	\$	-

		Functional	Total	Duod	uction Demand		Duodu	ction Energy	
Description	Name	Vector	System	Base	Inter.	Peak	Base	Inter.	Peak
Other Power Generation Maintenance Expense									
551 MAINTENANCE SUPERVISION & ENGINEERING 552 MAINTENANCE OF STRUCTURES	LB551 LB552	PROFIX PROFIX	\$ 201,322	69,163	65,199	66,960	-	-	-
553 MAINTENANCE OF GENERATING & ELEC PLANT 554 MAINTENANCE OF MISC OTHER POWER GEN PLT	LB553 LB554	PROFIX PROFIX	1,017,670 1,600,551	349,617 549,864	329,576 518,344	338,477 532,343	-	-	-
Total Other Power Generation Maintenance Expense	LBSUB6		\$ 2,819,543	\$ 968,644 \$	913,119 \$	937,780 \$	- \$	- \$	-
Total Other Power Generation Expense			\$ 5,657,623	\$ 1,943,656 \$	1,832,242 \$	1,881,725 \$	- \$	- \$	-
Total Production Expense	LPREX		\$ 52,761,816	\$ 10,299,026 \$	9,708,662 \$	9,970,863 \$	22,783,265 \$	- \$	-
Purchased Power									
555 PURCHASED POWER	LB555	OMPP	\$ -	-	-	-	-	-	-
556 SYSTEM CONTROL AND LOAD DISPATCH	LB556	PROFIX	\$ 1,829,189	628,411	592,389	608,388	-	-	-
557 OTHER EXPENSES	LB557	PROFIX	\$ -	-	-	-	-	-	-
Total Purchased Power Labor	LBPP		\$ 1,829,189	\$ 628,411 \$	592,389 \$	608,388 \$	- \$	- \$	-
Transmission Labor Expenses									
560 OPERATION SUPERVISION AND ENG	LB560	PTRAN	\$ 1,648,654	-	-	-	-	-	-
561 LOAD DISPATCHING	LB561	PTRAN	3,065,460	-	-	-	-	-	-
562 STATION EXPENSES	LB562	PTRAN	505,135	-	-	-	-	-	-
563 OVERHEAD LINE EXPENSES	LB563	PTRAN	-	-	-	-	-	-	-
566 MISC. TRANSMISSION EXPENSES	LB566	PTRAN	118,042	-	-	-	-	-	-
568 MAINTENACE SUPERVISION AND ENG	LB568	PTRAN	-	-	-	-	-	-	-
570 MAINT OF STATION EQUIPMENT	LB570	PTRAN	937,915	-	-	-	-	-	-
571 MAINT OF OVERHEAD LINES	LB571	PTRAN	466,793	-	-	-	-	-	-
572 UNDERGROUND LINES	LB572	PTRAN	-	-	-	-	-	-	-
573 MISC PLANT	LB573	PTRAN	-	-	-	-	-	-	-
Total Transmission Labor Expenses	LBTRAN		\$ 6,741,999	\$ - \$	- \$	- \$	- \$	- \$	-
Distribution Operation Labor Expense									
580 OPERATION SUPERVISION AND ENGI	LB580	F023	\$ 1,081,711	-	-	-	-	-	-
581 LOAD DISPATCHING	LB581	P362	342,506	-	-	-	-	-	-
582 STATION EXPENSES	LB582	P362	870,967	-	-	-	-	-	-
583 OVERHEAD LINE EXPENSES	LB583	P365	2,170,209	-	-	-	-	-	-
584 UNDERGROUND LINE EXPENSES	LB584	P367	-	-	-	-	-	-	-
585 STREET LIGHTING EXPENSE	LB585	P371	-	-	-	-	-	-	-
586 METER EXPENSES	LB586	P370	5,717,580	-	-	-	-	-	-
586 METER EXPENSES - LOAD MANAGEMENT	LB586x	F012	-	-	-	-	-	-	-
587 CUSTOMER INSTALLATIONS EXPENSE	LB587	P371		-	-	-	-	-	-
588 MISCELLANEOUS DISTRIBUTION EXP	LB588	PDIST	3,343,041	-	-	-	-	-	-
589 RENTS	LB589	PDIST	-	-	-	-	-	-	-
Total Distribution Operation Labor Expense	LBDO		\$ 13,526,014	\$ - \$	- \$	- \$	- \$	- \$	-

						т —					
		Functional	Transmission Demand	Distril	bution Poles		Distribution Substation	Distr	·ibutio	n Primary Lines	
Description	Name	Vector	Demand		Specific		General	Specific		Demand	Customer
Other Power Generation Maintenance Expense											
551 MAINTENANCE SUPERVISION & ENGINEERING	LB551	PROFIX	-		-		-	-		-	-
552 MAINTENANCE OF STRUCTURES	LB552	PROFIX	-		-		-	-		-	-
553 MAINTENANCE OF GENERATING & ELEC PLANT	LB553	PROFIX PROFIX	-		-		-	-		-	-
554 MAINTENANCE OF MISC OTHER POWER GEN PLT	LB554	PROFIX	-		-		-	-		-	-
Total Other Power Generation Maintenance Expense	LBSUB6		\$ -	\$	-	\$	- \$	-	\$	- \$	-
Total Other Power Generation Expense			\$ -	\$	-	\$	- \$	-	\$	- \$	-
Total Production Expense	LPREX		\$ -	\$	-	\$	- \$	-	\$	- \$	-
Purchased Power											
555 PURCHASED POWER	LB555	OMPP	_		_		_	_		_	_
556 SYSTEM CONTROL AND LOAD DISPATCH	LB556	PROFIX	_				_	_		_	_
557 OTHER EXPENSES	LB557	PROFIX	_		_		-	_		_	_
JJ, GIIEKER ENDES	LDSS	THOI III									
Total Purchased Power Labor	LBPP		\$ -	\$	-	\$	- \$	-	\$	- \$	-
Transmission Labor Expenses											
560 OPERATION SUPERVISION AND ENG	LB560	PTRAN	1,648,654		-		_	_		-	_
561 LOAD DISPATCHING	LB561	PTRAN	3,065,460		_		-	-		-	-
562 STATION EXPENSES	LB562	PTRAN	505,135		-		-	-		-	-
563 OVERHEAD LINE EXPENSES	LB563	PTRAN	-		-		-	-		-	-
566 MISC. TRANSMISSION EXPENSES	LB566	PTRAN	118,042		-		-	-		-	-
568 MAINTENACE SUPERVISION AND ENG	LB568	PTRAN	-		-		-	-		-	-
570 MAINT OF STATION EQUIPMENT	LB570	PTRAN	937,915		-		-	-		-	-
571 MAINT OF OVERHEAD LINES	LB571	PTRAN	466,793		-		-	-		-	-
572 UNDERGROUND LINES	LB572	PTRAN	-		-		-	-		-	-
573 MISC PLANT	LB573	PTRAN	-		-		-	-		-	-
Total Transmission Labor Expenses	LBTRAN		\$ 6,741,999	\$	-	\$	- \$	-	\$	- \$	-
Distribution Operation Labor Expense											
580 OPERATION SUPERVISION AND ENGI	LB580	F023	-		_		140,663	-		88,541	143,907
581 LOAD DISPATCHING	LB581	P362	-		-		342,506	-		-	_
582 STATION EXPENSES	LB582	P362	-		-		870,967	-		-	-
583 OVERHEAD LINE EXPENSES	LB583	P365	-		-		-	-		577,540	837,653
584 UNDERGROUND LINE EXPENSES	LB584	P367	-		-		-	-		-	-
585 STREET LIGHTING EXPENSE	LB585	P371	-		-		-	-		-	-
586 METER EXPENSES	LB586	P370	-		-		-	-		-	-
586 METER EXPENSES - LOAD MANAGEMENT	LB586x	F012	-		-		-	-		-	-
587 CUSTOMER INSTALLATIONS EXPENSE	LB587	P371	-		-		-	-		-	-
588 MISCELLANEOUS DISTRIBUTION EXP	LB588	PDIST	-		-		404,753	-		441,056	817,899
589 RENTS	LB589	PDIST	-		-		-	-		-	-
Total Distribution Operation Labor Expense	LBDO		\$ -	\$	-	\$	1,758,889 \$	-	\$	1,107,137 \$	1,799,459

				_				Distribution	Distribution	Distribution St. &
B 1.0		Functional	Distributio			Distribution I		Services	Meters	Cust. Lighting
Description	Name	Vector	Demand		Customer	Demand	Custome	Customer		
Other Power Generation Maintenance Expense										
551 MAINTENANCE SUPERVISION & ENGINEERING	LB551	PROFIX	_		_	_	_	_	_	_
552 MAINTENANCE OF STRUCTURES	LB552	PROFIX	_		_	_	_	_	_	_
553 MAINTENANCE OF GENERATING & ELEC PLANT	LB553	PROFIX	_		_	_	_	_	_	_
554 MAINTENANCE OF MISC OTHER POWER GEN PLT	LB554	PROFIX	-		-	-	-	-	-	-
Total Other Power Generation Maintenance Expense	LBSUB6		\$ -	\$	-	\$ - :	s -	\$ - 5	-	\$ -
Total Other Power Generation Expense			\$ -	\$	-	\$ - :	s -	\$ - 5	-	s -
Total Production Expense	LPREX		\$ -	\$	-	\$ - :	s -	\$ - 5	-	\$ -
Purchased Power										
555 PURCHASED POWER	LB555	OMPP	_		_	-	_	_	_	_
556 SYSTEM CONTROL AND LOAD DISPATCH	LB556	PROFIX	_		_	_	_	_	_	_
557 OTHER EXPENSES	LB557	PROFIX	-		-	-	-	-	-	-
Total Purchased Power Labor	LBPP		\$ -	\$	-	\$ - :	s -	\$ - 5	\$ -	s -
Transmission Labor Expenses										
560 OPERATION SUPERVISION AND ENG	LB560	PTRAN	_		_	_	_	_	_	_
561 LOAD DISPATCHING	LB561	PTRAN	_		_	_	_	_	_	_
562 STATION EXPENSES	LB562	PTRAN	_		_	_	_	_	_	_
563 OVERHEAD LINE EXPENSES	LB563	PTRAN	_		_	_	_	_	_	_
566 MISC. TRANSMISSION EXPENSES	LB566	PTRAN	_		_	_	_	_	_	-
568 MAINTENACE SUPERVISION AND ENG	LB568	PTRAN	_		_	_	_	_	_	_
570 MAINT OF STATION EQUIPMENT	LB570	PTRAN	_		_	_	_	_	_	_
571 MAINT OF OVERHEAD LINES	LB571	PTRAN	_		_	_	_	_	_	_
572 UNDERGROUND LINES	LB572	PTRAN	_		_	_	_	_	_	_
573 MISC PLANT	LB573	PTRAN	-		-	-	-	-	-	-
Total Transmission Labor Expenses	LBTRAN		\$ -	\$	-	\$ - :	s -	\$ - 5	-	\$ -
Distribution Operation Labor Expense										
580 OPERATION SUPERVISION AND ENGI	LB580	F023	44,433		65,826	27,398	24,381	16,322	510,923	19,317
581 LOAD DISPATCHING	LB581	P362	_		-		· -	´-	-	´-
582 STATION EXPENSES	LB582	P362	_		_	_	_	_	-	-
583 OVERHEAD LINE EXPENSES	LB583	P365	308,122		446,894	_	_	-	_	_
584 UNDERGROUND LINE EXPENSES	LB584	P367	-		-	_	_	_	-	-
585 STREET LIGHTING EXPENSE	LB585	P371	_		_	_	_	_	-	-
586 METER EXPENSES	LB586	P370	-		_	_	-	-	5,717,580	-
586 METER EXPENSES - LOAD MANAGEMENT	LB586x	F012	-		_	_	-	-	-	-
587 CUSTOMER INSTALLATIONS EXPENSE	LB587	P371	-		-	-	-	-	-	-
588 MISCELLANEOUS DISTRIBUTION EXP	LB588	PDIST	203,043		310,386	315,193	280,484	187,776	160,217	222,234
589 RENTS	LB589	PDIST	-		-	-	-	-	-	-
Total Distribution Operation Labor Expense	LBDO		\$ 555,597	\$	823,106	\$ 342,591	\$ 304,865	\$ 204,099	6,388,720	\$ 241,551

Description	Name	Functional Vector	Accoun	Customer ts Expense	Cu Service	istomer & Info.	Sales Expense
•							
Other Power Generation Maintenance Expense		PD OFFIT					
551 MAINTENANCE SUPERVISION & ENGINEERING	LB551	PROFIX		-		-	-
552 MAINTENANCE OF STRUCTURES	LB552 LB553	PROFIX		-		-	-
553 MAINTENANCE OF GENERATING & ELEC PLANT 554 MAINTENANCE OF MISC OTHER POWER GEN PLT	LB553 LB554	PROFIX PROFIX		-		-	-
334 MAINTENANCE OF MISC OTHER FOWER GEN FET	LDJJ4	FROFIA		-		-	-
Total Other Power Generation Maintenance Expense	LBSUB6		\$	-	\$	-	\$ -
Total Other Power Generation Expense			\$	-	\$	-	\$ -
Total Production Expense	LPREX		\$	-	\$	-	\$ -
Purchased Power							
555 PURCHASED POWER	LB555	OMPP		_		_	_
556 SYSTEM CONTROL AND LOAD DISPATCH	LB556	PROFIX		_		_	_
557 OTHER EXPENSES	LB557	PROFIX		_		_	_
Total Purchased Power Labor	LBPP		\$	-	\$	-	\$ -
Transmission Labor Expenses							
560 OPERATION SUPERVISION AND ENG	LB560	PTRAN		-		-	_
561 LOAD DISPATCHING	LB561	PTRAN		-		-	_
562 STATION EXPENSES	LB562	PTRAN		-		-	-
563 OVERHEAD LINE EXPENSES	LB563	PTRAN		-		-	-
566 MISC. TRANSMISSION EXPENSES	LB566	PTRAN		-		-	-
568 MAINTENACE SUPERVISION AND ENG	LB568	PTRAN		-		-	-
570 MAINT OF STATION EQUIPMENT	LB570	PTRAN		-		-	-
571 MAINT OF OVERHEAD LINES	LB571	PTRAN		-		-	-
572 UNDERGROUND LINES	LB572	PTRAN		-		-	-
573 MISC PLANT	LB573	PTRAN		-		-	-
Total Transmission Labor Expenses	LBTRAN		\$	-	\$	-	\$ -
Distribution Occupation Labor Forest							
Distribution Operation Labor Expense 580 OPERATION SUPERVISION AND ENGI	LB580	F023					
581 LOAD DISPATCHING	LB581	P362		-		-	-
582 STATION EXPENSES	LB582	P362		-		-	-
583 OVERHEAD LINE EXPENSES	LB583	P365					
584 UNDERGROUND LINE EXPENSES	LB584	P367		-		-	-
585 STREET LIGHTING EXPENSE	LB585	P371					
586 METER EXPENSES	LB586	P370		-		-	-
586 METER EXPENSES - LOAD MANAGEMENT	LB586x	F012		_		_	_
587 CUSTOMER INSTALLATIONS EXPENSE	LB587	P371		_		_	_
588 MISCELLANEOUS DISTRIBUTION EXP	LB588	PDIST				_	
589 RENTS	LB589	PDIST		-		-	-
Total Distribution Operation Labor Expense	LBDO		\$	_	\$	_	\$ _
* *							

				_						
		Functional	Total		Produ	uction Demand		Produ	ction Energy	
Description	Name	Vector	System		Base	Inter.	Peak	Base	Inter.	Peak
<u>Labor Expenses (Continued)</u>										
Distribution Maintenance Labor Expense										
590 MAINTENANCE SUPERVISION AND EN	LB590	F024	\$ -		-	-	-	-	-	_
591 MAINTENANCE OF STRUCTURES	LB591	P362	-		-	-	-	-	-	-
592 MAINTENANCE OF STATION EQUIPME	LB592	P362	605,269		-	-	-	_	-	_
593 MAINTENANCE OF OVERHEAD LINES	LB593	P365	6,158,359		-	-	-	_	-	_
594 MAINTENANCE OF UNDERGROUND LIN	LB594	P367	413,802		_	_	_	_	_	_
595 MAINTENANCE OF LINE TRANSFORME	LB595	P368	51,420		_	_	_	_	_	_
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	LB596	P373			_	_	_	_	_	_
597 MAINTENANCE OF METERS	LB597	P370	_		_	_	_	_	_	_
598 MAINTENANCE OF MISC DISTR PLANT	LB598	PDIST	_		_	_	_	_	_	_
		10151								
Total Distribution Maintenance Labor Expense	LBDM		\$ 7,228,850	\$	- \$	- \$	- \$	- \$	- \$	-
Total Distribution Operation and Maintenance Labor Expenses		PDIST	20,754,864		-	-	-	-	-	-
Transmission and Distribution Labor Expenses			27,496,863		-	-	-	-	-	-
Production, Transmission and Distribution Labor Expenses	LBSUB		\$ 82,087,867	\$	10,927,437 \$	10,301,052 \$	10,579,251 \$	22,783,265 \$	- \$	-
Customer Accounts Expense										
901 SUPERVISION/CUSTOMER ACCTS	LB901	F025	\$ 3,259,518		-	-	-	-	-	_
902 METER READING EXPENSES	LB902	F025	754,379		-	-	-	_	-	_
903 RECORDS AND COLLECTION	LB903	F025	11,992,171		-	-	-	-	-	-
904 UNCOLLECTIBLE ACCOUNTS	LB904	F025	-		-	-	-	_	-	_
905 MISC CUST ACCOUNTS	LB903	F025	-		-	-	-	-	-	-
Total Customer Accounts Labor Expense	LBCA		\$ 16,006,068	\$	- \$	- \$	- \$	- \$	- \$	-
Customer Service Expense										
907 SUPERVISION	LB907	F026	\$ 614,307		_	_	_	_	_	_
908 CUSTOMER ASSISTANCE EXPENSES	LB908	F026	1,585,968		_	_	_	_	_	_
908 CUSTOMER ASSISTANCE EXP-LOAD MGMT	LB908x	F026	-		_	_	_	_	_	_
909 INFORMATIONAL AND INSTRUCTIONA	LB909	F026	_		_	_	_	_	_	_
909 INFORM AND INSTRUC -LOAD MGMT	LB909x	F026	_		_	_	_	_	_	_
910 MISCELLANEOUS CUSTOMER SERVICE	LB910	F026	_		_	_	_	_	_	_
911 DEMONSTRATION AND SELLING EXP	LB911	F026	_		_	_	_	_	_	_
912 DEMONSTRATION AND SELLING EXP	LB912	F026	_		_	_	_	_	_	_
913 WATER HEATER - HEAT PUMP PROGRAM	LB913	F026	_		_	_	_	_	_	_
916 MISC SALES EXPENSE	LB916	F026	-		-	-	-	-	-	-
Total Customer Service Labor Expense	LBCS		\$ 2,200,275	\$	- \$	- \$	- \$	- \$	- \$	-
Sub-Total Labor Exp	LBSUB7		100,294,210		10,927,437	10,301,052	10,579,251	22,783,265	-	-

Description  Labor Expenses (Continued)	Name	Functional Vector		Transmission Demand Demand	Distri	bution Poles	Distribu Substa		Dist	tributi	ion Primary Line	s
•		Vector	-	Demand	-							
Labor Expenses (Continued)	I R590					Specific	Gen	ral	Specific	2	Demand	Customer
	I B590											
Distribution Maintenance Labor Expense	LB590											
590 MAINTENANCE SUPERVISION AND EN		F024		-		-			-		-	-
591 MAINTENANCE OF STRUCTURES	LB591	P362		-		-			-		-	-
592 MAINTENANCE OF STATION EQUIPME	LB592	P362		-		-	605,	69	-		_	_
593 MAINTENANCE OF OVERHEAD LINES	LB593	P365		_		-			-		1,638,875	2,376,991
594 MAINTENANCE OF UNDERGROUND LIN	LB594	P367		_		_			-		77,464	302,447
595 MAINTENANCE OF LINE TRANSFORME	LB595	P368		_		_			_		-	-
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	LB596	P373		_		_			_		_	_
597 MAINTENANCE OF METERS	LB597	P370		_		_			_		_	_
598 MAINTENANCE OF MISC DISTR PLANT	LB598	PDIST		_		_			_		_	_
Total Distribution Maintenance Labor Expense	LBDM		\$	-	\$	- 5	605,2	69 \$	-	\$	1,716,339 \$	2,679,438
Total Distribution Operation and Maintenance Labor Expenses		PDIST		-		-	2,512,	60	-		2,738,243	5,077,825
Transmission and Distribution Labor Expenses				6,741,999		-	2,512,	60	-		2,738,243	5,077,825
Production, Transmission and Distribution Labor Expenses	LBSUB		\$	6,741,999	\$	- 5	2,512,8	60 \$	-	\$	2,738,243 \$	5,077,825
Customer Accounts Expense												
901 SUPERVISION/CUSTOMER ACCTS	LB901	F025		-		-			-		_	_
902 METER READING EXPENSES	LB902	F025		-		-			-		_	_
903 RECORDS AND COLLECTION	LB903	F025		-		-			-		_	_
904 UNCOLLECTIBLE ACCOUNTS	LB904	F025		_		_			_		_	_
905 MISC CUST ACCOUNTS	LB903	F025		-		-			-		-	-
Total Customer Accounts Labor Expense	LBCA		\$	-	\$	- 5	3	\$	_	\$	- \$	-
Customer Service Expense												
907 SUPERVISION	LB907	F026										
908 CUSTOMER ASSISTANCE EXPENSES	LB907 LB908	F026										
908 CUSTOMER ASSISTANCE EXPENSES  908 CUSTOMER ASSISTANCE EXP-LOAD MGMT	LB908x	F026		-		-			-		-	-
				-		-			-		-	-
909 INFORMATIONAL AND INSTRUCTIONA	LB909	F026		-		-			-		-	-
909 INFORM AND INSTRUC -LOAD MGMT	LB909x LB910	F026 F026		-		-			-		-	-
910 MISCELLANEOUS CUSTOMER SERVICE				-		-			-		-	-
911 DEMONSTRATION AND SELLING EXP	LB911	F026		-		-			-		-	-
912 DEMONSTRATION AND SELLING EXP	LB912	F026		-		-			-		-	-
913 WATER HEATER - HEAT PUMP PROGRAM 916 MISC SALES EXPENSE	LB913 LB916	F026 F026		-		-			-		-	-
Total Customer Service Labor Expense	LBCS		\$	-	\$	- 5	3	\$	_	\$	- \$	-
Sub-Total Labor Exp	LBSUB7			6,741,999		_	2,512,	60	_		2,738,243	5,077,825

		Functional	Distribution Sec	. Lines	Distribution Line	Trans.	Distribution Services	Distribution D Meters	Distribution St. & Cust. Lighting
Description	Name	Vector	Demand	Customer	Demand	Customer	Customer	•	
<u>Labor Expenses (Continued)</u>									
Distribution Maintenance Labor Expense									
590 MAINTENANCE SUPERVISION AND EN	LB590	F024	-	-	-	-	-	-	-
591 MAINTENANCE OF STRUCTURES	LB591	P362	-	-	-	-	-	-	-
592 MAINTENANCE OF STATION EQUIPME	LB592	P362	-	-	-	-	-	-	-
593 MAINTENANCE OF OVERHEAD LINES	LB593	P365	874,351	1,268,142	-	-	-	-	-
594 MAINTENANCE OF UNDERGROUND LIN	LB594	P367	6,910	26,980	-	-	-	-	-
595 MAINTENANCE OF LINE TRANSFORME	LB595	P368	-	-	27,208	24,212	-	-	-
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	LB596	P373	-	-	-	-	-	-	-
597 MAINTENANCE OF METERS	LB597	P370	-	-	-	-	-	-	-
598 MAINTENANCE OF MISC DISTR PLANT	LB598	PDIST	-	-	-	-	-	-	-
Total Distribution Maintenance Labor Expense	LBDM		\$ 881,262 \$	1,295,122 \$	27,208 \$	24,212 \$	- \$	- \$	-
Total Distribution Operation and Maintenance Labor Expenses		PDIST	1,260,567	1,926,993	1,956,839	1,741,351	1,165,786	994,688	1,379,712
Transmission and Distribution Labor Expenses			1,260,567	1,926,993	1,956,839	1,741,351	1,165,786	994,688	1,379,712
Production, Transmission and Distribution Labor Expenses	LBSUB		\$ 1,260,567 \$	1,926,993 \$	1,956,839 \$	1,741,351 \$	1,165,786 \$	994,688 \$	1,379,712
Customer Accounts Expense									
901 SUPERVISION/CUSTOMER ACCTS	LB901	F025	-	-	-	_	-	_	-
902 METER READING EXPENSES	LB902	F025	_	-	-	_	-	-	-
903 RECORDS AND COLLECTION	LB903	F025	-	-	-	_	-	_	-
904 UNCOLLECTIBLE ACCOUNTS	LB904	F025	-	-	-	_	-	_	-
905 MISC CUST ACCOUNTS	LB903	F025	-	-	-	-	-	-	-
Total Customer Accounts Labor Expense	LBCA		\$ - \$	- S	- \$	- \$	- \$	- \$	-
Customer Service Expense									
907 SUPERVISION	LB907	F026	-	-	-	-	-	-	-
908 CUSTOMER ASSISTANCE EXPENSES	LB908	F026	-	-	-	-	-	-	-
908 CUSTOMER ASSISTANCE EXP-LOAD MGMT	LB908x	F026	-	-	-	-	-	-	-
909 INFORMATIONAL AND INSTRUCTIONA	LB909	F026	-	-	-	-	-	-	-
909 INFORM AND INSTRUC -LOAD MGMT	LB909x	F026	-	-	-	-	-	-	-
910 MISCELLANEOUS CUSTOMER SERVICE	LB910	F026	-	-	-	-	-	-	-
911 DEMONSTRATION AND SELLING EXP	LB911	F026	-	-	-	-	-	-	-
912 DEMONSTRATION AND SELLING EXP	LB912	F026	-	-	-	-	-	-	-
913 WATER HEATER - HEAT PUMP PROGRAM	LB913	F026	-	-	-	-	-	-	-
916 MISC SALES EXPENSE	LB916	F026	-	-	-	-	-	-	-
Total Customer Service Labor Expense	LBCS		\$ - \$	- \$	- \$	- \$	- \$	- \$	-
Sub-Total Labor Exp	LBSUB7		1,260,567	1,926,993	1,956,839	1,741,351	1,165,786	994,688	1,379,712

				_			
	Functional	Accor	Customer unts Expense	Serv	Customer ice & Info.		Sales Expense
Name	Vector						
			-		-		-
LB591	P362		-		-		-
LB592			-		-		-
LB593	P365		-		-		-
LB594	P367		-		-		-
LB595	P368		-		-		_
LB596	P373		-		-		_
LB597	P370		-		-		_
LB598	PDIST		-		-		_
LBDM		\$	-	\$	-	\$	-
	PDIST		-		-		-
			-		-		-
LBSUB		\$	-	\$	-	\$	-
LB901	F025		3,259,518		_		_
LB902	F025		754.379		_		_
					_		_
					_		_
			_		_		_
LD903	1023						
LBCA		\$	16,006,068	\$	-	\$	-
			-				-
LB908	F026		-		1,585,968		-
LB908x	F026		-		-		-
LB909	F026		-		-		-
LB909x	F026		-		-		_
LB910	F026		-		-		_
LB911	F026		-		-		_
LB912	F026		-		-		_
LB913	F026		-		-		_
LB916	F026		-		-		-
LBCS		\$	-	\$	2,200,275	\$	-
LBSUB7			16,006,068		2,200,275		-
	LB593 LB594 LB595 LB596 LB597 LB598 LBDM  LBDM  LBSUB  LB901 LB902 LB903 LB904 LB903 LB904 LB903 LB904 LB901 LB901 LB901 LB901 LB901 LB901 LB905 LB908 LB908 LB909 LB909x LB911 LB911 LB912 LB913 LB916 LBCS	LB590   F024	LB590   F024     LB591   P362     LB592   P362     LB593   P365     LB594   P367     LB595   P368     LB596   P373     LB597   P370     LB598   PDIST      LBDM   \$ PDIST      LBDM   \$ PDIST      LBDM   \$ PDIST      LB901   F025     LB902   F025     LB903   F025     LB904   F025     LB904   F025     LB905   F026     LB908   F026     LB908   F026     LB909   F026     LB909   F026     LB909   F026     LB911   F026     LB912   F026     LB913   F026     LB914   F026     LB915   F026     LB916   F026     LB917   F026     LB918   F026     LB919   F026     LB916   F026     LB916   F026     LB917   F026     LB918   F026     LB919   F026     LB916   F026     LB916   F026     LBCS   \$	Name   Vector   Accounts Expense	Name   Vector     Accounts Expense   Service	Name   Vector	Name   Functional Vector

		Functional	Total	Produ	uction Demand		Produ	ction Energy	
Description	Name	Vector	System	Base	Inter.	Peak	Base	Inter.	Peak
Labor Expenses (Continued)									
Administrative and General Expense									
920 ADMIN. & GEN. SALARIES-	LB920	LBSUB7	\$ 33,809,236	3,683,645	3,472,490	3,566,272	7,680,252	-	-
921 OFFICE SUPPLIES AND EXPENSES	LB921	LBSUB7	-	-	-	-	-	-	-
922 ADMIN. EXPENSES TRANSFERRED - CREDIT	LB922	LBSUB7	(3,161,163)	(344,421)	(324,678)	(333,446)	(718,104)	-	-
923 OUTSIDE SERVICES EMPLOYED	LB923	LBSUB7	-	-	-	-	-	-	-
924 PROPERTY INSURANCE	LB924	TUP	-	-	-	-	-	-	-
925 INJURIES AND DAMAGES - INSURAN	LB925	LBSUB7	560,277	61,044	57,545	59,099	127,275	-	-
926 EMPLOYEE BENEFITS	LB926	LBSUB7	39,380,962	4,290,706	4,044,753	4,153,989	8,945,949	-	-
928 REGULATORY COMMISSION FEES	LB928	TUP	-	-	-	-	-	-	-
929 DUPLICATE CHARGES-CR	LB929	LBSUB7	-	-	-	-	-	-	-
930 MISCELLANEOUS GENERAL EXPENSES	LB930	LBSUB7	-	-	-	-	-	-	-
931 RENTS AND LEASES	LB931	PGP	-	-	-	-	-	-	-
935 MAINTENANCE OF GENERAL PLANT	LB935	PGP	593,047	124,256	130,166	106,996	-	-	-
Total Administrative and General Expense	LBAG		\$ 71,182,359	\$ 7,815,231 \$	7,380,277 \$	7,552,910 \$	16,035,372 \$	- \$	-
Total Operation and Maintenance Expenses	TLB		\$ 171,476,569	\$ 18,742,668 \$	17,681,329 \$	18,132,162 \$	38,818,637 \$	- \$	-
Operation and Maintenance Expenses Less Purchase Power	LBLPP		\$ 171,476,569	\$ 18,742,668 \$	17,681,329 \$	18,132,162 \$	38,818,637 \$	- \$	-

		Functional	Tra	ansmission Demand	Distribution Pol		Distribution Substation			on Primary Lines	
Description	Name	Vector		Demand	Specia	fic	General	Specific	c	Demand	Customer
Labor Expenses (Continued)											
Administrative and General Expense											
920 ADMIN. & GEN. SALARIES-	LB920	LBSUB7		2,272,732	-		847,086	-		923,063	1,711,738
921 OFFICE SUPPLIES AND EXPENSES	LB921	LBSUB7		-	-		-	-		-	-
922 ADMIN. EXPENSES TRANSFERRED - CREDIT	LB922	LBSUB7		(212,500)	-		(79,203)	-		(86,306)	(160,047)
923 OUTSIDE SERVICES EMPLOYED	LB923	LBSUB7		-	-		-	-		-	-
924 PROPERTY INSURANCE	LB924	TUP		-	-		-	-		-	-
925 INJURIES AND DAMAGES - INSURAN	LB925	LBSUB7		37,663	-		14,038	-		15,297	28,366
926 EMPLOYEE BENEFITS	LB926	LBSUB7		2,647,276	-		986,685	-		1,075,183	1,993,830
928 REGULATORY COMMISSION FEES	LB928	TUP		-	-		-	-		-	-
929 DUPLICATE CHARGES-CR	LB929	LBSUB7		-	-		-	-		-	-
930 MISCELLANEOUS GENERAL EXPENSES	LB930	LBSUB7		-	-		-	-		-	-
931 RENTS AND LEASES	LB931	PGP		-	-		-	-		-	-
935 MAINTENANCE OF GENERAL PLANT	LB935	PGP		78,122	-		18,586	-		20,252	37,556
Total Administrative and General Expense	LBAG		\$	4,823,292	s -	\$	1,787,193 \$	-	\$	1,947,489 \$	3,611,444
Total Operation and Maintenance Expenses	TLB		\$ 1	1,565,291	S -	\$	4,300,052 \$	-	\$	4,685,732 \$	8,689,269
Operation and Maintenance Expenses Less Purchase Power	LBLPP		\$ 1	1,565,291	\$ -	\$	4,300,052 \$	-	\$	4,685,732 \$	8,689,269

		Functional	Distribution So	ec. Lines	Distribution Li	ne Trans.	Distribution Services	Distribution Meters	Distribution St. & Cust. Lighting
Description	Name	Vector	Demand	Customer	Demand	Customer	Customer		
Labor Expenses (Continued)									
Administrative and General Expense									
920 ADMIN. & GEN. SALARIES-	LB920	LBSUB7	424,938	649,590	659,651	587,010	392,987	335,310	465,102
921 OFFICE SUPPLIES AND EXPENSES	LB921	LBSUB7	-	-	-	-	-	-	-
922 ADMIN. EXPENSES TRANSFERRED - CREDIT	LB922	LBSUB7	(39,732)	(60,737)	(61,677)	(54,885)	(36,744)	(31,351)	(43,487)
923 OUTSIDE SERVICES EMPLOYED	LB923	LBSUB7	-	-	-	-	-	-	-
924 PROPERTY INSURANCE	LB924	TUP	-	-	-	-	-	-	-
925 INJURIES AND DAMAGES - INSURAN	LB925	LBSUB7	7,042	10,765	10,932	9,728	6,512	5,557	7,708
926 EMPLOYEE BENEFITS	LB926	LBSUB7	494,967	756,642	768,361	683,749	457,751	390,569	541,750
928 REGULATORY COMMISSION FEES	LB928	TUP	-	-	-	-	-	-	-
929 DUPLICATE CHARGES-CR	LB929	LBSUB7	_	-	_	-	-	-	-
930 MISCELLANEOUS GENERAL EXPENSES	LB930	LBSUB7	_	-	_	-	-	-	-
931 RENTS AND LEASES	LB931	PGP	-	-	-	-	-	-	-
935 MAINTENANCE OF GENERAL PLANT	LB935	PGP	9,323	14,252	14,473	12,879	8,622	7,357	10,205
Total Administrative and General Expense	LBAG		\$ 896,539 \$	1,370,513	\$ 1,391,740 \$	1,238,481	\$ 829,129	\$ 707,441	\$ 981,277
Total Operation and Maintenance Expenses	TLB		\$ 2,157,106 \$	3,297,506	\$ 3,348,579 \$	2,979,831	\$ 1,994,915	\$ 1,702,129	\$ 2,360,988
Operation and Maintenance Expenses Less Purchase Power	LBLPP		\$ 2,157,106 \$	3,297,506	\$ 3,348,579 \$	2,979,831	\$ 1,994,915	\$ 1,702,129	\$ 2,360,988

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### KENTUCKY UTILITIES COMPANY Cost of Service Study Functional Assignment and Classification 12 Months Ended June 30, 2018

		Functional	Acce	Customer ounts Expense	Ser	Customer vice & Info.	Sales Ex	pense
Description	Name	Vector						
Labor Expenses (Continued)								
Administrative and General Expense								
920 ADMIN. & GEN. SALARIES-	LB920	LBSUB7		5,395,655		741,714		-
921 OFFICE SUPPLIES AND EXPENSES	LB921	LBSUB7		-		-		-
922 ADMIN. EXPENSES TRANSFERRED - CREDIT	LB922	LBSUB7		(504,494)		(69,350)		-
923 OUTSIDE SERVICES EMPLOYED	LB923	LBSUB7		-		-		-
924 PROPERTY INSURANCE	LB924	TUP		-		-		-
925 INJURIES AND DAMAGES - INSURAN	LB925	LBSUB7		89,415		12,291		-
926 EMPLOYEE BENEFITS	LB926	LBSUB7		6,284,853		863,947		-
928 REGULATORY COMMISSION FEES	LB928	TUP		-		-		-
929 DUPLICATE CHARGES-CR	LB929	LBSUB7		-		-		-
930 MISCELLANEOUS GENERAL EXPENSES	LB930	LBSUB7		-		-		-
931 RENTS AND LEASES	LB931	PGP		-		-		-
935 MAINTENANCE OF GENERAL PLANT	LB935	PGP		-		-		-
Total Administrative and General Expense	LBAG		\$	11,265,429	\$	1,548,603	\$	-
Total Operation and Maintenance Expenses	TLB		\$	27,271,497	\$	3,748,877	\$	-
Operation and Maintenance Expenses Less Purchase Power	LBLPP		\$	27,271,497	\$	3,748,877	\$	-

					_								
		Functional		Total		Pro	duction Demand			Produc	tion Energ	nv.	
Description	Name	Vector		System	<u> </u>	Base	Inter.	Peak	Base		Inter	re .	Peak
Other Expenses													
Depreciation Expenses													
Steam Production	DEPRTP	PPRTL	\$	99,900,146		34,345,801	35,979,400	29,574,946	_		_		_
Hydraulic Production	DEPRDP1	PPRTL	*	1,118,831		384,656	402,951	331,224	_		-		_
Other Production	DEPRDP2	PPRTL		35,620,454		12,246,359	12,828,836	10,545,260	-		-		_
Transmission - Kentucky System Property	DEPRDP3	PTRAN		20,185,930		-	-	-	-		-		-
Transmission - Virginia Property	DEPRDP4	PTRAN		182,214		-	-	-	-		-		-
Distribution	DEPRDP5	PDIST		43,044,393		-	-	-	-		-		-
General Plant	DEPRDP6	PGP		11,631,105		2,436,972	2,552,882	2,098,460	-		-		-
Intangible Plant	DEPRAADJ	PINT		16,379,764		3,431,920	3,595,153	2,955,204	-		-		-
Total Depreciation Expense	TDEPR		\$	228,062,837		52,845,706	55,359,222	45,505,094	-		-		-
Regulatory Credits and Accretion Expenses													
Production Plant	ACRTPP	PPRTL	\$	-		-	-	-	-		-		-
Transmission Plant	ACRTTP	PTRAN		-		-	-	-	-		-		-
Distribution Plant		PDIST		-		-	-	-	-		-		-
Total Regulatory Credits and Accretion Expenses	TACRT		\$	-	\$	- \$	- \$	- \$	-	\$	-	\$	-
Property Taxes	PTAX	TUP	\$	24,894,101		5,182,784	5,429,295	4,462,862	-		-		-
Other Taxes	OTAX	TUP	\$	12,926,774		2,691,268	2,819,273	2,317,433	-		-		-
Gain Disposition of Allowances	GAIN	F013	\$	-		-	-	-	-		-		-
Interest	INTLTD	TUP	\$	86,095,200		17,924,442	18,776,988	15,434,620	-		-		-
Other Expenses	OT	TUP	\$	-		-	-	-	-		-		-
Total Other Expenses	TOE		\$	351,978,912	\$	78,644,200 \$	82,384,778 \$	67,720,009 \$	-	\$	-	\$	-
Total Cost of Service (O&M + Other Expenses)			\$	1,285,753,151	\$	116,269,450 \$	118,336,057 \$	103,653,665 \$	640,387,547	\$	-	\$	-
Non-Operating Items Non-Operating Margins - Interest AFUDC Income (Loss) from Equity Investments Non-Operating Margins - Other Generation and Transmission Capital Credits Other Capital Credits and Patronage Dividends Extraordinary Items				- - - - -									
Long Term Debt Service Requirements				-									

#### BIP METHODOLOGY

								ı			
			Tı	ransmission			Distribution				
		Functional		Demand	Distribution	Poles	Substation	D	istrib	ition Primary Lines	
Description	Name	Vector	<u> </u>	Demand	Spe	ecific	General	Speci	fic	Demand	Customer
Other Expenses											
Depreciation Expenses											
Steam Production	DEPRTP	PPRTL		-		-	-	-		-	-
Hydraulic Production	DEPRDP1	PPRTL		-		-	-	-		-	-
Other Production	DEPRDP2	PPRTL		-		-	-	-		-	-
Transmission - Kentucky System Property	DEPRDP3	PTRAN		20,185,930		-	-	-		-	-
Transmission - Virginia Property	DEPRDP4	PTRAN		182,214		-	-	-		-	-
Distribution	DEPRDP5	PDIST		-		-	5,211,527	-		5,678,959	10,531,117
General Plant	DEPRDP6	PGP		1,532,160		-	364,507	-		397,200	736,572
Intangible Plant	DEPRAADJ	PINT		2,157,698		-	513,325	-		559,366	1,037,295
Total Depreciation Expense	TDEPR			24,058,002		-	6,089,359	-		6,635,525	12,304,984
Regulatory Credits and Accretion Expenses											
Production Plant	ACRTPP	PPRTL		-		-	-	-		-	-
Transmission Plant	ACRTTP	PTRAN		-		-	-	-		-	-
Distribution Plant		PDIST		-		-	-	-		-	-
Total Regulatory Credits and Accretion Expenses	TACRT		\$	-	\$	- \$	-	\$ -	\$	- \$	-
Property Taxes	PTAX	TUP		3,342,932		-	784,098	-		854,426	1,584,455
Other Taxes	OTAX	TUP		1,735,886		-	407,159	-		443,678	822,761
Gain Disposition of Allowances	GAIN	F013		-		-	-	-		-	-
Interest	INTLTD	TUP		11,561,389		-	2,711,771	-		2,954,995	5,479,772
Other Expenses	OT	TUP		-		-	-	-		-	-
Total Other Expenses	TOE		\$	40,698,209	\$	- \$	9,992,387	s -	\$	10,888,624 \$	20,191,972
Total Cost of Service (O&M + Other Expenses)			\$	84,725,138	\$	- \$	17,420,002	s -	\$	24,614,594 \$	42,159,192

### Non-Operating Items

Non-Operating Margins - Interest AFUDC Income (Loss) from Equity Investments Non-Operating Margins - Other Generation and Transmission Capital Credits Other Capital Credits and Patronage Dividends Extraordinary Items

Long Term Debt Service Requirements

### BIP METHODOLOGY

		Functional	Distribution Se	c. Lines		Distribution Line	Trans.	Distril Se	oution rvices	Distribution Meters	Distribution St. & Cust. Lighting
Description	Name	Vector	Demand	Customer	r	Demand	Customer	Cust	omer	•	-
Other Expenses											
Depreciation Expenses											
Steam Production	DEPRTP	PPRTL	-	-		-	-		-	-	-
Hydraulic Production	DEPRDP1	PPRTL	-	-		-	-		-	-	-
Other Production	DEPRDP2	PPRTL	-	-		-	-		-	-	-
Transmission - Kentucky System Property	DEPRDP3	PTRAN	-	-		-	-		-	-	-
Transmission - Virginia Property	DEPRDP4	PTRAN	-	-		-	-		-	-	-
Distribution	DEPRDP5	PDIST	2,614,344	3,996,473		4,058,371	3,611,461	2,41		2,062,926	2,861,443
General Plant	DEPRDP6	PGP	182,854	279,523		283,852	252,594		9,105	144,286	200,136
Intangible Plant	DEPRAADJ	PINT	257,508	393,645		399,742	355,722	23	3,146	203,194	281,847
Total Depreciation Expense	TDEPR		3,054,706	4,669,641		4,741,965	4,219,777	2,82	5,024	2,410,406	3,343,426
Regulatory Credits and Accretion Expenses											
Production Plant	ACRTPP	PPRTL	-	_		_	_		-	-	_
Transmission Plant	ACRTTP	PTRAN	-	-		-	-		-	-	-
Distribution Plant		PDIST	-	-		-	-		-	-	-
Total Regulatory Credits and Accretion Expenses	TACRT		\$ - \$	-	\$	- \$	-	\$	- 5	-	s -
Property Taxes	PTAX	TUP	393,340	601,288		610,601	543,361	36	3,765	310,377	430,517
Other Taxes	OTAX	TUP	204,250	312,231		317,067	282,151	18	8,893	161,170	223,555
Gain Disposition of Allowances	GAIN	F013	_	_		-	_		_	=	-
•											
Interest	INTLTD	TUP	1,360,350	2,079,529		2,111,737	1,879,191	1,25	8,066	1,073,425	1,488,926
Other Expenses	OT	TUP	-	-		-	-		-	-	-
Total Other Expenses	TOE		\$ 5,012,646 \$	7,662,688	\$	7,781,369 \$	6,924,480	\$ 4,63	5,748	3,955,377	\$ 5,486,424
Total Cost of Service (O&M + Other Expenses)			\$ 11,962,698 \$	17,926,608	\$	10,830,067 \$	9,637,453	\$ 6,42	1,513 \$	16,294,158	\$ 7,457,083

### Non-Operating Items

Non-Operating Margins - Interest AFUDC Income (Loss) from Equity Investments Non-Operating Margins - Other Generation and Transmission Capital Credits Other Capital Credits and Patronage Dividends Extraordinary Items

Long Term Debt Service Requirements

### BIP METHODOLOGY

Description	Name	Functional Vector	Acco	Customer ounts Expense	Ser	Customer vice & Info.	Sales Expense
•	rame	7 CC101					
Other Expenses							
Depreciation Expenses							
Steam Production	DEPRTP	PPRTL		-		-	-
Hydraulic Production	DEPRDP1	PPRTL		-		-	-
Other Production	DEPRDP2	PPRTL		-		-	-
Transmission - Kentucky System Property	DEPRDP3	PTRAN		-		-	-
Transmission - Virginia Property	DEPRDP4	PTRAN		-		-	-
Distribution	DEPRDP5	PDIST		-		-	-
General Plant	DEPRDP6	PGP		-		-	-
Intangible Plant	DEPRAADJ	PINT		-		-	-
Total Depreciation Expense	TDEPR			-		-	-
Regulatory Credits and Accretion Expenses							
Production Plant	ACRTPP	PPRTL		-		-	-
Transmission Plant	ACRTTP	PTRAN		-		-	-
Distribution Plant		PDIST		-		-	-
Total Regulatory Credits and Accretion Expenses	TACRT		\$	-	\$	-	\$ -
Property Taxes	PTAX	TUP		-		-	-
Other Taxes	OTAX	TUP		-		-	-
Gain Disposition of Allowances	GAIN	F013		-		-	-
Interest	INTLTD	TUP		-		-	-
Other Expenses	OT	TUP		-		-	-
<b>Total Other Expenses</b>	TOE		\$	-	\$	-	\$ -
Total Cost of Service (O&M + Other Expenses)			\$	51,233,939	\$	6,423,986	\$ -

### Non-Operating Items

Non-Operating Margins - Interest AFUDC Income (Loss) from Equity Investments Non-Operating Margins - Other Generation and Transmission Capital Credits Other Capital Credits and Patronage Dividends Extraordinary Items

Long Term Debt Service Requirements

			r			-			
		Functional	Total	n	oduction Demand		D.	oduction Energy	
Description	Name	Vector	System	Base	Inter.	Peak	Base	Inter.	Peak
Description	Name	vector	System	Dasc	miter.	1 can	Dase	miter.	1 can
Functional Vectors									
Station Equipment	F001		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Poles, Towers and Fixtures	F002		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Overhead Conductors and Devices	F003		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Underground Conductors and Devices	F004		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Line Transformers	F005		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Services	F006		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Meters	F007		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Street Lighting	F008		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Meter Reading	F009		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Billing	F010		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Transmission	F011		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Load Management	F012		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Production Plant	F017		1.000000	0.343801	0.360154	0.296045	0.000000	0.000000	0.000000
Provar	PROVAR		1.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000
Fuel	F018		1.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000
Steam Generation Operation Labor	F019		18,373,986	5,447,167	5,134,923	5,273,601	2,518,295	_	_
PROFIX	PROFIX		1.000000	0.343546	0.323854	0.332600	0.000000	0.000000	0.000000
Steam Generation Maintenance Labor	F020		12,842,398	425,611	401,214	412,049	11,603,523	_	_
Hydraulic Generation Operation Labor	F021		-			-	-	_	_
Hydraulic Generation Maintenance Labor	F022		47,185	16,210	15,281	15,694	_	_	_
Distribution Operation Labor	F023		12,444,303		-	-	_	_	_
Distribution Maintenance Labor	F024		7,228,850	_	_	_	_	_	_
Customer Accounts Expense	F025		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Service Expense	F026		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Advances	F027		918,042,686	-	-	-	-	-	-
Purchase Power Demand		F017	7.312.226	2,513,953	2,633,525	2,164,748	_	_	_
Purchase Power Energy		F018	43,441,113	2,515,755	2,033,323	2,104,740	43,441,113	_	_
Purchased Power Expenses	OMPP	F017	50,753,339	2,513,953	2,633,525	2,164,748	43,441,113	-	-
Gain Disposition of Allowances	F013		1.00000	_		_	1.000000	_	_
Intallations on Customer Premises - Accum Depr	F013 F014		1.00000	-	-	-	1.000000	-	-
Generators -Energy	F014 F015		1.00000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000
Generators -Energy			1.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000
Internally Generated Functional Vectors	Energy		1.000000	0.00000	0.000000	0.000000	1.000000	0.000000	0.000000
Total Prod, Trans, and Dist Plant		PT&D	1.000000	0.209522	0.219487	0.180418			
Total Distribution Plant		PDIST	1.000000	0.209322	0.219467	0.100410	-	-	-
Total Transmission Plant		PTRAN	1.000000	-	-	-	-	-	-
Operation and Maintenance Expenses Less Purchase Power		OMLPP	1.000000	0.039764	0.037734	0.038243	0.676055	-	-
Total Plant in Service		TPIS	1.000000	0.209524	0.219489	0.180420	0.070033	-	-
		TLB	1.000000	0.209324	0.219489	0.105741	0.226379	-	-
Total Operation and Maintenance Expenses (Labor) Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service		OMSUB2	1.000000	0.029538	0.028166	0.028270	0.752280	-	-
		LBSUB1	1.000000	0.029338	0.028166	0.028270	0.137058	-	-
Total Steam Power Operation Expenses (Labor)			1.000000			0.287015	0.137038	-	-
Total Steam Power Generation Maintenance Expense (Labor)		LBSUB2		0.033141	0.031241			#DIM/01	#DIV/0!
Total Hydraulic Power Operation Expenses (Labor)		LBSUB3 LBSUB4	1.000000 1.000000	#DIV/0! 0.343546	#DIV/0! 0.323854	#DIV/0! 0.332600	#DIV/0!	#DIV/0!	#DIV/0:
Total Hydraulic Power Generation Maint. Expense (Labor) Total Other Power Generation Expenses (Labor)		LBSUB4 LBSUB5	1.000000	0.343546	0.323854	0.332600	-	-	-
		LBTRAN	1.000000	0.343546	0.323834	0.332600	-	-	-
Total Distribution Operation Labor Expenses		LBDO			-	-	-	-	-
Total Distribution Operation Labor Expense			1.000000	-	-	-	-	-	-
Total Distribution Maintenance Labor Expense		LBDM LBSUB7	1.000000 1.000000	0.108954	0.102708	0.105482	0.227164	-	-
Sub-Total Labor Exp Total General Plant		PGP			0.102708		0.22/104	-	-
			1.000000	0.209522		0.180418	-	-	-
Total Production Plant		PPRTL	1.000000	0.343801	0.360154	0.296045	-	-	-
Total Intangible Plant		PINT	1.000000	0.209522	0.219487	0.180418	-	-	-

			Transmission		Distribution			
		Functional	Demand	Distribution Poles	Substation	Distrib	ution Primary Lin	es
Description	Name	Vector	Demand	Specific	General	Specific	Demand	Customer
Functional Vectors								
Station Equipment	F001		0.000000	0.000000	1.000000	0.000000	0.000000	0.000000
Poles, Towers and Fixtures	F002		0.000000	0.000000	0.000000	0.000000	0.266122	0.385978
Overhead Conductors and Devices	F003		0.000000	0.000000	0.000000	0.000000	0.266122	0.385978
Underground Conductors and Devices	F004		0.000000	0.000000	0.000000	0.000000	0.187201	0.730899
Line Transformers	F005		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Services	F006		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Meters	F007		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Street Lighting	F008		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Meter Reading	F009		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Billing	F010		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Transmission	F011		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Load Management	F012		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Production Plant	F017		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Provar	PROVAR		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Fuel	F018		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Steam Generation Operation Labor	F019		-	_	-	-	_	_
PROFIX	PROFIX		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Steam Generation Maintenance Labor	F020		-	-	-	-	-	-
Hydraulic Generation Operation Labor	F021		-	-	-	-	-	-
Hydraulic Generation Maintenance Labor	F022		-	-	-	-	-	-
Distribution Operation Labor	F023		-	-	1,618,226	-	1,018,596	1,655,552
Distribution Maintenance Labor	F024		-	-	605,269	-	1,716,339	2,679,438
Customer Accounts Expense	F025		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Service Expense	F026		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Advances	F027		-	=	-	-	228,454,093	423,647,545
Purchase Power Demand		F017	-	-	-	-	-	-
Purchase Power Energy		F018	-	-	-	-	-	-
Purchased Power Expenses	OMPP	F017	=	-	-	-	-	-
Gain Disposition of Allowances	F013		-	-	-	-	-	_
Intallations on Customer Premises - Accum Depr	F014		-	-	-	-	-	-
Generators -Energy	F015		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Energy		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Internally Generated Functional Vectors								
Total Prod, Trans, and Dist Plant		PT&D	0.131730	-	0.031339	-	0.034150	0.063328
Total Distribution Plant		PDIST	-	-	0.121073	-	0.131933	0.244657
Total Transmission Plant		PTRAN	1.000000	-	-	-	-	-
Operation and Maintenance Expenses Less Purchase Power		OMLPP	0.049852	-	0.008410	-	0.015542	0.024874
Total Plant in Service		TPIS	0.131722	-	0.031339	-	0.034150	0.063328
Total Operation and Maintenance Expenses (Labor)		TLB	0.067445	-	0.025077	-	0.027326	0.050673
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service		OMSUB2	0.043548	-	0.005501	-	0.012864	0.019603
Total Steam Power Operation Expenses (Labor)		LBSUB1	-	-	-	-	-	-
Total Steam Power Generation Maintenance Expense (Labor)		LBSUB2	-	-	-	-	-	-
Total Hydraulic Power Operation Expenses (Labor)		LBSUB3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Hydraulic Power Generation Maint. Expense (Labor)		LBSUB4	-	-	-	-	-	-
Total Other Power Generation Expenses (Labor)		LBSUB5		-	-	-	-	-
Total Transmission Labor Expenses		LBTRAN	1.0000000	-		-	-	
Total Distribution Operation Labor Expense		LBDO	-	-	0.130037	-	0.081852	0.133037
Total Distribution Maintenance Labor Expense		LBDM		-	0.083730	-	0.237429	0.370659
Sub-Total Labor Exp		LBSUB7	0.067222	-	0.025055	-	0.027302	0.050629
Total General Plant		PGP	0.131730	-	0.031339	-	0.034150	0.063328
Total Production Plant		PPRTL		-		-	-	-
Total Intangible Plant		PINT	0.131730	-	0.031339	-	0.034150	0.063328

							<u>.</u>		
		Functional	Distribution S	San Times	Distribution L	in a Tanana	Distribution Services	Distribution Meters	Distribution St. & Cust. Lighting
Description	Name	Functional Vector	Distribution S	Customer	Distribution L.  Demand	me 1 rans. Customer	Customer	Meters	Cust. Lighting
Functional Vectors									
Station Equipment	F001		0.000000	0.000000	0.000000	0.000000	0,000000	0.000000	0.000000
Poles, Towers and Fixtures	F002		0.141978	0.205922	0.000000	0.000000	0.000000	0.000000	0.000000
Overhead Conductors and Devices	F003		0.141978	0.205922	0.000000	0.000000	0.000000	0.000000	0.000000
Underground Conductors and Devices	F004		0.016699	0.065201	0.000000	0.000000	0.000000	0.000000	0.000000
Line Transformers	F005		0.000000	0.000000	0.529134	0.470866	0.000000	0.000000	0.000000
Services	F006		0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000
Meters	F007		0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000
Street Lighting	F008		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000
Meter Reading	F009		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Billing	F010		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Transmission	F011		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Load Management	F012		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Production Plant Provar	F017 PROVAR		0.000000 0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Fuel	F018		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000 0.000000
Steam Generation Operation Labor	F019		0.00000	0.000000	0.000000	0.00000	0.00000	0.00000	0.000000
PROFIX	PROFIX		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Steam Generation Maintenance Labor	F020		0.000000	-	-	0.00000	0.00000	0.00000	0.000000
Hydraulic Generation Operation Labor	F021			_	-	_	_	_	_
Hydraulic Generation Maintenance Labor	F022		_	_	_	_	_	_	_
Distribution Operation Labor	F023		511,165	757,280	315,193	280,484	187,776	5,877,797	222,234
Distribution Maintenance Labor	F024		881,262	1,295,122	27,208	24,212		-	,
Customer Accounts Expense	F025		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Service Expense	F026		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Advances	F027		105,170,279	160,770,769	-	-	-	-	-
Purchase Power Demand		F017	-	-	-	_	-	_	_
Purchase Power Energy		F018	-	-	-	-	-	-	-
Purchased Power Expenses	OMPP	F017	-	-	-	-	-	-	-
Gain Disposition of Allowances	F013		-	-	-	-	-	-	-
Intallations on Customer Premises - Accum Depr	F014		-	-	-	-	-	-	-
Generators - Energy	F015		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Energy		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Internally Generated Functional Vectors									
Total Prod, Trans, and Dist Plant		PT&D	0.015721	0.024032	0.024405	0.021717	0.014539	0.012405	0.017207
Total Distribution Plant		PDIST	0.060736	0.092845	0.094283	0.083901	0.056169	0.047926	0.066477
Total Transmission Plant		PTRAN	0.007070	0.011622	0.003452	0.002072	0.002022	0.012071	0.002231
Operation and Maintenance Expenses Less Purchase Power		OMLPP TPIS	0.007870	0.011622	0.003452	0.003072 0.021717		0.013971 0.012405	0.002231
Total Plant in Service		TLB	0.015721 0.012580	0.024033	0.024403		0.014539	0.012403	0.017207
Total Operation and Maintenance Expenses (Labor) Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service		OMSUB2	0.012380	0.019230	0.019328	0.017377 0.000843	0.011634 0.000527	0.009926	0.000450
Total Steam Power Operation Expenses (Labor)		LBSUB1	0.000092	0.009790	0.000948	0.000643	0.000327	0.013041	0.000430
Total Steam Power Generation Maintenance Expense (Labor)		LBSUB2		-	-		-	-	-
Total Hydraulic Power Operation Expenses (Labor)		LBSUB3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Hydraulic Power Generation Maint. Expense (Labor)		LBSUB4	"DI 170.	DI 170.		DI 170.			"DI 170.
Total Other Power Generation Expenses (Labor)		LBSUB5	_	_	-	_	_	_	_
Total Transmission Labor Expenses		LBTRAN	-	_	-	_	-	-	-
Total Distribution Operation Labor Expense		LBDO	0.041076	0.060854	0.025328	0.022539	0.015089	0.472328	0.017858
Total Distribution Maintenance Labor Expense		LBDM	0.121909	0.179160	0.003764	0.003349	-	-	-
Sub-Total Labor Exp		LBSUB7	0.012569	0.019213	0.019511	0.017362	0.011624	0.009918	0.013757
Total General Plant		PGP	0.015721	0.024032	0.024405	0.021717	0.014539	0.012405	0.017207
Total Production Plant		PPRTL	=	-	-	-	-	-	-
Total Intangible Plant		PINT	0.015721	0.024032	0.024405	0.021717	0.014539	0.012405	0.017207

		Functional	Customer Accounts Expense	Customer Service & Info.	Sales Expense
Description	Name	Vector			
Functional Vectors					
Station Equipment	F001		0.000000	0.000000	0.000000
Poles, Towers and Fixtures	F002		0.000000	0.000000	0.000000
Overhead Conductors and Devices	F003		0.000000	0.000000	0.000000
Underground Conductors and Devices	F004		0.000000	0.000000	0.000000
Line Transformers	F005		0.000000	0.000000	0.000000
Services	F006		0.000000	0.000000	0.000000
Meters	F007		0.000000	0.000000	0.000000
Street Lighting	F008		0.000000	0.000000	0.000000
Meter Reading Billing	F009 F010		0.000000 0.000000	1.000000 1.000000	0.000000 0.000000
Transmission	F010 F011		0.000000	0.000000	0.000000
Load Management	F012		0.000000	0.000000	1.000000
Production Plant	F017		0.000000	0.000000	0.000000
Provar	PROVAR		0.000000	0.000000	0.000000
Fuel	F018		0.000000	0.000000	0.000000
Steam Generation Operation Labor	F019		-	-	-
PROFIX	PROFIX		0.000000	0.000000	0.000000
Steam Generation Maintenance Labor	F020		-	-	-
Hydraulic Generation Operation Labor	F021		-	-	_
Hydraulic Generation Maintenance Labor	F022		=	_	_
Distribution Operation Labor	F023		-	-	-
Distribution Maintenance Labor	F024		-	-	-
Customer Accounts Expense	F025		1.000000	0.000000	0.000000
Customer Service Expense	F026		0.000000	1.000000	0.000000
Customer Advances	F027		-	-	-
Purchase Power Demand		F017	-	-	-
Purchase Power Energy		F018	-	-	-
Purchased Power Expenses	OMPP	F017	-	-	-
Gain Disposition of Allowances	F013		-	-	-
Intallations on Customer Premises - Accum Depr	F014		1.00000	-	-
Generators -Energy	F015		0.000000	0.000000	0.000000
	Energy		0.000000	0.000000	0.000000
Internally Generated Functional Vectors		P.T.O. P.			
Total Prod, Trans, and Dist Plant		PT&D	=	-	-
Total Distribution Plant		PDIST	-	-	-
Total Transmission Plant Operation and Maintenance Expenses Less Purchase Power		PTRAN OMLPP	0.058012	0.007274	-
Total Plant in Service		TPIS	0.038012	0.007274	-
Total Operation and Maintenance Expenses (Labor)		TLB	0.159039	0.021862	-
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service		OMSUB2	0.042281	0.005057	-
Total Steam Power Operation Expenses (Labor)		LBSUB1	0.042261	0.003037	_
Total Steam Power Generation Maintenance Expense (Labor)		LBSUB2	_	_	_
Total Hydraulic Power Operation Expenses (Labor)		LBSUB3	#DIV/0!	#DIV/0!	#DIV/0!
Total Hydraulic Power Generation Maint. Expense (Labor)		LBSUB4	-	-	-
Total Other Power Generation Expenses (Labor)		LBSUB5	_	_	_
Total Transmission Labor Expenses		LBTRAN	-	-	-
Total Distribution Operation Labor Expense		LBDO	-	-	_
Total Distribution Maintenance Labor Expense		LBDM	-	-	_
Sub-Total Labor Exp		LBSUB7	0.159591	0.021938	-
Total General Plant		PGP	-	-	-
Total Production Plant		PPRTL	-	-	-
Total Intangible Plant		PINT	-	-	-

### **Exhibit WSS-17**

# Electric Cost of Service Study Functional Assignment and Classification LOLP Methodology

				_						
										l
		Functional	Total	L		duction Demand			duction Energy	
Description	Name	Vector	System		Base	Inter.	Peak	Base	Inter.	Peak
Plant in Service										
Intangible Plant										
301.00 ORGANIZATION	P301	PT&D	\$ 39,493		8,275	8,668	7,125	-	-	-
302.00 FRANCHISE AND CONSENTS	P301	PT&D	55,919		11,716	12,273	10,089	-	-	-
303.00 SOFTWARE	P302	PT&D	102,982,045		21,576,997	22,603,270	18,579,812	-	-	-
Total Intangible Plant	PINT		\$ 103,077,457	\$	21,596,988 \$	22,624,212 \$	18,597,026	\$ - \$	-	\$ -
Steam Production Plant										
Total Steam Production Plant	PSTPR	F017	\$ 3,145,206,425		1,081,326,073	1,132,757,504	931,122,848	-	-	-
Hydraulic Production Plant										
Total Hydraulic Production Plant	PHDPR	F017	\$ 36,962,631		12,707,801	13,312,226	10,942,605	-	-	-
Other Production Plant										
Total Other Production Plant	POTPR	F017	\$ 894,751,299		307,616,664	322,247,926	264,886,709	-	-	-
Total Production Plant	PPRTL		\$ 4,076,920,355	\$	1,401,650,538 \$	1,468,317,655 \$	1,206,952,162	\$ - \$	-	\$ -
Transmission										
KENTUCKY SYSTEM PROPERTY	P350	F011	\$ 873,007,848		-	-	-	-	-	-
VIRGINIA PROPERTY - 500 KV LINE	P352	F011	8,230,400		-	-	-	-	-	-
Total Transmission Plant	PTRAN		\$ 881,238,248	\$	- \$	- \$	-	\$ - \$	-	\$ -
Distribution										
TOTAL ACCTS 360-362	P362	F001	\$ 209,650,161		-	-	-	-	-	_
364 & 365-OVERHEAD LINES	P365	F003	717,117,865		-	-	-	-	-	-
366 & 367-UNDERGROUND LINES	P367	F004	200,924,821		-	-	-	-	-	-
368-TRANSFORMERS - POWER POOL	P368	F005	5,414,628		-	-	-	-	-	-
368-TRANSFORMERS - ALL OTHER	P368a	F005	303,128,639		-	-	-	-	-	-
369-SERVICES	P369	F006	97,262,577		-	-	-	-	-	-
370-METERS	P370	F007	82,987,729		-	-	-	-	-	-
371-CUSTOMER INSTALLATION 373-STREET LIGHTING	P371 P373	F008 F008	282,792 114,827,799		-	-	-	-	-	-
575-STREET LIGHTING	F3/3	1.000	114,027,799		-	-	-	-	-	-
Total Distribution Plant	PDIST		\$ 1,731,597,011	\$	- \$	- \$	-	\$ - \$	-	\$ -
Total Prod, Trans, and Dist Plant	PT&D		\$ 6,689,755,615	\$	1,401,650,538 \$	1,468,317,655 \$	1,206,952,162	\$ - \$	-	\$ -

		Functional	Transmission Demand	Dist	ribution Poles		Distribution Substation			tion Primary Lines	
Description	Name	Vector	Demand		Specific		General	Specific	c	Demand	Customer
Plant in Service											
Intangible Plant											
301.00 ORGANIZATION	P301	PT&D	5,202		-		1,238	-		1,349	2,501
302.00 FRANCHISE AND CONSENTS	P301	PT&D	7,366		-		1,752	-		1,910	3,541
303.00 SOFTWARE	P302	PT&D	13,565,775		-		3,227,353	-		3,516,821	6,521,627
Total Intangible Plant	PINT		\$ 13,578,343	\$	-	\$	3,230,343	\$ -	\$	3,520,079 \$	6,527,669
Steam Production Plant											
Total Steam Production Plant	PSTPR	F017	-		-		-	-		-	-
Hydraulic Production Plant											
Total Hydraulic Production Plant	PHDPR	F017	-		-		-	-		-	-
Other Production Plant											
Total Other Production Plant	POTPR	F017	-		-		-	-		-	-
Total Production Plant	PPRTL		\$ -	\$	-			\$ -	\$	-	
Transmission											
KENTUCKY SYSTEM PROPERTY	P350	F011	873,007,848		-		-	-		-	-
VIRGINIA PROPERTY - 500 KV LINE	P352	F011	8,230,400		-		-	-		-	-
Total Transmission Plant	PTRAN		\$ 881,238,248	\$	-	\$	-	\$ -	\$	- \$	-
Distribution											
TOTAL ACCTS 360-362	P362	F001	-		-	2	209,650,161	-			
364 & 365-OVERHEAD LINES	P365	F003	-		-		-	-		190,840,848	276,791,712
366 & 367-UNDERGROUND LINES	P367	F004	-		-		-	-		37,613,245	146,855,833
368-TRANSFORMERS - POWER POOL 368-TRANSFORMERS - ALL OTHER	P368 P368a	F005 F005	-		-		-	-		-	-
369-SERVICES	P369	F006	-		-		-	-		-	-
370-METERS	P369 P370	F007	-		-		-	-		-	-
371-CUSTOMER INSTALLATION	P371	F007	-		-		-	-		-	-
373-STREET LIGHTING	P373	F008	-		-		-	-		-	-
		1000	-		-		-	-		-	-
Total Distribution Plant	PDIST		\$ -	\$	-	\$ 2	209,650,161	\$ -	\$	228,454,093 \$	423,647,545
Total Prod, Trans, and Dist Plant	PT&D		\$ 881,238,248	\$	-	\$ 2	209,650,161	\$ -	\$	228,454,093 \$	423,647,545

							Distributio	n	Distribution	Distribution St. &
		Functional	Distribution Se	c. Lines	Distribution Lin	e Trans.	Service	s	Meters	Cust. Lighting
Description	Name	Vector	Demand	Customer	Demand	Customer	Custome	r		
Plant in Service										
Intangible Plant										
301.00 ORGANIZATION	P301	PT&D	621	949	964	858	574		490	680
302.00 FRANCHISE AND CONSENTS	P301	PT&D	879	1,344	1,365	1,214	813		694	962
303.00 SOFTWARE	P302	PT&D	1,618,990	2,474,904	2,513,236	2,236,477	1,497,259		1,277,512	1,772,012
Total Intangible Plant	PINT		\$ 1,620,490 \$	2,477,197	\$ 2,515,564 \$	2,238,549	\$ 1,498,647	\$	1,278,696	\$ 1,773,653
Steam Production Plant										
Total Steam Production Plant	PSTPR	F017	-	-	-	-	-		-	-
Hydraulic Production Plant										
Total Hydraulic Production Plant	PHDPR	F017	-	-	-	-	-		-	-
Other Production Plant										
Total Other Production Plant	POTPR	F017	-	-	-	-	-		-	-
Total Production Plant	PPRTL				\$ - \$	-				s -
Transmission										
KENTUCKY SYSTEM PROPERTY	P350	F011	-	-	-	-	-		-	-
VIRGINIA PROPERTY - 500 KV LINE	P352	F011	-	-	-	-	-		-	-
Total Transmission Plant	PTRAN		\$ - \$	-	\$ - \$	-	s -	\$	-	s -
Distribution										
TOTAL ACCTS 360-362	P362	F001	-	-	-	_	-		-	-
364 & 365-OVERHEAD LINES	P365	F003	101,814,953	147,670,352	-	-	-		-	-
366 & 367-UNDERGROUND LINES	P367	F004	3,355,326	13,100,417	-	-	-		-	-
368-TRANSFORMERS - POWER POOL	P368	F005	-	-	2,865,065	2,549,563	-		-	-
368-TRANSFORMERS - ALL OTHER	P368a	F005	-	-	160,395,756	142,732,883	-		-	-
369-SERVICES	P369	F006	-	-	-	-	97,262,577		<del>-</del>	-
370-METERS	P370	F007	-	-	-	-	-		82,987,729	
371-CUSTOMER INSTALLATION	P371	F008	-	-	-	-	-		-	282,792
373-STREET LIGHTING	P373	F008	-	-	-	-	-		-	114,827,799
Total Distribution Plant	PDIST		\$ 105,170,279 \$	160,770,769	\$ 163,260,822 \$	145,282,445	\$ 97,262,577	\$	82,987,729	\$ 115,110,592
Total Prod, Trans, and Dist Plant	PT&D		\$ 105,170,279 \$	160,770,769	\$ 163,260,822 \$	145,282,445	\$ 97,262,577	\$	82,987,729	\$ 115,110,592

Description	Name	Functional Vector	Customer ts Expense	Customo Service & Info	Sales Expense
Plant in Service					
Intangible Plant 301.00 ORGANIZATION 302.00 FRANCHISE AND CONSENTS 303.00 SOFTWARE	P301 P301 P302	PT&D PT&D PT&D	- - -		- - -
Total Intangible Plant	PINT		\$ -	\$ -	\$ -
Steam Production Plant					
Total Steam Production Plant	PSTPR	F017	-	-	-
Hydraulic Production Plant					
Total Hydraulic Production Plant	PHDPR	F017	-	-	-
Other Production Plant					
Total Other Production Plant	POTPR	F017	-	-	-
Total Production Plant	PPRTL		\$ -	\$ -	\$ -
Transmission					
KENTUCKY SYSTEM PROPERTY	P350	F011	-	-	-
VIRGINIA PROPERTY - 500 KV LINE	P352	F011	-	-	-
Total Transmission Plant	PTRAN		\$ -	\$ -	\$ -
Distribution					
TOTAL ACCTS 360-362	P362	F001	-	-	-
364 & 365-OVERHEAD LINES	P365	F003	-	-	-
366 & 367-UNDERGROUND LINES	P367	F004	-	-	-
368-TRANSFORMERS - POWER POOL	P368	F005	-	-	-
368-TRANSFORMERS - ALL OTHER	P368a	F005	-	-	-
369-SERVICES 370-METERS	P369 P370	F006	-	-	-
370-METERS 371-CUSTOMER INSTALLATION	P370 P371	F007 F008	-	-	-
373-STREET LIGHTING	P371 P373	F008	-	-	-
Total Distribution Plant	PDIST		\$ -	\$ -	\$ -
Total Prod, Trans, and Dist Plant	PT&D		\$ -	\$ -	\$ -

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		Functional		Total			duction Demand				luction Energy		
Description	Name	Vector		System		Base	Inter.	Peak	F	ase	Inter	. Р	Peak
Plant in Service (Continued)													
General Plant													
Total General Plant	PGP	PT&D	\$	177,535,196		37,197,518	38,966,754	32,030,541		_	-		_
TOTAL COMMON PLANT	PCOM	PT&D	\$	_		_	_	_					
106.00 COMPLETED CONSTR NOT CLASSIFIED	P106	PT&D	\$	-		-	-	-		-	-		
105.00 PLANT HELD FOR FUTURE USE - PRODUCTION	P105	PPRTL	\$	271,089		93,201	97,634	80,255			-		-
105.00 PLANT HELD FOR FUTURE USE - DISTRIBUTION	P105	PDIST	\$	113,882		93,201	77,034			_	_		-
103.00 TERRY HEED FOR FOTORE ODE - DISTRIBUTION	1 103	TDIST	Ψ	115,002									
OTHER		PDIST		-		-	-	-		-	-		-
Total Plant in Service	TPIS		\$	6,970,753,239	\$	1,460,538,245 \$	1,530,006,255 \$	1,257,659,983	5	- \$	-	\$	-
Construction Work in Progress (CWIP)													
CWIP Production	CWIP1	F017	\$	28,153,069		9,679,062	10,139,430	8,334,577		_	_		_
CWIP Transmission	CWIP2	F011		30,190,923		-	-	-		-	-		-
CWIP Distribution Plant	CWIP3	PDIST		32,868,652		-	-	-		-	-		-
CWIP General Plant	CWIP4	PT&D		27,491,296		5,760,029	6,033,995	4,959,924		-	-		-
RWIP	CWIP5	F004		-		-	-	-		-	-		-
Total Construction Work in Progress	TCWIP		\$	118,703,941	\$	15,439,091 \$	16,173,426 \$	13,294,501	5	- \$	-	\$	-
Total Utility Plant			\$	7,089,457,179	\$	1,475,977,336 \$	1,546,179,681 \$	1,270,954,484	5	- \$	-	\$	-

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			Transmission		Distribution			
		Functional	Demand	Distribution Poles		Distrib	ution Primary Lin	es
Description	Name	Vector	 Demand	Specific	General	Specific	Demand	Customer
Plant in Service (Continued)								
General Plant								
Total General Plant	PGP	PT&D	23,386,625	-	5,563,773	-	6,062,799	11,242,914
TOTAL COMMON PLANT	PCOM	PT&D	-	-	_	-	-	-
106.00 COMPLETED CONSTR NOT CLASSIFIED	P106	PT&D	-	-	-	-	-	-
105.00 PLANT HELD FOR FUTURE USE - PRODUCTION	P105	PPRTL	-	-	-	-	-	-
105.00 PLANT HELD FOR FUTURE USE - DISTRIBUTION	P105	PDIST	-	-	13,788	-	15,025	27,862
OTHER		PDIST	-	-	-	-	-	-
Total Plant in Service	TPIS		\$ 918,203,216	s -	\$ 218,458,065 \$	- \$	238,051,995 \$	441,445,991
Construction Work in Progress (CWIP)								
CWIP Production	CWIP1	F017	-	-	-	-	_	_
CWIP Transmission	CWIP2	F011	30,190,923	_	_	_	-	_
CWIP Distribution Plant	CWIP3	PDIST	· -	-	3,979,516	-	4,336,447	8,041,550
CWIP General Plant	CWIP4	PT&D	3,621,415	-	861,549	-	938,823	1,740,963
RWIP	CWIP5	F004	-	-	-	-	-	-
Total Construction Work in Progress	TCWIP		\$ 33,812,338	\$ -	\$ 4,841,066 \$	- \$	5,275,270 \$	9,782,513
Total Utility Plant			\$ 952,015,555	s -	\$ 223,299,131 \$	- \$	243,327,265 \$	451,228,504

		Functional		Distribution So	ec. Lines		Distribution Lin	e Trans.	Distribu Serv		Distribution Meters	Distribution St. &
Description	Name	Vector	_	Demand	Custo	mer	Demand	Customer	Custo			
Plant in Service (Continued)												
General Plant												
Total General Plant	PGP	PT&D		2,791,048	4,266,	594	4,332,676	3,855,559	2,581,	90	2,202,359	3,054,847
TOTAL COMMON PLANT 106.00 COMPLETED CONSTR NOT CLASSIFIED	PCOM P106	PT&D PT&D		-		-	-	-			-	-
105.00 PLANT HELD FOR FUTURE USE - PRODUCTION 105.00 PLANT HELD FOR FUTURE USE - DISTRIBUTION	P105 P105	PPRTL PDIST		6,917	10,	- 573	10,737	9,555	6,3		5,458	7,570
OTHER		PDIST		-		-	-	-			-	-
Total Plant in Service	TPIS		\$	109,588,734 \$	167,525,	133 \$	170,119,799 \$	151,386,108	\$ 101,348,8	10 \$	86,474,242	\$ 119,946,663
Construction Work in Progress (CWIP)												
CWIP Production CWIP Transmission CWIP Distribution Plant CWIP General Plant RWIP	CWIP1 CWIP2 CWIP3 CWIP4 CWIP5	F017 F011 PDIST PT&D F004		1,996,311 432,193	3,051, 660,		3,098,968 670,914	2,757,708 597,033	1,846, 399,	:09 :97	1,575,248 341,035	2,184,995 473,043
Total Construction Work in Progress	TCWIP		\$	2,428,504 \$	3,712,	384 \$	3,769,882 \$	3,354,740	\$ 2,245,9	06 \$	1,916,283	\$ 2,658,037
Total Utility Plant			\$	112,017,238 \$	171,237,	517 \$	173,889,681 \$	154,740,848	\$ 103,594,	16 \$	88,390,525	\$ 122,604,700

Description	Name	Functional Vector	Accoun	Customer ts Expense	Custo Service & I		Sales Expense
Plant in Service (Continued)							
General Plant							
Total General Plant	PGP	PT&D		-		-	-
TOTAL COMMON PLANT	PCOM	PT&D		_		_	_
106.00 COMPLETED CONSTR NOT CLASSIFIED	P106	PT&D		_		-	_
105.00 PLANT HELD FOR FUTURE USE - PRODUCTION	P105	PPRTL		_		-	_
105.00 PLANT HELD FOR FUTURE USE - DISTRIBUTION	P105	PDIST		-		-	
OTHER		PDIST		-		-	-
Total Plant in Service	TPIS		\$	-	\$	- \$	-
Construction Work in Progress (CWIP)							
CWIP Production	CWIP1	F017		-		_	_
CWIP Transmission	CWIP2	F011		_		-	_
CWIP Distribution Plant	CWIP3	PDIST		_		-	-
CWIP General Plant	CWIP4	PT&D		_		-	-
RWIP	CWIP5	F004		-		-	-
Total Construction Work in Progress	TCWIP		\$	-	\$	- \$	-
Total Utility Plant			\$	-	\$	- \$	-

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		Functional		Total			Prod	uction Demand					tion Energ		
Description	Name	Vector		System		Base		Inter.	Peak		Base		Inte		Peak
Rate Base															
Utility Plant															
Plant in Service			\$	6,970,753,239	\$	1,460,538,245	\$	1,530,006,255 \$	1,257,659,983	\$	-	\$	_	\$	-
Construction Work in Progress (CWIP)				118,703,941		15,439,091.47		16,173,425.52	13,294,501.24		-		-		-
Total Utility Plant	TUP		\$	7,089,457,179	\$	1,475,977,336	s	1,546,179,681 \$	1,270,954,484	\$	-	\$	-	\$	-
Less: Acummulated Provision for Depreciation															
Steam Production	ADEPREPA	F017	\$	1,351,527,013		464,656,751		486,757,357	400,112,906		_		_		_
Hydraulic Production	RWIP	F017		11,357,150		3,904,603		4,090,319	3,362,228		_		_		_
Other Production		F017		279,457,486		96,077,848		100,647,627	82,732,010		_		_		_
Transmission - Kentucky System Property	ADEPRTP	PTRAN		303,777,627		-		-			_		_		_
Transmission - Virginia Property	ADEPRD1	PTRAN		4,014,978		_		-	_		_		-		_
Distribution	ADEPRD11	PDIST		637,170,341		_		_	_		_		_		_
General Plant	ADEPRD12	PT&D		60,263,984		12,626,626		13,227,190	10,872,706		_		_		_
Intangible Plant	ADEPRGP	PT&D		51,974,185		10,889,732		11,407,683	9,377,077		_		_		_
Till Italia	TADEDD		6			500 155 561		(1( 120 177 - 6	506 456 000	e		ė.		e.	
Total Accumulated Depreciation	TADEPR		\$	2,699,542,764	\$	588,155,561	2	616,130,177 \$	506,456,928	3	-	\$	-	\$	-
Net Utility Plant	NTPLANT		\$	4,389,914,415	\$	887,821,776	\$	930,049,504 \$	764,497,556	\$	-	\$	-	\$	-
Working Capital															
Cash Working Capital - Operation and Maintenance Expenses	CWC	OMLPP	\$	106,348,560		4,228,864		4,012,925	4,067,104		71,897,457		-		_
Materials and Supplies	M&S	TPIS		119,808,344		25,102,692		26,296,658	21,615,764		· -		_		_
Prepayments	PREPAY	TPIS		16,171,254		3,388,261		3,549,418	2,917,610		-		-		-
Total Working Capital	TWC		\$	242,328,157	\$	32,719,817	\$	33,859,002 \$	28,600,478	\$	71,897,457	\$	-	\$	-
Emission Allowance	EMALL	PROFIX		-		-		-	-		-		-		-
Deferred Debits															
Service Pension Cost	PENSCOST	TLB	\$	_		_		_	_		_		_		_
Accumulated Deferred Income Tax	I ENSCOSI	ILD	Φ												
Total Production Plant	ADITPP	F017		£11 000 40£		175 702 255		194.060.290	151 206 020						
				511,060,465		175,703,255		184,060,280	151,296,930		-		-		-
Total Transmission Plant	ADITTP	F011		129,909,095		-		-	-		-		-		-
Total Distribution Plant	ADITDP	PDIST		241,830,055		-		-	-		-		-		-
Total General Plant	ADITGP	PT&D		27,628,083		5,788,689		6,064,018	4,984,603		-		-		-
Total Accumulated Deferred Income Tax	ADITT			910,427,698		181,491,944		190,124,299	156,281,533		-		-		-
Accumulated Deferred Investment Tax Credits															
Production	ADITCP	F017	\$	81,185,411		27,911,650		29,239,220	24,034,541						
			ф	01,102,411		27,711,030		47,437,440	24,034,341		-		-		-
Transmission	ADITCT	F011		-		-		-	-		-		-		-
Transmission VA	ADITCTVA			-		-		-	-		-		-		-
Distribution VA	ADITCDVA			-		-		-	-		-		-		-
Distribution Plant KY,FERC & TN	ADITCDKY	PDIST		-		-		-	-		-		-		-
General	ADITCG	PT&D		-		-		-	-		-		-		-
Total Accum. Deferred Investment Tax Credits	ADITCTL			81,185,411		27,911,650		29,239,220	24,034,541		-		-		-
Total Deferred Debits			s	991,613,109	s	209,403,594	s	219,363,519 \$	180,316,073	s	_	s	_	s	_
Less: Customer Advances	CSTDEP	F027	\$	1,549,704	Ψ	207,103,374	~		100,510,075	Ψ	_	~	_	₩	_
Less: Asset Retirement Obligations	CSTDEI	F017	J	1,577,704		-		-	-		-		-		-
Net Rate Base	RB		\$	3,639,079,759	\$	711,137,998	\$	744,544,987 \$	612,781,961	s	71,897,457	s	_	\$	_
2000			φ	2,022,012,129	Ψ	, , 1.5 , , 7.70	4	, , <del>. ,</del> , , o , ø	0.2,701,701	4	1.,001,701	~		4	

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							D: 4 7 4:				
		Functional		Transmission Demand	Distrib	oution Poles	Distribution Substation	Di	stribu	ıtion Primary Line	s
Description	Name	Vector		Demand		Specific	General	Specif		Demand	Customer
Rate Base											
Utility Plant											
Plant in Service			\$	918,203,216	\$	-	\$ 218,458,065 \$	-	\$	238,051,995 \$	441,445,991
Construction Work in Progress (CWIP)				33,812,338.16		-	4,841,065.50	-		5,275,270.10	9,782,513.43
Total Utility Plant	TUP		\$	952,015,555	\$	-	\$ 223,299,131 \$	-	\$	243,327,265 \$	451,228,504
Less: Acummulated Provision for Depreciation											
Steam Production	ADEPREPA	F017		-		-	-	-		-	-
Hydraulic Production	RWIP	F017		-		-	-	-		-	-
Other Production		F017		-		-	-	-		-	-
Transmission - Kentucky System Property	ADEPRTP	PTRAN		303,777,627		-	-	-		-	-
Transmission - Virginia Property	ADEPRD1	PTRAN		4,014,978		-	-	-		-	-
Distribution	ADEPRD11	PDIST		-		-	77,144,315	-		84,063,539	155,888,263
General Plant	ADEPRD12	PT&D		7,938,545		-	1,888,612	-		2,058,005	3,816,386
Intangible Plant	ADEPRGP	PT&D		6,846,534		-	1,628,818	-		1,774,910	3,291,411
Total Accumulated Depreciation	TADEPR		\$	322,577,684	\$	-	\$ 80,661,745 \$	-	\$	87,896,454 \$	162,996,060
Net Utility Plant	NTPLANT		\$	629,437,870	\$	-	\$ 142,637,386 \$	-	\$	155,430,811 \$	288,232,444
Working Capital											
Cash Working Capital - Operation and Maintenance Expenses	CWC	OMLPP		5,301,675		-	894,425	-		1,652,866	2,645,269
Materials and Supplies	M&S	TPIS		15,781,423		-	3,754,702	-		4,091,468	7,587,259
Prepayments	PREPAY	TPIS		2,130,114		-	506,795	-		552,250	1,024,098
Total Working Capital	TWC		\$	23,213,212	\$	-	\$ 5,155,922 \$	-	\$	6,296,585 \$	11,256,626
Emission Allowance	EMALL	PROFIX		-		-	-	-		-	-
Deferred Debits											
Service Pension Cost	PENSCOST	TLB		-		-	-	-		-	-
Accumulated Deferred Income Tax											
Total Production Plant	ADITPP	F017		-		-	-	-		-	-
Total Transmission Plant	ADITTP	F011		129,909,095		-	-	-		-	-
Total Distribution Plant	ADITDP	PDIST		_		_	29,279,162	_		31,905,267	59,165,446
Total General Plant	ADITGP	PT&D		3,639,434		-	865,836	-		943,495	1,749,626
Total Accumulated Deferred Income Tax	ADITT			133,548,529		-	30,144,998	-		32,848,762	60,915,072
Accumulated Deferred Investment Tax Credits											
Production	ADITCP	F017									
				-		-	-	-		-	-
Transmission	ADITCT	F011		-		-	-	-		-	-
Transmission VA	ADITCTVA			-		-	-	-		-	-
Distribution VA	ADITCDVA			-		-	-	-		-	-
Distribution Plant KY,FERC & TN	ADITCDKY			-		-	-	-		-	-
General	ADITCG	PT&D		-		-	-	-		-	-
Total Accum. Deferred Investment Tax Credits	ADITCTL			-		-	-	-		-	-
Total Deferred Debits			\$	133,548,529	\$	-	\$ 30,144,998 \$	-	\$	32,848,762 \$	60,915,072
Less: Customer Advances	CSTDEP	F027				-		-		385,642	715,139
Less: Asset Retirement Obligations		F017		-		-	-	-		/-	-
Net Rate Base	RB		\$	519,102,553	\$	-	\$ 117,648,309 \$	_	\$	128,492,991 \$	237,858,860

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								ъ.		Distribution	D: 4 7 4 64 6
		Functional	Distribution Se	o Lines		Distribution Li	na Trans	D	istribution Services	Distribution	
Description	Name	Vector	 Demand	Customer		Distribution Lin	Customer		Customer	Meter	Cust. Lighting
Безстрион	Name	vector	Demand	Customer		Demanu	Customer		Customer		
Rate Base											
Utility Plant											
Plant in Service			\$ 109,588,734 \$			170,119,799 \$			1,348,810		
Construction Work in Progress (CWIP)			2,428,503.78	3,712,383.62	3	,769,881.82	3,354,740.25	2,2	245,905.76	1,916,282.97	2,658,037.14
Total Utility Plant	TUP		\$ 112,017,238 \$	171,237,517	\$	173,889,681 \$	154,740,848	\$ 10	3,594,716	\$ 88,390,525	\$ 122,604,700
Less: Acummulated Provision for Depreciation											
Steam Production	ADEPREPA		-	-		-	-		-	-	-
Hydraulic Production	RWIP	F017	-	-		-	-		-	-	-
Other Production		F017	-	-		-	-		-	-	-
Transmission - Kentucky System Property	ADEPRTP	PTRAN	-	-		-	-		-	-	-
Transmission - Virginia Property	ADEPRD1	PTRAN				-		_	-		-
Distribution	ADEPRD11	PDIST	38,699,179	59,158,317		60,074,574	53,459,127	3	5,789,406	30,536,735	42,356,885
General Plant	ADEPRD12	PT&D	947,416	1,448,287		1,470,719	1,308,762		876,180	747,587	1,036,962
Intangible Plant	ADEPRGP	PT&D	817,091	1,249,064		1,268,409	1,128,731		755,654	644,750	894,320
Total Accumulated Depreciation	TADEPR		\$ 40,463,686 \$	61,855,668	\$	62,813,702 \$	55,896,621	\$ 3	37,421,241	\$ 31,929,072	\$ 44,288,166
Net Utility Plant	NTPLANT		\$ 71,553,552 \$	109,381,849	\$	111,075,979 \$	98,844,227	\$ 6	66,173,475	\$ 56,461,453	\$ 78,316,533
Working Capital											
Cash Working Capital - Operation and Maintenance Expenses	CWC	OMLPP	836,918	1,235,970		367,121	326,693		215,040	1,485,823	237,305
Materials and Supplies	M&S	TPIS	1,883,533	2,879,303		2,923,898	2,601,917		1,741,911	1,486,258	2,061,558
Prepayments	PREPAY	TPIS	254,232	388,637		394,656	351,196		235,116	200,609	278,261
Total Working Capital	TWC		\$ 2,974,683 \$	4,503,910	\$	3,685,675 \$	3,279,806	\$	2,192,067	\$ 3,172,689	\$ 2,577,123
Emission Allowance	EMALL	PROFIX	-	-		-	-		-	-	-
Deferred Debits											
Service Pension Cost	PENSCOST	TLB	-	-		-	-		-	-	-
Accumulated Deferred Income Tax											
Total Production Plant	ADITPP	F017	-	-		-	-		-	-	-
Total Transmission Plant	ADITTP	F011	-	-		-	-		-	-	-
Total Distribution Plant	ADITDP	PDIST	14,687,791	22,452,801		22,800,555	20,289,745	1	3,583,423	11,589,837	16,076,027
Total General Plant	ADITGP	PT&D	434,344	663,969		674,252	600,003		401,686	342,732	475,396
Total Accumulated Deferred Income Tax	ADITT		15,122,134	23,116,770		23,474,808	20,889,748	1	3,985,108	11,932,569	16,551,424
Accumulated Deferred Investment Tax Credits											
Production	ADITCP	F017	_	_		_	_		_	_	_
Transmission	ADITCT	F011								_	_
Transmission VA	ADITCTVA		-	-		-	-		-	-	-
			-	-		-	-		-	-	-
Distribution VA	ADITCDVA		-	-		-	-		-	-	-
Distribution Plant KY,FERC & TN	ADITCDKY		-	-		-	-		-	-	-
General	ADITCG	PT&D	-	-		-	-		-	-	-
<b>Total Accum. Deferred Investment Tax Credits</b>	ADITCTL		-	-		-	-		-	-	-
Total Deferred Debits			\$ 15,122,134 \$	23,116,770	\$	23,474,808 \$	20,889,748	\$ 1	3,985,108	\$ 11,932,569	\$ 16,551,424
Less: Customer Advances	CSTDEP	F027	177,533	271,389		-	-		-	-	-
Less: Asset Retirement Obligations		F017	-	-		-	-		-	-	-
Net Rate Base	RB		\$ 59,228,567 \$	90,497,599	\$	91,286,846 \$	81,234,285	\$ 5	54,380,434	\$ 47,701,574	\$ 64,342,233

		Functional	Acco	Customer unts Expense	Ser	Customer vice & Info.		Sales Expense
Description	Name	Vector	Acco	unts Expense	SCI	vice de filito.	<u> </u>	Saks Expense
Rate Base								
Utility Plant								
Plant in Service			\$	-	\$	-	\$	-
Construction Work in Progress (CWIP)				-		-		-
Total Utility Plant	TUP		\$	-	\$	-	\$	-
Less: Acummulated Provision for Depreciation								
Steam Production	ADEPREPA			-		-		-
Hydraulic Production	RWIP	F017		-		-		-
Other Production		F017		-		-		-
Transmission - Kentucky System Property	ADEPRTP	PTRAN		-		-		-
Transmission - Virginia Property	ADEPRD1	PTRAN		-		-		-
Distribution	ADEPRD11	PDIST		-		-		-
General Plant	ADEPRD12	PT&D		-		-		-
Intangible Plant	ADEPRGP	PT&D		-		-		-
Total Accumulated Depreciation	TADEPR		\$	-	\$	-	\$	-
Net Utility Plant	NTPLANT		\$	-	\$	-	\$	-
Working Capital								
Cash Working Capital - Operation and Maintenance Expenses	CWC	OMLPP		6,169,535		773,569		-
Materials and Supplies	M&S	TPIS				-		-
Prepayments	PREPAY	TPIS		-		-		-
Total Working Capital	TWC		\$	6,169,535	\$	773,569	\$	-
Emission Allowance	EMALL	PROFIX		-		-		-
Deferred Debits								
Service Pension Cost	PENSCOST	TLB		-		-		-
Accumulated Deferred Income Tax								
Total Production Plant	ADITPP	F017		_		-		_
Total Transmission Plant	ADITTP	F011		_		_		_
Total Distribution Plant	ADITDP	PDIST		_		_		_
Total General Plant	ADITGP	PT&D		-		-		-
Total Accumulated Deferred Income Tax	ADITT			-		_		_
Accumulated Deferred Investment Tax Credits								
Production	ADITCP	F017		-		-		-
Transmission	ADITCT	F011		-		-		-
Transmission VA	ADITCTVA	F011		-		-		-
Distribution VA	ADITCDVA	PDIST		-		-		-
Distribution Plant KY, FERC & TN	ADITCDKY	PDIST		_		-		_
General	ADITCG	PT&D		-		-		-
Total Accum. Deferred Investment Tax Credits	ADITCTL			-		-		-
Total Deferred Debits			\$	_	\$	_	\$	_
Less: Customer Advances	CSTDEP	F027	9	_	Ψ		Ψ	
Less: Asset Retirement Obligations	CSTELL	F017		-		-		-
Net Rate Base	RB		s	6,169,535	\$	773,569	\$	
THE RAIL DASC	KD		φ	0,102,233	Φ	115,509	φ	-

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										l
										l
		Functional		Total	Produ	uction Demand		Pro	duction Energy	
Description	Name	Vector		System	Base	Inter.	Peak	Base	Inter.	Peak
•										
Operation and Maintenance Expenses										
Steam Power Generation Operation Expenses										
500 OPERATION SUPERVISION & ENGINEERING	OM500	LBSUB1	\$	9,442,701	2,799,391	2,638,923	2,710,193	1,294,194	-	-
501 FUEL	OM501	Energy		372,621,659	-	-	-	372,621,659	-	-
502 STEAM EXPENSES	OM502			15,516,429	2,836,708	2,674,102	2,746,321	7,259,297	-	-
505 ELECTRIC EXPENSES	OM505			7,214,388	2,023,579	1,907,583	1,959,101	1,324,124	-	-
506 MISC. STEAM POWER EXPENSES	OM506	PROFIX		14,444,590	4,962,388	4,677,933	4,804,269	-	-	_
507 RENTS	OM507	PROFIX		· · · · -	· · · · ·	· · · · ·	· · · · · ·	_	_	_
509 ALLOWANCES	OM509	PROFIX		_	_	_	_	_	_	_
Total Steam Power Operation Expenses			\$	419,239,766	\$ 12,622,067 \$	11,898,541 \$	12,219,884 \$	382,499,274 \$	- \$	-
Steam Power Generation Maintenance Expenses										
510 MAINTENANCE SUPERVISION & ENGINEERING	OM510	LBSUB2	\$	10,261,750	340,085	320,591	329,249	9,271,825		
			3		,		, .	9,2/1,823	-	-
511 MAINTENANCE OF STRUCTURES	OM511	PROFIX		5,959,887	2,047,498	1,930,131	1,982,258		-	-
512 MAINTENANCE OF BOILER PLANT	OM512	Energy		40,186,142	-	-	-	40,186,142	-	-
513 MAINTENANCE OF ELECTRIC PLANT	OM513	Energy		8,270,033	-	-	-	8,270,033	-	-
514 MAINTENANCE OF MISC STEAM PLANT	OM514	Energy		2,439,522	-	-	-	2,439,522	-	-
Table B. C. C. Mile F.			s	67 117 225	2 207 504 . 6	2 250 722 - 6	2 211 507 6	60.167.522	ė.	
Total Steam Power Generation Maintenance Expense			\$	67,117,335	\$ 2,387,584 \$	2,250,722 \$	2,311,507 \$	60,167,522 \$	- \$	-
Total Steam Power Generation Expense			\$	486,357,101	\$ 15,009,650 \$	14,149,263 \$	14,531,391 \$	442,666,797 \$	- \$	-
Hydraulic Power Generation Operation Expenses										
	01.5505	r parma								
535 OPERATION SUPERVISION & ENGINEERING	OM535	LBSUB3	\$	-	-	-	-	-	-	-
536 WATER FOR POWER	OM536	PROFIX		-	-	-	-	-	-	-
537 HYDRAULIC EXPENSES	OM537	PROFIX		-	-	-	-	-	-	-
538 ELECTRIC EXPENSES	OM538	PROFIX		-	-	-	-	-	-	-
539 MISC. HYDRAULIC POWER EXPENSES	OM539	PROFIX		8,523	2,928	2,760	2,835	-	-	-
540 RENTS		PROFIX		-	-	-	-	-	-	-
Total Hydraulic Power Operation Expenses			\$	8,523	\$ 2,928 \$	2,760 \$	2,835 \$	- \$	- \$	-
Hydraulic Power Generation Maintenance Expenses										
541 MAINTENANCE SUPERVISION & ENGINEERING	OM541	LBSUB4	\$	186,494	64,069	60,397	62,028	_	_	_
542 MAINTENANCE OF STRUCTURES	OM542	PROFIX	-	116,901	40,161	37,859	38,881	_	_	_
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	OM543	PROFIX		22,497	7,729	7,286	7,482			
544 MAINTENANCE OF ELECTRIC PLANT	OM544	Energy		33,030	1,129	7,280	7,402	33,030	-	-
545 MAINTENANCE OF BLECTRIC FLANT	OM545			9,592	-	-	-	9,592	-	-
343 MAINTENANCE OF MISC HTDRAOLIC FLANT	OND43	Energy		9,392	-	-	-	9,392	-	-
Total Hydraulic Power Generation Maint. Expense			\$	368,513	\$ 111,959 \$	105,541 \$	108,392 \$	42,622 \$	- \$	-
Total Hydraulic Power Generation Expense			\$	377,036	\$ 114,887 \$	108,301 \$	111,226 \$	42,622 \$	- \$	-
Other Power Generation Operation Expense										
546 OPERATION SUPERVISION & ENGINEERING	OM546	LBSUB5	\$	1,071,395	368,074	346,975	356,346	-	-	-
547 FUEL	OM547	Energy		130,769,641	-	-	-	130,769,641	-	-
548 GENERATION EXPENSE	OM548	PROFIX		611,306	210,012	197,974	203,320	-	-	-
549 MISC OTHER POWER GENERATION	OM549	PROFIX		3,639,052	1,250,183	1,178,520	1,210,348	-	-	-
550 RENTS	OM550	PROFIX		4,421	1,519	1,432	1,470	-	-	-
				*	*	•	*			
Total Other Power Generation Expenses			\$	136,095,816	\$ 1,829,789 \$	1,724,901 \$	1,771,485 \$	130,769,641 \$	- \$	-

Participation				_					_				
Description   Part   Description   Descrip													
Description   Part   Description   Descrip					Transmission			Distributio	n				
			Functional			Distribut	ion Poles			Diete	ibution Pri	mary I ina	
	Diti	N		L		Distribut							
Steam Power Generation Departion Express	Description	Name	vector		Demand		Specific	Gener	aı	Specific	De	emanu	Customer
SOO PERATION SUPERVISION & ENGINEERING   OM500   EBUSUB	Operation and Maintenance Expenses												
SOO PERATION SUPERVISION & ENGINEERING   OM500   EBUSUB	Sterry Brown Committing On which Francisco												
SOUTHER		014500	I DOLIDI										
500 STRAM EXPENSES					-		-	-		-		-	-
Manual Registration   Materials   Manual Registration   Materials   Material			Energy		-		-	-		-		-	-
Sol MISC. STRAM POWER EXPENSES					-		-	-		-		-	-
SOF RENTS					-		-	-		-		-	-
Total Siciam Power Operation Expenses					-		-	-		-		-	-
Total Steam Power Generation Maintenance Expenses	507 RENTS	OM507	PROFIX		-		-	-		-		-	-
Steam Power Generation Maintenance Expenses	509 ALLOWANCES	OM509	PROFIX		-		-	-		-		-	-
SID MAINTENANCE OF BRUILERING	Total Steam Power Operation Expenses			\$	-	\$	- \$	-	\$	-	\$	- \$	-
SID MAINTENANCE OF BRUILERING	St. D. C. C. Mith. E												
SI MANTENANCE OF STRUCTURES		0) (5) (6)	I DOLIDA										
S12 MANTENANCE OF BOLLER PLANT					-		-	-		-		-	-
SIMAINTENANCE OF ELECTRIC PLANT					-		-	-		-		-	-
Total Steam Power Generation Maintenance Expense					-		-	-		-		-	-
Total Steam Power Generation Maintenance Expense					-		-	-		-		-	-
Total Steam Power Generation Expenses	514 MAINTENANCE OF MISC STEAM PLANT	OM514	Energy		-		-	-		-		-	-
STATE   Control   Contro	Total Steam Power Generation Maintenance Expense			\$	-	\$	- \$	-	\$	-	\$	- \$	-
STATE   SUPERATION SUPERVISION & ENGINEERING   OM535   PROFIX	Total Steam Power Generation Expense			\$	-	\$	- \$	-	\$	-	\$	- \$	-
STATE   SUPERATION SUPERVISION & ENGINEERING   OM535   PROFIX													
S36 WATER FOR POWER													
S73 HYDRAULIC EXPENSES					-		-	-		-		-	-
SAME ELECTRIC EXPENSES					-		-	-		-		-	-
S39 MISC. HYDRAULIC POWER EXPENSES   OM539   PROFIX   P					-		-	-		-		-	-
S40 RENTS					-		-	-		-		-	-
Total Hydraulic Power Operation Expenses	539 MISC. HYDRAULIC POWER EXPENSES	OM539	PROFIX		-		-	-		-		-	-
Hydraulic Power Generation Maintenance Expenses	540 RENTS		PROFIX		-		-	-		-		-	-
Hydraulic Power Generation Maintenance Expenses	Total Hydraulic Power Operation Expenses			\$	_	\$	- \$	=	\$	_	\$	- \$	_
541 MAINTENANCE SUPERVISION & ENGINEERING       OM541 LBSUB4	Total Hydraulie Tower Operation Expenses			Ψ		9	- 4		y.			- 4	
542 MAINTENANCE OF STRUCTURES       OM542       PROFIX       -	Hydraulic Power Generation Maintenance Expenses												
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS       OM543       PROFIX       -	541 MAINTENANCE SUPERVISION & ENGINEERING	OM541	LBSUB4		-		-	_		-		-	-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS       OM543       PROFIX       -	542 MAINTENANCE OF STRUCTURES	OM542	PROFIX		-		-	_		-		-	-
544 MAINTENANCE OF ELECTRIC PLANT         OM544         Energy         -		OM543	PROFIX		_		_	_		_		_	_
545 MAINTENANCE OF MISC HYDRAULIC PLANT OM545 Energy  Total Hydraulic Power Generation Maint. Expense  \$ \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -					_		_	_		_		_	_
Total Hydraulic Power Generation Maint. Expense \$ \$ - \$ - \$					-		-	_		-		-	_
Total Hydraulic Power Generation Expense \$ \$ - \$ - \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ -			27										
Other Power Generation Operation Expense           546 OPERATION SUPER VISION & ENGINEERING         OM546         LBSUB5         - <td>Total Hydraulic Power Generation Maint. Expense</td> <td></td> <td></td> <td>\$</td> <td>-</td> <td>\$</td> <td>- \$</td> <td>-</td> <td>\$</td> <td>-</td> <td>\$</td> <td>- \$</td> <td>-</td>	Total Hydraulic Power Generation Maint. Expense			\$	-	\$	- \$	-	\$	-	\$	- \$	-
546 OPERATION SUPERVISION & ENGINEERING       OM546       LBSUB5       -	Total Hydraulic Power Generation Expense			\$	-	\$	- \$	-	\$	-	\$	- \$	-
546 OPERATION SUPERVISION & ENGINEERING       OM546       LBSUB5       -	Other Power Generation Operation Expense												
547 FUEL         OM547         Energy         -		OM546	LBSUB5		-		-	-		-		-	-
548 GENERATION EXPENSE         OM548         PROFIX         - <t< td=""><td>547 FUEL</td><td>OM547</td><td>Energy</td><td></td><td>-</td><td></td><td>-</td><td>-</td><td></td><td>-</td><td></td><td>-</td><td>-</td></t<>	547 FUEL	OM547	Energy		-		-	-		-		-	-
549 MISC OTHER POWER GENERATION         OM549         PROFIX         -					_		-	_		-		-	_
550 RENTS OM550 PROFIX					_		_	_		_		_	_
					-		_	_		-		_	-
Total Other Power Generation Expenses \$ - \$ - \$ - \$ - \$ - \$ -													
	Total Other Power Generation Expenses			\$	-	\$	- \$	-	\$	-	\$	- \$	-

			_				_			_			
									_		Distribution	Distribution	
Description	Name	Functional Vector		Distribution Demand		Lines Customer		Distribution Lin	Custome		Services Customer	Meters	Cust. Lighting
-	Name	vector		Demand	u	Customer		Demand	Custome		Customer		
Operation and Maintenance Expenses													
Steam Power Generation Operation Expenses													
500 OPERATION SUPERVISION & ENGINEERING	OM500	LBSUB1		-		-		-	-		-	-	-
501 FUEL	OM501	Energy		-		-		-	-		-	-	-
502 STEAM EXPENSES	OM502			-		-		-	-		-	-	-
505 ELECTRIC EXPENSES	OM505	PROFIN		-		-		-	-		-	-	-
506 MISC. STEAM POWER EXPENSES 507 RENTS	OM506 OM507	PROFIX PROFIX		-		-		-	-		-	-	-
509 ALLOWANCES	OM509	PROFIX		_		-			-		-	-	-
30) ALEO WARCES	ONISO	TROTEX											
Total Steam Power Operation Expenses			\$	-	\$	-	\$	- \$	-	\$	-	-	\$ -
Steam Power Generation Maintenance Expenses													
510 MAINTENANCE SUPERVISION & ENGINEERING	OM510	LBSUB2		-		-		-	-		-	-	-
511 MAINTENANCE OF STRUCTURES	OM511	PROFIX		-		-		-	-		-	-	-
512 MAINTENANCE OF BOILER PLANT	OM512	Energy		-		-		-	-		-	-	-
513 MAINTENANCE OF ELECTRIC PLANT	OM513	Energy		-		-		-	-		-	-	-
514 MAINTENANCE OF MISC STEAM PLANT	OM514	Energy		-		-		-	-		-	-	-
Total Steam Power Generation Maintenance Expense			\$	-	\$	-	\$	- \$	-	\$	-	-	\$ -
Total Steam Power Generation Expense			\$	-	\$	-	\$	- \$	-	\$	-	\$ -	\$ -
Hydraulic Power Generation Operation Expenses													
535 OPERATION SUPERVISION & ENGINEERING	OM535	LBSUB3		_		_		_	_		_	_	_
536 WATER FOR POWER	OM536	PROFIX		_		_		_	_		_	_	_
537 HYDRAULIC EXPENSES	OM537	PROFIX		_		_		_	_		_	_	_
538 ELECTRIC EXPENSES	OM538	PROFIX		_		_		_	-		_	_	-
539 MISC. HYDRAULIC POWER EXPENSES	OM539	PROFIX		-		-		-	-		-	-	-
540 RENTS		PROFIX		-		-		-	-		-	-	-
Total Hydraulic Power Operation Expenses			\$	_	\$	-	\$	- S	-	\$	- 1	\$ -	s -
Hydraulic Power Generation Maintenance Expenses													
541 MAINTENANCE SUPERVISION & ENGINEERING	OM541	LBSUB4		-		-		-	-		-	-	-
542 MAINTENANCE OF STRUCTURES	OM542 OM543	PROFIX PROFIX		-		-		-	-		-	-	-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS 544 MAINTENANCE OF ELECTRIC PLANT	OM543 OM544	Energy		-		-		-	-		-	-	-
545 MAINTENANCE OF ELECTRIC PLANT 545 MAINTENANCE OF MISC HYDRAULIC PLANT	OM545	Energy		-		-		-	-		-	-	-
	0.1.0 10	r.nergy	e.		ė							•	
Total Hydraulic Power Generation Maint. Expense			\$	-	\$	-	\$	- \$	-	\$	- 1	-	\$ -
Total Hydraulic Power Generation Expense			\$	-	\$	-	\$	- \$	-	\$	-	-	s -
Other Power Generation Operation Expense													
546 OPERATION SUPERVISION & ENGINEERING	OM546	LBSUB5		-		-		-	-		-	-	-
547 FUEL	OM547	Energy		-		-		-	-		-	-	-
548 GENERATION EXPENSE	OM548	PROFIX		-		-		-	-		-	-	-
549 MISC OTHER POWER GENERATION	OM549	PROFIX		-		-		-	-		-	-	-
550 RENTS	OM550	PROFIX		-		-		-	-		-	-	-
Total Other Power Generation Expenses			\$	-	\$	-	\$	- \$	-	\$	-	-	\$ -

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				Customer	Conton		
					Custome		6.1. E
		Functional	Accoun	ts Expense	Service & Info	╛┕	Sales Expense
Description	Name	Vector					
Operation and Maintenance Expenses							
Steam Power Generation Operation Expenses							
500 OPERATION SUPERVISION & ENGINEERING	OM500	LBSUB1		_	_		_
501 FUEL	OM501	Energy		_	_		_
502 STEAM EXPENSES	OM502	8)		_	_		_
505 ELECTRIC EXPENSES	OM505			_	_		_
506 MISC. STEAM POWER EXPENSES	OM506	PROFIX					
507 RENTS	OM507	PROFIX					
509 ALLOWANCES	OM509	PROFIX			_		-
307 ALES WARCES	ONE	TROTTA					
Total Steam Power Operation Expenses			\$	-	\$ -	\$	-
Steam Power Generation Maintenance Expenses							
510 MAINTENANCE SUPERVISION & ENGINEERING	OM510	LBSUB2		-	-		-
511 MAINTENANCE OF STRUCTURES	OM511	PROFIX		-	-		_
512 MAINTENANCE OF BOILER PLANT	OM512	Energy		_	_		_
513 MAINTENANCE OF ELECTRIC PLANT	OM513	Energy		_	_		_
514 MAINTENANCE OF MISC STEAM PLANT	OM514	Energy		_	_		_
		87					
Total Steam Power Generation Maintenance Expense			\$	-	\$ -	\$	-
Total Steam Power Generation Expense			\$	-	\$ -	\$	-
Hydraulic Power Generation Operation Expenses							
535 OPERATION SUPERVISION & ENGINEERING	OM535	LBSUB3		_	_		_
536 WATER FOR POWER	OM536	PROFIX		_	_		_
537 HYDRAULIC EXPENSES	OM537	PROFIX		_	_		_
538 ELECTRIC EXPENSES	OM538	PROFIX		_	_		_
539 MISC. HYDRAULIC POWER EXPENSES	OM539	PROFIX		_	_		_
540 RENTS	ONDS	PROFIX		_	_		_
Total Hydraulic Power Operation Expenses			\$	-	\$ -	\$	-
Hydraulic Power Generation Maintenance Expenses							
541 MAINTENANCE SUPERVISION & ENGINEERING	OM541	LBSUB4		-	-		-
542 MAINTENANCE OF STRUCTURES	OM542	PROFIX		-	-		-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	OM543	PROFIX		-	-		_
544 MAINTENANCE OF ELECTRIC PLANT	OM544	Energy		_	_		_
545 MAINTENANCE OF MISC HYDRAULIC PLANT	OM545	Energy		-	-		-
Total Hydraulic Power Generation Maint. Expense			s	-	\$ -	\$	-
Total Hydraulic Power Generation Expense			s	_	\$ -	\$	-
,							
Other Power Generation Operation Expense	034546	I DOLIDS					
546 OPERATION SUPERVISION & ENGINEERING	OM546	LBSUB5		-	-		-
547 FUEL	OM547	Energy		-	-		-
548 GENERATION EXPENSE	OM548	PROFIX		-	-		-
549 MISC OTHER POWER GENERATION	OM549	PROFIX		-	-		-
550 RENTS	OM550	PROFIX		-	-		-
Total Other Power Generation Expenses			\$	-	\$ -	\$	_

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					1									
		Eunoti		T-4 1			Duod4'	n Dorr'			D 1	uation F		
Description	No	Functional Vector		Total	Ц	Base	rroductio	n Demand	Peak	<u> </u>		uction Energ	,,,	n. 1
Description	Name	Vector		System		ваѕе		Inter.	Peak	Bas	e	Inte	г.	Peak
Other Power Generation Maintenance Expense														
551 MAINTENANCE SUPERVISION & ENGINEERING	OM551	PROFIX	\$	257,199		88,360		83,295	85,544	-		_		_
552 MAINTENANCE OF STRUCTURES	OM552	PROFIX		1,680,721		577,406		544,308	559,008	-		_		_
553 MAINTENANCE OF GENERATING & ELEC PLANT	OM553	PROFIX		4,895,395		1,681,796		1,585,391	1,628,208	-		_		-
554 MAINTENANCE OF MISC OTHER POWER GEN PLT	OM554	PROFIX		5,139,215		1,765,559		1,664,353	1,709,302	-		-		-
Total Other Power Generation Maintenance Expense			\$	11,972,530	\$	4,113,121	\$	3,877,347	\$ 3,982,062	\$ -	\$	-	\$	-
Total Other Power Generation Expense			\$	148,068,346	\$	5,942,909	\$	5,602,248	\$ 5,753,548	\$ 130,769,64	1 \$	_	\$	_
Total Station Expense			\$	634,802,484	\$	21,067,446	\$ 1	19,859,813	\$ 20,396,165	\$ 573,479,060	) \$	_	\$	-
0.1 P														
Other Power Supply Expenses	01/555	OMB	e e	50 610 205		2 507 211		2 (26 570	2.150.022	42.207.20				
555 PURCHASED POWER	OM555	OMPP	\$	50,619,307		2,507,314		2,626,570	2,159,032	43,326,39		-		-
555 PURCHASED POWER OPTIONS	OMO555	OMPP				-		-	-	-		-		-
555 BROKERAGE FEES	OMB555	OMPP				-		-	-	-		-		-
555 MISO TRANSMISSION EXPENSES	OMM555	OMPP		1.064.717						-		-		-
556 SYSTEM CONTROL AND LOAD DISPATCH 557 OTHER EXPENSES	OM556 OM557	PROFIX PROFIX		1,864,717 10,369		640,617 3,562		603,895 3,358	620,205 3,449	-		-		-
557 OTHER EATENDES	OWI))/	TROFIA		10,509		5,302		2,220	3,449	-		-		-
Total Other Power Supply Expenses	TPP		\$	52,494,393	\$	3,151,493	\$	3,233,823	\$ 2,782,685	\$ 43,326,39	1 \$	-	\$	-
Total Electric Power Generation Expenses			\$	687,296,876	\$	24,218,939	\$ 2	23,093,636	\$ 23,178,850	\$ 616,805,45	\$	-	\$	-
Transmission Expenses														
560 OPERATION SUPERVISION AND ENG	OM560	LBTRAN	\$	1,804,305		-		-	_	_		_		-
561 LOAD DISPATCHING	OM561	LBTRAN		3,644,052		-		-	_	-		_		-
562 STATION EXPENSES	OM562	LBTRAN		1,303,298		-		-	_	-		-		-
563 OVERHEAD LINE EXPENSES	OM563	LBTRAN		1,058,993		-		-	_	-		-		-
565 TRANSMISSION OF ELECTRICITY BY OTHERS	OM565	LBTRAN		2,940,449		-		-	_	-		-		-
566 MISC. TRANSMISSION EXPENSES	OM566	PTRAN		11,948,572		-		-	_	-		-		-
567 RENTS	OM567	PTRAN		112,005		-		-	-	-		-		-
568 MAINTENACE SUPERVISION AND ENG	OM568	LBTRAN		-		-		-	_	-		-		-
569 STRUCTURES	OM569	LBTRAN		-		-		-	_	-		-		-
570 MAINT OF STATION EQUIPMENT	OM570	LBTRAN		1,986,407		-		-	_	-		-		-
571 MAINT OF OVERHEAD LINES	OM571	LBTRAN		10,570,832		-		-	_	-		-		-
572 UNDERGROUND LINES	OM572	LBTRAN		-		-		-	-	-		-		-
573 MISC PLANT	OM573	PTRAN		337,099		-		-	-	-		-		-
575 MISO DAY 1&2 EXPENSE	OM575	PTRAN		=		-		-	-	-		-		-
Total Transmission Expenses			\$	35,706,011	\$	-	\$	- :	\$ -	\$ -	\$	-	\$	-
Distribution Operation Expense														
580 OPERATION SUPERVISION AND ENGI	OM580	LBDO	\$	1,510,424		_		_	_	_		_		_
581 LOAD DISPATCHING	OM581	P362	Ψ	341,053		_		_	_	_		_		_
582 STATION EXPENSES	OM582	P362		1,798,545		_		-	_	_		_		_
583 OVERHEAD LINE EXPENSES	OM583	P365		4,706,317		_		_	_	_		_		_
584 UNDERGROUND LINE EXPENSES	OM584	P367		-		-		-	_	-		_		-
585 STREET LIGHTING EXPENSE	OM585	P373		-		-		-	-	-		_		_
586 METER EXPENSES	OM586	P370		8,749,183		-		-	-	-		-		-
586 METER EXPENSES - LOAD MANAGEMENT	OM586x	F012		-		-		-	-	-		_		_
587 CUSTOMER INSTALLATIONS EXPENSE	OM587	P371		(142,800)		-		_	_	-		_		_
588 MISCELLANEOUS DISTRIBUTION EXP	OM588	PDIST		6,743,173		-		-	-	-		_		_
588 MISC DISTR EXP MAPPIN	OM588x	PDIST		-		-		-	-	-		_		_
589 RENTS	OM589	PDIST		-		-		-	-	-		-		-
Total Distribution Operation Expense	OMDO		\$	23,705,895	\$	-	\$	- :	s -	\$ -	\$	-	\$	-
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							1						
				Transmission	D: 4 7	B.I		Distribution		D			
Description	Name	Functional Vector		Demand Demand	Distri	oution Poles Specific		Substation General		Specific		on Primary Lin Demand	Customer
Description	rvaine	vector		Demanu		эресик		General		эресик		Demanu	Customer
Other Power Generation Maintenance Expense													
551 MAINTENANCE SUPERVISION & ENGINEERING	OM551	PROFIX		-		-		-		-		-	-
552 MAINTENANCE OF STRUCTURES	OM552	PROFIX		-		-		-		-		-	-
553 MAINTENANCE OF GENERATING & ELEC PLANT 554 MAINTENANCE OF MISC OTHER POWER GEN PLT	OM553	PROFIX		-		-		-		-		-	-
534 MAINTENANCE OF MISC OTHER POWER GEN PLT	OM554	PROFIX		-		-		-		-		-	-
Total Other Power Generation Maintenance Expense			\$	-	\$	-	\$	-	\$	-	\$	- 5	-
Total Other Power Generation Expense			\$	-	\$	-	\$	-	\$	-	\$	- 5	-
Total Station Expense			\$	-	\$	-	\$	-	\$	-	\$	- \$	-
Other Power Supply Expenses													
555 PURCHASED POWER	OM555	OMPP		-		-		-		-		-	-
555 PURCHASED POWER OPTIONS	OMO555	OMPP		-		-		-		-		-	-
555 BROKERAGE FEES	OMB555	OMPP		-		-		-		-		-	-
555 MISO TRANSMISSION EXPENSES	OMM555	OMPP		-		-		-		-		-	-
556 SYSTEM CONTROL AND LOAD DISPATCH 557 OTHER EXPENSES	OM556 OM557	PROFIX PROFIX		-		-		-		-		-	-
Total Other Power Supply Expenses	TPP		\$	_	\$	_	\$	_	s	_	s	- 5	s -
Total Electric Power Generation Expenses			\$	_	s	_	\$	_	s	_	\$	- 5	
Total Electric Tower deficiation Expenses			•				Ψ.					•	,
Transmission Expenses													
560 OPERATION SUPERVISION AND ENG	OM560	LBTRAN		1,804,305		-		-		-		-	-
561 LOAD DISPATCHING	OM561	LBTRAN		3,644,052		-		-		-		-	-
562 STATION EXPENSES	OM562	LBTRAN		1,303,298		-		-		-		-	-
563 OVERHEAD LINE EXPENSES	OM563	LBTRAN		1,058,993		-		-		-		-	-
565 TRANSMISSION OF ELECTRICITY BY OTHERS	OM565	LBTRAN		2,940,449		-		-		-		-	-
566 MISC. TRANSMISSION EXPENSES	OM566	PTRAN		11,948,572		-		-		-		-	-
567 RENTS	OM567	PTRAN		112,005		-		-		-		-	-
568 MAINTENACE SUPERVISION AND ENG	OM568	LBTRAN		-		-		-		-		-	-
569 STRUCTURES	OM569	LBTRAN		-		-		-		-		-	-
570 MAINT OF STATION EQUIPMENT	OM570	LBTRAN		1,986,407		-		-		-		-	-
571 MAINT OF OVERHEAD LINES	OM571	LBTRAN		10,570,832		-		-		-		-	-
572 UNDERGROUND LINES	OM572 OM573	LBTRAN PTRAN		337,099		-		-		-		-	-
573 MISC PLANT 575 MISO DAY 1&2 EXPENSE	OM575	PTRAN		337,099		-		-		-		-	-
Total Transmission Expenses			\$	35,706,011	\$	-	\$	-	s	-	\$	- 8	-
Distribution Operation Expense													
580 OPERATION SUPERVISION AND ENGI	OM580	LBDO		_		_		196,412		_		123,632	200,942
581 LOAD DISPATCHING	OM581	P362		_		_		341,053		_		123,032	200,742
582 STATION EXPENSES	OM582	P362		_		_		1,798,545		_		_	_
583 OVERHEAD LINE EXPENSES	OM583	P365		_		_				_		1,252,454	1,816,535
584 UNDERGROUND LINE EXPENSES	OM584	P367		_		_		_		_		-	-
585 STREET LIGHTING EXPENSE	OM585	P373		_		_		_		_		_	_
586 METER EXPENSES	OM586	P370		_		_		_		_		_	_
586 METER EXPENSES - LOAD MANAGEMENT	OM586x	F012		_		_		_		_		_	_
587 CUSTOMER INSTALLATIONS EXPENSE	OM587	P371		_		_		_		_		_	_
588 MISCELLANEOUS DISTRIBUTION EXP	OM588	PDIST		_		_		816,418		_		889,644	1,649,765
588 MISC DISTR EXP MAPPIN	OM588x	PDIST		_		_				_		-	-,0.,,,,,,,
589 RENTS	OM589	PDIST		-		-		-		-		-	-
Total Distribution Operation Expense	OMDO		\$	-	\$	-	\$	3,152,429	s	-	\$	2,265,731	3,667,242

Punctional   Pun
Name
Description   Name   Vector   Demand   Customer   Demand   Customer   Customer
Other Power Generation Maintenance Expense         S51 MAINTENANCE SUPERVISION & ENGINEERING         OM551 PROFIX         -
S51 MAINTENANCE SUPERVISION & ENGINEERING   OM551   PROFIX   S25 MAINTENANCE OF STRUCTURES   OM552   PROFIX   S25 MAINTENANCE OF GENERATING & ELEC PLANT   OM553   PROFIX   S25 MAINTENANCE OF GENERATING & ELEC PLANT   OM553   PROFIX   S25 MAINTENANCE OF MISC OTHER POWER GEN PLT   OM554   PROFIX   S25 MAINTENANCE OF MISC OTHER POWER GEN PLT   OM554   PROFIX   S25 MAINTENANCE OF MISC OTHER POWER GEN PLT   OM554   PROFIX   S25 MAINTENANCE OF MISC OTHER POWER GEN PLT   OM554   PROFIX   S25 MAINTENANCE OF MISC OTHER POWER GENERATION Maintenance Expense   S25 MAINTENANCE OF MISC OTHER POWER GENERATION MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM555 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM555 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM555 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM556 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OF MISC OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OTHER POWER SUPPLY EXPENSES   OM557 MPP   S25 MAINTENANCE OTHER POWER SUPPLY EXPENSES   S25 MAINTENANCE OTHER POWER SUPPLY EXPENSES
552 MAINTENANCE OF STRUCTURES       OM552 PROFIX
553 MAINTENANCE OF GENERATING & ELEC PLANT 554 MAINTENANCE OF MISC OTHER POWER GEN PLT OM554 PROFIX
Total Other Power Generation Maintenance Expense
Total Other Power Generation Maintenance Expense
Total Other Power Generation Expense \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Total Station Expense
Other Power Supply Expenses           555 PURCHASED POWER         OM555         OMPP         - </td
555 PURCHASED POWER         OM555         OMPP         - </td
555 PURCHASED POWER OPTIONS         OMO555         OMPP         -
555 BROKERAGE FEES       OMB555       OMPP       -
555 MISO TRANSMISSION EXPENSES         OMM555         OMPP         -
556 SYSTEM CONTROL AND LOAD DISPATCH         OM556         PROFIX         - </td
557 OTHER EXPENSES OM557 PROFIX
Total Other Power Supply Expenses TPP \$ - \$ - \$ - \$ - \$ - \$ -
Total Electric Power Generation Expenses         \$ - \$ - \$ - \$ - \$ - \$ - \$
Transmission Expenses
560 OPERATION SUPERVISION AND ENG OM560 LBTRAN
561 LOAD DISPATCHING OM561 LBTRAN
562 STATION EXPENSES OM562 LBTRAN
563 OVERHEAD LINE EXPENSES OM563 LBTRAN
565 TRANSMISSION OF ELECTRICITY BY OTHERS OM565 LBTRAN
566 MISC. TRANSMISSION EXPENSES OM566 PTRAN
567 RENTS OM567 PTRAN
568 MAINTENACE SUPERVISION AND ENG OM568 LBTRAN
569 STRUCTURES OM569 LBTRAN
570 MAINT OF STATION EQUIPMENT OM570 LBTRAN
571 MAINT OF OVERHEAD LINES OM571 LBTRAN
572 UNDERGROUND LINES OM572 LBTRAN
573 MISC PLANT     OM573     PTRAN     - <t< td=""></t<>
Total Transmission Expenses
•
Distribution Operation Expense         580 OPERATION SUPERVISION AND ENGI         OM580         LBDO         62,043         91,915         38,256         34,044         22,791         713,416         26,9
581 LOAD DISPATCHING     OM581     P362     -
583 OVERHEAD LINE EXPENSES OM 583 P365 668,193 969,134
584 UNDERGROUND LINE EXPENSES OM 584 P 367
588 STREET LIGHTING EXPENSE
586 METER EXPENSES OM586 P370 8,749,183 -
586 METER EXPENSES - LOAD MANAGEMENT OM 586x F012
587 CUSTOMER INSTALLATIONS EXPENSE
588 MISCELLANEOUS DISTRIBUTION EXP OM588 PDIST 409,553 626,072 635,769 565,758 378,759 323,170 448,2
588 MISC DISTR EXP MAPPIN
589 RENTS OM589 PDIST
Total Distribution Operation Expense OMDO \$ 1,139,789 \$ 1,687,121 \$ 674,026 \$ 599,802 \$ 401,551 \$ 9,785,769 \$ 332,41

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				Customer		ustomer		
D	N	Functional	Accoun	ts Expense	Service	& Info.		Sales Expense
Description	Name	Vector						
Other Power Generation Maintenance Expense								
551 MAINTENANCE SUPERVISION & ENGINEERING	OM551	PROFIX		-		-		-
552 MAINTENANCE OF STRUCTURES	OM552	PROFIX		-		-		-
553 MAINTENANCE OF GENERATING & ELEC PLANT	OM553	PROFIX		-		-		-
554 MAINTENANCE OF MISC OTHER POWER GEN PLT	OM554	PROFIX		-		-		-
Total Other Power Generation Maintenance Expense			\$	-	\$	-	\$	-
Total Other Power Generation Expense			\$	-	\$	-	\$	-
Total Station Expense			\$	-	\$	-	\$	-
Other Power Supply Expenses								
555 PURCHASED POWER	OM555	OMPP		_		-		-
555 PURCHASED POWER OPTIONS	OMO555	OMPP		-		-		-
555 BROKERAGE FEES	OMB555	OMPP		-		-		-
555 MISO TRANSMISSION EXPENSES	OMM555	OMPP		-		-		-
556 SYSTEM CONTROL AND LOAD DISPATCH	OM556	PROFIX		-		-		-
557 OTHER EXPENSES	OM557	PROFIX		-		-		-
Total Other Power Supply Expenses	TPP		\$	-	\$	-	\$	-
Total Electric Power Generation Expenses			\$	-	\$	-	\$	-
Transmission Expenses								
560 OPERATION SUPERVISION AND ENG	OM560	LBTRAN		_		_		_
561 LOAD DISPATCHING	OM561	LBTRAN		-		-		_
562 STATION EXPENSES	OM562	LBTRAN		-		-		_
563 OVERHEAD LINE EXPENSES	OM563	LBTRAN		-		-		-
565 TRANSMISSION OF ELECTRICITY BY OTHERS	OM565	LBTRAN		-		-		-
566 MISC. TRANSMISSION EXPENSES	OM566	PTRAN		-		-		-
567 RENTS	OM567	PTRAN		-		-		-
568 MAINTENACE SUPERVISION AND ENG	OM568	LBTRAN		-		-		-
569 STRUCTURES	OM569	LBTRAN		-		-		-
570 MAINT OF STATION EQUIPMENT	OM570	LBTRAN		-		-		-
571 MAINT OF OVERHEAD LINES 572 UNDERGROUND LINES	OM571	LBTRAN LBTRAN		-		-		-
573 MISC PLANT	OM572 OM573	PTRAN		-		-		-
575 MISO DAY 1&2 EXPENSE	OM575	PTRAN		-		-		-
Total Transmission Expenses			\$	_	\$	_	\$	_
Distribution Operation Expense	014500	LDDO						
580 OPERATION SUPERVISION AND ENGI 581 LOAD DISPATCHING	OM580 OM581	LBDO P362		-		-		-
582 STATION EXPENSES	OM582	P362 P362		-		-		-
583 OVERHEAD LINE EXPENSES	OM583	P365		-		-		-
584 UNDERGROUND LINE EXPENSES	OM584	P367		-		-		
585 STREET LIGHTING EXPENSE	OM585	P373		_		_		_
586 METER EXPENSES	OM586	P370		-		_		_
586 METER EXPENSES - LOAD MANAGEMENT	OM586x	F012		-		-		_
587 CUSTOMER INSTALLATIONS EXPENSE	OM587	P371		-		-		_
588 MISCELLANEOUS DISTRIBUTION EXP	OM588	PDIST		-		-		-
588 MISC DISTR EXP MAPPIN	OM588x	PDIST		-		-		-
589 RENTS	OM589	PDIST		-		-		-
Total Distribution Operation Expense	OMDO		\$	-	\$	-	\$	-

					_							
		Functional		Total			Produ	uction Demand		Produ	ction Energy	
Description	Name	Vector		System		Base		Inter.	Peak	Base	Inter.	Peak
2000 pain	rame	70001		Бужеш		Dasc		meer.	1 Cak	Dasc	mer.	ı car
Operation and Maintenance Expenses (Continued)												
Distribution Maintenance Expense												
590 MAINTENANCE SUPERVISION AND EN	OM590	LBDM	\$	57,449		-		-	-	-	-	-
591 STRUCTURES	OM591	P362		-		-		-	-	-	-	_
592 MAINTENANCE OF STATION EQUIPME	OM592	P362		1,286,692		-		-	-	-	-	_
593 MAINTENANCE OF OVERHEAD LINES	OM593	P365		30,239,215		-		-	_	-	-	_
594 MAINTENANCE OF UNDERGROUND LIN	OM594	P367		790,500		-		-	_	-	-	_
595 MAINTENANCE OF LINE TRANSFORME	OM595	P368		96,331		-		-	_	-	_	_
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	OM596	P373		· -		_		_	_	_	-	_
597 MAINTENANCE OF METERS	OM597	P370		1,371,953		-		-	_	-	-	_
598 MISCELLANEOUS DISTRIBUTION EXPENSES	OM598	PDIST		550,314		-		-	-	-	-	-
Total Distribution Maintenance Expense	OMDM		\$	34,392,454	\$	-	\$	- \$	- \$	- \$	- \$	-
Total Distribution Operation and Maintenance Expenses				58,098,349		-		-	-	-	-	-
Transmission and Distribution Expenses				93,804,360		-		-	-	-	-	-
Production, Transmission and Distribution Expenses	OMSUB		\$	781,101,237	\$	24,218,939	\$	23,093,636 \$	23,178,850 \$	616,805,451 \$	- \$	-
Customer Accounts Expense												
901 SUPERVISION/CUSTOMER ACCTS	OM901	F025	\$	3,631,554		_		-	_	_	-	_
902 METER READING EXPENSES	OM902	F025	-	5,301,482		_		_	_	_	_	_
903 RECORDS AND COLLECTION	OM903	F025		20,167,471		_		-	_	_	-	_
904 UNCOLLECTIBLE ACCOUNTS	OM904	F025		5,566,157		_		_	_	_	_	_
905 MISC CUST ACCOUNTS	OM903	F025		-		-		-	-	-	-	-
Total Customer Accounts Expense	OMCA		\$	34,666,664	\$	-	\$	- \$	- \$	- \$	- \$	-
Customer Service Expense												
907 SUPERVISION	OM907	F026	\$	651,425		_		-	_	_	-	_
908 CUSTOMER ASSISTANCE EXPENSES	OM908	F026	-	450,051		_		_	_	_	_	_
908 CUSTOMER ASSISTANCE EXP-INCENTIVES	OM908x	F026		-		_		-	_	_	-	_
909 INFORMATIONAL AND INSTRUCTIONA	OM909	F026		389,845		_		-	_	_	-	_
909 INFORM AND INSTRUC -LOAD MGMT	OM909x	F026		-		_		_	_	_	_	_
910 MISCELLANEOUS CUSTOMER SERVICE	OM910	F026		1,861,027		_		-	_	_	-	_
911 DEMONSTRATION AND SELLING EXP	OM911	F026		- 1,001,027		_		-	_	-	-	_
912 DEMONSTRATION AND SELLING EXP	OM912	F026		_		_		_	_	-	_	_
913 ADVERTISING EXPENSES	OM913	F026		794,217		_		-	_	-	-	_
916 MISC SALES EXPENSE	OM916	F026		-		-		-	-	-	-	-
Total Customer Service Expense	OMCS		\$	4,146,565	\$	-	\$	- \$	- \$	- \$	- \$	-
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service	OMSUB2			819,914,466		24,218,939		23,093,636	23,178,850	616,805,451	-	-

Description	Name	Functional Vector	Transmission Demand Demand	Distril	bution Poles Specific	Distribution Substation General	I Spec	tion Primary Line Demand	s Customer
Operation and Maintenance Expenses (Continued)									
Distribution Maintenance Expense									
590 MAINTENANCE SUPERVISION AND EN	OM590	LBDM	-		-	4,810	-	13,640	21,294
591 STRUCTURES	OM591	P362	-		-	-	-	-	-
592 MAINTENANCE OF STATION EQUIPME	OM592	P362	-		-	1,286,692	-	-	-
593 MAINTENANCE OF OVERHEAD LINES	OM593	P365	-		-	-	-	8,047,321	11,671,671
594 MAINTENANCE OF UNDERGROUND LIN	OM594	P367	-		-	-	-	147,982	577,776
595 MAINTENANCE OF LINE TRANSFORME	OM595	P368	-		-	-	-	-	-
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	OM596	P373	-		-	-	-	-	-
597 MAINTENANCE OF METERS	OM597	P370	-		-	-	-	-	-
598 MISCELLANEOUS DISTRIBUTION EXPENSES	OM598	PDIST	-		-	66,628	-	72,604	134,638
Total Distribution Maintenance Expense	OMDM		\$ -	\$	-	\$ 1,358,130	-	\$ 8,281,547 \$	12,405,380
Total Distribution Operation and Maintenance Expenses			-		-	4,510,559	-	10,547,278	16,072,622
Transmission and Distribution Expenses			35,706,011		-	4,510,559	-	10,547,278	16,072,622
Production, Transmission and Distribution Expenses	OMSUB		\$ 35,706,011	\$	-	\$ 4,510,559	3 -	\$ 10,547,278 \$	16,072,622
Customer Accounts Expense									
901 SUPERVISION/CUSTOMER ACCTS	OM901	F025	_		-	-	-	-	-
902 METER READING EXPENSES	OM902	F025	-		-	-	-	-	-
903 RECORDS AND COLLECTION	OM903	F025	-		-	-	-	-	-
904 UNCOLLECTIBLE ACCOUNTS	OM904	F025	-		-	-	-	-	-
905 MISC CUST ACCOUNTS	OM903	F025	-		-	-	-	-	-
Total Customer Accounts Expense	OMCA		\$ -	\$	-	\$ - 5	-	\$ - \$	-
Customer Service Expense									
907 SUPERVISION	OM907	F026	-		-	-	-	-	-
908 CUSTOMER ASSISTANCE EXPENSES	OM908	F026	-		-	-	-	-	-
908 CUSTOMER ASSISTANCE EXP-INCENTIVES	OM908x	F026	-		-	-	-	-	-
909 INFORMATIONAL AND INSTRUCTIONA	OM909	F026	-		-	-	-	-	-
909 INFORM AND INSTRUC -LOAD MGMT	OM909x	F026	-		-	-	-	-	-
910 MISCELLANEOUS CUSTOMER SERVICE	OM910	F026	-		-	-	-	-	-
911 DEMONSTRATION AND SELLING EXP	OM911	F026	-		-	-	-	-	-
912 DEMONSTRATION AND SELLING EXP 913 ADVERTISING EXPENSES	OM912 OM913	F026 F026	-		-	-	-	-	-
913 ADVERTISING EXPENSES 916 MISC SALES EXPENSE	OM916	F026 F026	-		-	-	-	-	-
Total Customer Service Expense	OMCS		\$ -	\$	_	\$ - 5	· -	\$ - \$	-
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service	OMSUB2		35,706,011		_	4,510,559	-	10,547,278	16,072,622

		Functional	Distribution Se	ec. Lines	Distribution	Line Trans.	Distribution Services	Distribution Meters	Distribution St. & Cust. Lighting
Description	Name	Vector	Demand	Customer	Demand	Customer	Customer		
Operation and Maintenance Expenses (Continued)									
Distribution Maintenance Expense	03.4500	I DDM	7.004	10.202	216	102			
590 MAINTENANCE SUPERVISION AND EN	OM590	LBDM P362	7,004	10,293	216	192	-	-	-
591 STRUCTURES 592 MAINTENANCE OF STATION EQUIPME	OM591 OM592	P362 P362	-	-	-	-	-	-	-
593 MAINTENANCE OF STATION EQUIPME 593 MAINTENANCE OF OVERHEAD LINES	OM592 OM593	P365	4,293,303	6,226,920	-	-	-	-	-
594 MAINTENANCE OF UNDERGROUND LIN	OM593	P367	13,201	51,541	-	-	-	-	-
595 MAINTENANCE OF UNDERGROUND EIN	OM595	P368	13,201	31,341	50,972	45,359	-	-	-
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	OM596	P373	-	-	30,972	45,559	-	-	_
597 MAINTENANCE OF METERS	OM597	P370	_				-	1,371,953	
598 MISCELLANEOUS DISTRIBUTION EXPENSES	OM598	PDIST	33,424	51,094	51,885	46,172	30,911	26,374	36,583
		1 DIST							
Total Distribution Maintenance Expense	OMDM		\$ 4,346,931 \$	6,339,848	\$ 103,074	\$ 91,723	\$ 30,911 \$	1,398,327	\$ 36,583
Total Distribution Operation and Maintenance Expenses			5,486,721	8,026,969	777,099	691,525	432,461	11,184,096	369,019
Transmission and Distribution Expenses			5,486,721	8,026,969	777,099	691,525	432,461	11,184,096	369,019
Production, Transmission and Distribution Expenses	OMSUB		\$ 5,486,721 \$	8,026,969	\$ 777,099	\$ 691,525	\$ 432,461 \$	11,184,096	\$ 369,019
Customer Accounts Expense									
901 SUPERVISION/CUSTOMER ACCTS	OM901	F025	-	-	-	-	-	-	-
902 METER READING EXPENSES	OM902	F025	-	-	-	-	-	-	-
903 RECORDS AND COLLECTION	OM903	F025	-	-	-	-	-	-	-
904 UNCOLLECTIBLE ACCOUNTS	OM904	F025	-	-	-	-	-	-	-
905 MISC CUST ACCOUNTS	OM903	F025	-	-	-	-	-	-	-
Total Customer Accounts Expense	OMCA		\$ - \$	-	s -	s - :	s - s	-	s -
Customer Service Expense									
907 SUPERVISION	OM907	F026	-	-	-	-	-	-	-
908 CUSTOMER ASSISTANCE EXPENSES	OM908	F026	-	-	-	-	-	-	-
908 CUSTOMER ASSISTANCE EXP-INCENTIVES	OM908x	F026	-	-	-	-	-	-	-
909 INFORMATIONAL AND INSTRUCTIONA	OM909	F026	-	-	-	-	-	-	-
909 INFORM AND INSTRUC -LOAD MGMT	OM909x	F026	-	-	-	-	-	-	-
910 MISCELLANEOUS CUSTOMER SERVICE	OM910	F026	-	-	-	-	-	-	-
911 DEMONSTRATION AND SELLING EXP	OM911	F026	-	-	-	-	-	-	-
912 DEMONSTRATION AND SELLING EXP 913 ADVERTISING EXPENSES	OM912 OM913	F026 F026	-	-	-	-	-	-	-
916 MISC SALES EXPENSE	OM913 OM916	F026 F026	-	-	-	-	-	-	-
Total Customer Service Expense	OMCS		\$ - \$	_	s -	s - :	s - s	-	s -
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service	OMSUB2		5,486,721	8,026,969	777,099	691,525	432,461	11,184,096	369,019
Sao Tom Tron, Trains, Dist, Cust Acct and Cust Service	OMDOBZ		3,700,721	0,020,709	111,099	071,323	7,701	11,104,090	505,019

Description	Name	Functional Vector	Acco	Customer punts Expense	Sei	Customer rvice & Info.	Sales Expense
Operation and Maintenance Expenses (Continued)							
Distribution Maintenance Expense							
590 MAINTENANCE SUPERVISION AND EN	OM590	LBDM		-		-	-
591 STRUCTURES	OM591	P362		-		-	-
592 MAINTENANCE OF STATION EQUIPME	OM592	P362		-		-	-
593 MAINTENANCE OF OVERHEAD LINES	OM593	P365		-		-	-
594 MAINTENANCE OF UNDERGROUND LIN	OM594	P367		-		-	-
595 MAINTENANCE OF LINE TRANSFORME	OM595	P368		-		-	-
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	OM596	P373		_		-	_
597 MAINTENANCE OF METERS	OM597	P370		_		-	_
598 MISCELLANEOUS DISTRIBUTION EXPENSES	OM598	PDIST		-		-	-
Total Distribution Maintenance Expense	OMDM		s	-	\$	-	\$ -
Total Distribution Operation and Maintenance Expenses				-		-	-
Transmission and Distribution Expenses				-		-	-
Production, Transmission and Distribution Expenses	OMSUB		\$	-	\$	-	\$ -
Customer Accounts Expense							
901 SUPERVISION/CUSTOMER ACCTS	OM901	F025		3,631,554		_	_
902 METER READING EXPENSES	OM902	F025		5,301,482		_	_
903 RECORDS AND COLLECTION	OM903	F025		20,167,471		_	_
904 UNCOLLECTIBLE ACCOUNTS	OM904	F025		5,566,157		_	_
905 MISC CUST ACCOUNTS	OM903	F025		-		-	-
Total Customer Accounts Expense	OMCA		s	34,666,664	\$	-	\$ -
Customer Service Expense							
907 SUPERVISION	OM907	F026		_		651,425	_
908 CUSTOMER ASSISTANCE EXPENSES	OM908	F026		_		450,051	_
908 CUSTOMER ASSISTANCE EXP-INCENTIVES	OM908x	F026		_		-	_
909 INFORMATIONAL AND INSTRUCTIONA	OM909	F026		_		389,845	_
909 INFORM AND INSTRUC -LOAD MGMT	OM909x	F026		_		/	_
910 MISCELLANEOUS CUSTOMER SERVICE	OM910	F026		_		1,861,027	_
911 DEMONSTRATION AND SELLING EXP	OM911	F026		_		-	_
912 DEMONSTRATION AND SELLING EXP	OM912	F026		_		_	_
913 ADVERTISING EXPENSES	OM913	F026		_		794,217	_
916 MISC SALES EXPENSE	OM916	F026		-		-	-
Total Customer Service Expense	OMCS		\$	-	\$	4,146,565	\$ -
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service	OMSUB2			34,666,664		4,146,565	-

					_						
		Functional		Total		Produ	uction Demand		Produ	uction Energy	
D	N				Ь	Base		D I.	Base		D. d.
Description	Name	Vector		System		base	Inter.	Peak	Dase	Inter.	Peak
Operation and Maintenance Expenses (Continued)											
<u> </u>											
Administrative and General Expense											
920 ADMIN. & GEN. SALARIES-	OM920	LBSUB7	\$	33,809,232		3,683,645	3,472,490	3,566,271	7,680,251	-	-
921 OFFICE SUPPLIES AND EXPENSES	OM921	LBSUB7		7,269,104		791,997	746,598	766,761	1,651,281	-	-
922 ADMINISTRATIVE EXPENSES TRANSFERRED	OM922	LBSUB7		(4,414,266)		(480,951)	(453,382)	(465,626)	(1,002,764)	-	-
923 OUTSIDE SERVICES EMPLOYED	OM923	LBSUB7		19,133,213		2,084,637	1,965,141	2,018,213	4,346,383	-	-
924 PROPERTY INSURANCE	OM924	TUP		5,543,869		1,154,196	1,209,094	993,871	-	-	-
925 INJURIES AND DAMAGES - INSURAN	OM925	LBSUB7		3,904,092		425,366	400,983	411,812	886,870	-	-
926 EMPLOYEE BENEFITS	OM926	LBSUB7		38,912,106		4,239,622	3,996,598	4,104,533	8,839,442	-	-
928 REGULATORY COMMISSION FEES	OM928	TUP		1,800,307		374,812	392,639	322,748	-	-	-
929 DUPLICATE CHARGES	OM929	LBSUB7		-		-	-	-	-	-	-
930 MISCELLANEOUS GENERAL EXPENSES	OM930	LBSUB7		5,197,262		566,262	533,802	548,218	1,180,632	-	-
931 RENTS AND LEASES	OM931	PGP		1,831,134		383,663	401,911	330,369	-	-	-
935 MAINTENANCE OF GENERAL PLANT	OM935	PGP		873,720		183,064	191,771	157,635	-	-	-
Total Administrative and General Expense	OMAG		\$	113,859,773	\$	13,406,311 \$	12,857,643 \$	12,754,806 \$	23,582,096 \$	- \$	-
Total Operation and Maintenance Expenses	TOM		s	933,774,239	S	37,625,250 \$	35,951,279 \$	35,933,656 \$	640,387,547 \$	- \$	_
Total Operation and Mannestance Expenses	10111		Ψ	,55,,74,257	9	57,025,250	33,731,277	55,755,050 ¢	010,507,547	Ψ	
Operation and Maintenance Expenses Less Purchase Power	OMLPP		\$	883,154,932	\$	35,117,936 \$	33,324,709 \$	33,774,624 \$	597,061,156 \$	- \$	-

		Functional	Transmission Demand	Distribution P		Distribution Substation			tion Primary Lines	
Description	Name	Vector	Demand	Spec	ific	General	Speci	ic	Demand	Customer
Operation and Maintenance Expenses (Continued)										
Administrative and General Expense										
920 ADMIN. & GEN. SALARIES-	OM920	LBSUB7	2,272,732			847,086	-		923,063	1,711,738
921 OFFICE SUPPLIES AND EXPENSES	OM921	LBSUB7	488,645			182,127	-		198,462	368,030
922 ADMINISTRATIVE EXPENSES TRANSFERRED	OM922	LBSUB7	(296,737)			(110,599)	-		(120,519)	(223,491)
923 OUTSIDE SERVICES EMPLOYED	OM923	LBSUB7	1,286,177			479,380	-		522,377	968,701
924 PROPERTY INSURANCE	OM924	TUP	744,465			174,617	-		190,279	352,855
925 INJURIES AND DAMAGES - INSURAN	OM925	LBSUB7	262,442			97,817	-		106,590	197,661
926 EMPLOYEE BENEFITS	OM926	LBSUB7	2,615,758			974,938	-		1,062,382	1,970,093
928 REGULATORY COMMISSION FEES	OM928	TUP	241,756			56,705	-		61,791	114,586
929 DUPLICATE CHARGES	OM929	LBSUB7	-			-	-		-	-
930 MISCELLANEOUS GENERAL EXPENSES	OM930	LBSUB7	349,371			130,217	-		141,896	263,134
931 RENTS AND LEASES	OM931	PGP	241,214			57,386	-		62,533	115,962
935 MAINTENANCE OF GENERAL PLANT	OM935	PGP	115,095			27,382	-		29,837	55,331
Total Administrative and General Expense	OMAG		\$ 8,320,918	\$	\$	2,917,056	s -	\$	3,178,692 \$	5,894,598
Total Operation and Maintenance Expenses	TOM		\$ 44,026,929	\$	\$	7,427,615	s -	\$	13,725,970 \$	21,967,220
Operation and Maintenance Expenses Less Purchase Power	OMLPP		\$ 44,026,929	\$	\$	7,427,615	s -	\$	13,725,970 \$	21,967,220

								_	Distribution	Distribution	
		Functional	D	istribution Sec	c. Lines	D	Distribution Lin	e Trans.	Services	Meters	Cust. Lighting
Description	Name	Vector		Demand	Customer		Demand	Customer	Customer		
Operation and Maintenance Frances (Continued)											
Operation and Maintenance Expenses (Continued)											
Administrative and General Expense											
920 ADMIN. & GEN. SALARIES-	OM920	LBSUB7		424,938	649,590		659,651	587,010	392,987	335,310	465,102
921 OFFICE SUPPLIES AND EXPENSES	OM921	LBSUB7		91,363	139,664		141,827	126,209	84,494	72,093	99,998
922 ADMINISTRATIVE EXPENSES TRANSFERRED	OM922	LBSUB7		(55,482)	(84,813)	)	(86,127)	(76,642)	(51,310)	(43,779)	(60,725)
923 OUTSIDE SERVICES EMPLOYED	OM923	LBSUB7		240,480	367,614		373,308	332,199	222,398	189,758	263,209
924 PROPERTY INSURANCE	OM924	TUP		87,596	133,906		135,980	121,005	81,010	69,120	95,875
925 INJURIES AND DAMAGES - INSURAN	OM925	LBSUB7		49,069	75,011		76,173	67,785	45,380	38,720	53,707
926 EMPLOYEE BENEFITS	OM926	LBSUB7		489,074	747,634		759,213	675,608	452,301	385,919	535,300
928 REGULATORY COMMISSION FEES	OM928	TUP		28,446	43,484		44,158	39,295	26,307	22,446	31,134
929 DUPLICATE CHARGES	OM929	LBSUB7		-	-		-	-	-	-	-
930 MISCELLANEOUS GENERAL EXPENSES	OM930	LBSUB7		65,323	99,857		101,404	90,237	60,411	51,545	71,497
931 RENTS AND LEASES	OM931	PGP		28,787	44,007		44,688	39,767	26,623	22,716	31,508
935 MAINTENANCE OF GENERAL PLANT	OM935	PGP		13,736	20,998		21,323	18,975	12,703	10,839	15,034
Total Administrative and General Expense	OMAG		\$	1,463,331 \$	2,236,952	\$	2,271,598 \$	2,021,448	\$ 1,353,304	\$ 1,154,685	\$ 1,601,640
Total Operation and Maintenance Expenses	TOM		\$ 6	6,950,051 \$	10,263,921	\$	3,048,697 \$	2,712,973	\$ 1,785,765	\$ 12,338,781	\$ 1,970,659
Operation and Maintenance Expenses Less Purchase Power	OMLPP		\$ 6	6,950,051 \$	10,263,921	\$	3,048,697 \$	2,712,973	\$ 1,785,765	\$ 12,338,781	\$ 1,970,659

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## KENTUCKY UTILITIES COMPANY Cost of Service Study Functional Assignment and Classification 12 Months Ended June 30, 2018

		Functional	Acc	Customer ounts Expense	Se	Customer rvice & Info.	Sales Expense
Description	Name	Vector	-				
Operation and Maintenance Expenses (Continued)							
Administrative and General Expense							
920 ADMIN. & GEN. SALARIES-	OM920	LBSUB7		5,395,654		741,714	-
921 OFFICE SUPPLIES AND EXPENSES	OM921	LBSUB7		1,160,085		159,471	-
922 ADMINISTRATIVE EXPENSES TRANSFERRED	OM922	LBSUB7		(704,478)		(96,841)	-
923 OUTSIDE SERVICES EMPLOYED	OM923	LBSUB7		3,053,491		419,748	-
924 PROPERTY INSURANCE	OM924	TUP		-		-	-
925 INJURIES AND DAMAGES - INSURAN	OM925	LBSUB7		623,059		85,649	-
926 EMPLOYEE BENEFITS	OM926	LBSUB7		6,210,028		853,662	_
928 REGULATORY COMMISSION FEES	OM928	TUP		-		-	-
929 DUPLICATE CHARGES	OM929	LBSUB7		-		-	_
930 MISCELLANEOUS GENERAL EXPENSES	OM930	LBSUB7		829,437		114,019	-
931 RENTS AND LEASES	OM931	PGP		-		-	-
935 MAINTENANCE OF GENERAL PLANT	OM935	PGP		-		-	-
Total Administrative and General Expense	OMAG		\$	16,567,275	\$	2,277,421	\$ -
Total Operation and Maintenance Expenses	TOM		\$	51,233,939	\$	6,423,986	\$ -
Operation and Maintenance Expenses Less Purchase Power	OMLPP		\$	51,233,939	\$	6,423,986	\$ -

		Functional	Total		roduction Demand			Production E		
Description	Name	Vector	System	Base	Inter.	Peak	Base	e 1	nter.	Peak
<u>Labor Expenses</u>										
Steam Power Generation Operation Expenses										
500 OPERATION SUPERVISION & ENGINEERING	LB500	F019	\$ 7,176,311	2,127,495	2,005,542	2,059,705	983,568		-	-
501 FUEL	LB501	Energy	2,518,295	-	-	-	2,518,295		-	-
502 STEAM EXPENSES	LB502	PROFIX	8,257,131	2,836,708	2,674,102	2,746,321	-		-	-
505 ELECTRIC EXPENSES	LB505	PROFIX	5,890,264	2,023,579	1,907,583	1,959,101	-		-	-
506 MISC. STEAM POWER EXPENSES	LB506	PROFIX	1,708,296	586,879	553,238	568,179	-		-	-
507 RENTS	LB507	PROFIX	-	-	-	-	-		-	-
Total Steam Power Operation Expenses	LBSUB1		\$ 25,550,297	\$ 7,574,662 \$	7,140,465	\$ 7,333,307	\$ 3,501,864	\$	- \$	-
Steam Power Generation Maintenance Expenses										
510 MAINTENANCE SUPERVISION & ENGINEERING	LB510	F020	\$ 8,497,622	281,620	265,477	272,647	7,677,878		-	-
511 MAINTENANCE OF STRUCTURES	LB511	PROFIX	1,238,874	425,611	401,214	412,049	-		-	-
512 MAINTENANCE OF BOILER PLANT	LB512	Energy	9,213,874	-	-	-	9,213,874		-	-
513 MAINTENANCE OF ELECTRIC PLANT	LB513	Energy	1,992,105	-	-	-	1,992,105		-	-
514 MAINTENANCE OF MISC STEAM PLANT	LB514	Energy	397,544	-	-	-	397,544		-	-
Total Steam Power Generation Maintenance Expense	LBSUB2		\$ 21,340,020	\$ 707,231 \$	666,691	\$ 684,696	\$ 19,281,401	\$	- \$	-
Total Steam Power Generation Expense			\$ 46,890,316	\$ 8,281,893 \$	7,807,156	\$ 8,018,003	\$ 22,783,265	\$	- \$	-
Hydraulic Power Generation Operation Expenses										
535 OPERATION SUPERVISION & ENGINEERING	LB535	F021	\$ -	-	-	-	-		-	-
536 WATER FOR POWER	LB536	PROFIX	-	-	-	-	-		-	-
537 HYDRAULIC EXPENSES	LB537	PROFIX	-	-	-	-	-		-	-
538 ELECTRIC EXPENSES	LB538	PROFIX	-	-	-	-	-		-	-
539 MISC. HYDRAULIC POWER EXPENSES	LB539	PROFIX	-	-	-	-	-		-	-
540 RENTS	LB540	PROFIX	-	-	-	-	-		-	-
Total Hydraulic Power Operation Expenses	LBSUB3		\$ -	\$ - S	-	s -	\$ -	\$	- \$	-
Hydraulic Power Generation Maintenance Expenses										
541 MAINTENANCE SUPERVISION & ENGINEERING	LB541	F022	\$ 166,692	57,266	53,984	55,442	-		-	-
542 MAINTENANCE OF STRUCTURES	LB542	PROFIX	47,185	16,210	15,281	15,694	-		-	-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	LB543	PROFIX	-	-	-	-	-		-	-
544 MAINTENANCE OF ELECTRIC PLANT	LB544	Energy	-	-	-	-	-		-	-
545 MAINTENANCE OF MISC HYDRAULIC PLANT	LB545	Energy	-	-	-	-	-		-	-
Total Hydraulic Power Generation Maint. Expense	LBSUB4		\$ 213,877	\$ 73,477 \$	69,265	\$ 71,135	\$ -	\$	- \$	-
Total Hydraulic Power Generation Expense			\$ 213,877	\$ 73,477 \$	69,265	\$ 71,135	\$ -	\$	- \$	-
Other Power Generation Operation Expense										
546 OPERATION SUPERVISION & ENGINEERING	LB546	PROFIX	\$ 848,268	291,419	274,715	282,134	-		-	-
547 FUEL	LB547	Energy	-	-	-	´-	-		-	-
548 GENERATION EXPENSE	LB548	PROFIX	327,051	112,357	105,917	108,777	-		-	-
549 MISC OTHER POWER GENERATION	LB549	PROFIX	1,662,761	571,236	538,491	553,034	-		-	-
550 RENTS	LB550	PROFIX	-	-	-	-	-		-	-
Total Other Power Generation Expenses	LBSUB5		\$ 2,838,080	\$ 975,012 \$	919,122	\$ 943,945	\$ -	\$	- \$	-

			_							
		Functional		Transmission Demand	Distrik	oution Poles	Distribution Substation	Distributi	on Primary Lines	
Description	Name	Vector		Demand		Specific	General	Specific	Demand	Customer
Labor Expenses										
Steam Power Generation Operation Expenses										
500 OPERATION SUPERVISION & ENGINEERING	LB500	F019		_		-	-	-	_	-
501 FUEL	LB501	Energy		-		-	-	-	-	_
502 STEAM EXPENSES	LB502	PROFIX		-		-	-	-	-	-
505 ELECTRIC EXPENSES	LB505	PROFIX		-		-	-	-	-	-
506 MISC. STEAM POWER EXPENSES	LB506	PROFIX		-		-	-	-	-	-
507 RENTS	LB507	PROFIX		-		-	-	-	-	-
Total Steam Power Operation Expenses	LBSUB1		\$	-	\$	- \$	- \$	- \$	- \$	-
Steam Power Generation Maintenance Expenses										
510 MAINTENANCE SUPERVISION & ENGINEERING	LB510	F020		-		-	-	-	-	-
511 MAINTENANCE OF STRUCTURES	LB511	PROFIX		-		-	-	-	-	-
512 MAINTENANCE OF BOILER PLANT	LB512	Energy		-		-	-	-	-	-
513 MAINTENANCE OF ELECTRIC PLANT	LB513	Energy		-		-	-	-	-	-
514 MAINTENANCE OF MISC STEAM PLANT	LB514	Energy		-		-	-	-	-	-
Total Steam Power Generation Maintenance Expense	LBSUB2		\$	-	\$	- \$	- \$	- \$	- \$	-
Total Steam Power Generation Expense			\$	-	\$	- \$	- \$	- \$	- \$	-
Hydraulic Power Generation Operation Expenses										
535 OPERATION SUPERVISION & ENGINEERING	LB535	F021		-		-	-	-	-	-
536 WATER FOR POWER	LB536	PROFIX		-		-	-	-	-	-
537 HYDRAULIC EXPENSES	LB537	PROFIX		-		-	-	-	-	-
538 ELECTRIC EXPENSES	LB538	PROFIX		-		-	-	-	-	-
539 MISC. HYDRAULIC POWER EXPENSES	LB539	PROFIX		-		-	-	-	-	-
540 RENTS	LB540	PROFIX		-		-	-	-	-	-
Total Hydraulic Power Operation Expenses	LBSUB3		\$	-	\$	- \$	- \$	- \$	- \$	-
Hydraulic Power Generation Maintenance Expenses										
541 MAINTENANCE SUPERVISION & ENGINEERING	LB541	F022		-		-	-	-	-	-
542 MAINTENANCE OF STRUCTURES	LB542	PROFIX		-		-	-	-	-	-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	LB543	PROFIX		-		-	-	-	-	-
544 MAINTENANCE OF ELECTRIC PLANT	LB544	Energy		-		-	-	-	-	-
545 MAINTENANCE OF MISC HYDRAULIC PLANT	LB545	Energy		-		-	-	-	-	-
Total Hydraulic Power Generation Maint. Expense	LBSUB4		\$	-	\$	- \$	- \$	- \$	- \$	-
Total Hydraulic Power Generation Expense			\$	-	\$	- \$	- \$	- \$	- \$	-
Other Power Generation Operation Expense										
546 OPERATION SUPERVISION & ENGINEERING	LB546	PROFIX		-		-	-	-	-	-
547 FUEL	LB547	Energy		-		-	-	-	-	-
548 GENERATION EXPENSE	LB548	PROFIX		-		-	-	-	-	-
549 MISC OTHER POWER GENERATION	LB549	PROFIX		-		-	-	-	-	-
550 RENTS	LB550	PROFIX		-		-	-	-	-	-
Total Other Power Generation Expenses	LBSUB5		\$	-	\$	- \$	- \$	- \$	- s	-

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											Distribution	Distribution	
		Functional	Distribution	n Sec. I	Lines		Distribution	ı Line T	rans.		Services	Meters	Cust. Lighting
Description	Name	Vector	Demand		Customer		Demand		Customer		Customer		
Labor Expenses													
Steam Power Generation Operation Expenses													
500 OPERATION SUPERVISION & ENGINEERING	LB500	F019	_		_		_		_		_	_	_
501 FUEL	LB501	Energy			_		_				_	_	_
502 STEAM EXPENSES	LB502	PROFIX	_		_		_				_	_	_
505 ELECTRIC EXPENSES	LB502 LB505	PROFIX											
506 MISC. STEAM POWER EXPENSES	LB505	PROFIX											
500 MISC. STEAM FOWER EXPENSES 507 RENTS	LB507	PROFIX	-		-		-		-		-	-	-
307 KENTS	LB307	FROFIA	-		-		-		-		-	-	-
Total Steam Power Operation Expenses	LBSUB1		\$ -	\$	-	\$	-	\$	-	\$	-	\$ -	s -
Steam Power Generation Maintenance Expenses													
510 MAINTENANCE SUPERVISION & ENGINEERING	LB510	F020	_		_		_		_		-	_	-
511 MAINTENANCE OF STRUCTURES	LB511	PROFIX	-		_		_		-		_	_	_
512 MAINTENANCE OF BOILER PLANT	LB512	Energy	-		_		_		-		_	_	_
513 MAINTENANCE OF ELECTRIC PLANT	LB513	Energy	_		_		_		_		_	_	_
514 MAINTENANCE OF MISC STEAM PLANT	LB514	Energy	-		-		-		-		-	-	-
Total Steam Power Generation Maintenance Expense	LBSUB2		\$ _	\$	_	\$	-	\$	_	s	-	s -	s -
Total Steam Power Generation Expense			\$ _	\$	_	\$	_	\$	-	\$	_	\$ -	s -
Hydraulic Power Generation Operation Expenses													
535 OPERATION SUPERVISION & ENGINEERING	LB535	F021	-		-		-		-		-	-	-
536 WATER FOR POWER	LB536	PROFIX	-		-		-		-		-	-	-
537 HYDRAULIC EXPENSES	LB537	PROFIX	-		-		-		-		-	-	-
538 ELECTRIC EXPENSES	LB538	PROFIX	-		-		-		-		-	-	-
539 MISC. HYDRAULIC POWER EXPENSES	LB539	PROFIX	-		-		-		-		-	-	-
540 RENTS	LB540	PROFIX	-		-		-		-		-	-	-
Total Hydraulic Power Operation Expenses	LBSUB3		\$ -	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -
Hydraulic Power Generation Maintenance Expenses													
541 MAINTENANCE SUPERVISION & ENGINEERING	LB541	F022	_		_		_		_		_	_	_
542 MAINTENANCE OF STRUCTURES	LB542	PROFIX	_		_		_		_		_	_	_
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	LB543	PROFIX	_		_		_		_		_	_	_
544 MAINTENANCE OF ELECTRIC PLANT	LB544	Energy	_		_		_		_		_	_	_
545 MAINTENANCE OF MISC HYDRAULIC PLANT	LB545	Energy	-		-		-		-		-	-	-
Total Hydraulic Power Generation Maint. Expense	LBSUB4		\$ _	\$	_	s	_	\$	_	s	_	s -	\$ -
Total Hydraulic Power Generation Expense			\$ _	\$	_	\$	_	\$	-	\$	_	\$ -	s -
Other Power Generation Operation Expense													
546 OPERATION SUPERVISION & ENGINEERING	LB546	PROFIX	-		-		-		-		-	-	-
547 FUEL	LB547	Energy	-		-		-		-		-	-	-
548 GENERATION EXPENSE	LB548	PROFIX	-		-		-		-		-	-	-
549 MISC OTHER POWER GENERATION	LB549	PROFIX	-		-		-		-		-	-	-
550 RENTS	LB550	PROFIX	-		-		-		-		-	-	-
Total Other Power Generation Expenses	LBSUB5		\$ -	\$	-	\$	-	\$	-	\$	-	s -	s -

Description	Name	Functional Vector	Accoun	Customer ts Expense	Serv	Customer ice & Info.	Sales Expense
Labor Expenses							
·							
Steam Power Generation Operation Expenses 500 OPERATION SUPERVISION & ENGINEERING	LB500	F019					
501 FUEL	LB500 LB501	Energy		-		-	-
502 STEAM EXPENSES	LB502	PROFIX		_		_	_
505 ELECTRIC EXPENSES	LB505	PROFIX		_		_	_
506 MISC. STEAM POWER EXPENSES	LB506	PROFIX		_		_	_
507 RENTS	LB507	PROFIX		-		-	-
Total Steam Power Operation Expenses	LBSUB1		\$	-	\$	-	\$ -
Steam Power Generation Maintenance Expenses							
510 MAINTENANCE SUPERVISION & ENGINEERING	LB510	F020		-		-	-
511 MAINTENANCE OF STRUCTURES	LB511	PROFIX		-		-	-
512 MAINTENANCE OF BOILER PLANT	LB512	Energy		-		-	-
513 MAINTENANCE OF ELECTRIC PLANT	LB513	Energy		-		-	-
514 MAINTENANCE OF MISC STEAM PLANT	LB514	Energy		-		-	-
Total Steam Power Generation Maintenance Expense	LBSUB2		\$	-	\$	-	\$ -
Total Steam Power Generation Expense			\$	-	\$	-	\$ -
Hydraulic Power Generation Operation Expenses							
535 OPERATION SUPERVISION & ENGINEERING	LB535	F021		-		-	-
536 WATER FOR POWER	LB536	PROFIX		-		-	-
537 HYDRAULIC EXPENSES	LB537	PROFIX		-		-	-
538 ELECTRIC EXPENSES	LB538	PROFIX		-		-	-
539 MISC. HYDRAULIC POWER EXPENSES	LB539	PROFIX		-		-	-
540 RENTS	LB540	PROFIX		-		-	-
Total Hydraulic Power Operation Expenses	LBSUB3		\$	-	\$	-	\$ -
Hydraulic Power Generation Maintenance Expenses							
541 MAINTENANCE SUPERVISION & ENGINEERING	LB541	F022		-		-	-
542 MAINTENANCE OF STRUCTURES	LB542	PROFIX		-		-	-
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS	LB543	PROFIX		-		-	-
544 MAINTENANCE OF ELECTRIC PLANT	LB544	Energy		-		-	-
545 MAINTENANCE OF MISC HYDRAULIC PLANT	LB545	Energy		-		-	-
Total Hydraulic Power Generation Maint. Expense	LBSUB4		\$	-	\$	-	\$ -
Total Hydraulic Power Generation Expense			\$	-	\$	-	\$ -
Other Power Generation Operation Expense							
546 OPERATION SUPERVISION & ENGINEERING	LB546	PROFIX		-		-	-
547 FUEL	LB547	Energy		-		-	-
548 GENERATION EXPENSE	LB548	PROFIX		-		-	-
549 MISC OTHER POWER GENERATION	LB549	PROFIX		-		-	-
550 RENTS	LB550	PROFIX		-		-	-
Total Other Power Generation Expenses	LBSUB5		\$	-	\$	-	\$ -

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				Щ.				<u> </u>		- 01	
Name	Vector		System		Base	Inter.	Peak	Bas	se	Inter.	Peak
I B551	DDOELY	•	201 322		60 163	65 100	66 960				
		Φ	201,322		09,103	05,199	-			-	-
			1.017.670		349.617	329.576	338.477	_		_	_
LB554	PROFIX		1,600,551		549,864	518,344	532,343	-		_	-
LBSUB6		\$	2,819,543	\$	968,644 \$	913,119	\$ 937,780	\$ -	\$	- 5	-
		•	5 657 622	e	1.042.656 \$	1 922 242	¢ 1 991 725	¢	•		,
			3,037,023	٥	1,945,050 \$	1,032,242	\$ 1,001,723	<b>5</b> -	3	- 4	-
LPREX		\$	52,761,816	\$	10,299,026 \$	9,708,662	\$ 9,970,863	\$ 22,783,265	5 \$	- 5	-
LB555	OMPP	\$	_		-	_	_	_		_	-
LB556	PROFIX	\$	1.829.189		628,411	592,389	608,388	_		_	-
LB557	PROFIX	\$	-		-	-	-	-		-	-
LBPP		\$	1,829,189	\$	628,411 \$	592,389	\$ 608,388	\$ -	\$	- 5	-
LB560	PTRAN	\$	1,648,654		_	_	_	_		_	-
		-			_	_	_	_		_	_
					_	_	_	_		_	_
			-		_	_	_	_		_	_
LB566	PTRAN		118,042		_	_	_	_		-	_
					_	_	_	_		_	_
			937,915		_	_	_	_		_	_
LB571	PTRAN				_	_	_	_		-	_
LB572			-		_	_	_	_		_	_
LB573	PTRAN		_		_	_	_	_		-	_
LBTRAN		\$	6,741,999	\$	- \$	-	\$ -	\$ -	\$	- 5	-
LB580	F023	\$	1,081,711		-	-	-	-		-	-
LB581	P362		342,506		-	-	-	-		-	-
LB582	P362		870,967		-	-	-	-		-	-
LB583	P365		2,170,209		-	-	-	-		-	-
LB584	P367		-		-	-	-	-		-	-
LB585	P371		-		-	-	-	-		-	-
LB586	P370		5,717,580		-	-	-	-		-	-
LB586x	F012		-		-	-	-	-		-	-
LB587	P371		-		-	-	-	-		-	-
LB588	PDIST		3,343,041		-	-	-	-		-	-
LB589	PDIST		-		-	-	-	-		-	-
LBDO		\$	13,526,014	\$	- \$	-	\$ -	\$ -	\$	- 8	-
	LBSUB6  LPREX  LB555 LB556 LB557  LBPP  LB560 LB561 LB562 LB563 LB566 LB570 LB571 LB572 LB573  LBTRAN  LB580 LB581 LB582 LB583 LB585 LB585 LB586	LB551 PROFIX LB552 PROFIX LB553 PROFIX LB553 PROFIX LB554 PROFIX LB554 PROFIX LBSUB6  LPREX  LB555 OMPP LB556 PROFIX LB557 PROFIX LB557 PROFIX LB560 PTRAN LB561 PTRAN LB561 PTRAN LB562 PTRAN LB562 PTRAN LB563 PTRAN LB563 PTRAN LB564 PTRAN LB579 PTRAN LB571 PTRAN LB571 PTRAN LB571 PTRAN LB573 PTRAN LB572 PTRAN LB573 PTRAN LB573 PTRAN LB574 PJRAN LB588 PDIST LB588 PDIST LB588 PDIST	Name   Vector	LB551	LB551	LB551	Name   Vector   System   Base   Inter-	LBS51	Name   Vector   System   Base   Inter.   Peak   Inter.   Pe	LBS51	Name   Vector   System   Base   Inter.   Peak   Base   Inter.

				Transmission				Distribution						
		Functional		Demand	Distr	ibution Poles		Substation		Dist	tributio	on Primary l	Lines	
Description	Name	Vector		Demand	-	Specific		General		Specific	:	Demand		Customer
Other Power Generation Maintenance Expense														
551 MAINTENANCE SUPERVISION & ENGINEERING	LB551	PROFIX		_				_		_		_		_
552 MAINTENANCE OF STRUCTURES	LB551	PROFIX		_		_		_		_		_		_
553 MAINTENANCE OF GENERATING & ELEC PLANT	LB553	PROFIX		_		_		_				_		_
554 MAINTENANCE OF MISC OTHER POWER GEN PLT	LB554	PROFIX		-		-		-		_		-		-
Total Other Power Generation Maintenance Expense	LBSUB6		\$	_	s	_	s	-	s	_	s	_	s	_
•														
Total Other Power Generation Expense			\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total Production Expense	LPREX		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Purchased Power														
555 PURCHASED POWER	LB555	OMPP		-		-		-		-		-		-
556 SYSTEM CONTROL AND LOAD DISPATCH	LB556	PROFIX		-		-		-		-		-		-
557 OTHER EXPENSES	LB557	PROFIX		-		-		-		-		-		-
Total Purchased Power Labor	LBPP		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Transmission Labor Expenses														
560 OPERATION SUPERVISION AND ENG	LB560	PTRAN		1,648,654		_		_		_		_		_
561 LOAD DISPATCHING	LB561	PTRAN		3,065,460		_		_		_		_		_
562 STATION EXPENSES	LB562	PTRAN		505,135		_		_		_		_		_
563 OVERHEAD LINE EXPENSES	LB563	PTRAN		´-		-		_		-		_		_
566 MISC. TRANSMISSION EXPENSES	LB566	PTRAN		118,042		-		_		-		_		_
568 MAINTENACE SUPERVISION AND ENG	LB568	PTRAN		´-		-		_		-		_		_
570 MAINT OF STATION EQUIPMENT	LB570	PTRAN		937,915		_		_		_		_		_
571 MAINT OF OVERHEAD LINES	LB571	PTRAN		466,793		-		_		-		_		_
572 UNDERGROUND LINES	LB572	PTRAN		-		_		_		_		_		_
573 MISC PLANT	LB573	PTRAN		-		-		-		-		-		-
Total Transmission Labor Expenses	LBTRAN		\$	6,741,999	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Operation Labor Expense														
580 OPERATION SUPERVISION AND ENGI	LB580	F023		_		_		140,663		_		88,541		143,907
581 LOAD DISPATCHING	LB581	P362		_		_		342,506		_		-		-
582 STATION EXPENSES	LB582	P362		_		_		870,967		_		_		_
583 OVERHEAD LINE EXPENSES	LB582	P365		_		_		070,507				577,540		837,653
584 UNDERGROUND LINE EXPENSES	LB583	P367		_		_		_		_		577,540		057,055
585 STREET LIGHTING EXPENSE	LB585	P371				_		_				_		_
586 METER EXPENSES	LB586	P370												
586 METER EXPENSES - LOAD MANAGEMENT	LB586x	F012				_		_				_		_
587 CUSTOMER INSTALLATIONS EXPENSE	LB587	P371				_		_				_		_
588 MISCELLANEOUS DISTRIBUTION EXP	LB588	PDIST		_		-		404,753		-		441,056		817,899
589 RENTS	LB589	PDIST		-		-		-		-		-		-
Total Distribution Operation Labor Expense	LBDO		\$	-	\$	-	\$	1,758,889	\$	_	\$	1,107,137	\$	1,799,459
F			~		-		~	.,,	-		-	.,,	-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

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											Distribution	Distribution	Distribution St. &
		Functional		Distributio	on Sec.	Lines		Distribution	ı Line	Trans.	Services	Meters	Cust. Lighting
Description	Name	Vector		Deman		Customer	r	Demand	_	Customer	Customer		
Other Power Generation Maintenance Expense											 		
551 MAINTENANCE SUPERVISION & ENGINEERING	LB551	PROFIX		_		_		_		_	-	_	_
552 MAINTENANCE OF STRUCTURES	LB552	PROFIX		_		_		_		-	-	-	-
553 MAINTENANCE OF GENERATING & ELEC PLANT	LB553	PROFIX		_		_		_		_	-	_	_
554 MAINTENANCE OF MISC OTHER POWER GEN PLT	LB554	PROFIX		-		-		-		-	-	-	-
Total Other Power Generation Maintenance Expense	LBSUB6		\$	-	\$	-	\$	-	\$	-	\$ - \$	-	s -
Total Other Power Generation Expense			\$	-	\$	-	\$	-	\$	-	\$ - \$	-	s -
Total Production Expense	LPREX		\$	-	\$	-	\$	-	\$	-	\$ - \$	-	s -
Purchased Power													
555 PURCHASED POWER	LB555	OMPP		-		-		_		-	-	-	-
556 SYSTEM CONTROL AND LOAD DISPATCH	LB556	PROFIX		-		-		_		-	-	-	-
557 OTHER EXPENSES	LB557	PROFIX		-		-		-		-	-	-	-
Total Purchased Power Labor	LBPP		\$	-	\$	-	\$	-	\$	-	\$ - \$	-	s -
Transmission Labor Expenses													
560 OPERATION SUPERVISION AND ENG	LB560	PTRAN		-		-		_		-	-	-	_
561 LOAD DISPATCHING	LB561	PTRAN		-		-		_		-	-	-	_
562 STATION EXPENSES	LB562	PTRAN		-		-		-		-	-	-	-
563 OVERHEAD LINE EXPENSES	LB563	PTRAN		-		-		-		-	-	-	-
566 MISC. TRANSMISSION EXPENSES	LB566	PTRAN		-		-		-		-	-	-	-
568 MAINTENACE SUPERVISION AND ENG	LB568	PTRAN		-		-		-		-	-	-	-
570 MAINT OF STATION EQUIPMENT	LB570	PTRAN		-		-		-		-	-	-	-
571 MAINT OF OVERHEAD LINES	LB571	PTRAN		-		-		-		-	-	-	-
572 UNDERGROUND LINES	LB572	PTRAN		-		-		-		-	-	-	-
573 MISC PLANT	LB573	PTRAN		-		-		-		-	-	-	-
Total Transmission Labor Expenses	LBTRAN		\$	-	\$	-	\$	-	\$	-	\$ - \$	-	\$ -
Distribution Operation Labor Expense													
580 OPERATION SUPERVISION AND ENGI	LB580	F023		44,433	3	65,826		27,398		24,381	16,322	510,923	19,317
581 LOAD DISPATCHING	LB581	P362		-		-		-		-	-	-	-
582 STATION EXPENSES	LB582	P362		<del>-</del>		<del>-</del>		-		-	-	-	-
583 OVERHEAD LINE EXPENSES	LB583	P365		308,122	2	446,894		-		-	-	-	-
584 UNDERGROUND LINE EXPENSES	LB584	P367		-		-		-		-	-	-	-
585 STREET LIGHTING EXPENSE	LB585	P371		-		-		-		-	-	-	-
586 METER EXPENSES	LB586	P370		-		-		-		-	-	5,717,580	-
586 METER EXPENSES - LOAD MANAGEMENT	LB586x	F012		-		-		-		-	-	-	-
587 CUSTOMER INSTALLATIONS EXPENSE	LB587	P371		202.042		210 207		215 102		200.404	107.776	160 217	- 222 22 4
588 MISCELLANEOUS DISTRIBUTION EXP 589 RENTS	LB588 LB589	PDIST PDIST		203,043	,	310,386		315,193		280,484	187,776	160,217	222,234
		1 1/10 1											
Total Distribution Operation Labor Expense	LBDO		\$	555,597	7 \$	823,106	\$	342,591	\$	304,865	\$ 204,099 \$	6,388,720	\$ 241,551

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		Functional	Accoun	Customer ts Expense	Cus Service &	tomer : Info.	Sales Expense	e
Description	Name	Vector					•	_
Other Power Generation Maintenance Expense								
551 MAINTENANCE SUPERVISION & ENGINEERING	LB551	PROFIX		-		-	-	
552 MAINTENANCE OF STRUCTURES	LB552	PROFIX		-		-	-	
553 MAINTENANCE OF GENERATING & ELEC PLANT	LB553	PROFIX		-		-	-	
554 MAINTENANCE OF MISC OTHER POWER GEN PLT	LB554	PROFIX		-		-	-	
Total Other Power Generation Maintenance Expense	LBSUB6		\$	-	\$	-	\$ -	
Total Other Power Generation Expense			\$	-	\$	-	-	
Total Production Expense	LPREX		\$	-	\$	-	\$ -	
Purchased Power								
555 PURCHASED POWER	LB555	OMPP		-		-	_	
556 SYSTEM CONTROL AND LOAD DISPATCH	LB556	PROFIX		-		-	_	
557 OTHER EXPENSES	LB557	PROFIX		-		-	-	
Total Purchased Power Labor	LBPP		\$	-	\$	-	\$ -	
Transmission Labor Expenses								
560 OPERATION SUPERVISION AND ENG	LB560	PTRAN		-		-	-	
561 LOAD DISPATCHING	LB561	PTRAN		-		-	_	
562 STATION EXPENSES	LB562	PTRAN		-		-	-	
563 OVERHEAD LINE EXPENSES	LB563	PTRAN		-		-	-	
566 MISC. TRANSMISSION EXPENSES	LB566	PTRAN		-		-	-	
568 MAINTENACE SUPERVISION AND ENG	LB568	PTRAN		-		-	-	
570 MAINT OF STATION EQUIPMENT	LB570	PTRAN		-		-	-	
571 MAINT OF OVERHEAD LINES	LB571	PTRAN		-		-	-	
572 UNDERGROUND LINES	LB572	PTRAN		-		-	-	
573 MISC PLANT	LB573	PTRAN		-		-	-	
Total Transmission Labor Expenses	LBTRAN		\$	-	\$	-	-	
Distribution Operation Labor Expense								
580 OPERATION SUPERVISION AND ENGI	LB580	F023		-		-	_	
581 LOAD DISPATCHING	LB581	P362		-		-	-	
582 STATION EXPENSES	LB582	P362		-		-	-	
583 OVERHEAD LINE EXPENSES	LB583	P365		-		-	-	
584 UNDERGROUND LINE EXPENSES	LB584	P367		-		-	-	
585 STREET LIGHTING EXPENSE	LB585	P371		-		-	-	
586 METER EXPENSES	LB586	P370		-		-	-	
586 METER EXPENSES - LOAD MANAGEMENT	LB586x	F012		-		-	-	
587 CUSTOMER INSTALLATIONS EXPENSE	LB587	P371		-		-	-	
588 MISCELLANEOUS DISTRIBUTION EXP	LB588	PDIST		-		-	-	
589 RENTS	LB589	PDIST		-		-	-	
Total Distribution Operation Labor Expense	LBDO		\$	-	\$	-	s -	

		Functional		Total	I	Producti	ion Demand		Produ	ction Energy	
Description	Name	Vector		System	Base		Inter.	Peak	Base	Inter.	Peak
<u>Labor Expenses (Continued)</u>											
Distribution Maintenance Labor Expense											
590 MAINTENANCE SUPERVISION AND EN	LB590	F024	\$	_	_		_	-	-	_	_
591 MAINTENANCE OF STRUCTURES	LB591	P362	Ψ	_	_		_	_	_	_	_
592 MAINTENANCE OF STATION EQUIPME	LB592	P362		605,269	_		_	_	_	_	_
593 MAINTENANCE OF OVERHEAD LINES	LB592	P365		6,158,359	_		_	_	_	_	_
594 MAINTENANCE OF UNDERGROUND LIN	LB594	P367		413,802							
595 MAINTENANCE OF LINE TRANSFORME	LB595	P368		51,420	-		-	-	-	-	-
596 MAINTENANCE OF EINE TRANSFORME  596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	LB595 LB596	P373		51,420	-		-	-	-	-	-
	LB596 LB597	P370			-		-	-	-	-	-
597 MAINTENANCE OF METERS		PDIST		-	-		-	-	-	-	-
598 MAINTENANCE OF MISC DISTR PLANT	LB598	PDIST		-	-		-	-	-	-	-
Total Distribution Maintenance Labor Expense	LBDM		\$	7,228,850	\$ -	\$	- \$	- \$	- \$	- \$	-
Total Distribution Operation and Maintenance Labor Expenses		PDIST		20,754,864	-		-	-	-	-	-
Transmission and Distribution Labor Expenses				27,496,863	-		-	-	-	-	-
Production, Transmission and Distribution Labor Expenses	LBSUB		\$	82,087,867	\$ 10,927,437	\$	10,301,052 \$	10,579,251 \$	22,783,265 \$	- \$	-
Customer Accounts Expense											
901 SUPERVISION/CUSTOMER ACCTS	LB901	F025	\$	3,259,518							
902 METER READING EXPENSES	LB901 LB902	F025	φ	754,379							
903 RECORDS AND COLLECTION	LB903	F025		11,992,171	-		-	-	-	-	-
904 UNCOLLECTIBLE ACCOUNTS	LB904	F025		11,992,1/1	-		-	-	-	-	-
	LB903	F025			-		-	-	-	-	-
905 MISC CUST ACCOUNTS	LB903	F025		-	-		-	-	-	-	-
Total Customer Accounts Labor Expense	LBCA		\$	16,006,068	\$ -	\$	- \$	- \$	- \$	- \$	-
Customer Service Expense											
907 SUPERVISION	LB907	F026	\$	614,307	-		-	-	-	-	-
908 CUSTOMER ASSISTANCE EXPENSES	LB908	F026		1,585,968	-		-	-	-	-	-
908 CUSTOMER ASSISTANCE EXP-LOAD MGMT	LB908x	F026		_	-		-	-	-	-	-
909 INFORMATIONAL AND INSTRUCTIONA	LB909	F026		_	-		-	-	-	-	-
909 INFORM AND INSTRUC -LOAD MGMT	LB909x	F026		-	-		-	-	-	-	_
910 MISCELLANEOUS CUSTOMER SERVICE	LB910	F026		_	_		-	_	-	-	_
911 DEMONSTRATION AND SELLING EXP	LB911	F026		_	_		_	-	-	_	_
912 DEMONSTRATION AND SELLING EXP	LB912	F026		_	_		-	_	-	-	_
913 WATER HEATER - HEAT PUMP PROGRAM	LB913	F026		_	_		_	-	-	_	_
916 MISC SALES EXPENSE	LB916	F026		-	-		-	-	=	-	-
Total Customer Service Labor Expense	LBCS		\$	2,200,275	\$ -	\$	- \$	- \$	- \$	- \$	-
Sub-Total Labor Exp	LBSUB7			100,294,210	10,927,437		10,301,052	10,579,251	22,783,265	-	-

D	N	Functional	Transmission Demand	Distril	bution Poles	Distribution Substation	D		tion Primary Lines	
Description	Name	Vector	Demand		Specific	General	Speci	lic	Demand	Customer
Labor Expenses (Continued)										
Distribution Maintenance Labor Expense										
590 MAINTENANCE SUPERVISION AND EN	LB590	F024	-		-	-	-		-	-
591 MAINTENANCE OF STRUCTURES	LB591	P362	-		-	-	-		-	-
592 MAINTENANCE OF STATION EQUIPME	LB592	P362	-		-	605,269	-		-	-
593 MAINTENANCE OF OVERHEAD LINES	LB593	P365	-		-	-	-		1,638,875	2,376,991
594 MAINTENANCE OF UNDERGROUND LIN	LB594	P367	-		-	-	-		77,464	302,447
595 MAINTENANCE OF LINE TRANSFORME	LB595	P368	-		-	-	-		-	-
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	LB596	P373	-		-	-	-		-	-
597 MAINTENANCE OF METERS	LB597	P370	-		-	-	-		-	-
598 MAINTENANCE OF MISC DISTR PLANT	LB598	PDIST	-		-	-	-		-	-
Total Distribution Maintenance Labor Expense	LBDM		\$ -	\$	-	\$ 605,269	\$ -	\$	1,716,339 \$	2,679,438
Total Distribution Operation and Maintenance Labor Expenses		PDIST	-		-	2,512,860	-		2,738,243	5,077,825
Transmission and Distribution Labor Expenses			6,741,999		-	2,512,860	-		2,738,243	5,077,825
Production, Transmission and Distribution Labor Expenses	LBSUB		\$ 6,741,999	\$	-	\$ 2,512,860	s -	\$	2,738,243 \$	5,077,825
Customer Accounts Expense										
901 SUPERVISION/CUSTOMER ACCTS	LB901	F025	_		_	_	_		_	_
902 METER READING EXPENSES	LB902	F025	_		_	_	_		_	_
903 RECORDS AND COLLECTION	LB903	F025	-		_	_	-		_	_
904 UNCOLLECTIBLE ACCOUNTS	LB904	F025	_		_	_	_		_	_
905 MISC CUST ACCOUNTS	LB903	F025	-		-	-	-		-	-
Total Customer Accounts Labor Expense	LBCA		\$ -	\$	-	s -	\$ -	\$	- \$	-
Customer Service Expense										
907 SUPERVISION	LB907	F026	_		-	-	-		-	-
908 CUSTOMER ASSISTANCE EXPENSES	LB908	F026	-		_	_	-		_	_
908 CUSTOMER ASSISTANCE EXP-LOAD MGMT	LB908x	F026	-		_	_	-		_	_
909 INFORMATIONAL AND INSTRUCTIONA	LB909	F026	_		-	-	-		-	-
909 INFORM AND INSTRUC -LOAD MGMT	LB909x	F026	-		_	_	-		_	_
910 MISCELLANEOUS CUSTOMER SERVICE	LB910	F026	-		-	-	-		-	-
911 DEMONSTRATION AND SELLING EXP	LB911	F026	_		-	-	-		-	-
912 DEMONSTRATION AND SELLING EXP	LB912	F026	-		-	-	-		-	-
913 WATER HEATER - HEAT PUMP PROGRAM	LB913	F026	-		-	-	-		-	-
916 MISC SALES EXPENSE	LB916	F026	-		-	-	-		-	-
Total Customer Service Labor Expense	LBCS		\$ -	\$	-	s -	\$ -	\$	- \$	-
Sub-Total Labor Exp	LBSUB7		6,741,999		-	2,512,860	-		2,738,243	5,077,825

		Functional	Distribution Sec	. Lines	Distribution Lin	e Trans.	Distribution Services	Distribution D Meters	istribution St. & Cust. Lighting
Description	Name	Vector	 Demand	Customer	Demand	Customer	Customer	1	
Labor Expenses (Continued)									
Distribution Maintenance Labor Expense									
590 MAINTENANCE SUPERVISION AND EN	LB590	F024	_	-	-	_	-	-	_
591 MAINTENANCE OF STRUCTURES	LB591	P362	_	_	-	_	_	-	_
592 MAINTENANCE OF STATION EQUIPME	LB592	P362	_	_	-	_	_	-	_
593 MAINTENANCE OF OVERHEAD LINES	LB593	P365	874,351	1,268,142	-	_	_	-	_
594 MAINTENANCE OF UNDERGROUND LIN	LB594	P367	6,910	26,980	_	_	-	_	_
595 MAINTENANCE OF LINE TRANSFORME	LB595	P368		-	27,208	24,212	_	_	_
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	LB596	P373	_	_	,		_	_	_
597 MAINTENANCE OF METERS	LB597	P370	_	_	_	_	_	_	_
598 MAINTENANCE OF MISC DISTR PLANT	LB598	PDIST	-	-	-	-	-	-	-
Total Distribution Maintenance Labor Expense	LBDM		\$ 881,262 \$	1,295,122	\$ 27,208 \$	24,212 \$	- \$	- S	-
Total Distribution Operation and Maintenance Labor Expenses		PDIST	1,260,567	1,926,993	1,956,839	1,741,351	1,165,786	994,688	1,379,712
Transmission and Distribution Labor Expenses			1,260,567	1,926,993	1,956,839	1,741,351	1,165,786	994,688	1,379,712
Production, Transmission and Distribution Labor Expenses	LBSUB		\$ 1,260,567 \$	1,926,993	\$ 1,956,839 \$	1,741,351 \$	1,165,786 \$	994,688 \$	1,379,712
Customer Accounts Expense									
901 SUPERVISION/CUSTOMER ACCTS	LB901	F025	_	-	-	_	-	-	_
902 METER READING EXPENSES	LB902	F025	_	_	-	_	_	-	_
903 RECORDS AND COLLECTION	LB903	F025	_	-	-	_	-	-	-
904 UNCOLLECTIBLE ACCOUNTS	LB904	F025	_	_	_	_	-	_	_
905 MISC CUST ACCOUNTS	LB903	F025	-	-	-	-	-	-	-
Total Customer Accounts Labor Expense	LBCA		\$ - \$	-	s - s	- s	- \$	- S	-
Customer Service Expense									
907 SUPERVISION	LB907	F026	_	-	-	_	-	-	_
908 CUSTOMER ASSISTANCE EXPENSES	LB908	F026	_	_	_	_	-	_	_
908 CUSTOMER ASSISTANCE EXP-LOAD MGMT	LB908x	F026	_	_	_	_	_	_	_
909 INFORMATIONAL AND INSTRUCTIONA	LB909	F026	_	_	_	_	-	_	_
909 INFORM AND INSTRUC -LOAD MGMT	LB909x	F026	_	_	_	_	_	_	_
910 MISCELLANEOUS CUSTOMER SERVICE	LB910	F026	_	_	_	_	_	_	_
911 DEMONSTRATION AND SELLING EXP	LB911	F026	_	_	_	_	_	_	_
912 DEMONSTRATION AND SELLING EXP	LB912	F026	_	_	_	_	_	_	_
913 WATER HEATER - HEAT PUMP PROGRAM	LB913	F026	_	_	_	_	_	_	_
916 MISC SALES EXPENSE	LB916	F026	-	-	-	-	=	-	-
Total Customer Service Labor Expense	LBCS		\$ - \$	-	s - s	- s	- \$	- \$	-
Sub-Total Labor Exp	LBSUB7		1,260,567	1,926,993	1,956,839	1,741,351	1,165,786	994,688	1,379,712

Description	Name	Functional Vector	Acco	Customer unts Expense	Ser	Customer vice & Info.	Sales Expense
<u>Labor Expenses (Continued)</u>							
Distribution Maintenance Labor Expense							
590 MAINTENANCE SUPERVISION AND EN	LB590	F024		-		-	-
591 MAINTENANCE OF STRUCTURES	LB591	P362		-		-	-
592 MAINTENANCE OF STATION EQUIPME	LB592	P362		-		-	-
593 MAINTENANCE OF OVERHEAD LINES	LB593	P365		-		-	-
594 MAINTENANCE OF UNDERGROUND LIN	LB594	P367		-		-	-
595 MAINTENANCE OF LINE TRANSFORME	LB595	P368		-		-	-
596 MAINTENANCE OF ST LIGHTS & SIG SYSTEMS	LB596	P373		-		-	-
597 MAINTENANCE OF METERS	LB597	P370		-		-	-
598 MAINTENANCE OF MISC DISTR PLANT	LB598	PDIST		-		-	-
Total Distribution Maintenance Labor Expense	LBDM		\$	-	\$	-	\$ -
Total Distribution Operation and Maintenance Labor Expenses		PDIST		-		-	-
Transmission and Distribution Labor Expenses				-		-	-
Production, Transmission and Distribution Labor Expenses	LBSUB		\$	-	\$	-	\$ -
Customer Accounts Expense							
901 SUPERVISION/CUSTOMER ACCTS	LB901	F025		3,259,518		-	-
902 METER READING EXPENSES	LB902	F025		754,379		-	-
903 RECORDS AND COLLECTION	LB903	F025		11,992,171		-	-
904 UNCOLLECTIBLE ACCOUNTS	LB904	F025		-		-	-
905 MISC CUST ACCOUNTS	LB903	F025		-		-	-
Total Customer Accounts Labor Expense	LBCA		\$	16,006,068	\$	-	\$ -
Customer Service Expense							
907 SUPERVISION	LB907	F026		-		614,307	-
908 CUSTOMER ASSISTANCE EXPENSES	LB908	F026		-		1,585,968	-
908 CUSTOMER ASSISTANCE EXP-LOAD MGMT	LB908x	F026		-		-	-
909 INFORMATIONAL AND INSTRUCTIONA	LB909	F026		-		-	-
909 INFORM AND INSTRUC -LOAD MGMT	LB909x	F026		-		-	-
910 MISCELLANEOUS CUSTOMER SERVICE	LB910	F026		-		-	-
911 DEMONSTRATION AND SELLING EXP	LB911	F026		-		-	-
912 DEMONSTRATION AND SELLING EXP	LB912	F026		-		-	-
913 WATER HEATER - HEAT PUMP PROGRAM	LB913	F026		-		-	-
916 MISC SALES EXPENSE	LB916	F026		-		-	-
Total Customer Service Labor Expense	LBCS		\$	-	\$	2,200,275	\$ -
Sub-Total Labor Exp	LBSUB7			16,006,068		2,200,275	-

		Functional	Total	Produ	uction Demand		Produ	ction Energy	
Description	Name	Vector	System	Base	Inter.	Peak	Base	Inter.	Peak
Labor Expenses (Continued)									
Administrative and General Expense									
920 ADMIN. & GEN. SALARIES-	LB920	LBSUB7	\$ 33,809,236	3,683,645	3,472,490	3,566,272	7,680,252	-	_
921 OFFICE SUPPLIES AND EXPENSES	LB921	LBSUB7		· · · · -	· · ·	· · · ·	· · · -	-	-
922 ADMIN. EXPENSES TRANSFERRED - CREDIT	LB922	LBSUB7	(3,161,163)	(344,421)	(324,678)	(333,446)	(718,104)	-	-
923 OUTSIDE SERVICES EMPLOYED	LB923	LBSUB7	-	` -	- 1	-	` - ´	-	-
924 PROPERTY INSURANCE	LB924	TUP	_	-	_	_	_	-	_
925 INJURIES AND DAMAGES - INSURAN	LB925	LBSUB7	560,277	61,044	57,545	59,099	127,275	-	_
926 EMPLOYEE BENEFITS	LB926	LBSUB7	39,380,962	4,290,706	4,044,753	4,153,989	8,945,949	-	_
928 REGULATORY COMMISSION FEES	LB928	TUP	· · · · ·	· · · · -	· · · ·	· · · · -	· · · · -	-	_
929 DUPLICATE CHARGES-CR	LB929	LBSUB7	_	-	_	_	-	-	_
930 MISCELLANEOUS GENERAL EXPENSES	LB930	LBSUB7	_	_	-	_	_	-	_
931 RENTS AND LEASES	LB931	PGP	_	_	-	_	_	-	_
935 MAINTENANCE OF GENERAL PLANT	LB935	PGP	593,047	124,256	130,166	106,996	-	-	-
Total Administrative and General Expense	LBAG		\$ 71,182,359	\$ 7,815,231 \$	7,380,277 \$	7,552,910 \$	16,035,372 \$	- \$	-
Total Operation and Maintenance Expenses	TLB		\$ 171,476,569	\$ 18,742,668 \$	17,681,329 \$	18,132,162 \$	38,818,637 \$	- \$	-
Operation and Maintenance Expenses Less Purchase Power	LBLPP		\$ 171,476,569	\$ 18,742,668 \$	17,681,329 \$	18,132,162 \$	38,818,637 \$	- \$	-

		Functional	Transmission Demand	Distribution Poles		Dis	tribution Primary Li	ines
Description	Name	Vector	Demand	Specific	Genera	l Specific	2 Demand	Customer
<u>Labor Expenses (Continued)</u>								
Administrative and General Expense								
920 ADMIN. & GEN. SALARIES-	LB920	LBSUB7	2,272,732	-	847,086	-	923,063	1,711,738
921 OFFICE SUPPLIES AND EXPENSES	LB921	LBSUB7	-	-	-	-	-	-
922 ADMIN. EXPENSES TRANSFERRED - CREDIT	LB922	LBSUB7	(212,500)	-	(79,203)	-	(86,306)	(160,047)
923 OUTSIDE SERVICES EMPLOYED	LB923	LBSUB7	-	-	-	-	-	-
924 PROPERTY INSURANCE	LB924	TUP	-	-	-	-	-	-
925 INJURIES AND DAMAGES - INSURAN	LB925	LBSUB7	37,663	-	14,038	-	15,297	28,366
926 EMPLOYEE BENEFITS	LB926	LBSUB7	2,647,276	-	986,685	-	1,075,183	1,993,830
928 REGULATORY COMMISSION FEES	LB928	TUP	-	-	-	-	-	-
929 DUPLICATE CHARGES-CR	LB929	LBSUB7	-	-	-	-	-	-
930 MISCELLANEOUS GENERAL EXPENSES	LB930	LBSUB7	-	-	-	-	-	-
931 RENTS AND LEASES	LB931	PGP	-	-	-	-	-	-
935 MAINTENANCE OF GENERAL PLANT	LB935	PGP	78,122	-	18,586	-	20,252	37,556
Total Administrative and General Expense	LBAG		\$ 4,823,292	\$ -	\$ 1,787,193	\$ -	\$ 1,947,489	\$ 3,611,444
Total Operation and Maintenance Expenses	TLB		\$ 11,565,291	\$ -	\$ 4,300,052	\$ -	\$ 4,685,732	\$ 8,689,269
Operation and Maintenance Expenses Less Purchase Power	LBLPP		\$ 11,565,291	s -	\$ 4,300,052	s -	\$ 4,685,732	\$ 8,689,269

		Functional	Distribution So	ec. Lines	Distribution Li	ne Trans.	Distribution Services	Distribution Meters	Distribution St. & Cust. Lighting
Description	Name	Vector	Demand	Customer	Demand	Customer	Customer		
Labor Expenses (Continued)									
Administrative and General Expense									
920 ADMIN. & GEN. SALARIES-	LB920	LBSUB7	424,938	649,590	659,651	587,010	392,987	335,310	465,102
921 OFFICE SUPPLIES AND EXPENSES	LB921	LBSUB7	-	-	-	-	-	-	-
922 ADMIN. EXPENSES TRANSFERRED - CREDIT	LB922	LBSUB7	(39,732)	(60,737)	(61,677)	(54,885)	(36,744)	(31,351)	(43,487)
923 OUTSIDE SERVICES EMPLOYED	LB923	LBSUB7	-	-	-	-	-	-	-
924 PROPERTY INSURANCE	LB924	TUP	-	-	-	-	-	-	-
925 INJURIES AND DAMAGES - INSURAN	LB925	LBSUB7	7,042	10,765	10,932	9,728	6,512	5,557	7,708
926 EMPLOYEE BENEFITS	LB926	LBSUB7	494,967	756,642	768,361	683,749	457,751	390,569	541,750
928 REGULATORY COMMISSION FEES	LB928	TUP	-	-	-	-	-	-	-
929 DUPLICATE CHARGES-CR	LB929	LBSUB7	_	-	_	-	-	-	-
930 MISCELLANEOUS GENERAL EXPENSES	LB930	LBSUB7	_	-	_	-	-	-	-
931 RENTS AND LEASES	LB931	PGP	-	-	-	-	-	-	-
935 MAINTENANCE OF GENERAL PLANT	LB935	PGP	9,323	14,252	14,473	12,879	8,622	7,357	10,205
Total Administrative and General Expense	LBAG		\$ 896,539 \$	1,370,513	\$ 1,391,740 \$	1,238,481	\$ 829,129	\$ 707,441	\$ 981,277
Total Operation and Maintenance Expenses	TLB		\$ 2,157,106 \$	3,297,506	\$ 3,348,579 \$	2,979,831	\$ 1,994,915	\$ 1,702,129	\$ 2,360,988
Operation and Maintenance Expenses Less Purchase Power	LBLPP		\$ 2,157,106 \$	3,297,506	\$ 3,348,579 \$	2,979,831	\$ 1,994,915	\$ 1,702,129	\$ 2,360,988

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## KENTUCKY UTILITIES COMPANY Cost of Service Study Functional Assignment and Classification 12 Months Ended June 30, 2018

				Customer		Customer		
		Functional	Acc	ounts Expense	Serv	vice & Info.	5	Sales Expense
Description	Name	Vector	<u> </u>	•				
Labor Expenses (Continued)								
Administrative and General Expense								
920 ADMIN. & GEN. SALARIES-	LB920	LBSUB7		5,395,655		741,714		-
921 OFFICE SUPPLIES AND EXPENSES	LB921	LBSUB7		-		-		-
922 ADMIN. EXPENSES TRANSFERRED - CREDIT	LB922	LBSUB7		(504,494)		(69,350)		-
923 OUTSIDE SERVICES EMPLOYED	LB923	LBSUB7		-		-		-
924 PROPERTY INSURANCE	LB924	TUP		-		-		-
925 INJURIES AND DAMAGES - INSURAN	LB925	LBSUB7		89,415		12,291		-
926 EMPLOYEE BENEFITS	LB926	LBSUB7		6,284,853		863,947		-
928 REGULATORY COMMISSION FEES	LB928	TUP		-		-		-
929 DUPLICATE CHARGES-CR	LB929	LBSUB7		-		-		_
930 MISCELLANEOUS GENERAL EXPENSES	LB930	LBSUB7		-		-		_
931 RENTS AND LEASES	LB931	PGP		-		-		_
935 MAINTENANCE OF GENERAL PLANT	LB935	PGP		-		-		-
Total Administrative and General Expense	LBAG		\$	11,265,429	\$	1,548,603	\$	
Total Operation and Maintenance Expenses	TLB		\$	27,271,497	\$	3,748,877	\$	
Operation and Maintenance Expenses Less Purchase Power	LBLPP		\$	27,271,497	\$	3,748,877	\$	-

		Functional		Total	Prod	luction Demand			Produ	ction Energ	v	
Description	Name	Vector		System	Base	Inter.	Peak	Base		Inte		Peak
Other Expenses												
Depreciation Expenses												
Steam Production	DEPRTP	PPRTL	\$	99,900,146	34,345,801	35,979,400	29,574,946	_		_		-
Hydraulic Production	DEPRDP1	PPRTL		1,118,831	384,656	402,951	331,224	-		-		-
Other Production	DEPRDP2	PPRTL		35,620,454	12,246,359	12,828,836	10,545,260	_		-		_
Transmission - Kentucky System Property	DEPRDP3	PTRAN		20,185,930	· · ·	· · · · ·	· · · · -	_		_		-
Transmission - Virginia Property	DEPRDP4	PTRAN		182,214	-	-	_	_		_		_
Distribution	DEPRDP5	PDIST		43,044,393	-	_	_	_		_		_
General Plant	DEPRDP6	PGP		11,631,105	2,436,972	2,552,882	2,098,460	_		_		_
Intangible Plant	DEPRAADJ	PINT		16,379,764	3,431,920	3,595,153	2,955,204	-		-		-
Total Depreciation Expense	TDEPR		\$	228,062,837	52,845,706	55,359,222	45,505,094	-		-		-
Regulatory Credits and Accretion Expenses												
Production Plant	ACRTPP	PPRTL	\$	_	_	_	_	_		_		_
Transmission Plant	ACRTTP	PTRAN	Ψ	_								
Distribution Plant	ACKITI	PDIST			-	_		-		_		-
Distribution Flant		FDIST		-	-	-	-	-		-		-
Total Regulatory Credits and Accretion Expenses	TACRT		\$	-	\$ - \$	- \$	- \$	-	\$	-	\$	-
Property Taxes	PTAX	TUP	\$	24,894,101	5,182,784	5,429,295	4,462,862	-		-		-
Other Taxes	OTAX	TUP	\$	12,926,774	2,691,268	2,819,273	2,317,433	-		-		-
Gain Disposition of Allowances	GAIN	F013	\$	-	-	-	-	-		-		-
Interest	INTLTD	TUP	\$	86,095,200	17,924,442	18,776,988	15,434,620	-		-		-
Other Expenses	OT	TUP	\$	-	-	-	-	-		-		-
Total Other Expenses	TOE		\$	351,978,912	\$ 78,644,200 \$	82,384,778 \$	67,720,009 \$	-	\$	-	\$	-
Total Cost of Service (O&M + Other Expenses)			\$	1,285,753,151	\$ 116,269,450 \$	118,336,057 \$	103,653,665 \$	640,387,547	\$	_	\$	-
Non-Operating Items												
Non-Operating Margins - Interest				-								
AFUDC				-								
Income (Loss) from Equity Investments				-								
Non-Operating Margins - Other				-								
Generation and Transmission Capital Credits				-								
Other Capital Credits and Patronage Dividends				_								
Extraordinary Items				-								
·												
Long Term Debt Service Requirements				-								

### LOLP METHODOLOGY

		Functional	Transmission Demand	Distribution Poles	Distribution Substation		tion Primary Line	
Description	Name	Vector	Demand	Specific	General	Specific	Demand	Customer
Other Expenses								
Depreciation Expenses								
Steam Production	DEPRTP	PPRTL	_	_	_	-	_	-
Hydraulic Production	DEPRDP1	PPRTL	-	-	-	-	-	-
Other Production	DEPRDP2	PPRTL	-	-	-	-	-	-
Transmission - Kentucky System Property	DEPRDP3	PTRAN	20,185,930	-	-	-	-	-
Transmission - Virginia Property	DEPRDP4	PTRAN	182,214	-	-	-	-	-
Distribution	DEPRDP5	PDIST	-	-	5,211,527	-	5,678,959	10,531,117
General Plant	DEPRDP6	PGP	1,532,160	-	364,507	-	397,200	736,572
Intangible Plant	DEPRAADJ	PINT	2,157,698	-	513,325	-	559,366	1,037,295
Total Depreciation Expense	TDEPR		24,058,002	-	6,089,359	-	6,635,525	12,304,984
Regulatory Credits and Accretion Expenses Production Plant	ACRTPP	PPRTL	-	-	-	-	-	-
Transmission Plant	ACRTTP	PTRAN	-	-	-	-	-	-
Distribution Plant		PDIST	-	-	-	-	-	-
Total Regulatory Credits and Accretion Expenses	TACRT		\$ -	\$ -	\$ -	s - s	- \$	-
Property Taxes	PTAX	TUP	3,342,932	-	784,098	-	854,426	1,584,455
Other Taxes	OTAX	TUP	1,735,886	-	407,159	-	443,678	822,761
Gain Disposition of Allowances	GAIN	F013	-	-	-	-	-	-
Interest	INTLTD	TUP	11,561,389	-	2,711,771	-	2,954,995	5,479,772
Other Expenses	OT	TUP	-	-	-	-	-	-
Total Other Expenses	TOE		\$ 40,698,209	\$ -	\$ 9,992,387	s - s	10,888,624 \$	20,191,972
Total Cost of Service (O&M + Other Expenses)			\$ 84,725,138	\$ -	\$ 17,420,002	s - s	24,614,594 \$	42,159,192

### Non-Operating Items

Non-Operating Margins - Interest AFUDC Income (Loss) from Equity Investments Non-Operating Margins - Other Generation and Transmission Capital Credits Other Capital Credits and Patronage Dividends Extraordinary Items

Long Term Debt Service Requirements

### LOLP METHODOLOGY

		Functional	Distribution Se	c. Lines		Distribution Line	Trans.	Distril Se	oution rvices	Distribution Meters	Distribution St. & Cust. Lighting
Description	Name	Vector	Demand	Customer	r	Demand	Customer	Cust	omer	•	-
Other Expenses											
Depreciation Expenses											
Steam Production	DEPRTP	PPRTL	-	-		-	-		-	-	-
Hydraulic Production	DEPRDP1	PPRTL	-	-		-	-		-	-	-
Other Production	DEPRDP2	PPRTL	-	-		-	-		-	-	-
Transmission - Kentucky System Property	DEPRDP3	PTRAN	-	-		-	-		-	-	-
Transmission - Virginia Property	DEPRDP4	PTRAN	-	-		-	-		-	-	-
Distribution	DEPRDP5	PDIST	2,614,344	3,996,473		4,058,371	3,611,461	2,41		2,062,926	2,861,443
General Plant	DEPRDP6	PGP	182,854	279,523		283,852	252,594		9,105	144,286	200,136
Intangible Plant	DEPRAADJ	PINT	257,508	393,645		399,742	355,722	23	3,146	203,194	281,847
Total Depreciation Expense	TDEPR		3,054,706	4,669,641		4,741,965	4,219,777	2,82	5,024	2,410,406	3,343,426
Regulatory Credits and Accretion Expenses											
Production Plant	ACRTPP	PPRTL	-	_		_	_		-	-	_
Transmission Plant	ACRTTP	PTRAN	-	-		-	-		-	-	-
Distribution Plant		PDIST	-	-		-	-		-	-	-
Total Regulatory Credits and Accretion Expenses	TACRT		\$ - \$	-	\$	- \$	-	\$	- 5	-	s -
Property Taxes	PTAX	TUP	393,340	601,288		610,601	543,361	36	3,765	310,377	430,517
Other Taxes	OTAX	TUP	204,250	312,231		317,067	282,151	18	8,893	161,170	223,555
Gain Disposition of Allowances	GAIN	F013	_	_		-	_		_	-	-
•											
Interest	INTLTD	TUP	1,360,350	2,079,529		2,111,737	1,879,191	1,25	8,066	1,073,425	1,488,926
Other Expenses	OT	TUP	-	-		-	-		-	-	-
Total Other Expenses	TOE		\$ 5,012,646 \$	7,662,688	\$	7,781,369 \$	6,924,480	\$ 4,63	5,748	3,955,377	\$ 5,486,424
Total Cost of Service (O&M + Other Expenses)			\$ 11,962,698 \$	17,926,608	\$	10,830,067 \$	9,637,453	\$ 6,42	1,513 \$	16,294,158	\$ 7,457,083

### Non-Operating Items

Non-Operating Margins - Interest AFUDC Income (Loss) from Equity Investments Non-Operating Margins - Other Generation and Transmission Capital Credits Other Capital Credits and Patronage Dividends Extraordinary Items

Long Term Debt Service Requirements

#### LOLP METHODOLOGY

Description	Name	Functional Vector	Acco	Customer ounts Expense	Ser	Customer vice & Info.	Sales Expense
•	rvanic	7 CC101					
Other Expenses							
Depreciation Expenses							
Steam Production	DEPRTP	PPRTL		-		-	-
Hydraulic Production	DEPRDP1	PPRTL		-		-	-
Other Production	DEPRDP2	PPRTL		-		-	-
Transmission - Kentucky System Property	DEPRDP3	PTRAN		-		-	-
Transmission - Virginia Property	DEPRDP4	PTRAN		-		-	-
Distribution	DEPRDP5	PDIST		-		-	-
General Plant	DEPRDP6	PGP		-		-	-
Intangible Plant	DEPRAADJ	PINT		-		-	-
Total Depreciation Expense	TDEPR			-		-	-
Regulatory Credits and Accretion Expenses							
Production Plant	ACRTPP	PPRTL		-		-	-
Transmission Plant	ACRTTP	PTRAN		-		-	-
Distribution Plant		PDIST		-		-	-
Total Regulatory Credits and Accretion Expenses	TACRT		\$	-	\$	-	\$ -
Property Taxes	PTAX	TUP		-		-	-
Other Taxes	OTAX	TUP		-		-	-
Gain Disposition of Allowances	GAIN	F013		-		-	-
Interest	INTLTD	TUP		-		-	-
Other Expenses	OT	TUP		-		-	-
<b>Total Other Expenses</b>	TOE		\$	-	\$	-	\$ -
Total Cost of Service (O&M + Other Expenses)			\$	51,233,939	\$	6,423,986	\$ -

#### Non-Operating Items

Non-Operating Margins - Interest AFUDC Income (Loss) from Equity Investments Non-Operating Margins - Other Generation and Transmission Capital Credits Other Capital Credits and Patronage Dividends Extraordinary Items

Long Term Debt Service Requirements

			-						
		Functional	Total		oduction Demand			roduction Energy	
Description	Name	Vector	System	Base	Inter.	Peak	Base	Inter.	Peak
Functional Vectors									
Station Equipment	F001		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Poles, Towers and Fixtures	F002		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Overhead Conductors and Devices	F002		1.000000	0.000000	0.000000	0.000000	0.00000	0.000000	0.000000
Underground Conductors and Devices	F004		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Line Transformers	F005		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Services	F005		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
								0.000000	
Meters	F007		1.000000	0.000000	0.000000	0.000000	0.000000		0.000000
Street Lighting	F008		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Meter Reading	F009		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Billing	F010		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Transmission	F011		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Load Management	F012		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Production Plant	F017		1.000000	0.343801	0.360154	0.296045	0.000000	0.000000	0.000000
Provar	PROVAR		1.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000
Fuel	F018		1.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000
Steam Generation Operation Labor	F019		18,373,986	5,447,167	5,134,923	5,273,601	2,518,295	-	
PROFIX	PROFIX		1.000000	0.343546	0.323854	0.332600	0.000000	0.000000	0.000000
Steam Generation Maintenance Labor	F020		12,842,398	425,611	401,214	412,049	11,603,523	-	-
Hydraulic Generation Operation Labor	F021						-	-	-
Hydraulic Generation Maintenance Labor	F022		47,185	16,210	15,281	15,694	-	-	-
Distribution Operation Labor	F023		12,444,303	-	-	-	-	-	-
Distribution Maintenance Labor	F024		7,228,850		-		-	-	
Customer Accounts Expense	F025		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Service Expense	F026		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Advances	F027		918,042,686	-	-	-	-	-	-
Purchase Power Demand		F017	7,312,226	2,513,953	2,633,525	2,164,748	-	-	-
Purchase Power Energy		F018	43,441,113	-	-	-	43,441,113	-	-
Purchased Power Expenses	OMPP	F017	50,753,339	2,513,953	2,633,525	2,164,748	43,441,113	-	-
Gain Disposition of Allowances	F013		1.00000	_	_	_	1.000000	_	_
Intallations on Customer Premises - Accum Depr	F014		1.00000	_	_	_	-	_	_
Generators -Energy	F015		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000
	Energy		1.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000
Internally Generated Functional Vectors	87								
Total Prod. Trans. and Dist Plant		PT&D	1.000000	0.209522	0.219487	0.180418	_	_	_
Total Distribution Plant		PDIST	1.000000	-	-	· · · · · ·	_	_	_
Total Transmission Plant		PTRAN	1.000000	_	_	_	_	_	_
Operation and Maintenance Expenses Less Purchase Power		OMLPP	1.000000	0.039764	0.037734	0.038243	0.676055	_	_
Total Plant in Service		TPIS	1.000000	0.209524	0.219489	0.180420	-	_	_
Total Operation and Maintenance Expenses (Labor)		TLB	1.000000	0.109302	0.103112	0.105741	0.226379	_	_
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service		OMSUB2	1.000000	0.029538	0.028166	0.028270	0.752280	_	_
Total Steam Power Operation Expenses (Labor)		LBSUB1	1.000000	0.296461	0.279467	0.287015	0.137058	_	_
Total Steam Power Generation Maintenance Expense (Labor)		LBSUB2	1.000000	0.033141	0.031241	0.032085	0.903532	_	_
Total Hydraulic Power Operation Expenses (Labor)		LBSUB3	1.000000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Hydraulic Power Generation Maint. Expense (Labor)		LBSUB4	1.000000	0.343546	0.323854	0.332600	#B1170.	#B1*/0.	#D1*/0.
Total Other Power Generation Expenses (Labor)		LBSUB5	1.000000	0.343546	0.323854	0.332600	_	-	_
Total Transmission Labor Expenses		LBTRAN	1.000000	0.545540	0.525654	0.552000	-	-	-
Total Distribution Operation Labor Expense		LBDO	1.000000	-	-	-	_		-
Total Distribution Maintenance Labor Expense  Total Distribution Maintenance Labor Expense		LBDM	1.000000	-	-	-	-	-	-
Sub-Total Labor Exp		LBSUB7	1.000000	0.108954	0.102708	0.105482	0.227164	-	-
Total General Plant		PGP	1.000000		0.219487		0.22/104	-	-
				0.209522		0.180418	-	-	-
Total Production Plant		PPRTL	1.000000	0.343801 0.209522	0.360154	0.296045	-	-	-
Total Intangible Plant		PINT	1.000000	0.209522	0.219487	0.180418	-	-	-

				-	1			
			Transmission		Distribution			
		Functional	Demand	Distribution Poles	Substation		ution Primary Li	nes
Description	Name	Vector	Demand	Specific	General	Specific	Demand	Customer
Functional Vectors								
Station Equipment	F001		0.000000	0.000000	1.000000	0.000000	0.000000	0.000000
Poles, Towers and Fixtures	F002		0.000000	0.000000	0.000000	0.000000	0.266122	0.385978
Overhead Conductors and Devices	F003		0.000000	0.000000	0.000000	0.000000	0.266122	0.385978
Underground Conductors and Devices	F004		0.000000	0.000000	0.000000	0.000000	0.187201	0.730899
Line Transformers	F005		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Services	F006		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Meters	F007		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Street Lighting	F008		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Meter Reading	F009		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Billing	F010		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Transmission	F011		1.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Load Management	F012		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Production Plant	F017		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Provar	PROVAR		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Fuel	F018		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Steam Generation Operation Labor	F019		-	-	-	-	-	-
PROFIX	PROFIX		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Steam Generation Maintenance Labor	F020		=	-	-	-	-	-
Hydraulic Generation Operation Labor	F021		-	-	-	-	-	-
Hydraulic Generation Maintenance Labor	F022		-	-	<del>-</del>	-		
Distribution Operation Labor	F023		-	-	1,618,226	-	1,018,596	1,655,552
Distribution Maintenance Labor	F024				605,269		1,716,339	2,679,438
Customer Accounts Expense	F025		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Service Expense	F026		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Advances	F027		-	-	=	-	228,454,093	423,647,545
Purchase Power Demand		F017	-	-	-	-	-	-
Purchase Power Energy		F018	-	-	-	-	-	-
Purchased Power Expenses	OMPP	F017	-	-	-	-	-	-
Gain Disposition of Allowances	F013		-	-	-	-	-	_
Intallations on Customer Premises - Accum Depr	F014		-	_	_	-	-	-
Generators -Energy	F015		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Energy		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Internally Generated Functional Vectors								
Total Prod, Trans, and Dist Plant		PT&D	0.131730	-	0.031339	-	0.034150	0.063328
Total Distribution Plant		PDIST	-	-	0.121073	-	0.131933	0.244657
Total Transmission Plant		PTRAN	1.000000	-	-	-	-	-
Operation and Maintenance Expenses Less Purchase Power		OMLPP	0.049852	-	0.008410	-	0.015542	0.024874
Total Plant in Service		TPIS	0.131722	-	0.031339	-	0.034150	0.063328
Total Operation and Maintenance Expenses (Labor)		TLB	0.067445	-	0.025077	-	0.027326	0.050673
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service		OMSUB2	0.043548	-	0.005501	-	0.012864	0.019603
Total Steam Power Operation Expenses (Labor)		LBSUB1	-	-	-	-	-	-
Total Steam Power Generation Maintenance Expense (Labor)		LBSUB2	-	-	-	-	-	-
Total Hydraulic Power Operation Expenses (Labor)		LBSUB3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Hydraulic Power Generation Maint. Expense (Labor)		LBSUB4	-	-	-	-	-	-
Total Other Power Generation Expenses (Labor)		LBSUB5	1.0000000	=	-	-	-	-
Total Transmission Labor Expenses		LBTRAN LBDO	1.0000000	-		-	0.081852	0.133037
Total Distribution Operation Labor Expense			-	-	0.130037	-		
Total Distribution Maintenance Labor Expense		LBDM LBSUB7	0.067222	-	0.083730 0.025055	-	0.237429 0.027302	0.370659
Sub-Total Labor Exp Total General Plant		PGP	0.067222	-	0.025055	-	0.027302	0.050629 0.063328
Total Production Plant		PPRTL	0.151/50	-	0.031339	-	0.034150	0.003328
Total Intangible Plant		PINT	0.131730	-	0.031339	-	0.034150	0.063328
1 Oran Tittaligible Flatit		1.11/1	0.151/50	-	0.031339	-	0.034130	0.003328

		ъ с т	D: 4 7 4: 6		D: ( 7 () I		Distribution Services	Distribution Meters	Distribution St. &
Description	Name	Functional Vector	Distribution S Demand	Sec. Lines Customer	Distribution L Demand	Customer	Customer	Meters	Cust. Lighting
Functional Vectors									
r unctional vectors									
Station Equipment	F001		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Poles, Towers and Fixtures	F002		0.141978	0.205922	0.000000	0.000000	0.000000	0.000000	0.000000
Overhead Conductors and Devices	F003		0.141978	0.205922	0.000000	0.000000	0.000000	0.000000	0.000000
Underground Conductors and Devices Line Transformers	F004 F005		0.016699 0.000000	0.065201 0.000000	0.000000 0.529134	0.000000 0.470866	0.000000	0.000000	0.000000
Services	F005		0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000
Meters	F007		0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000
Street Lighting	F008		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000
Meter Reading	F009		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Billing	F010		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Transmission	F011		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Load Management	F012		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Production Plant	F017		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Provar	PROVAR		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Fuel	F018		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Steam Generation Operation Labor PROFIX	F019 PROFIX		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Steam Generation Maintenance Labor	F020		0.000000	0.000000	0.00000	0.000000	0.00000	0.000000	0.000000
Hydraulic Generation Operation Labor	F020				-		-		
Hydraulic Generation Maintenance Labor	F022		_	_	_	_	_	_	_
Distribution Operation Labor	F023		511,165	757,280	315,193	280,484	187,776	5,877,797	222,234
Distribution Maintenance Labor	F024		881,262	1,295,122	27,208	24,212	-	-	-
Customer Accounts Expense	F025		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Service Expense	F026		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Customer Advances	F027		105,170,279	160,770,769	=	=	-	-	-
Purchase Power Demand		F017	_	_	_	=	-	_	_
Purchase Power Energy		F018	-	-	-	-	-	-	-
Purchased Power Expenses	OMPP	F017	-	-	-	-	-	-	-
Gain Disposition of Allowances	F013		-	-	_	-	-	-	-
Intallations on Customer Premises - Accum Depr	F014		-	-	-	-	-	-	-
Generators -Energy	F015		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Energy		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Internally Generated Functional Vectors		DT 0 D	0.015721	0.024022	0.024405	0.021717	0.014520	0.012405	0.017207
Total Prod, Trans, and Dist Plant Total Distribution Plant		PT&D PDIST	0.015721 0.060736	0.024032 0.092845	0.024405 0.094283	0.021717 0.083901	0.014539 0.056169	0.012405 0.047926	0.017207 0.066477
Total Transmission Plant		PTRAN	0.000730	0.092643	0.094203	0.063901	0.030109	0.047920	0.000477
Operation and Maintenance Expenses Less Purchase Power		OMLPP	0.007870	0.011622	0.003452	0.003072	0.002022	0.013971	0.002231
Total Plant in Service		TPIS	0.015721	0.024033	0.024405	0.021717	0.014539	0.012405	0.017207
Total Operation and Maintenance Expenses (Labor)		TLB	0.012580	0.019230	0.019528	0.017377	0.011634	0.009926	0.013769
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service		OMSUB2	0.006692	0.009790	0.000948	0.000843	0.000527	0.013641	0.000450
Total Steam Power Operation Expenses (Labor)		LBSUB1	-	-	-	-	-	-	-
Total Steam Power Generation Maintenance Expense (Labor)		LBSUB2	-	-	-	-	-	-	-
Total Hydraulic Power Operation Expenses (Labor)		LBSUB3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Hydraulic Power Generation Maint. Expense (Labor)		LBSUB4	-	-	-	-	-	-	-
Total Other Power Generation Expenses (Labor)		LBSUB5	-	-	-	-	-	-	-
Total Transmission Labor Expenses		LBTRAN					- 0.015007		
Total Distribution Operation Labor Expense		LBDO	0.041076	0.060854	0.025328	0.022539	0.015089	0.472328	0.017858
Total Distribution Maintenance Labor Expense		LBDM LBSUB7	0.121909	0.179160 0.019213	0.003764	0.003349	0.011624	0.009918	0.01277
Sub-Total Labor Exp Total General Plant		LBSUB/ PGP	0.012569 0.015721	0.019213	0.019511 0.024405	0.017362 0.021717	0.011624 0.014539	0.009918	0.013757 0.017207
Total Production Plant		PPRTL	0.013/21	0.024032	0.024403	0.021/1/	0.014339	0.012403	0.01 /20/
Total Intangible Plant		PINT	0.015721	0.024032	0.024405	0.021717	0.014539	0.012405	0.017207
- com - mangione 1 luit		. 1111	0.013/21	0.02-1032	0.02-1103	0.021/1/	0.01-009	0.012-103	0.01/20/

			Customer	Customer	
Description	Name	Functional Vector	Accounts Expense	Service & Info.	Sales Expense
Description	Name	vector			
Functional Vectors					
Station Equipment	F001		0.000000	0.000000	0.000000
Poles, Towers and Fixtures	F002		0.000000	0.000000	0.000000
Overhead Conductors and Devices	F003		0.000000	0.000000	0.000000
Underground Conductors and Devices	F004		0.000000	0.000000	0.000000
Line Transformers	F005		0.000000	0.000000	0.000000
Services Meters	F006 F007		0.000000	0.000000	0.000000
Street Lighting	F007 F008		0.000000 0.000000	0.000000 0.000000	0.000000 0.000000
Meter Reading	F009		0.000000	1.000000	0.000000
Billing	F010		0.000000	1.000000	0.000000
Transmission	F011		0.000000	0.000000	0.000000
Load Management	F012		0.000000	0.000000	1.000000
Production Plant	F017		0,000000	0.000000	0.000000
Provar	PROVAR		0.000000	0.000000	0.000000
Fuel	F018		0.000000	0.000000	0.000000
Steam Generation Operation Labor	F019		-	-	-
PROFIX	PROFIX		0.000000	0.000000	0.000000
Steam Generation Maintenance Labor	F020		-	-	_
Hydraulic Generation Operation Labor	F021		-	-	-
Hydraulic Generation Maintenance Labor	F022		-	-	-
Distribution Operation Labor	F023		-	-	-
Distribution Maintenance Labor	F024		-	-	-
Customer Accounts Expense	F025		1.000000	0.000000	0.000000
Customer Service Expense	F026		0.000000	1.000000	0.000000
Customer Advances	F027		-	-	=
Purchase Power Demand		F017	-	-	-
Purchase Power Energy		F018	-	-	-
Purchased Power Expenses	OMPP	F017	-	-	-
Gain Disposition of Allowances	F013		-	-	-
Intallations on Customer Premises - Accum Depr	F014		1.00000	-	-
Generators -Energy	F015		0.000000	0.000000	0.000000
	Energy		0.000000	0.000000	0.000000
Internally Generated Functional Vectors					
Total Prod, Trans, and Dist Plant		PT&D	-	-	-
Total Distribution Plant		PDIST	-	-	-
Total Transmission Plant Operation and Maintenance Expenses Less Purchase Power		PTRAN OMLPP	0.058012	0.007274	-
		TPIS	0.058012	0.007274	-
Total Plant in Service Total Operation and Maintenance Expenses (Labor)		TLB	0.159039	0.021862	-
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service		OMSUB2	0.139039	0.021862	-
Total Steam Power Operation Expenses (Labor)		LBSUB1	0.042281	0.003037	-
Total Steam Power Generation Maintenance Expense (Labor)		LBSUB2			
Total Hydraulic Power Operation Expenses (Labor)		LBSUB3	#DIV/0!	#DIV/0!	#DIV/0!
Total Hydraulic Power Generation Maint. Expense (Labor)		LBSUB4	#BI 170.	#DI 170.	#DI 170.
Total Other Power Generation Expenses (Labor)		LBSUB5	-	-	_
Total Transmission Labor Expenses		LBTRAN	_	_	_
Total Distribution Operation Labor Expense		LBDO	-	-	-
Total Distribution Maintenance Labor Expense		LBDM	-	-	-
Sub-Total Labor Exp		LBSUB7	0.159591	0.021938	_
		BGB		_	
Total General Plant		PGP	-	-	-
Total General Plant Total Production Plant		PGP PPRTL	-	-	-

### **Exhibit WSS-18**

# Electric Cost of Service Study Class Allocation BIP Methodology

		1	2		3		4		5		7		9		10
			Allocation		Total	1	Residential		General Service	All	Electric Schools		Power Service	1	Power Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Plant in Service															
Power Production Plant															
Production Demand - Base	TPIS	PLPPDB	PPBDA	\$	1,460,538,245	\$	490,329,023	\$	146,286,933	\$	12,222,948	\$	172,774,529	\$	13,332,939
Production Demand - Inter.	TPIS	PLPPDI	PPWDA		1,530,006,255		663,775,884		178,431,715		14,727,201		167,434,520		10,597,394
Production Demand - Peak	TPIS	PLPPDP	PPSDA		1,257,659,983		472,385,143		141,460,866		9,496,956		149,181,911		11,190,242
Production Energy - Base	TPIS	PLPPEB	E01		-		-		-		-		-		-
Production Energy - Inter. Production Energy - Peak	TPIS TPIS	PLPPEI PLPPEP	E01 E01		-		-		-		-		-		-
Total Power Production Plant	1115	PLPPT	EUI	s	4,248,204,483	¢	1,626,490,050	¢	466,179,515	•	36,447,104	•	489,390,960	¢	35,120,575
Total Fower Floduction Flaint		TLTTI		φ	4,240,204,463	Ф	38.3%		11.0%	J.	0.9%	Þ	11.5%	J	0.8%
Transmission Plant Transmission Demand	TPIS	PLTRB	NCPT	\$	918,203,216	e.	390,548,219	e	98,875,137		9,545,370	6	87,167,957	e	6,854,993
Transmission Demand	1113	PLIKD	NCFI	3	918,203,210	Þ	390,348,219	э	90,073,137	Þ	9,545,570	Þ	87,107,937	Þ	0,834,993
Distribution Poles	TDIO	DI DDG	NGDD			Ф.		•				•		•	
Specific	TPIS	PLDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Substation															
General	TPIS	PLDSG	NCPP	\$	218,458,065	\$	103,629,304	\$	26,235,842	\$	2,532,799	\$	23,129,422	\$	1,818,926
Distribution Primary & Secondary L	ines														
Primary Specific	TPIS	PLDPLS	NCPP	\$	-	\$		\$	-	\$	-	\$		\$	-
Primary Demand	TPIS	PLDPLD	NCPP		238,051,995		112,924,018		28,588,986		2,759,971		25,203,945		1,982,069
Primary Customer	TPIS	PLDPLC	Cust08		441,445,991		352,743,595		68,249,994		485,692		3,688,148		141,694
Secondary Demand	TPIS	PLDSLD	SICD		109,588,734		91,289,586		16,440,796		1,154,842		-		-
Secondary Customer Total Distribution Primary & Secondary	TPIS	PLDSLC PLDLT	Cust07	\$	167,525,133 956,611,853	¢	135,261,394 692,218,593	e	26,170,821 139,450,598	e	186,241 4,586,746	e	28,892,094	e	2,123,763
Total Distribution Filmary & Secondary	y Lines	FLDLI		φ	930,011,833	Ф	092,210,393	Ф	139,430,398	J.	4,560,740	Þ	20,092,094	J	2,123,703
Distribution Line Transformers	TDIO	DI DI TD	GLODE		150 110 500	Ф.	110.027.174	•	21 256 000		1 402 001	•	16 600 677	•	
Demand Customer	TPIS TPIS	PLDLTD	SICDT Cust09	\$	170,119,799	\$	118,027,154	\$	21,256,098	\$	1,493,081	\$	16,689,677	\$	-
Total Line Transformers	1115	PLDLTC PLDLTT	Custo9	\$	151,386,108 321,505,907	¢	121,068,269 239,095,423	e	23,424,688 44,680,786	e	166,699 1,659,779	e	1,265,842 17,955,519	e	-
Total Line Transformers		PLDLII		3	321,303,907	Þ	239,093,423	э	44,080,780	Þ	1,039,779	Þ	17,955,519	Þ	-
Distribution Services Customer	TPIS	PLDSC	C02	\$	101,348,810	c	71,077,561	e	27,841,199	e	263,669	e	1,891,563	e	
Customer	1115	PLDSC	C02	3	101,348,810	Þ	/1,0//,561	3	27,841,199	2	203,009	3	1,891,303	3	-
Distribution Meters															
Customer	TPIS	PLDMC	C03	\$	86,474,242	\$	53,740,504	\$	20,028,963	\$	424,846	\$	5,428,842	\$	1,196,946
Distribution Street & Customer Ligh	iting														
Customer	TPIS	PLDSCL	C04	\$	119,946,663	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Accounts Expense															
Customer	TPIS	PLCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info.															
Customer	TPIS	PLCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Salas Evnansa															
Sales Expense Customer	TPIS	PLSEC	C06	\$		\$		s		\$		s		S	
Custonici	1113	LIBEC	C00	٠	-	φ	-	Φ	-	Φ	-	Ψ	-	Φ	-
Total		PLT		\$	6,970,753,239	\$	3,176,799,654	\$	823,292,040	\$	55,460,314	\$	653,856,358	\$	47,115,202

		1	2		11		12		13		14_		15	16		17
			Allocation		ime of Day		Time of Day		Service		Service	O	utdoor Lighting	Lighting Energy	-	Traffic Energy
Description	Ref	Name	Vector	TO	D-Secondary		TOD-Primary		RTS	FI	LS - Transmission		ST & POL	LE		TE
Plant in Service																
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	TPIS TPIS TPIS TPIS TPIS TPIS TPIS	PLPPDB PLPPDI PLPPDP PLPPEB PLPPEI PLPPEP PLPPT	PPBDA PPWDA PPSDA E01 E01	\$	134,505,560 112,088,409 109,966,670 - - 356,560,639 8,4%	\$	323,323,806 259,436,606 240,641,820 - - 823,402,232		115,146,494 89,705,805 89,457,702 - - 294,310,001		42,509,126 33,727,891 33,818,923 - - - 110,055,940		9,951,076 - - - - - - 9,951,076	- - - -		119,856 80,831 59,749 - - 260,436
<b>Transmission Plant</b> Transmission Demand	TPIS	PLTRB	NCPT	\$	67,372,105	\$	156,093,339	\$	57,127,325	\$	37,772,005	\$	6,774,443	\$ 28,376	5 \$	43,947
<b>Distribution Poles</b> Specific	TPIS	PLDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-
<b>Distribution Substation</b> General	TPIS	PLDSG	NCPP	\$	17,876,728	\$	41,418,302	\$	-	\$	-	\$	1,797,552	\$ 7,529	\$	11,661
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	TPIS TPIS TPIS TPIS TPIS	PLDPLS PLDPLD PLDPLC PLDSLD PLDSLC PLDLT	NCPP NCPP Cust08 SICD Cust07	\$	19,480,127 506,168 - 19,986,295	\$ \$	45,133,190 226,875 - 45,360,065	\$ \$	- - - - -	<b>s</b>	- - - - -	\$	1,958,778 15,332,840 696,083 5,879,458 23,867,160	\$ - 8,205 364 2,916 146 \$ 11,624	ļ 5 )	12,707 70,620 4,511 27,079 114,917
Distribution Line Transformers Demand Customer Total Line Transformers	TPIS TPIS	PLDLTD PLDLTC PLDLTT	SICDT Cust09	\$ \$	11,744,231 173,727 11,917,957		- - -	\$ \$	- - -	\$ \$	- - -	\$	899,957 5,262,520 6,162,477	125	5	5,832 24,238 30,070
<b>Distribution Services</b> Customer	TPIS	PLDSC	C02	\$	274,819	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-
<b>Distribution Meters</b> Customer	TPIS	PLDMC	C03	\$	1,006,794	\$	2,659,464	\$	1,813,785	\$	76,767	\$	-	\$ 499	\$	96,830
Distribution Street & Customer Light Customer	ing TPIS	PLDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	119,946,663	\$ -	\$	-
Customer Accounts Expense Customer	TPIS	PLCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-
Customer Service & Info. Customer	TPIS	PLCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-
Sales Expense Customer	TPIS	PLSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-
Total		PLT		\$	474,995,337	\$	1,068,933,401	\$	353,251,111	\$	147,904,713	\$	168,499,371	\$ 87,878	8 \$	557,860

		1	2		3		4		5		7		9		10
			Allocation		Total		Residential		General Service	All	Electric Schools		Power Service		Power Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Net Utility Plant															
Power Production Plant															
	NTPLANT	UPPPDB	PPBDA	\$	887,821,776	\$	298,057,778	\$	88,923,878	\$	7,430,000	\$	105,024,973	\$	8,104,734
	NTPLANT	UPPPDI	PPWDA		930,049,504		403,491,443		108,463,824		8,952,268		101,778,926		6,441,870
	NTPLANT NTPLANT	UPPPDP UPPPEB	PPSDA E01		764,497,556		287,150,177		85,990,242		5,772,943		90,683,657		6,802,246
	NTPLANT	UPPPEB	E01		-		-		-		-		-		-
Production Energy - Peak	NTPLANT	UPPPEP	E01		-		-		-		-		-		-
Total Power Production Plant		UPPPT		\$	2,582,368,836	\$	988,699,399	\$	283,377,944	\$	22,155,211	\$	297,487,555	\$	21,348,850
Transmission Plant															
Transmission Demand	NTPLANT	UPTRB	NCPT	\$	629,437,870	\$	267,724,873	\$	67,779,936	\$	6,543,451	\$	59,754,543	\$	4,699,169
Distribution Poles															
	NTPLANT	UPDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Substation															
	NTPLANT	UPDSG	NCPP	\$	142,637,386	S	67,662,473	S	17,130,116	s	1,653,735	S	15,101,847	s	1,187,627
					,,.	•	,,		.,,		,,		-, -, -		,,.
Distribution Primary & Secondary Line Primary Specific	es NTPLANT	UPDPLS	NCPP	\$	_	\$	_	\$	_	\$	_	\$	_	\$	
	NTPLANT	UPDPLD	NCPP NCPP	3	155,430,811	Þ	73,731,252	э	18,666,549	Þ	1,802,062	э	16,456,361	э	1,294,148
	NTPLANT	UPDPLC	Cust08		288,232,444		230,316,167		44,562,332		317,122		2,408,095		92,516
	NTPLANT	UPDSLD	SICD		71,553,552		59,605,526		10,734,656		754,029		, , , , , , , , , , , , , , , , , , ,		´-
	NTPLANT	UPDSLC	Cust07		109,381,849	_	88,315,950		17,087,661		121,602	_		_	
Total Distribution Primary & Secondary L	ines	UPDLT		\$	624,598,655	\$	451,968,895	\$	91,051,199	\$	2,994,815	\$	18,864,457	\$	1,386,664
Distribution Line Transformers															
	NTPLANT	UPDLTD	SICDT	\$	111,075,979	\$	77,063,233	\$	13,878,702	\$	974,874	\$	10,897,157	\$	-
Customer Total Line Transformers	NTPLANT	UPDLTC UPDLTT	Cust09	\$	98,844,227 209,920,206	¢	79,048,862 156,112,094	¢	15,294,634 29,173,336	e	108,842 1,083,716	e	826,504 11,723,661	e	-
Total Line Transformers		OIDLII		J	207,720,200	Ф	130,112,074	Φ	27,173,330	Φ	1,005,710	φ	11,723,001	Φ	-
Distribution Services	NITDI ANIT	LIDDGG	C02	e	(( 172 475	e.	46 409 520	e	10 170 200		172 157	6	1 225 054	e	
Customer	NTPLANT	UPDSC	C02	\$	66,173,475	3	46,408,529	3	18,178,298	3	172,157	3	1,235,054	3	-
Distribution Meters															
Customer	NTPLANT	UPDMC	C03	\$	56,461,453	\$	35,088,680	\$	13,077,471	\$	277,394	\$	3,544,643	\$	781,519
Distribution Street & Customer Lightin	ng														
Customer	NTPLANT	UPDSCL	C04	\$	78,316,533	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Accounts Expense															
	NTPLANT	UPCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Contain Contain R Las															
Customer Service & Info. Customer	NTPLANT	UPCSI	C05	\$	_	\$	_	\$	_	\$	_	S	_	s	_
			- 35	Ψ.		*		4		Ψ.					
Sales Expense	NUTRAL AND	LIBOTO	COL			Φ.		•				•		•	
Customer	NTPLANT	UPSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		UPT		\$	4,389,914,415	\$	2,013,664,943	\$	519,768,299	\$	34,880,479	\$	407,711,760	\$	29,403,830

		1	2		11	12	13		14		15	16	i		17
			Allocation	T	ime of Day	Time of Day	Service		Service	Ου	tdoor Lighting	Lighting	Energy	Trat	fic Energy
Description	Ref	Name	Vector	TO	D-Secondary	TOD-Primary	RTS	FI	S - Transmission		ST & POL	LE	E		TE
Net Utility Plant						•									
Power Production Plant Production Demand - Base Production Demand - Inter.	NTPLANT NTPLANT	UPPPDB UPPPDI	PPBDA PPWDA	\$	81,762,299 68,135,518	\$ 196,539,814 157,704,510	\$ 69,994,446 54,529,737	\$	25,840,151 20,502,274	\$	6,048,991	\$	21,856	\$	72,857 49,135
Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak	NTPLANT NTPLANT NTPLANT NTPLANT	UPPPDP UPPPEB UPPPEI UPPPEP	PPSDA E01 E01 E01		66,845,771 - - -	146,279,667 - - -	54,378,922 - - -		20,557,611		- - -		- - -		36,320 - - -
Total Power Production Plant  Transmission Plant		UPPPT		\$	216,743,588	\$ 500,523,991	\$ 178,903,106	\$	66,900,035	\$	6,048,991	\$	21,856	\$	158,312
Transmission Plant Transmission Demand	NTPLANT	UPTRB	NCPT	\$	46,184,280	\$ 107,003,610	\$ 39,161,376	\$	25,893,103	\$	4,643,951	\$	19,452	\$	30,126
Distribution Poles Specific	NTPLANT	UPDPS	NCPP	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	NTPLANT	UPDSG	NCPP	\$	11,672,216	\$ 27,043,169	\$ -	\$	-	\$	1,173,672	\$	4,916	\$	7,614
Distribution Primary & Secondary Li	ines														
Primary Specific	NTPLANT	UPDPLS	NCPP	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
Primary Demand Primary Customer	NTPLANT NTPLANT	UPDPLD UPDPLC	NCPP Cust08		12,719,120 330,491	29,468,723 148,133	-		-		1,278,941 10,011,240		5,357 238		8,297 46,110
Secondary Demand	NTPLANT	UPDSLD	SICD		330,491	140,133	-		-		454,492		1,904		2,945
Secondary Customer	NTPLANT	UPDSLC	Cust07		_	-	-		_		3,838,863		91		17.681
Total Distribution Primary & Secondary		UPDLT		\$	13,049,611	\$ 29,616,856	\$ -	\$	-	\$	15,583,537	\$	7,590	\$	75,032
Distribution Line Transformers															
Demand	NTPLANT	UPDLTD	SICDT	\$	7,668,137	\$ -	\$ -	\$	-	\$	587,607	\$	2,461	\$	3,808
Customer	NTPLANT	UPDLTC	Cust09		113,431	-	-		-		3,436,047		82		15,826
Total Line Transformers		UPDLTT		\$	7,781,568	\$ -	\$ -	\$	-	\$	4,023,654	\$	2,543	\$	19,633
<b>Distribution Services</b> Customer	NTPLANT	UPDSC	C02	\$	179,437	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	NTPLANT	UPDMC	C03	\$	657,364	\$ 1,736,438	\$ 1,184,271	\$	50,124	\$	-	\$	326	\$	63,223
Distribution Street & Customer Light Customer	ting NTPLANT	UPDSCL	C04	\$	-	\$ -	\$ -	\$	-	\$	78,316,533	\$	-	\$	-
Customer Accounts Expense Customer	NTPLANT	UPCAE	C05	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	NTPLANT	UPCSI	C05	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	NTPLANT	UPSEC	C06	\$	-	\$ -	\$ -	\$	-	\$	-	\$	-	\$	-
Total		UPT		\$	296,268,064	\$ 665,924,064	\$ 219,248,753	\$	92,843,262	\$	109,790,338	\$	56,682	\$	353,940

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			Allocation		Total		Residential		General Service	All	Electric Schools		Power Service		Power Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Net Cost Rate Base															
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base	RB RB RB RB	RBPPDB RBPPDI RBPPDP RBPPEB	PPBDA PPWDA PPSDA E01	\$	711,137,998 744,544,987 612,781,961 71,897,457	\$	238,741,848 323,012,409 230,164,828 24,137,273	\$	71,227,301 86,829,997 68,925,360 7,201,221	\$	5,951,369 7,166,679 4,627,295 601,695	\$	84,124,146 81,478,446 72,687,360 8,505,117	\$	6,491,826 5,156,996 5,452,331 656,336
Production Energy - Inter. Production Energy - Peak Total Power Production Plant	RB RB	RBPPEI RBPPEP RBPPT	E01 E01	\$	2,140,362,403	\$	816,056,359	\$	234,183,879	\$	18,347,038	\$	246,795,070	\$	17,757,489
<b>Transmission Plant</b> Transmission Demand	RB	RBTRB	NCPT	\$	519,102,553	\$	220,794,890	\$	55,898,667	\$	5,396,437	\$	49,280,060	\$	3,875,443
Distribution Poles Specific	RB	RBDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	RB	RBDSG	NCPP	\$	117,648,309	\$	55,808,479	\$	14,129,039	\$	1,364,012	\$	12,456,109	\$	979,563
Distribution Primary & Secondary I. Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	RB RB RB RB RB	RBDPLS RBDPLD RBDPLC RBDSLD RBDSLC RBDLT	NCPP NCPP Cust08 SICD Cust07	\$	128,492,991 237,858,860 59,228,567 90,497,599 516,078,017	\$	60,952,839 190,064,449 49,338,570 73,068,626 373,424,484		15,431,437 36,774,297 8,885,629 14,137,559 75,228,921	<b>s</b> <b>s</b>	1,489,745 261,700 624,148 100,608 2,476,201	\$ \$	13,604,298 1,987,239 - - 15,591,537	\$ \$	1,069,858 76,347 - 1,146,206
Distribution Line Transformers Demand Customer Total Line Transformers	RB RB	RBDLTD RBDLTC RBDLTT	SICDT Cust09	\$ \$	91,286,846 81,234,285 172,521,131	•	63,333,761 64,965,633 128,299,393	-	11,406,093 12,569,765 23,975,857		801,192 89,451 890,643	-	8,955,736 679,255 9,634,991		:
<b>Distribution Services</b> Customer	RB	RBDSC	C02	\$	54,380,434	\$	38,137,879	\$	14,938,670	\$	141,476	\$	1,014,950	\$	-
<b>Distribution Meters</b> Customer	RB	RBDMC	C03	\$	47,701,574	\$	29,644,742	\$	11,048,528	\$	234,357	\$	2,994,699	\$	660,268
Distribution Street & Customer Light Customer	nting RB	RBDSCL	C04	\$	64,342,233	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Accounts Expense Customer	RB	RBCAE	C05	\$	6,169,535	\$	3,974,831	\$	1,538,127	\$	54,729	\$	207,796	\$	7,983
Customer Service & Info. Customer	RB	RBCSI	C05	\$	773,569	\$	498,386	\$	192,859	\$	6,862	\$	26,055	\$	1,001
Sales Expense Customer	RB	RBSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		RBT		\$	3,639,079,759	\$	1,666,639,443	\$	431,134,547	\$	28,911,757	\$	338,001,267	\$	24,427,954

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			Allocation	Ti	ime of Day		Time of Day		Service		Service	Ou	tdoor Lighting	Ligl	hting Energy	Traffic En	ergy
Description	Ref	Name	Vector	TO	D-Secondary		TOD-Primary		RTS	FI	LS - Transmission		ST & POL		LE	TE	
Net Cost Rate Base																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	RB RB RB RB RB	RBPPDB RBPPDI RBPPDP RBPPEB RBPPEI RBPPEP RBPPT	PPBDA PPWDA PPSDA E01 E01	\$	65,490,934 54,545,439 53,580,135 6,621,263		157,426,788 126,249,303 117,250,265 15,916,159		56,064,980 43,653,421 43,587,350 5,668,280		20,697,750 16,412,960 16,477,924 2,092,583		4,845,192 - - 489,858 - - 5,335,050		17,506 - - 1,770 - - 19,276		58,358 39,334 29,112 5,900
Transmission Plant		KBITT		φ	100,237,772	J	410,042,310	Ф	140,774,032	Φ	33,061,216	Φ	3,333,030	Ψ	17,270	J 1.	32,703
Transmission Demand	RB	RBTRB	NCPT	\$	38,088,553	\$	88,246,751	\$	32,296,707	\$	21,354,254	\$	3,829,904	\$	16,042	\$	24,845
<b>Distribution Poles</b> Specific	RB	RBDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	RB	RBDSG	NCPP	\$	9,627,325	\$	22,305,394	\$	-	\$	-	\$	968,053	\$	4,055	\$	6,280
Distribution Primary & Secondary Lin Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	RB RB RB RB RB	RBDPLS RBDPLD RBDPLC RBDSLD RBDSLC RBDLT	NCPP NCPP Cust08 SICD Cust07	\$	10,514,761 272,732 - 10,787,493	<b>s</b> <b>s</b>	24,361,479 122,244 - 24,483,723	\$	- - - - -	\$	- - - - -	<b>\$</b>	1,057,287 8,261,604 376,207 3,176,102 12,871,199	•	4,429 196 1,576 75 6,276		6,859 38,051 2,438 14,628 61,976
<b>Distribution Line Transformers</b> Demand Customer Total Line Transformers	RB RB	RBDLTD RBDLTC RBDLTT	SICDT Cust09	\$ \$	6,301,993 93,222 6,395,215		- - -	\$ \$	-	\$ \$	- - -	\$ \$	482,920 2,823,886 3,306,806		2,023 67 2,090		3,129 13,006 16,135
<b>Distribution Services</b> Customer	RB	RBDSC	C02	\$	147,459	\$	-	\$	-	\$	-	\$	-	\$	-	s	-
<b>Distribution Meters</b> Customer	RB	RBDMC	C03	\$	555,375	\$	1,467,034	\$	1,000,534	\$	42,347	\$	-	\$	275	\$	53,414
Distribution Street & Customer Light Customer	ing RB	RBDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	64,342,233	\$	-	\$	-
Customer Accounts Expense Customer	RB	RBCAE	C05	\$	142,592	\$	63,912	\$	5,538	\$	461	\$	172,771	\$	-	\$	794
Customer Service & Info. Customer	RB	RBCSI	C05	\$	17,879	\$	8,014	\$	694	\$	58	\$	21,663	\$	-	\$	100
Sales Expense Customer	RB	RBSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		RBT		\$	245,999,663	\$	553,417,343	\$	182,277,504	\$	77,078,338	\$	90,847,680	\$	48,015	\$ 25	96,249

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			Allocation		Total		Residential		General Service	All	Electric Schools		Power Service	1	Power Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Operation and Maintenance Expense	es												•		
Power Production Plant															
Production Demand - Base	TOM	OMPPDB	PPBDA	\$	37,625,250	S	12,631,475	S	3,768,530	\$	314,878	s	4,450,883	S	343,473
Production Demand - Inter.	TOM	OMPPDI	PPWDA		35,951,279	-	15,597,055	-	4,192,694	-	346,052	-	3,934,288	-	249,012
Production Demand - Peak	TOM	OMPPDP	PPSDA		35,933,656		13,496,911		4,041,797		271,345		4,262,401		319,726
Production Energy - Base	TOM	OMPPEB	E01		640,387,547		214,989,646		64,140,963		5,359,274		75,754,712		5,845,961
Production Energy - Inter.	TOM	OMPPEI	E01		-		-		-		-		-		-
Production Energy - Peak	TOM	OMPPEP	E01	_		_		_		_		_		_	
Total Power Production Plant		OMPPT		\$	749,897,732	\$	256,715,087 34.2%		76,143,984 10.2%	\$	6,291,550 0.8%		88,402,284 11.8%	\$	6,758,171 0.9%
Transmission Plant							34.270		10.270		0.870		11.670		0.976
Transmission Demand	TOM	OMTRB	NCPT	\$	44,026,929	\$	18,726,398	\$	4,740,964	\$	457,691	\$	4,179,617	\$	328,690
Distribution Poles	TOM	OMDPS	NCPP	\$		\$		\$		\$	_	\$		\$	
Specific	TOM	OMDES	NCFF	3	-	э	-	э	-	Þ	-	э	-	Ф	-
Distribution Substation															
General	TOM	OMDSG	NCPP	\$	7,427,615	\$	3,523,416	\$	892,024	\$	86,116	\$	786,405	\$	61,844
Distribution Primary & Secondary I	inac														
Primary Specific	TOM	OMDPLS	NCPP	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_
Primary Demand	TOM	OMDPLD	NCPP	Ψ.	13,725,970	Ψ	6,511,148	Ψ	1,648,428	Ψ.	159,139	Ψ	1,453,248	Ψ	114,285
Primary Customer	TOM	OMDPLC	Cust08		21,967,220		17,553,214		3,396,254		24,169		183,530		7,051
Secondary Demand	TOM	OMDSLD	SICD		6,950,051		5,789,530		1,042,665		73,239		-		-
Secondary Customer	TOM	OMDSLC	Cust07		10,263,921		8,287,188		1,603,432		11,411		-		-
Total Distribution Primary & Secondary	y Lines	OMDLT		\$	52,907,162	\$	38,141,080	\$	7,690,780	\$	267,958	\$	1,636,778	\$	121,336
Distribution Line Transformers															
Demand	TOM	OMDLTD	SICDT	\$	3.048.697	\$	2,115,151	\$	380,928	\$	26,757	\$	299,094	\$	-
Customer	TOM	OMDLTC	Cust09	-	2,712,973	*	2,169,651	-	419,791	-	2,987	-	22,685	-	-
Total Line Transformers		OMDLTT		\$	5,761,670	\$	4,284,802	\$	800,719	\$	29,745	\$	321,779	\$	-
Distribution Commission															
Distribution Services Customer	TOM	OMDSC	C02	\$	1,785,765	\$	1,252,386	\$	490,562	\$	4,646	\$	33,329	\$	_
Customer	1011	OMBSC	C02	Ψ	1,705,705	Ψ	1,232,300	Ψ	470,302	Ψ	1,010	Ψ	55,527	Ψ	
Distribution Meters															
Customer	TOM	OMDMC	C03	\$	12,338,781	\$	7,668,090	\$	2,857,880	\$	60,620	\$	774,627	\$	170,789
Distribution Street & Customer Ligh	ıting														
Customer	TOM	OMDSCL	C04	\$	1,970,659	\$	-	\$	-	\$	-	\$	_	\$	-
Customer Accounts Expense	TOM	OMCAE	COS		51 222 020	Ф	22 000 261	Φ.	10 772 122		454 400		1 725 (12	•	66.206
Customer	TOM	OMCAE	C05	\$	51,233,939	\$	33,008,361	\$	12,773,133	\$	454,492	\$	1,725,612	\$	66,296
Customer Service & Info.															
Customer	TOM	OMCSI	C05	\$	6,423,986	\$	4,138,766	\$	1,601,564	\$	56,987	\$	216,367	\$	8,313
G.L. E															
Sales Expense	TOM	OMCEC	COC	e		e.		e				•		6	
Customer	TOM	OMSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		OMT		\$	933,774,239	\$	367,458,386	\$	107,991,610	\$	7,709,803	\$	98,076,797	\$	7,515,439
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			Allocation	Ti	ime of Day		Time of Day		Service		Service	Οι	ıtdoor Lighting	Ligh	nting Energy	Tra	affic Energy
Description	Ref	Name	Vector	TOI	D-Secondary		TOD-Primary		RTS	F	LS - Transmission		ST & POL		LE		TE
Operation and Maintenance Expense	<u>s</u>																
Power Production Plant																	
Production Demand - Base	TOM	OMPPDB	PPBDA	\$	3,465,028	\$	8,329,216	\$	2,966,314	\$	1,095,087	\$	256,352	\$	926	\$	3,088
Production Demand - Inter. Production Demand - Peak	TOM TOM	OMPPDI Omppdp	PPWDA PPSDA		2,633,794 3,141,950		6,096,104 6,875,579		2,107,860 2,555,971		792,520 966,269		-		-		1,899 1,707
Production Energy - Base	TOM	OMPPEB	E01		58,975,304		141,764,544		50,487,128		18,638,549		4,363,148		15,765		52,552
Production Energy - Inter.	TOM	OMPPEI	E01		-				-		-				-		-
Production Energy - Peak	TOM	OMPPEP	E01		-		-		-		-		-		-		-
Total Power Production Plant		OMPPT		\$	68,216,075		163,065,444	\$	58,117,273	\$	21,492,425		4,619,500	\$	16,691	\$	59,247
Transmission Plant					9.1%		21.7%		7.8%		2.9%						
Transmission Demand	TOM	OMTRB	NCPT	\$	3,230,425	\$	7,484,520	\$	2,739,198	\$	1,811,130	\$	324,828	\$	1,361	\$	2,107
Distribution Poles	TOM	OMPRE	NCDD	6		6		6	_	e	_	e		e			
Specific	TOM	OMDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Substation																	
General	TOM	OMDSG	NCPP	\$	607,812	\$	1,408,230	\$	-	\$	-	\$	61,117	\$	256	\$	396
Distribution Primary & Secondary Li																	
Primary Specific	TOM	OMDPLS	NCPP	S	_	\$	_	\$	_	\$	_	\$	_	\$	-	\$	_
Primary Demand	TOM	OMDPLD	NCPP	Ψ.	1,123,215	Ψ	2,602,359	Ψ.	_	Ψ.	-	Ψ.	112,942	Ψ	473	•	733
Primary Customer	TOM	OMDPLC	Cust08		25,188		11,290		-		-		762,992		18		3,514
Secondary Demand	TOM	OMDSLD	SICD		-		-		-		-		44,145		185		286
Secondary Customer	TOM	OMDSLC OMDLT	Cust07	\$	1,148,403	e	2,613,649	e	-	\$	-	s	360,222 1,280,302	¢	9 685	•	1,659 6,192
Total Distribution Primary & Secondary	Lines	OMDLI		3	1,146,403	э	2,013,049	э	-	э	-	э	1,280,302	Ф	083	Þ	0,192
Distribution Line Transformers																	
Demand	TOM	OMDLTD	SICDT	\$	210,467	\$	-	\$	-	\$	-	\$	16,128	\$	68	\$	105
Customer	TOM	OMDLTC	Cust09	\$	3,113	e	-	\$	-	\$	-	\$	94,309 110,437	e	2 70		434 539
Total Line Transformers		OMDLTT		3	213,580	3	-	3	-	3	-	Э	110,437	3	/0	2	339
Distribution Services																	
Customer	TOM	OMDSC	C02	\$	4,842	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Meters																	
Customer	TOM	OMDMC	C03	\$	143,657	\$	379,472	\$	258,804	\$	10,954	\$	_	\$	71	\$	13,816
					- ,		,										-,-
Distribution Street & Customer Light		O) (D) (C)	604			•		•		Ф.		•	1.070.650	•			
Customer	TOM	OMDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	1,970,659	3	-	2	-
Customer Accounts Expense																	
Customer	TOM	OMCAE	C05	\$	1,184,131	\$	530,751	\$	45,986	\$	3,832	\$	1,434,753	\$	-	\$	6,591
Customer Service & Info.																	
Customer Customer	TOM	OMCSI	C05	\$	148,473	\$	66,548	\$	5,766	\$	480	\$	179,897	\$	_	\$	826
Customer	10111	OMCSI	200	φ	170,773	φ	00,546	φ	5,700	Φ	400	φ	1/2,09/	φ	-	φ	020
Sales Expense																	
Customer	TOM	OMSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		OMT		\$	74,897,399	s	175,548,614	s	61,167,027	s	23,318,822	s	9,981,493	s	19,134	s	89,715
		J171 1		9	1-1,001,000	Ψ	175,540,014	Ψ	01,107,027	Ψ	23,310,022	Ψ	7,701,773	Ψ	17,137	Ψ	07,713

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			Allocation		Total	Residential		General Service	All	Electric Schools		Power Service	]	Power Service
Description	Ref	Name	Vector		System	Rate RS		GS		AES		PS-Secondary		PS-Primary
Labor Expenses					-									
Power Production Plant														
Production Demand - Base	TLB	LBPPDB	PPBDA	\$	18,742,668	\$ 6,292,252	s	1,877,258	s	156,854	s	2,217,166	s	171,098
Production Demand - Inter.	TLB	LBPPDI	PPWDA	Ψ	17,681,329	7,670,844		2,062,024	Ψ.	170,193		1,934,936	Ψ	122,467
Production Demand - Peak	TLB	LBPPDP	PPSDA		18,132,162	6,810,556		2,039,495		136,921		2,150,812		161,334
Production Energy - Base	TLB	LBPPEB	E01		38,818,637	13,032,116		3,888,059		324,865		4,592,055		354,367
Production Energy - Inter.	TLB	LBPPEI	E01 E01		-	-		-		-		-		-
Production Energy - Peak Total Power Production Plant	TLB	LBPPEP LBPPT	E01	\$	93,374,796	\$ 33,805,768		9,866,837	•	788,833	e	10,894,969	¢	809,266
Total Tower Troduction Train		LDIII		Φ	75,574,770	55,005,700	Φ	7,800,837	Φ	766,633	Ψ	10,074,707	Φ	807,200
Transmission Plant														
Transmission Demand	TLB	LBTRB	NCPT	\$	11,565,291	\$ 4,919,177	\$	1,245,389	\$	120,229	\$	1,097,930	\$	86,343
Distribution Poles														
Specific	TLB	LBDPS	NCPP	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-
Distribution Substation														
General	TLB	LBDSG	NCPP	\$	4,300,052	\$ 2,039,803	s	516,417	s	49,855	s	455,271	s	35,803
		LDDGG		Ψ.	1,500,052	2,037,003		210,117	Ψ.	.,,000		100,271	Ψ.	35,003
Distribution Primary & Secondary I		, ppp, a	Monn											
Primary Specific Primary Demand	TLB TLB	LBDPLS LBDPLD	NCPP NCPP	\$	4,685,732	\$ - 2,222,757	\$	562,736	\$	54,326	\$	496,106	\$	39,014
Primary Customer	TLB	LBDPLC	Cust08		8,689,269	6,943,282		1,343,409		9,560		72,596		2,789
Secondary Demand	TLB	LBDSLD	SICD		2,157,106	1,796,912		323,615		22,732		-		2,707
Secondary Customer	TLB	LBDSLC	Cust07		3,297,506	2,662,438		515,137		3,666		-		-
Total Distribution Primary & Secondar	y Lines	LBDLT		\$	18,829,614	\$ 13,625,389	\$	2,744,897	\$	90,284	\$	568,702	\$	41,803
Distribution Line Transformers														
Demand	TLB	LBDLTD	SICDT	\$	3,348,579	\$ 2,323,205	\$	418,398	\$	29,389	\$	328,514	\$	-
Customer	TLB	LBDLTC	Cust09		2,979,831	2,383,066		461,083		3,281		24,916		-
Total Line Transformers		LBDLTT		\$	6,328,410	\$ 4,706,271	\$	879,481	\$	32,671	\$	353,430	\$	-
Distribution Services														
Customer	TLB	LBDSC	C02	\$	1,994,915	\$ 1,399,066	\$	548,016	\$	5,190	\$	37,233	\$	-
Distribution Meters Customer	TLB	LBDMC	C03	\$	1,702,129	\$ 1,057,809	•	394,243	e	8,363	•	106,859	¢	23,560
Customer	ILB	LBDMC	C03	Φ	1,702,129	5 1,037,809	, p	394,243	J.	8,303	Φ	100,639	Þ	23,300
Distribution Street & Customer Ligh														
Customer	TLB	LBDSCL	C04	\$	2,360,988	\$ -	\$	-	\$	-	\$	-	\$	-
Customer Accounts Expense														
Customer	TLB	LBCAE	C05	\$	27,271,497	\$ 17,570,139	\$	6,799,057	\$	241,923	\$	918,532	\$	35,289
Customer Service & Info. Customer	TLB	LBCSI	C05	\$	2 740 977	¢ 2.415.290		934,633	e	33,256	e	126,266	e	4,851
Custoffier	ILD	LDCSI	C03	Þ	3,748,877	\$ 2,415,280	, 3	934,033	Þ	33,230	Þ	120,200	Þ	4,031
Sales Expense														
Customer	TLB	LBSEC	C06	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-
Total		LBT		\$	171,476,569	\$ 81,538,702	s	23,928,969	s	1,370,603	s	14,559,194	\$	1,036,915
					- , -, -, 0,000	- 01,050,702		23,720,707	Ψ	1,5,0,005	Ψ.	1 1,555,154	*	1,050,715

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			Allocation	Ti	me of Day		Time of Day		Service		Service	Οι	ıtdoor Lighting	Ligh	ting Energy	Tra	ffic Energy
Description	Ref	Name	Vector	TOI	<b>D-Secondary</b>		TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
Labor Expenses																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter.	TLB TLB TLB TLB TLB	LBPPDB LBPPDI LBPPDP LBPPEB LBPPEI	PPBDA PPWDA PPSDA E01 E01	\$	1,726,071 1,295,336 1,585,431 3,574,930	\$	4,149,122 2,998,147 3,469,425 8,593,400	\$	1,477,642 1,036,674 1,289,746 3,060,399	\$	545,507 389,772 487,580 1,129,821	\$	127,699 - - 264,483	\$	461 - - 956	\$	1,538 934 861 3,186
Production Energy - Peak Total Power Production Plant	TLB	LBPPEP LBPPT	E01	\$	8,181,769	\$	19,210,093	\$	6,864,461	\$	2,552,681	\$	392,182	\$	1,417	\$	6,519
<b>Transmission Plant</b> Transmission Demand	TLB	LBTRB	NCPT	\$	848,590	\$	1,966,084	\$	719,551	\$	475,760	\$	85,328	\$	357	\$	554
<b>Distribution Poles</b> Specific	TLB	LBDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	TLB	LBDSG	NCPP	\$	351,879	\$	815,263	\$	-	\$	-	\$	35,382	\$	148	\$	230
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	TLB TLB TLB TLB TLB	LBDPLS LBDPLD LBDPLC LBDSLD LBDSLC LBDLT	NCPP NCPP Cust08 SICD Cust07	<b>s</b> <b>s</b>	383,440 9,963 - - 393,403	\$ \$	888,386 4,466 - - 892,852	<b>s</b>	-	\$ \$	- - - - -	<b>s</b>	38,556 301,806 13,701 115,729 469,793	\$ \$	161 7 57 3 229	<b>s</b> <b>s</b>	250 1,390 89 533 2,262
Distribution Line Transformers Demand Customer Total Line Transformers	TLB TLB	LBDLTD LBDLTC LBDLTT	SICDT Cust09	\$ \$	231,169 3,420 234,589		- - -	\$ \$	- - -	\$ \$	- - -	\$ \$	17,714 103,586 121,300	•	74 2 77		115 477 592
<b>Distribution Services</b> Customer	TLB	LBDSC	C02	\$	5,409	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	TLB	LBDMC	C03	\$	19,817	\$	52,348	\$	35,702	\$	1,511	\$	-	\$	10	\$	1,906
Distribution Street & Customer Light Customer	ting TLB	LBDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	2,360,988	\$	-	\$	-
Customer Accounts Expense Customer	TLB	LBCAE	C05	\$	630,305	\$	282,516	\$	24,478	\$	2,040	\$	763,710	\$	-	\$	3,508
Customer Service & Info. Customer	TLB	LBCSI	C05	\$	86,645	\$	38,836	\$	3,365	\$	280	\$	104,983	\$	-	\$	482
Sales Expense Customer	TLB	LBSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		LBT		\$	10,752,407	\$	23,257,992	\$	7,647,557	\$	3,032,272	\$	4,333,667	\$	2,238	\$	16,053

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			Allocation		Total		Residential		General Service	All I	Electric Schools		Power Service	1	Power Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Depreciation Expenses															
Power Production Plant															
Production Demand - Base	TDEPR	DEPPDB	PPBDA	\$	52,845,706	\$	17,741,256	\$	5,293,005	\$	442,255	\$	6,251,389	\$	482,417
Production Demand - Inter.	TDEPR	DEPPDI	PPWDA		55,359,222		24,016,971		6,456,079		532,865		6,058,174		383,439
Production Demand - Peak	TDEPR TDEPR	DEPPDP DEPPEB	PPSDA E01		45,505,094		17,092,005		5,118,387		343,622		5,397,752		404,889
Production Energy - Base Production Energy - Inter.	TDEPR	DEPPEB	E01		-		-		-		-		-		-
Production Energy - Peak	TDEPR	DEPPEP	E01		-		-		-		-		-		-
Total Power Production Plant		DEPPT		\$	153,710,022	\$	58,850,232	\$	16,867,470	\$	1,318,742	\$	17,707,315	\$	1,270,745
Transmission Plant															
Transmission Demand	TDEPR	DETRB	NCPT	\$	24,058,002	\$	10,232,822	\$	2,590,645	\$	250,100	\$	2,283,903	\$	179,609
Distribution Poles															
Specific	TDEPR	DEDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Substation															
General Substation	TDEPR	DEDSG	NCPP	\$	6,089,359	s	2,888,591	s	731,305	S	70,600	s	644,716	S	50,701
					.,,	•	,,.		,		,		, , ,		
Distribution Primary & Secondary L Primary Specific	ines TDEPR	DEDPLS	NCPP	\$	_	\$	_	\$	_	\$	_	\$	_	\$	
Primary Demand	TDEPR	DEDPLD	NCPP	J.	6,635,525	Ф	3,147,674	Þ	796,897	٥	76,932	J.	702,542	Þ	55,249
Primary Customer	TDEPR	DEDPLC	Cust08		12,304,984		9,832,470		1,902,419		13,538		102,804		3,950
Secondary Demand	TDEPR	DEDSLD	SICD		3,054,706		2,544,630		458,275		32,190		-		-
Secondary Customer	TDEPR	DEDSLC	Cust07		4,669,641		3,770,312		729,492		5,191		-		-
Total Distribution Primary & Secondary	y Lines	DEDLT		\$	26,664,856	\$	19,295,087	\$	3,887,083	\$	127,852	\$	805,346	\$	59,198
Distribution Line Transformers															
Demand Customer	TDEPR TDEPR	DEDLTD DEDLTC	SICDT	\$	4,741,965	\$	3,289,921	\$	592,498 652,946	\$	41,619	\$	465,213 35,284	\$	-
Total Line Transformers	IDEPK	DEDLIC	Cust09	S	4,219,777 8,961,742	\$	3,374,689 6,664,610	\$	1,245,444	\$	4,647 46,265	\$	500,497	\$	
		DEDETT		ų.	0,701,742	Ψ	0,004,010	Ψ	1,2-13,-1-1	Ψ	40,203	Ψ	300,197	Ψ	
Distribution Services Customer	TDEPR	DEDSC	C02	\$	2,825,024	¢	1 001 225	e	776,053	•	7,350	•	52,726	e	
Customer	IDERK	DEDSC	C02	3	2,823,024	Ф	1,981,235	э	770,033	)	7,330	э	32,720	э	-
Distribution Meters				_		_				_					
Customer	TDEPR	DEDMC	C03	\$	2,410,406	\$	1,497,977	\$	558,293	\$	11,842	\$	151,325	\$	33,364
Distribution Street & Customer Ligh															
Customer	TDEPR	DEDSCL	C04	\$	3,343,426	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Accounts Expense															
Customer	TDEPR	DECAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info.															
Customer	TDEPR	DECSI	C05	\$	-	\$	_	\$	_	\$	-	\$	-	\$	-
										•				-	
Sales Expense Customer	TDEPR	DESEC	C06	e		\$		s		s		s		\$	
Customer	IDEPK	DESEC	C06	\$	-	Þ	-	\$	-	3	-	3	-	3	-
Total		DET		\$	228,062,837	\$	101,410,555	\$	26,656,293	\$	1,832,751	\$	22,145,827	\$	1,593,617

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			Allocation	Ti	ime of Day		Time of Day		Service		Service	Out	door Lighting	Light	ting Energy	Tra	ffic Energy
Description	Ref	Name	Vector	TO	D-Secondary		TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
Depreciation Expenses																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak	TDEPR TDEPR TDEPR TDEPR TDEPR TDEPR	DEPPDB DEPPDI DEPPDP DEPPEB DEPPEI DEPPEP	PPBDA PPWDA PPSDA E01 E01	\$	4,866,727 4,055,622 3,978,853	\$	11,698,615 9,387,026 8,706,987 -	\$	4,166,271 3,245,767 3,236,790	\$	1,538,080 1,220,354 1,223,648	\$	360,053 - - -	\$	1,301 - - - -	\$	4,337 2,925 2,162
Total Power Production Plant	IDEFK	DEPPT	E01	\$	12,901,202	\$	29,792,628	\$	10,648,828	\$	3,982,083	\$	360,053	\$	1,301	\$	9,423
Transmission Plant Transmission Demand	TDEPR	DETRB	NCPT	\$	1,765,228	\$	4,089,829	\$	1,496,803	\$	989,671	\$	177,498	\$	743	\$	1,151
<b>Distribution Poles</b> Specific	TDEPR	DEDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	TDEPR	DEDSG	NCPP	\$	498,301	\$	1,154,505	\$	-	\$	-	\$	50,105	\$	210	\$	325
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	TDEPR TDEPR TDEPR TDEPR TDEPR	DEDPLS DEDPLD DEDPLC DEDSLD DEDSLC DEDLT	NCPP NCPP Cust08 SICD Cust07	\$	542,994 14,109 - - 557,103	s s	1,258,055 6,324 - 1,264,379	\$ \$	- - - - -	<b>s</b> <b>s</b>	: : :	<b>s</b>	54,600 427,392 19,403 163,886 665,280	\$	229 10 81 4 324	\$ \$	354 1,968 126 755 3,203
Distribution Line Transformers Demand Customer Total Line Transformers	TDEPR TDEPR	DEDLTD DEDLTC DEDLTT	SICDT Cust09	\$ \$	327,362 4,842 332,204		- - -	\$ \$	- - -	s s	- - -	\$ \$	25,086 146,689 171,775	•	105 3 109		163 676 838
<b>Distribution Services</b> Customer	TDEPR	DEDSC	C02	\$	7,660	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	TDEPR	DEDMC	C03	\$	28,064	\$	74,131	\$	50,558	\$	2,140	\$	-	\$	14	\$	2,699
Distribution Street & Customer Light Customer	ting TDEPR	DEDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	3,343,426	\$	-	\$	-
Customer Accounts Expense Customer	TDEPR	DECAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	TDEPR	DECSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	TDEPR	DESEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		DET		\$	16,089,763	\$	36,375,471	\$	12,196,188	\$	4,973,893	\$	4,768,137	\$	2,701	\$	17,640

		1	2		3		4		5		7		9		10	
			Allocation		Total		Residential		General Service		All Electric Schools		Power Service		Power Service	
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary	
Accretion Expenses																_
Power Production Plant																
Production Demand - Base	TACRT	ACPPDB	PPBDA	\$	_	\$	_	:	s -	9	-	\$	-		3	-
Production Demand - Inter.	TACRT	ACPPDI	PPWDA		-		-		-		-		-			-
Production Demand - Peak	TACRT	ACPPDP	PPSDA		-		-		-		-		-			-
Production Energy - Base	TACRT	ACPPEB	E01		-		-		-		-		-			-
Production Energy - Inter. Production Energy - Peak	TACRT TACRT	ACPPEI ACPPEP	E01 E01		-		-		-		-		-			-
Total Power Production Plant	TACKI	ACPPT	LUI	\$		\$	-		s -	9	-	\$	-		3	-
Transmission Plant Transmission Demand	TACRT	ACTRB	NCPT	\$		\$		:	e e	9	,	\$			,	
Transmission Demand	IACKI	ACTRB	NCPI	2	-	\$	-		-		-	2	-			•
Distribution Poles																
Specific	TACRT	ACDPS	NCPP	\$	-	\$	-	:	\$ -	5	-	\$	-		3	-
Distribution Substation																
General	TACRT	ACDSG	NCPP	\$	-	\$	-	:	\$ -	9	-	\$	-		3	-
Distribution Drimony & Cocondony I																
Distribution Primary & Secondary I Primary Specific	TACRT	ACDPLS	NCPP	\$	_	\$			s -	9		\$			2	
Primary Demand	TACRT	ACDPLD	NCPP	Φ	_	Φ	-		-		, - -	Ψ	-		,	-
Primary Customer	TACRT	ACDPLC	Cust08		-		-		-		-		-			-
Secondary Demand	TACRT	ACDSLD	SICD		-		-		-		-		=			-
Secondary Customer	TACRT	ACDSLC	Cust07		-		-		-		-		-			-
Total Distribution Primary & Secondar	y Lines	ACDLT		\$	-	\$	-		\$ -	5	-	\$	-			-
Distribution Line Transformers																
Demand	TACRT	ACDLTD	SICDT	\$	-	\$	-	:	s -	5	-	\$	=		3	-
Customer	TACRT	ACDLTC	Cust09		-		-		-		-		=			-
Total Line Transformers		ACDLTT		\$	-	\$	-		\$ -		-	\$	-			-
Distribution Services																
Customer	TACRT	ACDSC	C02	\$	-	\$	-	:	\$ -	5	-	\$	-		3	-
Distribution Meters																
Customer	TACRT	ACDMC	C03	\$	_	\$	_		s -	5	-	\$	-		3	-
Distribution Street & Customer Ligh		+ CDCCI	C0.4			Φ.			rh.						,	
Customer	TACRT	ACDSCL	C04	\$	-	\$	-		\$ -		-	\$	-			-
Customer Accounts Expense																
Customer	TACRT	ACCAE	C05	\$	-	\$	-	:	\$ -		-	\$	-		3	-
Customer Service & Info.																
Customer Customer	TACRT	ACCSI	C05	\$	-	\$	-	:	s -	5	-	\$	-	5	3	-
Sales Expense	T + CDT	DEGEG	COC			Φ.			rh.						,	
Customer	TACRT	DESEC	C06	\$	-	\$	-		\$ -	5	-	\$	-		•	-
Total		ACT		\$	-	\$	-	:	\$ -	5	-	\$	-	5	3	-

		1	2 Allocation	11 Time of Da			12 Time of Day		13 Service		14 Service		15 outdoor Lighting	16 Lighting En		17 Traffic Ene	
Description	Ref	Name	Vector	TOD-Second	•		TOD-Primary		RTS		FLS - Transmission	U	ST & POL	Lighting En	ergy	TE	rgy
Accretion Expenses	Kei	Name	vector	TOD-Second	агу		10D-Frilliary		KIS		LS - Transmission		SI & FOL	LE		1 E	
Accretion Expenses																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	TACRT TACRT TACRT TACRT TACRT TACRT	ACPPDB ACPPDI ACPPDP ACPPEB ACPPEI ACPPEP ACPPT	PPBDA PPWDA PPSDA E01 E01	<b>s</b> <b>s</b>	-	\$	- - - - - -	<b>s</b>	- - - - -	<b>s</b>	- - - - -	<b>s</b>	- - - - - -	\$	-	\$	- - - -
Transmission Plant Transmission Demand	TACRT	ACTRB	NCPT	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Poles</b> Specific	TACRT	ACDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	TACRT	ACDSG	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Primary & Secondary L Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	TACRT TACRT TACRT TACRT TACRT	ACDPLS ACDPLD ACDPLC ACDSLD ACDSLC ACDLT	NCPP NCPP Cust08 SICD Cust07	<b>s</b> <b>s</b>	-	\$ \$	- - - - -	\$	- - - - -	<b>s</b> <b>s</b>	- - - - -	<b>s</b>	- - - - -	\$	-	<b>s</b>	- - - -
Distribution Line Transformers Demand Customer Total Line Transformers	TACRT TACRT	ACDLTD ACDLTC ACDLTT	SICDT Cust09	\$ \$	-	\$ \$	- - -	\$ \$	- - -	\$ \$	- - -	\$ \$	- - -	\$ \$	-	\$ \$	-
<b>Distribution Services</b> Customer	TACRT	ACDSC	C02	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	TACRT	ACDMC	C03	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Street & Customer Ligh Customer	ting TACRT	ACDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Accounts Expense Customer	TACRT	ACCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	TACRT	ACCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	TACRT	DESEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		ACT		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

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			Allocation		Total		Residential		General Service	All F	lectric Schools		Power Service	P	ower Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Property Taxes															
Power Production Plant															
Production Demand - Base	PTAX	PTPPDB	PPBDA	\$	5,182,784	\$	1,739,954	\$	519,106	\$	43,374	\$	613,098	\$	47,313
Production Demand - Inter.	PTAX	PTPPDI	PPWDA		5,429,295		2,355,438		633,173		52,260		594,149		37,605
Production Demand - Peak	PTAX	PTPPDP	PPSDA		4,462,862		1,676,280		501,980		33,700		529,379		39,709
Production Energy - Base Production Energy - Inter.	PTAX PTAX	PTPPEB PTPPEI	E01 E01		-		-		-		-		-		-
Production Energy - Peak	PTAX	PTPPEP	E01		-		-		-		-		-		-
Total Power Production Plant		PTPPT		\$	15,074,941	\$	5,771,672	\$	1,654,259	\$	129,334	\$	1,736,625	\$	124,627
Transmission Plant															
Transmission Demand	PTAX	PTTRB	NCPT	\$	3,342,932	\$	1,421,881	\$	359,978	\$	34,752	\$	317,355	\$	24,957
Distribution Poles															
Specific	PTAX	PTDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Substation															
General	PTAX	PTDSG	NCPP	\$	784,098	\$	371,950	\$	94,167	\$	9,091	\$	83,017	\$	6,529
Distribution Primary & Secondary L															
Primary Specific	PTAX	PTDPLS	NCPP	\$	054.426	\$	405 211	\$	102 (12	\$	- 0.006	\$	- 00.462	\$	-
Primary Demand Primary Customer	PTAX PTAX	PTDPLD PTDPLC	NCPP Cust08		854,426 1,584,455		405,311 1,266,081		102,613 244,966		9,906 1,743		90,463 13,238		7,114 509
Secondary Demand	PTAX	PTDSLD	SICD		393,340		327,660		59.010		4,145		13,236		-
Secondary Customer	PTAX	PTDSLC	Cust07		601,288		485,486		93,933		668		-		-
Total Distribution Primary & Secondary	y Lines	PTDLT		\$	3,433,509	\$	2,484,538	\$	500,522	\$	16,463	\$	103,701	\$	7,623
Distribution Line Transformers															
Demand	PTAX	PTDLTD	SICDT	\$	610,601	\$	423,628	\$	76,293	\$	5,359	\$	59,903	\$	-
Customer Total Line Transformers	PTAX	PTDLTC PTDLTT	Cust09	\$	543,361 1,153,962	¢	434,543 858,171	e	84,077 160,370	e	598 5,957	e	4,543 64,447	e	-
		FIDLII		Ф	1,133,902	Ф	636,171	J	100,570	,	3,937	J	04,447	Þ	-
Distribution Services Customer	PTAX	PTDSC	C02	\$	363,765	\$	255,114	s	99,929	s	946	s	6,789	s	_
		11250	002	Ψ	303,703	Ψ	200,111	Ψ.	,,,,2,	•	,.0		0,705	Ψ.	
Distribution Meters Customer	PTAX	PTDMC	C03	\$	310,377	\$	192,888	•	71,889	\$	1,525	•	19,485	¢	4,296
		TIDNIC	C03	Φ	310,377	Φ	172,000	φ	71,007	9	1,323	φ	17,405	Φ	7,270
Distribution Street & Customer Ligh Customer	nting PTAX	PTDSCL	C04	\$	430,517	¢		\$		\$	_	\$		\$	
	TIAA	FIDSCL	C04	Ф	430,317	Ф	-	J	-	,	-	J	-	Þ	-
Customer Accounts Expense Customer	PTAX	PTCAE	C05	\$	_	\$		s		\$	_	\$		\$	
	TIAA	FICAL	C03	Ф	-	Ф	-	J	-	,	-	J	-	Þ	-
Customer Service & Info. Customer	PTAX	PTCSI	C05	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_
	1171/1	1 1031	203	Φ	-	Φ	-	φ	-	φ	-	φ	-	φ	-
Sales Expense	DTAV	PTSEC	C06	e		e		•		•		s		e	
Customer	PTAX	FISEC	C06	\$	-	\$	-	\$	-	\$	-	3	-	\$	-
Total		PTT		\$	24,894,101	\$	11,356,214	\$	2,941,112	\$	198,069	\$	2,331,420	\$	168,031

		1	2		11		12		13		14		15		16		17
			Allocation	Tir	me of Day		Time of Day		Service		Service	Οι	ıtdoor Lighting	Lig	thing Energy	Tra	ffic Energy
Description	Ref	Name	Vector	TOE	-Secondary		TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
Property Taxes																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	PTAX PTAX PTAX PTAX PTAX PTAX	PTPPDB PTPPDI PTPPDP PTPPEB PTPPEI PTPPEP PTPPT	PPBDA PPWDA PPSDA E01 E01	\$	477,299 397,751 390,222 - - - 1,265,271		1,147,329 920,622 853,928 - - 2,921,879		408,602 318,325 317,445 - - - 1,044,372		150,846 119,685 120,008 - - - 390,538		35,312 - - - - - 35,312		128 - - - - - 128		425 287 212 - - 924
Transmission Plant Transmission Demand	PTAX	PTTRB	NCPT	\$	245,284	\$	568,294	\$	207,985	\$	137,518	\$	24,664	\$	103	\$	160
<b>Distribution Poles</b> Specific	PTAX	PTDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	PTAX	PTDSG	NCPP	\$	64,164	\$	148,660	\$	-	\$	-	\$	6,452	\$	27	\$	42
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	PTAX PTAX PTAX PTAX PTAX	PTDPLS PTDPLD PTDPLC PTDSLD PTDSLC PTDLT	NCPP NCPP Cust08 SICD Cust07	\$	69,919 1,817 - 71,736	\$ \$	161,994 814 - - 162,808	\$	- - - - -	\$ \$	- - - - -	<b>s</b>	7,031 55,033 2,498 21,103 85,665	\$	29 1 10 1 42	<b>s</b> <b>s</b>	46 253 16 97 412
Distribution Line Transformers Demand Customer Total Line Transformers	PTAX PTAX	PTDLTD PTDLTC PTDLTT	SICDT Cust09	\$ \$	42,153 624 42,776		- - -	\$ \$	- - -	\$ \$	- - -	\$ \$	3,230 18,888 22,119		14 0 14		21 87 108
<b>Distribution Services</b> Customer	PTAX	PTDSC	C02	\$	986	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	PTAX	PTDMC	C03	\$	3,614	\$	9,545	\$	6,510	\$	276	\$	-	\$	2	\$	348
Distribution Street & Customer Light Customer	ting PTAX	PTDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	430,517	\$	-	\$	-
Customer Accounts Expense Customer	PTAX	PTCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	PTAX	PTCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	PTAX	PTSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		PTT		\$	1,693,831	\$	3,811,187	\$	1,258,867	\$	528,332	\$	604,728	\$	315	\$	1,994

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			Allocation		Total		Residential		General Service	All E	lectric Schools		Power Service	F	ower Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Other Taxes															
Power Production Plant															
Production Demand - Base	OTAX	OTPPDB	PPBDA	\$	2,691,268	\$	903,507	\$	269,556	\$	22,523	\$	318,364	\$	24,568
Production Demand - Inter.	OTAX	OTPPDI	PPWDA	*	2,819,273	-	1,223,110	-	328,788	-	27,137	-	308,524	-	19,527
Production Demand - Peak	OTAX	OTPPDP	PPSDA		2,317,433		870,443		260,664		17,500		274,891		20,620
Production Energy - Base	OTAX	OTPPEB	E01		-		-		-		-		-		-
Production Energy - Inter.	OTAX	OTPPEI	E01		-		-		-		-		-		-
Production Energy - Peak Total Power Production Plant	OTAX	OTPPEP OTPPT	E01	\$	7,827,974	e.	2,997,059	e	859,008	•	67,159	e	901,779	e	64,715
Total Fower Froduction Flant		OIFFI		Þ	1,821,914	Э	2,997,039	э	839,008	3	67,139	Þ	901,779	Þ	04,/13
Transmission Plant															
Transmission Demand	OTAX	OTTRB	NCPT	\$	1,735,886	\$	738,341	\$	186,926	\$	18,046	\$	164,793	\$	12,960
Distribution Poles															
Specific	OTAX	OTDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Substation															
General	OTAX	OTDSG	NCPP	\$	407,159	\$	193,143	\$	48,898	\$	4,721	\$	43,108	\$	3,390
Distribution Primary & Secondary L															
Primary Specific	OTAX	OTDPLS	NCPP	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_
Primary Demand	OTAX	OTDPLD	NCPP	Φ	443,678	Φ	210,466	φ	53,284	Ψ	5,144	Φ	46,975	φ	3,694
Primary Customer	OTAX	OTDPLC	Cust08		822,761		657,439		127,203		905		6,874		264
Secondary Demand	OTAX	OTDSLD	SICD		204,250		170,144		30,642		2,152		-		-
Secondary Customer	OTAX	OTDSLC	Cust07	_	312,231	_	252,098	_	48,777	_	347			_	
Total Distribution Primary & Secondary	y Lines	OTDLT		\$	1,782,920	\$	1,290,148	\$	259,906	\$	8,549	\$	53,849	\$	3,958
Distribution Line Transformers															
Demand	OTAX	OTDLTD	SICDT	\$	317,067	\$	219,977	\$	39,617	\$	2,783	\$	31,106	\$	-
Customer	OTAX	OTDLTC	Cust09	_	282,151	_	225,645	_	43,659	_	311		2,359	_	-
Total Line Transformers		OTDLTT		\$	599,218	\$	445,623	\$	83,275	\$	3,093	\$	33,465	\$	-
Distribution Services															
Customer	OTAX	OTDSC	C02	\$	188,893	\$	132,473	\$	51,890	\$	491	\$	3,525	\$	-
Distribution Meters															
Customer	OTAX	OTDMC	C03	\$	161,170	\$	100,161	\$	37,330	\$	792	\$	10,118	\$	2,231
Distribution Street & Customer Ligh	.tiu.a														
Customer Customer Light	OTAX	OTDSCL	C04	\$	223,555	S	_	\$	_	S	_	\$	_	\$	_
				*	,	-		-				-		-	
Customer Accounts Expense	OTAV	OTCAE	COS	e		e		e		6		•		e	
Customer	OTAX	OTCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info.															
Customer	OTAX	OTCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense															
Customer	OTAX	OTSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		OTT		\$	12 026 774	e	5 906 049	e	1 527 222	•	102 951	e	1 210 629	e	87,254
Total		OH		3	12,926,774	Þ	5,896,948	Þ	1,527,233	3	102,851	2	1,210,638	Þ	87,234

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			Allocation		ne of Day		Time of Day		Service		Service	Οι	ıtdoor Lighting	Lig	thing Energy	Tra	ffic Energy
Description	Ref	Name	Vector	TOD	-Secondary		TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
Other Taxes																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	OTAX OTAX OTAX OTAX OTAX OTAX	OTPPDB OTPPDI OTPPDP OTPPEB OTPPEI OTPPEP OTPPT	PPBDA PPWDA PPSDA E01 E01	\$ \$	247,847 206,540 202,631 - - 657,018		595,774 478,052 443,420 - - 1,517,246		212,175 165,297 164,840 - - - 542,312		78,330 62,149 62,317 - - 202,795		18,336 - - - - - - 18,336		66 - - - - - - - 66	\$ \$	221 149 110 - - - 480
Transmission Plant Transmission Demand	OTAX	OTTRB	NCPT	\$	127,369	\$	295,098	\$	108,001	\$	71,409	\$	12,807	\$	54	\$	83
<b>Distribution Poles</b> Specific	OTAX	OTDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	OTAX	OTDSG	NCPP	s	33,318	\$	77,195	\$	-	\$	-	\$	3,350	\$	14	\$	22
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	OTAX OTAX OTAX OTAX OTAX	OTDPLS OTDPLD OTDPLC OTDSLD OTDSLC OTDLT	NCPP NCPP Cust08 SICD Cust07	\$	36,307 943 - 37,250	\$ \$	84,119 423 - 84,541	\$ \$	-	<b>\$</b>	:	s s	3,651 28,577 1,297 10,958 44,483	\$ \$	15 1 5 0 22	<b>s</b> <b>s</b>	24 132 8 50 214
Distribution Line Transformers Demand Customer Total Line Transformers	OTAX OTAX	OTDLTD OTDLTC OTDLTT	SICDT Cust09	s s	21,889 324 22,213		- - -	\$ \$	- - -	\$ \$	- - -	\$ \$	1,677 9,808 11,486		7 0 7		11 45 56
<b>Distribution Services</b> Customer	OTAX	OTDSC	C02	\$	512	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	OTAX	OTDMC	C03	\$	1,876	\$	4,957	\$	3,381	\$	143	\$	-	\$	1	\$	180
Distribution Street & Customer Light Customer	ting OTAX	OTDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	223,555	\$	-	\$	-
Customer Accounts Expense Customer	OTAX	OTCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	OTAX	OTCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	OTAX	OTSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		OTT		\$	879,557	\$	1,979,037	\$	653,693	\$	274,347	\$	314,018	\$	164	\$	1,035

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			Allocation		Total	l	Residential		General Ser	rvice	All E	lectric Schools		Power Service		Power Service	2
Description	Ref	Name	Vector		System	1	Rate RS		GS			AES		PS-Secondary		PS-Primary	
Gain Disposition of Allowances					•									· · · · · · · · · · · · · · · · · · ·			
Power Production Plant																	
Production Demand - Base	GAIN	OTPPDB	PPBDA	\$	_	\$	_		\$	_	S	_	\$	_		S	_
Production Demand - Inter.	GAIN	OTPPDI	PPWDA	Ψ.	-	Ψ	-	_	•	-	Ψ.	-		-		•	-
Production Demand - Peak	GAIN	OTPPDP	PPSDA		-		-	-		-		-		-			-
Production Energy - Base	GAIN	OTPPEB	E01		-		-	-		-		-		-			-
Production Energy - Inter.	GAIN	OTPPEI	E01		-		-	-		-		-		-			-
Production Energy - Peak Total Power Production Plant	GAIN	OTPPEP OTPPT	E01	\$	-	\$	-	-	\$	-	\$	-	\$	-		\$	-
Total Power Production Plant		OIPPI		2	-	3	-	-	3	-	3	-	Þ	-		•	-
Transmission Plant																	
Transmission Demand	GAIN	OTTRB	NCPT	\$	-	\$	-	-	\$	-	\$	-	\$	-	:	\$	-
Distribution Poles																	
Specific	GAIN	OTDPS	NCPP	\$	_	\$	-		\$	-	\$	-	\$	_	:	\$	_
•																	
Distribution Substation	CARI	OTDGG	NGDD			•			6				•			ħ	
General	GAIN	OTDSG	NCPP	\$	-	\$	-	-	\$	-	\$	-	\$	-		\$	-
Distribution Primary & Secondary L	ines																
Primary Specific	GAIN	OTDPLS	NCPP	\$	-	\$	-	-	\$	-	\$	-	\$	-		\$	-
Primary Demand	GAIN	OTDPLD	NCPP		-		-	-		-		-		-			-
Primary Customer	GAIN	OTDPLC	Cust08		-		-	-		-		-		-			-
Secondary Demand Secondary Customer	GAIN GAIN	OTDSLD OTDSLC	SICD Cust07		-		-	-		-		-		-			-
Total Distribution Primary & Secondar		OTDLT	Custor	\$	-	\$	_		\$	-	\$	-	\$	-		\$	-
	-								•		-						
Distribution Line Transformers	CARI	OTDI TD	GLODE			•			6				•			ħ	
Demand Customer	GAIN GAIN	OTDLTD OTDLTC	SICDT Cust09	\$	-	\$	-	-	\$	-	\$	-	\$	-		\$	-
Total Line Transformers	GAIN	OTDLTC	Cusios	\$	-	\$	_		\$		\$	-	\$	-		\$	-
Total Ellie Transformers		OIDLII		Ψ.		Ψ			•		•					•	
Distribution Services									_		_		_			_	
Customer	GAIN	OTDSC	C02	\$	-	\$	-	-	\$	-	\$	-	\$	-		\$	-
Distribution Meters																	
Customer	GAIN	OTDMC	C03	\$	-	\$	-	-	\$	-	\$	-	\$	-	:	\$	-
Distribution Street & Customer Light Customer	iting GAIN	OTDSCL	C04	\$	_	\$	_		\$		\$	_	\$	_		\$	
Customer	GAIN	OIDSCL	C04	J.	-	Ф	-	-	J	-	J.	-	Ф	-		•	-
Customer Accounts Expense																	
Customer	GAIN	OTCAE	C05	\$	-	\$	-	-	\$	-	\$	-	\$	-	:	\$	-
Customer Service & Info.																	
Customer	GAIN	OTCSI	C05	\$	_	\$	_		\$	-	\$	-	\$	-	:	\$	-
Sales Expense	CAIN	OTSEC	C06	e		\$			\$		•		\$			r	
Customer	GAIN	OISEC	C06	\$	-	3	-		٥	-	\$	-	\$	-		Þ	-
Total		OTT		\$	-	\$	-	-	\$	-	\$	-	\$	-	:	\$	-

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			Allocation	Time of Da			Time of Day	Service		Service		Outdoor Lightin	g I	Lighting Energy	Traffic I	
Description	Ref	Name	Vector	TOD-Second	ary		TOD-Primary	RTS		FLS - Transmiss	ion	ST & POL		LE	TI	<u>L</u>
Gain Disposition of Allowances																
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	GAIN GAIN GAIN GAIN GAIN GAIN	OTPPDB OTPPDI OTPPDP OTPPEB OTPPEI OTPPEP OTPPT	PPBDA PPWDA PPSDA E01 E01	<b>s</b>	-	\$	- - - - -	\$	-	s		\$	\$	- - - - -	\$	-
Transmission Plant Transmission Demand	GAIN	OTTRB	NCPT	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-
<b>Distribution Poles</b> Specific	GAIN	OTDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-
<b>Distribution Substation</b> General	GAIN	OTDSG	NCPP	\$	-	\$	-	\$	-	\$	-	s -	\$	-	\$	-
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	GAIN GAIN GAIN GAIN GAIN	OTDPLS OTDPLD OTDPLC OTDSLD OTDSLC OTDLT	NCPP NCPP Cust08 SICD Cust07	s s	-	<b>s</b>	- - - - -	s s	-	<b>s</b>	- - - -	s	\$ \$	- - - - -	\$	- - - - -
Distribution Line Transformers Demand Customer Total Line Transformers	GAIN GAIN	OTDLTD OTDLTC OTDLTT	SICDT Cust09	\$ \$	- - -	s s	- - -	\$ \$	-	s s	-	\$ - \$ -	\$ \$	- - -	\$ \$	- - -
<b>Distribution Services</b> Customer	GAIN	OTDSC	C02	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-
<b>Distribution Meters</b> Customer	GAIN	OTDMC	C03	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-
Distribution Street & Customer Light Customer	t <b>ing</b> GAIN	OTDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-
Customer Accounts Expense Customer	GAIN	OTCAE	C05	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-
Customer Service & Info. Customer	GAIN	OTCSI	C05	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-
Sales Expense Customer	GAIN	OTSEC	C06	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-
Total		OTT		\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-

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			Allocation		Total	Residential		General Service	All E	lectric Schools		Power Service	Power	Service
Description	Ref	Name	Vector		System	Rate RS		GS		AES		PS-Secondary	PS-P	rimary
Interest														
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base	INTLTD INTLTD INTLTD INTLTD	INTPPDB INTPPDI INTPPDP INTPPEB	PPBDA PPWDA PPSDA E01	\$	17,924,442 18,776,988 15,434,620	\$ 6,017,558 8,146,183 5,797,342		1,795,305 2,189,802 1,736,077	\$	150,006 180,739 116,551	\$	2,120,374 2,054,839 1,830,834	\$	163,628 130,056 137,332
Production Energy - Inter. Production Energy - Peak Total Power Production Plant	INTLTD INTLTD	INTPPEI INTPPEP INTPPT	E01 E01	\$	52,136,050	\$ 19,961,084	\$	5,721,184	\$	- - 447,297	\$	- 6,006,046	\$	431,017
<b>Transmission Plant</b> Transmission Demand	INTLTD	INTTRB	NCPT	\$	11,561,389	\$ 4,917,517	\$	1,244,968	\$	120,189	\$	1,097,559	s	86,313
<b>Distribution Poles</b> Specific	INTLTD	INTDPS	NCPP	\$	-	\$ -	\$	-	\$	-	\$	-	s	-
<b>Distribution Substation</b> General	INTLTD	INTDSG	NCPP	\$	2,711,771	\$ 1,286,375	\$	325,672	\$	31,440	\$	287,111	s	22,579
Distribution Primary & Secondary I Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondar	INTLTD INTLTD INTLTD INTLTD INTLTD	INTDPLS INTDPLD INTDPLC INTDSLD INTDSLC INTDLT	NCPP NCPP Cust08 SICD Cust07	\$	2,954,995 5,479,772 1,360,350 2,079,529 11,874,646	\$ 1,401,752 4,378,688 1,133,199 1,679,031 \$ 8,592,671	)	354,882 847,203 204,083 324,864 1,731,033	s s	34,260 6,029 14,335 2,312 56,936	<b>s</b> <b>s</b>	312,862 45,782 - 358,644	<b>s</b>	24,604 1,759 - 26,363
<b>Distribution Line Transformers</b> Demand Customer Total Line Transformers	INTLTD INTLTD	INTDLTD INTDLTC INTDLTT	SICDT Cust09	\$ \$	2,111,737 1,879,191 3,990,928	1,502,849	)	263,857 290,776 554,633		18,534 2,069 20,603		207,173 15,713 222,886		- - -
<b>Distribution Services</b> Customer	INTLTD	INTDSC	C02	\$	1,258,066	\$ 882,302	\$	345,599	\$	3,273	\$	23,480	\$	-
<b>Distribution Meters</b> Customer	INTLTD	INTDMC	C03	\$	1,073,425	\$ 667,093	\$	248,624	\$	5,274	\$	67,389	\$	14,858
Distribution Street & Customer Lig Customer	hting INTLTD	INTDSCL	C04	\$	1,488,926	\$ -	\$	-	\$	-	\$	-	\$	-
Customer Accounts Expense Customer	INTLTD	INTCAE	C05	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	INTLTD	INTCSI	C05	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	INTLTD	INTSEC	C06	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-
Total		INTT		\$	86,095,200	\$ 39,274,989	\$	10,171,713	\$	685,012	\$	8,063,117	\$	581,130

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			Allocation	Ti	me of Day		Time of Day		Service		Service	Ou	tdoor Lighting	Light	ting Energy	Trai	fic Energy
Description	Ref	Name	Vector	TOI	<b>D-Secondary</b>		TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
Interest																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter.	INTLTD INTLTD INTLTD INTLTD INTLTD	INTPPDB INTPPDI INTPPDP INTPPEB INTPPEI	PPBDA PPWDA PPSDA E01 E01	\$	1,650,718 1,375,604 1,349,565	\$	3,967,988 3,183,933 2,953,275	\$	1,413,134 1,100,914 1,097,869	\$	521,693 413,925 415,042	\$	122,124	\$	441 - - - -	\$	1,471 992 733
Production Energy - Peak Total Power Production Plant	INTLTD	INTPPEP INTPPT	E01	\$	4,375,887	\$	10,105,196	\$	3,611,917	\$	1,350,661	\$	122,124	\$	- 441	\$	3,196
<b>Transmission Plant</b> Transmission Demand	INTLTD	INTTRB	NCPT	\$	848,304	\$	1,965,421	\$	719,308	\$	475,599	\$	85,299	\$	357	\$	553
<b>Distribution Poles</b> Specific	INTLTD	INTDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	INTLTD	INTDSG	NCPP	\$	221,908	\$	514,135	\$	-	\$	-	\$	22,313	\$	93	\$	145
Distribution Primary & Secondary L Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	INTLTD INTLTD INTLTD INTLTD INTLTD	INTDPLS INTDPLD INTDPLC INTDSLD INTDSLC INTDLT	NCPP NCPP Cust08 SICD Cust07	\$	241,811 6,283 - 248,095	<b>s</b>	560,249 2,816 - - 563,065	\$ \$	- - - - -	\$ \$	- - - - -	<b>s</b> <b>s</b>	24,315 190,330 8,641 72,983 296,269	\$	102 5 36 2 144	<b>\$</b>	158 877 56 336 1,426
Distribution Line Transformers Demand Customer Total Line Transformers	INTLTD INTLTD	INTDLTD INTDLTC INTDLTT	SICDT Cust09	\$ \$	145,784 2,157 147,940		- - -	\$ \$	- - -	\$ \$	- - -	\$ \$	11,171 65,325 76,496	•	47 2 48		72 301 373
<b>Distribution Services</b> Customer	INTLTD	INTDSC	C02	\$	3,411	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	INTLTD	INTDMC	C03	\$	12,498	\$	33,013	\$	22,515	\$	953	\$	-	\$	6	\$	1,202
<b>Distribution Street &amp; Customer Ligh</b> Customer	ting INTLTD	INTDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	1,488,926	\$	-	\$	-
Customer Accounts Expense Customer	INTLTD	INTCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	INTLTD	INTCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	INTLTD	INTSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		INTT		\$	5,858,043	\$	13,180,830	\$	4,353,740	\$	1,827,213	\$	2,091,428	\$	1,091	\$	6,896

		1	2	3	4		5		7	9	10
			Allocation	Total	Residential	(	General Service	A	ll Electric Schools	Power Service	Power Service
Description	Ref	Name	Vector	System	Rate RS		GS		AES	PS-Secondary	PS-Primary
Cost of Service Summary Unadjusted											<u>.</u>
Operating Revenues Sales Intercompany Sales Curtailable Service Rider LATE PAYMENT CHARGES OTHER SERVICE CHARGES RENT FROM ELEC PROPERTY OTHER MISC REVENUES		REVUC SFRS	R01 E01 INTCRE LPAY MISCSERV RBT MISCSERV	\$ 1,464,489,053 8,422,903 (17,395,776) 3,857,505 2,108,282 3,142,645 22,338,060	\$ 554,543,189 2,827,720 (7,089,946) 3,012,898 1,967,237 1,439,280 20,843,640	\$	198,233,994 843,635 (1,996,214) 568,302 136,875 372,320 1,450,249		12,037,991 70,490 (151,165) 3,750 853 24,968 9,036	\$ 174,459,441 996,388 (1,975,770) 98,651 1,335 291,892 14,148	\$ 13,950,651 76,891 (135,961) 5,535 51 21,096 542
Total Operating Revenues		TOR		\$ 1,486,962,672	\$ 577,544,019	\$	199,609,161	\$	11,995,923	\$ 173,886,086	\$ 13,918,805
Operating Expenses Operation and Maintenance Expenses Depreciation and Amortization Expenses Regulatory Credits and Accretion Expenses				\$ 933,774,239 228,062,837	\$ 367,458,386 101,410,555	\$	107,991,610 26,656,293	\$	7,709,803 1,832,751	\$ 98,076,797 22,145,827	\$ 7,515,439 1,593,617
Property Taxes Other Taxes			NPT	24,894,101 12,926,774	11,356,214 5,896,948		2,941,112 1,527,233		198,069 102,851	2,331,420 1,210,638	168,031 87,254
Gain Disposition of Allowances State and Federal Income Taxes			TAXINC	84,161,734	\$ 21,811,969	\$	21,048,305	\$	613,798	\$ 17,592,102	\$ 1,661,962
Total Operating Expenses		TOE		\$ 1,283,819,685	\$ 507,934,072	\$	160,164,554	\$	10,457,272	\$ 141,356,784	\$ 11,026,304
Net Operating Income (Unadjusted)		TOM		\$ 203,142,987	\$ 69,609,947	\$	39,444,607	\$	1,538,651	\$ 32,529,302	\$ 2,892,501
Net Cost Rate Base				\$ 3,639,079,759	\$ 1,666,639,443	\$	431,134,547	\$	28,911,757	\$ 338,001,267	\$ 24,427,954

		1	2		11		12		13		14	15	16	1	7
			Allocation	T	ime of Day	7	Time of Day		Service	;	Service	Outdoor Lighting	Lighting Energy	Traffic	Energy
Description	Ref	Name	Vector	TO	D-Secondary	T	OD-Primary		RTS	FLS -	Transmission	ST & POL	LE	T	E
Cost of Service Summary Unadjusted															
Operating Revenues Sales Intercompany Sales Curtailable Service Rider LATE PAYMENT CHARGES OTHER SERVICE CHARGES RENT FROM ELEC PROPERTY OTHER MISC REVENUES		REVUC SFRS	R01 E01 INTCRE LPAY MISCSERV RBT MISCSERV	\$	116,879,945 775,692 (1,385,683) 41,764 982 212,441 10,403		251,561,897 1,864,604 (3,120,622) 107,885 439 477,921 4,653	S	86,711,460 664,048 (1,118,028) 18,686 48 157,412 505	\$	29,892,107 245,150 (421,510) - - 66,563	57,388	\$ 29,470 207 - - - 41	\$	156,512 691 (877) - - 256
Total Operating Revenues		TOR		\$	116,535,544	\$	250,896,778	\$	86,434,130	\$	29,782,310	\$ 26,173,616	\$ 29,719	\$	156,582
Operating Expenses Operation and Maintenance Expenses Depreciation and Amortization Expenses Regulatory Credits and Accretion Expenses				\$	74,897,399 16,089,763	\$	175,548,614 36,375,471	\$	61,167,027 12,196,188	s	23,318,822 4,973,893	\$ 9,981,493 4,768,137	\$ 19,134 2,701	\$	89,715 17,640
Property Taxes Other Taxes			NPT		1,693,831 879,557		3,811,187 1,979,037		1,258,867 653,693		528,332 274,347	604,728 314,018	315 164		1,994 1,035
Gain Disposition of Allowances State and Federal Income Taxes			TAXINC	\$	7,159,663	\$	8,366,267	\$	2,846,228	\$	(476,962)	\$ 3,519,322	\$ 2,641	\$	16,439
Total Operating Expenses		TOE		\$	100,720,212	\$	226,080,576	\$	78,122,004	\$	28,618,432	\$ 19,187,697	\$ 24,955	\$	126,824
Net Operating Income (Unadjusted)		TOM		\$	15,815,332	\$	24,816,201	\$	8,312,127	\$	1,163,878	\$ 6,985,918	\$ 4,764	\$	29,758
Net Cost Rate Base				\$	245,999,663	\$	553,417,343	\$	182,277,504	\$	77,078,338	\$ 90,847,680	\$ 48,015	\$	296,249

#### Cost of Service Study Class Allocation 12 Months Ended June 30, 2018

		1	2	3	4	5		7	9		10
			Allocation	Total	Residential	General Service	All	Electric Schools	Power Service	J	Power Service
Description	Ref	Name	Vector	System	Rate RS	GS		AES	PS-Secondary		PS-Primary
Taxable Income Unadjusted											
Total Operating Revenue				\$ 1,486,962,672	\$ 577,544,019	\$ 199,609,161	\$	11,995,923	\$ 173,886,086	\$	13,918,805
Operating Expenses				\$ 1,199,657,950	\$ 486,122,103	\$ 139,116,248	\$	9,843,474	\$ 123,764,682	\$	9,364,341
Interest Expense		INTEXP		\$ 86,095,200	\$ 39,274,989	\$ 10,171,713	\$	685,012	\$ 8,063,117	\$	581,130
Taxable Income		TAXINC		\$ 201,209,521	\$ 52,146,927	\$ 50,321,200	\$	1,467,437	\$ 42,058,287	\$	3,973,334

#### Cost of Service Study Class Allocation 12 Months Ended June 30, 2018

		1	2		11	12	13		14		15		16		17
			Allocation	1	Time of Day	Time of Day	Service		Service	Ου	tdoor Lighting	Lightin	g Energy	Tr	affic Energy
Description	Ref	Name	Vector	TO	D-Secondary	TOD-Primary	RTS	FL	S - Transmission		ST & POL	I	Æ		TE
Taxable Income Unadjusted															
Total Operating Revenue				\$	116,535,544	\$ 250,896,778	\$ 86,434,130	\$	29,782,310	\$	26,173,616	\$	29,719	\$	156,582
Operating Expenses				\$	93,560,549	\$ 217,714,309	\$ 75,275,776	\$	29,095,394	\$	15,668,375	\$	22,314	\$	110,385
Interest Expense		INTEXP		\$	5,858,043	\$ 13,180,830	\$ 4,353,740	\$	1,827,213	\$	2,091,428	\$	1,091	\$	6,896
Taxable Income		TAXINC		\$	17,116,953	\$ 20,001,639	\$ 6,804,614	\$	(1,140,297)	\$	8,413,812	\$	6,314	\$	39,301

#### Cost of Service Study Class Allocation 12 Months Ended June 30, 2018

		1	2	3	4	5	7	9	10
			Allocation	Total	Residential	General Service	All Electric Schools	Power Service	Power Service
Description	Ref	Name	Vector	System	Rate RS	GS	AES	PS-Secondary	PS-Primary
Cost of Service Summary Pro-Forma									
Operating Revenues									
Total Operating Revenue Actual				\$ 1,486,962,672 \$	577,544,019	\$ 199,609,161	\$ 11,995,923	\$ 173,886,086	13,918,805
Pro-Forma Adjustments: Adj to eliminate Off System ECR re	venues		ECRREV	(1,635,232) \$	(609,965)	\$ (368,766)	\$ (23,373)	\$ (168,730) \$	(13,653)
Total Pro-Forma Operating Revenue				\$ 1,485,327,440 \$	576,934,054	\$ 199,240,395	\$ 11,972,550	\$ 173,717,356	13,905,151

#### Cost of Service Study Class Allocation 12 Months Ended June 30, 2018

		1	2		11	12	13	14	15	16	17
			Allocation	7	Time of Day	Time of Day	Service	Service	Outdoor Lighting	Lighting Energy	Traffic Energy
Description	Ref	Name	Vector	TO	OD-Secondary	TOD-Primary	RTS	FLS - Transmission	ST & POL	LE	TE
Cost of Service Summary Pro-Forma											
Operating Revenues											
Total Operating Revenue Actual				\$	116,535,544	250,896,778	86,434,130	\$ 29,782,310	\$ 26,173,616	\$ 29,719	\$ 156,582
Pro-Forma Adjustments: Adj to eliminate Off System ECR rev	enues/		ECRREV	\$	(105,682)	(210,279)	(68,614)	\$ (23,719)	\$ (42,194)	\$ (66)	\$ (192)
Total Pro-Forma Operating Revenue				\$	116,429,863	250,686,499	86,365,516	\$ 29,758,591	\$ 26,131,422	\$ 29,653	\$ 156,390

		1	2	3	4		5		7	9		10
			Allocation	Total	Residential	(	General Service	All	Electric Schools	Power Service	F	Power Service
Description	Ref	Name	Vector	System	Rate RS		GS		AES	PS-Secondary		PS-Primary
Operating Expenses												
Operation and Maintenance Expenses Depreciation and Amortization Expenses Regulatory Credits and Accretion Expenses				\$ 933,774,239 228,062,837	\$ 367,458,386 101,410,555	\$	107,991,610 26,656,293	\$	7,709,803 1,832,751	\$ 98,076,797 22,145,827	\$	7,515,439 1,593,617
Property Taxes Other Taxes Gain Disposition of Allowances			NPT	24,894,101 12,926,774	11,356,214 5,896,948		2,941,112 1,527,233		198,069 102,851	2,331,420 1,210,638		168,031 87,254
State and Federal Income Taxes Specific Assignment of Curtailable Service R	ider Cred	lit	TAXINC	84,161,734	\$ 21,811,969	\$	21,048,305	\$	613,798	\$ 17,592,102	\$	1,661,962
Allocation of Curtailable Service Rider Credi			INTCRE	\$ -	\$ -	\$	-	\$	-	\$ - :	\$	-
Adjustments to Operating Expenses: Eliminate advertising expenses Federal & State Income Tax Adjustr Total Expense Adjustments	ment		REVUC TAXINC	\$ (838,116) (164,668) (1,002,784)	\$ (317,361) (42,677) (360,037)	\$	(113,448) (41,182) (154,630)	\$	(6,889) (1,201) (8,090)	\$ (99,842) (34,420) (134,262)	\$	(7,984) (3,252) (11,236)
Total Operating Expenses		TOE		\$ 1,282,816,901	\$ 507,574,035	\$	160,009,923	\$	10,449,182	\$ 141,222,522	\$	11,015,068
Net Operating Income (Adjusted)				\$ 202,510,539	\$ 69,360,019	\$	39,230,472	\$	1,523,368	\$ 32,494,834	\$	2,890,083
Net Cost Rate Base				\$ 3,639,079,759	\$ 1,666,639,443	\$	431,134,547	\$	28,911,757	\$ 338,001,267	\$	24,427,954
Rate of Return				5.56%	4.16%		9.10%		5.27%	9.61%		11.83%

		1	2		11		12	13		14		15		16		17
			Allocation	1	Time of Day		Time of Day	Service		Service	Outd	oor Lighting	Ligh	nting Energy	Tra	ffic Energy
Description	Ref	Name	Vector	TO	D-Secondary	Т	OD-Primary	RTS	FL	S - Transmission	S	T & POL		LE		TE
Operating Expenses																
Operation and Maintenance Expenses Depreciation and Amortization Expenses Regulatory Credits and Accretion Expenses				\$	74,897,399 16,089,763	\$	175,548,614 36,375,471	\$ 61,167,027 12,196,188	\$	23,318,822 4,973,893	\$	9,981,493 4,768,137	\$	19,134 2,701	\$	89,715 17,640
Property Taxes Other Taxes Gain Disposition of Allowances			NPT		1,693,831 879,557		3,811,187 1,979,037	1,258,867 653,693		528,332 274,347		604,728 314,018		315 164		1,994 1,035
State and Federal Income Taxes Specific Assignment of Curtailable Service R	Rider Cred	lit	TAXINC	\$	7,159,663	\$	8,366,267	\$ 2,846,228	\$	(476,962)	\$	3,519,322	\$	2,641	\$	16,439
Allocation of Curtailable Service Rider Cred			INTCRE	\$	-	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-
Adjustments to Operating Expenses: Eliminate advertising expenses Federal & State Income Tax Adjustr Total Expense Adjustments	ment		REVUC TAXINC	\$	(66,890) (14,008) (80,898)		(143,967) (16,369) (160,336)	(49,624) (5,569) (55,193)	\$	(17,107) 933 (16,174)		(14,898) (6,886) (21,784)		(17) (5) (22)	\$	(90) (32) (122)
Total Operating Expenses		TOE		\$	100,639,315	\$	225,920,240	\$ 78,066,811	\$	28,602,258	\$	19,165,913	\$	24,933	\$	126,702
Net Operating Income (Adjusted)				\$	15,790,548	\$	24,766,259	\$ 8,298,706	\$	1,156,333	\$	6,965,509	\$	4,720	\$	29,688
Net Cost Rate Base				\$	245,999,663	\$	553,417,343	\$ 182,277,504	\$	77,078,338	\$	90,847,680	\$	48,015	\$	296,249
Rate of Return					6.42%		4.48%	4.55%		1.50%		7.67%		9.83%		10.02%

		1	2	3	4	5		7	9	10
			Allocation	Total	Residential	General Service	All	Electric Schools	Power Service	Power Service
Description	Ref	Name	Vector	System	Rate RS	GS		AES	PS-Secondary	PS-Primary
Taxable Income Pro-Forma										
Total Operating Revenue				\$ 1,485,327,440	\$ 576,934,054	\$ 199,240,395	\$	11,972,550	\$ 173,717,356	\$ 13,905,151
Operating Expenses				\$ 1,198,655,166	\$ 485,762,065	\$ 138,961,618	\$	9,835,384	\$ 123,630,420	\$ 9,353,106
Interest Expense		INTEXP		\$ 86,095,200	\$ 39,274,989	\$ 10,171,713	\$	685,012	\$ 8,063,117	\$ 581,130
Interest Syncronization Adjustment			INTEXP	\$ 7,411,055	\$ 3,380,782	\$ 875,579	\$	58,966	\$ 694,071	\$ 50,024
Taxable Income		TXINCPF		\$ 193,166,018	\$ 48,516,217	\$ 49,231,485	\$	1,393,189	\$ 41,329,748	\$ 3,920,892

### KENTUCKY UTILITIES COMPANY Cost of Service Study

#### Class Allocation 12 Months Ended June 30, 2018

		1	2		11	12	13				15		16		17
			Allocation	1	ime of Day	Time of Day	Service		Service	O	utdoor Lighting	Lighti	ing Energy	T	raffic Energy
Description	Ref	Name	Vector	TO	D-Secondary	TOD-Primary	RTS	Fl	LS - Transmission		ST & POL		LE		TE
Taxable Income Pro-Forma															
Total Operating Revenue				\$	116,429,863	\$ 250,686,499	\$ 86,365,516	\$	29,758,591	\$	26,131,422	\$	29,653	\$	156,390
Operating Expenses				\$	93,479,651	\$ 217,553,973	\$ 75,220,583	\$	29,079,220	\$	15,646,592	\$	22,291	\$	110,263
Interest Expense		INTEXP		\$	5,858,043	\$ 13,180,830	\$ 4,353,740	\$	1,827,213	\$	2,091,428	\$	1,091	\$	6,896
Interest Syncronization Adjustment			INTEXP	\$	504,259	\$ 1,134,603	\$ 374,769	\$	157,286	\$	180,030	\$	94	\$	594
Taxable Income		TXINCPF		\$	16,587,910	\$ 18,817,093	\$ 6,416,425	\$	(1,305,128)	\$	8,213,373	\$	6,177	\$	38,637

		1	2	3	4	5		7	9		10
Description	Ref	Name	Allocation Vector	Total System	Residential Rate RS	General Service GS	All	Electric Schools AES	Power Service PS-Secondary		Power Service PS-Primary
Description	KCI	Ivaille	Vector	System	Rate K5	G5		AES	1 5-Secondary		13-11illary
Cost of Service Summary Adjusted for I	Proposed	Increase									
Operating Revenue											
Total Operating Revenue				\$ 1,485,327,440 \$		199,240,395		11,972,550	173,717,356		13,905,151
Proposed Increase Proposed Reduction to CSR Credit			INTCRE	\$ 94,389,823 \$ 8,688,375 \$		12,094,455 997,016		777,151 75,500		\$ \$	705,851 67,906
Increase in Miscellaneous Charges			MISCSERV	\$ 19,720 \$		\$ 1,280	\$	8	\$	\$	0
				\$	-	\$ -	\$	-	\$ -	\$	-
Total Pro-Forma Operating Revenue				\$ 1,588,425,358 \$	617,493,613	\$ 212,333,146	\$	12,825,209	\$ 184,182,480	\$	14,678,909
Operating Expenses											
Total Operating Expenses				\$ 1,283,819,685 \$	507,934,072	\$ 160,164,554	\$	10,457,272	\$ 141,356,784	\$	11,026,304
Pro-Forma Adjustments				\$ (1,002,784) \$	(360,037)	\$ (154,630)	\$	(8,090)	\$ (134,262)	\$	(11,236)
Increase in Uncollectible Expense			Cust01	\$ 362,905 \$		43,861		312	2,370		91
Increase in PSC Fees			R01	\$ 200,113 \$	75,775	\$ 27,087	\$	1,645	\$ 23,839	\$	1,906
Incremental Income Taxes			0.385574631	\$ 39,751,942 \$	15,638,737	\$ 5,048,233	\$	328,764	\$ 4,035,086	\$	298,341
Total Pro-Forma Operating Expenses				\$ 1,323,131,860 \$	523,515,236	\$ 165,129,104	\$	10,779,902	\$ 145,283,817	\$	11,315,407
Net Operating Income				\$ 265,293,498 \$	93,978,376	\$ 47,204,042	\$	2,045,306	\$ 38,898,663	\$	3,363,502
Net Cost Rate Base				\$ 3,639,079,759 \$	1,666,639,443	\$ 431,134,547	\$	28,911,757	\$ 338,001,267	\$	24,427,954
Rate of Return				7.29%	5.64%	10.95%		7.07%	11.51%		13.77%

		1	2 Allocation	T	11 Time of Day	12 Time of Dece	13 Service		14 Service	0	15		16 ghting Energy	т	17 raffic Energy
<b>Description</b> I	Ref	Name	Vector		D-Secondary	Time of Day TOD-Primary	RTS	FL	Service S - Transmission		itdoor Lighting ST & POL	Li	LE	11	TE
Cost of Service Summary Adjusted for Pro	oposed	Increase													
Operating Revenue															
Total Operating Revenue Proposed Increase Proposed Reduction to CSR Credit Increase in Miscellaneous Charges			INTCRE MISCSERV	\$ \$ \$ \$	116,429,863 6,865,949 692,083 9	250,686,499 17,335,551 1,558,604 4	\$ 86,365,516 6,022,823 558,402 0	\$	29,758,591 2,235,015 210,525 -	\$	26,131,422 1,866,484 - 4		29,653 - - - -	\$ \$ \$ \$ \$	156,390 8,175 438 -
Total Pro-Forma Operating Revenue				\$	123,987,904	\$ 269,580,658	\$ 92,946,742	\$	32,204,131	\$	27,997,910	\$	29,653	\$	165,003
Operating Expenses															
Total Operating Expenses				\$	100,720,212	\$ 226,080,576	\$ 78,122,004	\$	28,618,432	\$	19,187,697	\$	24,955	\$	126,824
Pro-Forma Adjustments Increase in Uncollectible Expense Increase in PSC Fees			Cust01 R01	\$ \$ \$	(80,898) 325 15,971	\$ (160,336) 146 34,374	\$ (55,193) 16 11,849	\$	(16,174) 1 4,085	\$	(21,784) 88,683 3,557	\$	(22) 2 4		(122) 408 21
Incremental Income Taxes			0.385574631	\$	2,914,189	\$ 7,285,109	\$ 2,537,554	\$	942,938	\$	719,671	\$	-	\$	3,321
Total Pro-Forma Operating Expenses				\$	103,569,800	\$ 233,239,869	\$ 80,616,229	\$	29,549,281	\$	19,977,824	\$	24,939	\$	130,453
Net Operating Income				\$	20,418,104	\$ 36,340,789	\$ 12,330,513	\$	2,654,850	\$	8,020,087	\$	4,714	\$	34,550
Net Cost Rate Base				\$	245,999,663	\$ 553,417,343	\$ 182,277,504	\$	77,078,338	\$	90,847,680	\$	48,015	\$	296,249
Rate of Return					8.30%	6.57%	6.76%		3.44%		8.83%		9.82%		11.66%

	1	2	3	4	5	7	9	10
		Allocation	Total	Residential	General Service	All Electric Schools	Power Service	Power Service
Description Ref	Name	Vector	System	Rate RS	GS	AES	PS-Secondary	PS-Primary
Allocation Factors								
Energy Allocation Factors								
Energy Usage by Class	E01	Energy	1.000000	0.335718	0.100160	0.008369	0.118295	0.009129
Customer Allocation Factors	900		4.000000	0.0000	0.45464	0.00440	0.00005	0.00022
Primary Distribution Plant Average Number of Cust Customer Services Weighted cost of Services	om C08 C02	Cust08	1.000000 1.000000	0.79906 0.701316	0.15461 0.274707	0.00110 0.002602	0.00835 0.018664	0.00032
Meter Costs Weighted Cost of Meters	C02		1.000000	0.621463	0.231618	0.002002	0.018004	0.013842
Lighting Systems Lighting Customers	C04	Cust04	1.000000	-	-	-	-	-
Meter Reading and Billing Weighted Cost	C05	Cust05	1.000000	0.64427	0.24931	0.00887	0.03368	0.00129
Marketing/Economic Development	C06	Cust06	1.000000	0.79902	0.15460	0.00110	0.00835	0.00032
Total billed revenue per Billing Determinants	R01		1,464,489,053	554,543,189	198,233,994	12,037,991	174,459,441	13,950,651
Energy (at the Meter)			18,343,080,487	6,091,971,051	1,817,505,619	151,861,000	2,146,594,132	169,814,471
Energy (Loss Adjusted)(at Source)	Energy		19,428,782,556	6,522,592,615	1,945,979,163	162,595,559	2,298,329,870	177,361,189
O&M Customer Allocators Customers (Monthly Bills)			8,273,588	5,168,140	999,948	7,118	54,034	2,070
Average Customers (Bills/12)			689,466	430,678	83,329	7,118 593	4,503	173
Average Customers (Lighting = Lights)			689,466	430,678	83,329	593	4,503	173
Weighted Average Customers (Lighting =9 Lights per	Cu Cust05		668,477	430,678	166,658	5,930	22,515	865
Street Lighting	Cust04		114,827,799	-	´-	´-	· =	-
Average Customers	Cust01		689,466	430,678	83,329	593	4,503	173
Average Customers (Lighting = 9 Lights per Cust)	Cust06		539,008	430,678	83,329	593	4,503	173
Average Secondary Customers Average Primary Customers	Cust07 Cust08		533,407 538,978	430,678 430,678	83,329 83,329	593 593	4,503	173
Average Transformer Customers	Cust09		538,528	430,678	83,329	593	4,503	1/3
č	Custo)		336,326	430,076	65,527	373	4,505	_
Plant Customer Allocators			0 272 500	5 1 (0 1 4 0	000 040	7 110	54.024	2.070
Customers (Monthly Bills) Average Customers (Bills/12)			8,273,588 689,466	5,168,140 430,678	999,948 83,329	7,118 593	54,034 4,503	2,070 173
Average Customers (Lighting = Lights)			689,466	430,678	83,329	593	4,503	173
Weighted Average Customers (Lighting =9 Lights per	Cust)		668,477	430,678	166,658	5,930	22,515	865
Street Lighting			114,827,799	´-	´-	´-	-	-
Average Customers			689,466	430,678	83,329	593	4,503	173
Average Customers (Lighting = 9 Lights per Cust)			539,008	430,678	83,329	593	4,503	173
Average Secondary Customers			533,407	430,678	83,329	593	4.502	- 172
Average Primary Customers Average Transformer Customers			538,978 538,528	430,678 430,678	83,329 83,329	593 593	4,503 4,503	173
•			330,320	450,070	03,327	3,3	4,505	
Demand Allocators  Maximum Class Non-Coincident Peak Demands (Tran	sm NCPT		5,021,135	2,135,688	540,692	52,198	476,672	37.486
Maximum Class Non-Coincident Peak Demands (Prim			4,502,184	2,135,688	540,692	52,198	476,672	37,486
Sum of the Individual Customer Demands (Transforme	er) SICDT		6,459,671	4,481,645	807,122	56,694	633,729	-
Sum of the Individual Customer Demands (Secondary)			5,379,998	4,481,645	807,122	56,694	-	-
Summer Peak Period Demand Allocator	SCP		3,586,335	1,347,051	403,389	27,081	425,406	31,910
Winter Peak Period Demand Allocator	WCP		3,808,066	1,652,086	444,103	36,655	416,731	26,376
Base Demand Allocator	BDEM		2,211,838	742,554	221,537	18,510	261,650	20,191

	1	2	11	12	13	14	15	16	17
		Allocation	Time of Day	Time of Day	Service	Service	Outdoor Lighting	Lighting Energy	Traffic Energy
<b>Description</b> Re	ef Name	Vector	TOD-Secondary	TOD-Primary	RTS	FLS - Transmission	ST & POL	LE	TE
Allocation Factors									
Energy Allocation Factors Energy Usage by Class	E01	Energy	0.092093	0.221373	0.078838	0.029105	0.006813	0.000025	0.000082
Customer Allocation Factors Primary Distribution Plant Average Number of Customer Services Weighted cost of Services	Custom C08 C02	Cust08	0.00115 0.002712	0.00051	-	-	0.03473	0.00000	0.00016
Meter Costs Weighted Cost of Meters Lighting Systems Lighting Customers	C03 C04	Cust04	0.011643	0.030754	0.020975	0.000888	1.00000	0.000006	0.001120
Meter Reading and Billing Weighted Cost Marketing/Economic Development	C05 C06	Cust05 Cust06	0.02311 0.00115	0.01036 0.00051	0.00090 0.00006	0.00007 0.00000	0.02800 0.03473	- - -	0.00013 0.00016
Total billed revenue per Billing Determinants Energy (at the Meter) Energy (Loss Adjusted)(at Source)	R01 Energy		116,879,945 1,671,130,915 1,789,257,708	251,561,897 4,118,000,917 4,301,008,844	86,711,460 1,497,714,279 1,531,734,094	29,892,107 552,917,598 565,476,838	26,032,396 123,634,653 132,373,983	29,470 446,721 478,298	156,512 1,489,131 1,594,393
O&M Customer Allocators Customers (Monthly Bills) Average Customers (Bills/12) Average Customers (Lighting = Lights) Weighted Average Customers (Lighting = 9 Lights Street Lighting Average Customers Average Customers Average Customers (Lighting = 9 Lights per Cust) Average Secondary Customers Average Primary Customers Average Transformer Customers	Cust04 Cust01		7,419 618 618 15,450 - 618 618 - 618	3,318 277 277 6,925 - 277 277 - 277	360 30 30 600 - 30 30	12 1 1 50 - 1 1 1	2,021,809 168,484 168,484 18,720 114,827,799 168,484 18,720 18,720 18,720 18,720	48 4 4 - - 0 0 0	9,312 776 776 86 - 776 86 86 86
Plant Customer Allocators Customers (Monthly Bills) Average Customers (Bills/12) Average Customers (Lighting = Lights) Weighted Average Customers (Lighting =9 Lights Street Lighting Average Customers Average Customers (Lighting = 9 Lights per Cust) Average Secondary Customers Average Primary Customers Average Transformer Customers	. ,		7,419 618 618 15,450 - 618 618 - 618	3,318 277 277 6,925 277 277	360 30 30 600 - 30 30 -	12 1 1 50 - 1 1 1	2,021,809 168,484 168,484 18,720 114,827,799 168,484 18,720 18,720 18,720	48 4 4 - - - 0 0 0	9,312 776 776 86 - 776 86 86 86 86
Demand Allocators Maximum Class Non-Coincident Peak Demands (I Maximum Class Non-Coincident Peak Demands (I Sum of the Individual Customer Demands (Transf Sum of the Individual Customer Demands (Second Summer Peak Period Demand Allocator Winter Peak Period Demand Allocator Base Demand Allocator	Primary NCPP ormer) SICDT		368,420 368,420 445,944 - 313,580 278,979 203,695	853,586 853,586 - - 686,213 645,717 489,641	312,397 - - 255,097 223,271 174,378	206,554 - - 96,438 83,946 64,376	37,046 37,046 34,173 34,173 - - 15,070	155 155 143 143 - - 54	240 240 221 221 170 201 182

		1	2		3	4		5		7		9	10
			Allocation		Total	Residential	G	General Service	All I	Electric Schools		Power Service	Power Service
Description	Ref	Name	Vector		System	Rate RS		GS		AES		PS-Secondary	PS-Primary
Unadjusted Production Allocation Production Residual Winter Demand Allocator Production Winter Demand Costs Customer Specific Assignment Production Winter Demand Residual Production Winter Demand Total Production Winter Demand Allocator		PPWDRA PPWDT PPWDA	PPWDRA PPWDT	\$ \$ \$ \$	3,808,066 35,951,279 - 35,951,279 35,951,279 1,000000	\$ 1,652,086 15,597,055 15,597,055 15,597,055 0,43384	\$	444,103 4,192,694 - 4,192,694 4,192,694 0,11662	\$	,	\$ \$ \$	416,731 3,934,288 - 3,934,288 3,934,288 0,10943	\$ 26,376 249,012 - 249,012 249,012 0.00693
Production Residual Summer Demand Allocato Production Summer Demand Costs Customer Specific Assignment Production Summer Demand Residual Production Summer Demand Total Production Summer Demand Allocator	r	PPSDRA PPSDT PPSDA	PPSDRA PPSDT	\$ \$ \$ \$	3,586,335 35,933,656 - 35,933,656 35,933,656 1.000000	1,347,051 13,496,911 13,496,911 13,496,911 0.37561		403,389 4,041,797 - 4,041,797 4,041,797 0.11248		27,081 271,345 0 271,345 271,345 0.00755		425,406 4,262,401 - 4,262,401 4,262,401 0.11862	31,910 319,726 - 319,726 319,726 0.00890
Production Residual Base Demand Allocator Production Base Demand Costs Customer Specific Assignment Production Base Demand Residual Production Base Demand Total Production Base Demand Allocator		PPBDRA PPBDT PPBDA	PPBDRA PPBDT	\$ \$ \$ \$	2,211,838 37,625,250 37,625,250 37,625,250 1.000000	\$ 742,554 0 12,631,475 12,631,475 0.33572	\$	221,537 - 3,768,530 3,768,530 0.10016	\$	18,510 0 314,878 314,878 0.00837	s	261,650 - 4,450,883 4,450,883 0.11830	\$ 20,191 - 343,473 343,473 0.00913
Revenue Adjustment Allocators Remove ECR Revenues Interruptible Credit Allocator Base Rate Revenue Late Payment Revenue Misc Service Revenue Allocator		ECRREV INTCRE LPAY MISCSERV			183,699,328 2,787,666,238 1,464,489,053 3,719,777 2,232,238	68,522,534 1,136,161,027 554,543,189 2,905,326 2,082,901		41,426,529 319,892,582 198,233,994 548,011 144,923		2,625,661 24,224,157 12,037,991 3,616 903		18,954,821 316,616,431 174,459,441 95,129 1,414	1,533,784 21,787,636 13,950,651 5,337 54
Operation and Maintenance Less Fuel		OMLF			293,386,691.81	152,468,739.91		43,850,646.58		2,350,528.91		22,322,085.22	1,669,478.16

	1	2		11	12	13				15		16		17
		Allocation	Ti	me of Day	Time of Day	Service		Service	Ou	tdoor Lighting	Li	ghting Energy	Tra	affic Energy
<b>Description</b> Re	f Name	Vector	TOI	O-Secondary	TOD-Primary	RTS	FL	S - Transmission		ST & POL		LE		TE
Unadjusted Production Allocation Production Residual Winter Demand Allocator Production Winter Demand Costs Customer Specific Assignment Production Winter Demand Residual Production Winter Demand Total Production Winter Demand Allocator	PPWDRA PPWDT PPWDA	PPWDRA PPWDT	\$ \$ \$	278,979 2,633,794 - 2,633,794 2,633,794 0.07326	\$ 645,717 6,096,104 - 6,096,104 6,096,104 0.16957	\$ 223,271 2,107,860 - 2,107,860 2,107,860 0.05863	\$	83,946 792,520 - 792,520 792,520 0.02204	\$	- - - - -	\$ \$ \$	- - - -	\$ \$ \$	201 1,899 1,899 1,899 0.00005
Production Residual Summer Demand Allocator Production Summer Demand Costs Customer Specific Assignment Production Summer Demand Residual Production Summer Demand Total Production Summer Demand Allocator	PPSDRA PPSDT PPSDA	PPSDRA PPSDT	\$ \$	313,580 3,141,950 3,141,950 3,141,950 0.08744	686,213 6,875,579 - 6,875,579 6,875,579 0.19134	255,097 2,555,971 2,555,971 2,555,971 0.07113		96,438 966,269 - 966,269 966,269 0.02689		- - - -	\$ \$	- - - -	\$ \$	170 1,707 1,707 1,707 0.00005
Production Residual Base Demand Allocator Production Base Demand Costs Customer Specific Assignment Production Base Demand Residual Production Base Demand Total Production Base Demand Allocator	PPBDRA PPBDT PPBDA	PPBDRA PPBDT	\$	203,695 - 3,465,028 3,465,028 0.09209	\$ 489,641 8,329,216 8,329,216 0.22137	\$ 174,378 - 2,966,314 2,966,314 0.07884	\$	64,376 - 1,095,087 1,095,087 0.02911	\$	15,070 - 256,352 256,352 0.00681	\$	54 0 926 926 0.00002		182 0 3,088 3,088 0.00008
Revenue Adjustment Allocators Remove ECR Revenues Interruptible Credit Allocator Base Rate Revenue Late Payment Revenue Misc Service Revenue Allocator	ECRREV INTCRE LPAY MISCSERV	7		11,872,123 222,055,079 116,879,945 40,273 1,040	23,622,372 500,078,426 251,561,897 104,034 465	7,708,001 179,163,507 86,711,460 18,019 50		2,664,539 67,546,814 29,892,107 -		4,739,976 - 26,032,396 32 488		7,407 - 29,470 -		21,581 140,580 156,512
Operation and Maintenance Less Fuel	OMLF			15,922,095.38	33,784,070.21	10,679,899.03		4,680,272.36		5,618,344.75		3,368.49		37,162.81

### **Exhibit WSS-19**

# Electric Cost of Service Study Class Allocation LOLP Methodology

		1	2		3		4		5		7		9		10
			Allocation		Total		Residential		General Service	All	Electric Schools		Power Service		Power Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Plant in Service															
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	TPIS TPIS TPIS TPIS TPIS TPIS TPIS	PLPPDB PLPPDI PLPPDP PLPPEB PLPPEI PLPPEP PLPPT	PPBDA PPWDA PPSDA E01 E01	\$ \$	1,460,538,245 1,530,006,255 1,257,659,983 - - - 4,248,204,483		539,805,609 565,480,542 464,823,098 - - 1,570,109,248	\$	158,703,502 166,251,963 136,658,553 - - 461,614,017		10,364,259 10,857,217 8,924,596 - - 30,146,073		173,380,230 181,626,765 149,296,588 - - 504,303,583		13,150,678 13,776,167 11,323,963 - - - 38,250,808 0.9%
Transmission Plant Transmission Demand	TPIS	PLTRB	NCPT	\$	918,203,216	\$	37.0% 390,548,219		10.9% 98,875,137	\$	0.7% 9,545,370	\$	11.9% 87,167,957	\$	6,854,993
<b>Distribution Poles</b> Specific	TPIS	PLDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	TPIS	PLDSG	NCPP	\$	218,458,065	\$	103,629,304	\$	26,235,842	\$	2,532,799	\$	23,129,422	\$	1,818,926
Distribution Primary & Secondary L Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	TPIS TPIS TPIS TPIS TPIS	PLDPLS PLDPLD PLDPLC PLDSLD PLDSLC PLDLT	NCPP NCPP Cust08 SICD Cust07	\$ \$	238,051,995 441,445,991 109,588,734 167,525,133 956,611,853	\$	112,924,018 352,743,595 91,289,586 135,261,394 692,218,593	<b>s</b>	28,588,986 68,249,994 16,440,796 26,170,821 139,450,598	<b>s</b> <b>s</b>	2,759,971 485,692 1,154,842 186,241 4,586,746	<b>s</b> <b>s</b>	25,203,945 3,688,148 - - 28,892,094	<b>s</b>	1,982,069 141,694 - - 2,123,763
Distribution Line Transformers Demand Customer Total Line Transformers	TPIS TPIS	PLDLTD PLDLTC PLDLTT	SICDT Cust09	\$ \$	170,119,799 151,386,108 321,505,907	•	118,027,154 121,068,269 239,095,423		21,256,098 23,424,688 44,680,786		1,493,081 166,699 1,659,779		16,689,677 1,265,842 17,955,519		- - -
<b>Distribution Services</b> Customer	TPIS	PLDSC	C02	\$	101,348,810	\$	71,077,561	\$	27,841,199	\$	263,669	\$	1,891,563	\$	-
<b>Distribution Meters</b> Customer	TPIS	PLDMC	C03	\$	86,474,242	\$	53,740,504	\$	20,028,963	\$	424,846	\$	5,428,842	\$	1,196,946
Distribution Street & Customer Ligh Customer	ting TPIS	PLDSCL	C04	\$	119,946,663	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Customer Accounts Expense</b> Customer	TPIS	PLCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	TPIS	PLCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	TPIS	PLSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		PLT		\$	6,970,753,239	\$	3,120,418,853	\$	818,726,543	\$	49,159,283	\$	668,768,981	\$	50,245,435

		1	2		11		12		13		14_		15		16		17
			Allocation		ime of Day		Time of Day		Service		Service	O	utdoor Lighting	Ligh	ting Energy	Tra	ffic Energy
Description	Ref	Name	Vector	TO	D-Secondary		TOD-Primary		RTS	FI	LS - Transmission		ST & POL		LE		TE
Plant in Service																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	TPIS TPIS TPIS TPIS TPIS TPIS TPIS	PLPPDB PLPPDI PLPPDP PLPPEB PLPPEI PLPPEP PLPPT	PPBDA PPWDA PPSDA E01 E01	\$	127,095,725 133,140,816 109,441,302 - - 369,677,844 8,7%	\$	296,752,782 310,867,322 255,531,890 - - - 863,151,993		101,585,833 106,417,590 87,474,900 - - - 295,478,323		39,430,413 41,305,853 33,953,272 - - 114,689,539		194,078 203,309 167,119 - - 564,507	*	740 776 638 - - 2,154		74,396 77,935 64,062 - - 216,393
<b>Transmission Plant</b> Transmission Demand	TPIS	PLTRB	NCPT	\$	67,372,105	\$	156,093,339	\$	57,127,325	\$	37,772,005	\$	6,774,443	\$	28,376	\$	43,947
<b>Distribution Poles</b> Specific	TPIS	PLDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	TPIS	PLDSG	NCPP	\$	17,876,728	\$	41,418,302	\$	-	\$	-	\$	1,797,552	\$	7,529	\$	11,661
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	TPIS TPIS TPIS TPIS TPIS	PLDPLS PLDPLD PLDPLC PLDSLD PLDSLC PLDLT	NCPP NCPP Cust08 SICD Cust07	\$	19,480,127 506,168 - 19,986,295	\$ \$	45,133,190 226,875 - 45,360,065	\$ \$	- - - - -	<b>s</b> <b>s</b>	- - - - -	\$	1,958,778 15,332,840 696,083 5,879,458 23,867,160	\$	8,205 364 2,916 140 11,624	<b>s</b>	12,707 70,620 4,511 27,079 114,917
Distribution Line Transformers Demand Customer Total Line Transformers	TPIS TPIS	PLDLTD PLDLTC PLDLTT	SICDT Cust09	\$ \$	11,744,231 173,727 11,917,957		- - -	\$ \$	- - -	\$ \$	- - -	\$	899,957 5,262,520 6,162,477		3,770 125 3,895		5,832 24,238 30,070
<b>Distribution Services</b> Customer	TPIS	PLDSC	C02	\$	274,819	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	TPIS	PLDMC	C03	\$	1,006,794	\$	2,659,464	\$	1,813,785	\$	76,767	\$	-	\$	499	\$	96,830
Distribution Street & Customer Light Customer	ing TPIS	PLDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	119,946,663	\$	-	\$	-
Customer Accounts Expense Customer	TPIS	PLCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	TPIS	PLCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	TPIS	PLSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		PLT		\$	488,112,542	\$	1,108,683,163	\$	354,419,433	\$	152,538,311	\$	159,112,801	\$	54,076	\$	513,817

		1	2		3		4		5		7		9		10
			Allocation		Total		Residential		General Service	All	Electric Schools		Power Service		Power Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Net Utility Plant													•		
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	NTPLANT NTPLANT NTPLANT NTPLANT NTPLANT NTPLANT	UPPPDB UPPPDI UPPPDP UPPPEB UPPPEI UPPPEP UPPPT	PPBDA PPWDA PPSDA E01 E01	\$ \$	887,821,776 930,049,504 764,497,556 - - 2,582,368,836		328,133,259 343,740,358 282,553,415 - - 954,427,031		96,471,575 101,060,081 83,071,046 - - - 280,602,701		6,300,153 6,599,809 5,425,021 - - 18,324,984		105,393,162 110,406,008 90,753,366		7,993,942 8,374,160 6,883,531 - - 23,251,634
Transmission Plant Transmission Demand	NTPLANT	UPTRB	NCPT		(20.427.870	¢.	2/7 724 972	6	67,779,936	6	6.542.451	6	50 754 542	6	
Transmission Demand	NIPLANI	UPIKB	NCPI	\$	629,437,870	э	267,724,873	3	67,779,936	3	6,543,451	3	59,754,543	3	4,699,169
<b>Distribution Poles</b> Specific	NTPLANT	UPDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	NTPLANT	UPDSG	NCPP	\$	142,637,386	\$	67,662,473	\$	17,130,116	\$	1,653,735	\$	15,101,847	\$	1,187,627
Distribution Primary & Secondary L	ines														
Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer	NTPLANT NTPLANT NTPLANT NTPLANT NTPLANT	UPDPLS UPDPLD UPDPLC UPDSLD UPDSLC	NCPP NCPP Cust08 SICD Cust07	\$	155,430,811 288,232,444 71,553,552 109,381,849	\$	73,731,252 230,316,167 59,605,526 88,315,950	\$	18,666,549 44,562,332 10,734,656 17,087,661	\$	1,802,062 317,122 754,029 121,602	\$	16,456,361 2,408,095	\$	1,294,148 92,516
Total Distribution Primary & Secondary	/ Lines	UPDLT		\$	624,598,655	\$	451,968,895	\$	91,051,199	\$	2,994,815	\$	18,864,457	\$	1,386,664
Distribution Line Transformers Demand Customer Total Line Transformers	NTPLANT NTPLANT	UPDLTD UPDLTC UPDLTT	SICDT Cust09	\$ \$	111,075,979 98,844,227 209,920,206		77,063,233 79,048,862 156,112,094		13,878,702 15,294,634 29,173,336		974,874 108,842 1,083,716		10,897,157 826,504 11,723,661		- - -
<b>Distribution Services</b> Customer	NTPLANT	UPDSC	C02	\$	66,173,475	\$	46,408,529	\$	18,178,298	\$	172,157	\$	1,235,054	\$	-
<b>Distribution Meters</b> Customer	NTPLANT	UPDMC	C03	\$	56,461,453	\$	35,088,680	\$	13,077,471	\$	277,394	\$	3,544,643	\$	781,519
Distribution Street & Customer Ligh Customer	ting NTPLANT	UPDSCL	C04	\$	78,316,533	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Accounts Expense Customer	NTPLANT	UPCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	NTPLANT	UPCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	NTPLANT	UPSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		UPT		\$	4,389,914,415	\$	1,979,392,575	\$	516,993,057	\$	31,050,252	\$	416,776,741	\$	31,306,614

		1	2		11		12		13		14		15		16		17
			Allocation	T	ime of Day		Time of Day		Service		Service	Ou	tdoor Lighting	Ligh	nting Energy	Trai	fic Energy
Description	Ref	Name	Vector	TO	D-Secondary		TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
Net Utility Plant																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak	NTPLANT NTPLANT NTPLANT	UPPPDB UPPPDI UPPPDP	PPBDA PPWDA PPSDA	\$	77,258,061 80,932,709 66,526,414	\$	180,388,006 188,967,854 155,330,939	\$	61,751,286 64,688,381 53,173,631	\$	23,968,684 25,108,713 20,639,278	\$	117,975 123,586 101,587	\$	450 472 388	\$	45,223 47,374 38,942
Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	NTPLANT NTPLANT NTPLANT	UPPPEB UPPPEI UPPPEP UPPPT	E01 E01 E01	\$	224,717,183	s	524,686,798	\$	- - - 179,613,297	\$	- - - 69,716,675	s	343,148	\$	1,309	\$	131,539
<b>Transmission Plant</b> Transmission Demand	NTPLANT	UPTRB	NCPT	\$	46,184,280	\$	107,003,610	\$	39,161,376	\$	25,893,103	\$	4,643,951	\$	19,452	\$	30,126
<b>Distribution Poles</b> Specific	NTPLANT	UPDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	NTPLANT	UPDSG	NCPP	\$	11,672,216	\$	27,043,169	\$	-	\$	-	\$	1,173,672	\$	4,916	\$	7,614
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	NTPLANT NTPLANT NTPLANT NTPLANT NTPLANT	UPDPLS UPDPLD UPDPLC UPDSLD UPDSLC UPDLT	NCPP NCPP Cust08 SICD Cust07	\$	12,719,120 330,491 - 13,049,611	\$ \$	29,468,723 148,133 - - 29,616,856	\$ \$	- - - - -	\$ \$	- - - - -	<b>s</b> <b>s</b>	1,278,941 10,011,240 454,492 3,838,863 15,583,537	\$ \$	5,357 238 1,904 91 7,590	<b>s</b>	8,297 46,110 2,945 17,681 75,032
Distribution Line Transformers Demand Customer Total Line Transformers	NTPLANT NTPLANT	UPDLTD UPDLTC UPDLTT	SICDT Cust09	\$ \$	7,668,137 113,431 7,781,568		- - -	\$ \$	- - -	<b>s</b>	- - -	s s	587,607 3,436,047 4,023,654		2,461 82 2,543		3,808 15,826 19,633
<b>Distribution Services</b> Customer	NTPLANT	UPDSC	C02	\$	179,437	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	NTPLANT	UPDMC	C03	\$	657,364	\$	1,736,438	\$	1,184,271	\$	50,124	\$	-	\$	326	\$	63,223
Distribution Street & Customer Light Customer	ting NTPLANT	UPDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	78,316,533	\$	-	\$	-
Customer Accounts Expense Customer	NTPLANT	UPCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	NTPLANT	UPCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	NTPLANT	UPSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		UPT		\$	304,241,659	\$	690,086,871	\$	219,958,944	\$	95,659,902	\$	104,084,496	\$	36,136	\$	327,168

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			Allocation	Total		Residential		General Service	All	Electric Schools		Power Service		Power Service
Description	Ref	Name	Vector	System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Net Cost Rate Base														
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak	RB RB RB	RBPPDB RBPPDI RBPPDP	PPBDA PPWDA PPSDA	\$ 711,137,998 744,544,987 612,781,961	\$	262,832,063 275,179,073 226,480,300	\$	77,272,944 80,902,980 66,585,482	\$	5,046,371 5,283,434 4,348,418	\$	84,419,063 88,384,800 72,743,235	\$	6,403,082 6,703,879 5,517,485
Production Energy - Base Production Energy - Inter. Production Energy - Peak	RB RB RB	RBPPEB RBPPEI RBPPEP	E01 E01 E01	71,897,457		24,137,273		7,201,221		601,695		8,505,117		656,336
Total Power Production Plant		RBPPT		\$ 2,140,362,403	\$	788,628,708	\$	231,962,627	\$	15,279,919	\$	254,052,216	\$	19,280,783
<b>Transmission Plant</b> Transmission Demand	RB	RBTRB	NCPT	\$ 519,102,553	\$	220,794,890	\$	55,898,667	\$	5,396,437	\$	49,280,060	\$	3,875,443
<b>Distribution Poles</b> Specific	RB	RBDPS	NCPP	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	RB	RBDSG	NCPP	\$ 117,648,309	\$	55,808,479	\$	14,129,039	\$	1,364,012	\$	12,456,109	\$	979,563
Distribution Primary & Secondary Li	nes													
Primary Specific	RB	RBDPLS	NCPP	\$ 	\$		\$		\$		\$		\$	
Primary Demand Primary Customer	RB RB	RBDPLD RBDPLC	NCPP Cust08	128,492,991 237,858,860		60,952,839 190,064,449		15,431,437 36,774,297		1,489,745 261,700		13,604,298 1,987,239		1,069,858 76,347
Secondary Demand	RB	RBDSLD	SICD	59,228,567		49,338,570		8,885,629		624,148		1,967,239		70,347
Secondary Customer	RB	RBDSLC	Cust07	90,497,599		73,068,626		14,137,559		100,608		-		-
Total Distribution Primary & Secondary		RBDLT	Castor	\$ 516,078,017	\$	373,424,484	\$	75,228,921	\$	2,476,201	\$	15,591,537	\$	1,146,206
Distribution Line Transformers														
Demand	RB	RBDLTD	SICDT	\$ 91,286,846	\$	63,333,761	\$	11,406,093	S	801.192	S	8,955,736	\$	_
Customer	RB	RBDLTC	Cust09	81,234,285	-	64,965,633	-	12,569,765		89,451	-	679,255	-	-
Total Line Transformers		RBDLTT		\$ 172,521,131	\$	128,299,393	\$	23,975,857	\$	890,643	\$	9,634,991	\$	-
Distribution Services														
Customer	RB	RBDSC	C02	\$ 54,380,434	\$	38,137,879	\$	14,938,670	\$	141,476	\$	1,014,950	\$	-
<b>Distribution Meters</b> Customer	RB	RBDMC	C03	\$ 47,701,574	\$	29,644,742	\$	11,048,528	\$	234,357	\$	2,994,699	\$	660,268
Distribution Street & Customer Light Customer	ing RB	RBDSCL	C04	\$ 64,342,233	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Customer Accounts Expense</b> Customer	RB	RBCAE	C05	\$ 6,169,535	\$	3,974,831	\$	1,538,127	\$	54,729	\$	207,796	\$	7,983
Customer Service & Info. Customer	RB	RBCSI	C05	\$ 773,569	\$	498,386	\$	192,859	\$	6,862	\$	26,055	\$	1,001
Sales Expense Customer	RB	RBSEC	C06	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-
Total		RBT		\$ 3,639,079,759	\$	1,639,211,792	\$	428,913,296	\$	25,844,638	\$	345,258,413	\$	25,951,247

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			Allocation	T	ime of Day		Time of Day		Service		Service	Οι	tdoor Lighting	Light	ing Energy	Tra	ffic Energy
Description	Ref	Name	Vector	TO	D-Secondary		TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
Net Cost Rate Base																	
Power Production Plant	D.D.	DDDDDD	DDDD 4		(1.002.07(	•	144 400 221	•	40.460.076	¢.	10 100 720	ф.	04.407		261		26.224
Production Demand - Base Production Demand - Inter.	RB RB	RBPPDB RBPPDI	PPBDA PPWDA	\$	61,883,076 64,790,145	\$	144,489,321 151,276,967	\$	49,462,276 51,785,856	\$	19,198,720 20,100,615	\$	94,497 98,936	\$	361 377	\$	36,224 37,925
Production Demand - Peak	RB	RBPPDP	PPSDA		53,324,155		124,505,299		42,621,250		16,543,385		81,427		311		31,214
Production Energy - Base	RB	RBPPEB	E01		6,621,263		15,916,159		5,668,280		2,092,583		489,858		1,770		5,900
Production Energy - Inter.	RB	RBPPEI	E01		-		-		-		-		-		-		-
Production Energy - Peak Total Power Production Plant	RB	RBPPEP RBPPT	E01	\$	186,618,639	¢	436,187,747	¢	149,537,662	¢	57,935,303	\$	764,719	¢	2,819	\$	111,263
Total I owel I loddetion I lant		KBITT		Φ	100,010,037	φ	430,107,747	φ	147,557,002	φ	31,733,303	Φ	704,717	Φ	2,017	φ	111,203
Transmission Plant Transmission Demand	RB	RBTRB	NCPT	\$	38,088,553	e.	88,246,751	e	32,296,707	•	21,354,254	e.	3,829,904	•	16,042	e	24,845
Transmission Demand	KB	KBTKB	NCF I	Φ	36,066,333	Þ	88,240,731	Ф	32,290,707	Þ	21,334,234	Φ	3,829,904	Ф	10,042	3	24,043
Distribution Poles		nnnna	Mann														
Specific	RB	RBDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Substation																	
General	RB	RBDSG	NCPP	\$	9,627,325	\$	22,305,394	\$	-	\$	-	\$	968,053	\$	4,055	\$	6,280
Distribution Primary & Secondary Li	noe																
Primary Specific	RB	RBDPLS	NCPP	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_
Primary Demand	RB	RBDPLD	NCPP	*	10,514,761	-	24,361,479	-	-	•	-	-	1,057,287	*	4,429	-	6,859
Primary Customer	RB	RBDPLC	Cust08		272,732		122,244		-		-		8,261,604		196		38,051
Secondary Demand Secondary Customer	RB RB	RBDSLD RBDSLC	SICD Cust07		-		-		-		-		376,207 3,176,102		1,576 75		2,438 14.628
Total Distribution Primary & Secondary		RBDLT	Custo/	\$	10,787,493	s	24,483,723	S	-	\$	-	\$	12,871,199	\$	6,276	s	61,976
Total Distribution Timally to Secondary	Lines	REDET		Ψ.	10,707,175	Ψ.	21,100,720	Ψ		Ψ.		Ψ	12,071,177	Ψ	0,270	Ψ.	01,,,,0
Distribution Line Transformers	n.n.	DDD1.00	aran										402.020				2.420
Demand Customer	RB RB	RBDLTD RBDLTC	SICDT Cust09	\$	6,301,993 93,222	\$	-	\$	-	\$	-	\$	482,920 2,823,886	2	2,023 67	2	3,129 13,006
Total Line Transformers	KD	RBDLTT	Custo)	\$	6,395,215	\$	-	\$	-	\$	-	\$	3,306,806	\$	2,090	\$	16,135
					-,,								- , ,		,		-,
Distribution Services Customer	RB	RBDSC	C02	\$	147,459	e		s		\$		\$		\$	_	\$	_
Customer	KD	KBDSC	C02	3	147,439	э	-	э	-	э	-	Ф	-	Ф	-	3	-
Distribution Meters																	
Customer	RB	RBDMC	C03	\$	555,375	\$	1,467,034	\$	1,000,534	\$	42,347	\$	-	\$	275	\$	53,414
Distribution Street & Customer Light	tina																
Customer Customer	RB	RBDSCL	C04	\$	-	\$	_	\$	-	\$	-	\$	64,342,233	\$	-	\$	-
													, , , , , , , , , , , , , , , , , , , ,				
Customer Accounts Expense	D.D.	DDCAE	COS		1.42.502	•	62.012	•	5.520	•	461	•	150 551	Φ.			704
Customer	RB	RBCAE	C05	\$	142,592	3	63,912	3	5,538	\$	461	\$	172,771	\$	-	\$	794
Customer Service & Info.																	
Customer	RB	RBCSI	C05	\$	17,879	\$	8,014	\$	694	\$	58	\$	21,663	\$	-	\$	100
Sales Expense																	
Customer	RB	RBSEC	C06	\$	-	\$	_	\$	_	\$	_	\$	-	\$	_	S	_
																-	
Total		RBT		\$	252,380,530	\$	572,762,574	\$	182,841,135	\$	79,332,423	\$	86,277,348	\$	31,557	\$	274,806

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			Allocation		Total		Residential		General Service	All	Electric Schools		Power Service	F	ower Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Operation and Maintenance Expense	e <u>s</u>														
Power Production Plant															
Production Demand - Base	TOM	OMPPDB	PPBDA	\$	37,625,250	\$	13,906,052	S	4,088,396	\$	266,996	\$	4,466,487	\$	338,778
Production Demand - Inter.	TOM	OMPPDI	PPWDA		35,951,279		13,287,363		3,906,501		255,117		4,267,770		323,705
Production Demand - Peak	TOM	OMPPDP	PPSDA		35,933,656		13,280,850		3,904,586		254,992		4,265,678		323,546
Production Energy - Base	TOM	OMPPEB	E01		640,387,547		214,989,646		64,140,963		5,359,274		75,754,712		5,845,961
Production Energy - Inter.	TOM	OMPPEI	E01		-		-		-		-		-		-
Production Energy - Peak	TOM	OMPPEP	E01	e	740 907 722	e	255 462 011	6	76.040.446	6	- ( 12( 270	6	99.754.646	e	6 921 000
Total Power Production Plant		OMPPT		\$	749,897,732	3	255,463,911 34.1%		76,040,446 10.1%		6,136,379 0,8%		88,754,646 11.8%	\$	6,831,990 0.9%
Transmission Plant							34.170		10.170		0.670		11.070		0.970
Transmission Demand	TOM	OMTRB	NCPT	\$	44,026,929	\$	18,726,398	\$	4,740,964	\$	457,691	\$	4,179,617	\$	328,690
Distribution Poles Specific	TOM	OMDPS	NCPP	\$		\$		\$		s		\$		\$	
Бреспе	TOM	OMDIS	NCII	Φ	_	φ	_	φ	_	Φ	_	φ	_	Φ	_
Distribution Substation															
General	TOM	OMDSG	NCPP	\$	7,427,615	\$	3,523,416	\$	892,024	\$	86,116	\$	786,405	\$	61,844
Distribution Primary & Secondary L	ines														
Primary Specific	TOM	OMDPLS	NCPP	\$	-	\$	-	\$		\$	-	\$	-	\$	-
Primary Demand	TOM	OMDPLD	NCPP		13,725,970		6,511,148		1,648,428		159,139		1,453,248		114,285
Primary Customer	TOM	OMDPLC	Cust08		21,967,220		17,553,214		3,396,254		24,169		183,530		7,051
Secondary Demand	TOM	OMDSLD	SICD		6,950,051		5,789,530		1,042,665		73,239		-		-
Secondary Customer Total Distribution Primary & Secondary	TOM	OMDSLC OMDLT	Cust07	\$	10,263,921 52,907,162	¢.	8,287,188 38,141,080	e	1,603,432 7,690,780	•	11,411 267,958	e	1,636,778	e	121,336
Total Distribution Frinary & Secondary	y Lines	OMDLI		3	32,907,102	Ф	36,141,060	э	7,090,780	Þ	207,938	Þ	1,030,778	э	121,550
Distribution Line Transformers															
Demand	TOM	OMDLTD	SICDT	\$	3,048,697	\$	2,115,151	\$	380,928	\$	26,757	\$	299,094	\$	-
Customer	TOM	OMDLTC	Cust09		2,712,973	•	2,169,651	•	419,791		2,987	e.	22,685	•	-
Total Line Transformers		OMDLTT		\$	5,761,670	2	4,284,802	\$	800,719	3	29,745	5	321,779	3	-
Distribution Services															
Customer	TOM	OMDSC	C02	\$	1,785,765	\$	1,252,386	\$	490,562	\$	4,646	\$	33,329	\$	-
Distribution Meters															
Customer	TOM	OMDMC	C03	\$	12,338,781	\$	7,668,090	\$	2,857,880	\$	60,620	\$	774,627	\$	170,789
D: ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (															
Distribution Street & Customer Ligh Customer	TOM	OMDSCL	C04	\$	1,970,659	\$		\$		s		\$		\$	
Customer	TOM	OMDSCL	COT	Φ	1,570,055	φ	_	Φ	_	φ	-	φ	-	Φ	-
Customer Accounts Expense															
Customer	TOM	OMCAE	C05	\$	51,233,939	\$	33,008,361	\$	12,773,133	\$	454,492	\$	1,725,612	\$	66,296
Customer Service & Info.															
Customer	TOM	OMCSI	C05	\$	6,423,986	\$	4,138,766	\$	1,601,564	\$	56,987	\$	216,367	\$	8,313
Salas Evmanas															
Sales Expense Customer	TOM	OMSEC	C06	\$		\$		\$		\$		s		\$	
Custoffici	1 OIVI	OMBLC	200	Ф	-	Ф	-	Φ	-	Φ	-	Φ	-	Φ	-
Total		OMT		\$	933,774,239	\$	366,207,210	\$	107,888,071	\$	7,554,633	\$	98,429,159	\$	7,589,257

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			Allocation	Ti	ime of Day		Time of Day		Service		Service	Οι	tdoor Lighting	Lighting	Energy	Traffi	c Energy
Description	Ref	Name	Vector	TOI	D-Secondary		TOD-Primary		RTS	FI	LS - Transmission		ST & POL	LI	E		TE
Operation and Maintenance Expense	<u>s</u>																<u>.</u>
Power Production Plant																	
Production Demand - Base	TOM	OMPPDB	PPBDA	\$	3,274,141	\$	7,644,714	\$	2,616,975	\$	1,015,776	\$	5,000	\$	19	\$	1,917
Production Demand - Inter.	TOM	OMPPDI	PPWDA		3,128,473		7,304,596		2,500,544		970,583		4,777		18		1,831
Production Demand - Peak	TOM	OMPPDP	PPSDA E01		3,126,939		7,301,015		2,499,319		970,107		4,775		18		1,830
Production Energy - Base Production Energy - Inter.	TOM TOM	OMPPEB OMPPEI	E01 E01		58,975,304		141,764,544		50,487,128		18,638,549		4,363,148		15,765		52,552
Production Energy - Peak	TOM	OMPPEP	E01		-		-		-		-		-		-		-
Total Power Production Plant		OMPPT		\$	68,504,857		164,014,870	\$	58,103,966	\$	21,595,016		4,377,700	\$	15,821	\$	58,131
Transmission Plant					9.1%		21.9%		7.7%		2.9%						
Transmission Demand	TOM	OMTRB	NCPT	\$	3,230,425	S	7,484,520	S	2,739,198	\$	1,811,130	S	324,828	S	1,361	S	2,107
					-,,	-	,,,	-	_,,,,,,,	•	-,,	-	,	-	-,		_,,-
Distribution Poles	TOM	ON FEDERA	NGDD			•		•		•		•					
Specific	TOM	OMDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Substation																	
General	TOM	OMDSG	NCPP	\$	607,812	\$	1,408,230	\$	-	\$	-	\$	61,117	\$	256	\$	396
Distribution Primary & Secondary Li	nos																
Primary Specific	TOM	OMDPLS	NCPP	\$	_	\$	_	\$	_	\$	_	\$	-	\$	_	\$	-
Primary Demand	TOM	OMDPLD	NCPP	•	1,123,215		2,602,359		-	-	-	-	112,942	•	473		733
Primary Customer	TOM	OMDPLC	Cust08		25,188		11,290		-		-		762,992		18		3,514
Secondary Demand Secondary Customer	TOM TOM	OMDSLD OMDSLC	SICD Cust07		-		-		-		-		44,145 360,222		185 9		286 1.659
Total Distribution Primary & Secondary		OMDLT	Custo/	\$	1,148,403	S	2,613,649	S	-	\$	-	S	1,280,302	S	685	S	6,192
, ,					, -,		,,						,,	•			-, -
Distribution Line Transformers Demand	TOM	OMDLTD	SICDT	\$	210,467	e		\$		\$		\$	16,128	¢.	68	6	105
Customer	TOM	OMDLTD	Cust09	3	3,113	3	-	3	-	3	-	3	94,309	3	2	3	434
Total Line Transformers	101	OMDLTT	Custos	\$	213,580	\$	-	\$	-	\$	-	\$	110,437	\$	70	\$	539
B																	
Distribution Services Customer	TOM	OMDSC	C02	\$	4,842	\$	_	\$	_	\$	_	\$	_	\$	_	S	_
Customer	10.11	OMBSC	C02	Ψ	1,012	Ψ		Ψ		Ψ		Ψ		Ψ		ų.	
Distribution Meters				_		_		_		_		_		_		_	
Customer	TOM	OMDMC	C03	\$	143,657	\$	379,472	\$	258,804	\$	10,954	\$	-	\$	71	\$	13,816
Distribution Street & Customer Light	ting																
Customer	TOM	OMDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	1,970,659	\$	-	\$	-
Continue Account Form																	
Customer Accounts Expense Customer	TOM	OMCAE	C05	\$	1,184,131	s	530,751	S	45,986	s	3,832	s	1,434,753	S	_	S	6,591
					-,,	-	,,	-	,	-	-,	-	-,,	*			-,
Customer Service & Info.	TOM	ON FORT	G0.5		140.472	•	66.540	•	5.766	•	400	•	170.007				026
Customer	TOM	OMCSI	C05	\$	148,473	3	66,548	3	5,766	5	480	3	179,897	\$	-	\$	826
Sales Expense																	
Customer	TOM	OMSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		OMT		\$	75,186,180	9	176,498,041	9	61,153,721	ç	23,421,412	ç	9,739,693	\$	18,263	\$	88,599
1 Otal		OWIT		φ	75,100,100	Φ	170,490,041	Φ	01,133,721	Φ	23,421,412	Φ	2,732,023	φ	10,203	φ	00,333

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			Allocation		Total	R	esidential		General Service	All	Electric Schools		Power Service		Power Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Labor Expenses					· · · · · · · · · · · · · · · · · · ·										
B B I C BI															
Power Production Plant Production Demand - Base	TLB	LBPPDB	PPBDA	\$	18,742,668	ę.	6,927,171	¢	2,036,597	•	133,002	e	2,224,939	¢	168,759
Production Demand - Inter.	TLB	LBPPDI	PPWDA	J	17,681,329	Ψ	6,534,906		1,921,270	Φ	125,470	φ	2,098,947	φ	159,203
Production Demand - Peak	TLB	LBPPDP	PPSDA		18,132,162		6,701,531		1,970,258		128,669		2,152,466		163,262
Production Energy - Base	TLB	LBPPEB	E01		38,818,637		13,032,116		3,888,059		324,865		4,592,055		354,367
Production Energy - Inter.	TLB	LBPPEI	E01		-		-		-		-		-		-
Production Energy - Peak	TLB	LBPPEP	E01				22 105 524	•	0.016.104		712.006	•	11.000.400	•	- 045 500
Total Power Production Plant		LBPPT		\$	93,374,796	\$	33,195,724	• 5	9,816,184	2	712,006	2	11,068,406	3	845,590
Transmission Plant															
Transmission Demand	TLB	LBTRB	NCPT	\$	11,565,291	\$	4,919,177	\$	1,245,389	\$	120,229	\$	1,097,930	\$	86,343
Distribution Poles															
Specific	TLB	LBDPS	NCPP	\$	-	\$	-	\$	-	\$	_	\$	_	\$	-
•															
Distribution Substation	TLD	LDDGG	NCDD	6	4 200 052	e	2 020 002	•	516 417		40.055	6	455 271	6	25.002
General	TLB	LBDSG	NCPP	\$	4,300,052	\$	2,039,803	3	516,417	2	49,855	2	455,271	3	35,803
Distribution Primary & Secondary Lin	ies														
Primary Specific	TLB	LBDPLS	NCPP	\$	-	\$	-	\$	-	\$	-	\$		\$	-
Primary Demand	TLB	LBDPLD	NCPP		4,685,732		2,222,757		562,736		54,326		496,106		39,014
Primary Customer	TLB	LBDPLC	Cust08		8,689,269		6,943,282		1,343,409		9,560		72,596		2,789
Secondary Demand Secondary Customer	TLB TLB	LBDSLD LBDSLC	SICD Cust07		2,157,106 3,297,506		1,796,912 2,662,438		323,615 515,137		22,732 3,666		-		-
Total Distribution Primary & Secondary		LBDLT	Custo/	\$	18,829,614	\$	13,625,389		2,744,897	\$	90,284	\$	568,702	\$	41,803
Total Distribution Timaly & Secondary	Lines	EBBET		ų.	10,029,014	Ψ	13,023,307	Ψ	2,744,077	Ψ	70,204	Ψ	300,702	Ψ	41,005
Distribution Line Transformers						_		_				_		_	
Demand	TLB TLB	LBDLTD LBDLTC	SICDT Cust09	\$	3,348,579 2,979,831	\$	2,323,205 2,383,066		418,398 461,083	\$	29,389 3,281	\$	328,514 24,916	\$	-
Customer Total Line Transformers	ILB	LBDLTC	Custo9	S	6,328,410	¢	4,706,271		879,481	e	3,281	e	353,430	e	-
Total Line Transformers		LBDL11			0,328,410	Ф	4,700,271	Þ	679,461	٥	32,071	Þ	333,430	Þ	-
Distribution Services						_		_				_		_	
Customer	TLB	LBDSC	C02	\$	1,994,915	\$	1,399,066	\$	548,016	\$	5,190	\$	37,233	\$	-
Distribution Meters															
Customer	TLB	LBDMC	C03	\$	1,702,129	\$	1,057,809	\$	394,243	\$	8,363	\$	106,859	\$	23,560
Distribution Start 8 Contamon Links															
Distribution Street & Customer Lighti Customer	I <b>ng</b> TLB	LBDSCL	C04	\$	2,360,988	\$	_	\$	_	\$	_	\$	_	\$	_
Customer	ILD	LBD3CL	C04	9	2,300,788	Φ	-	Φ	_	Φ	_	φ	<del>-</del>	φ	-
Customer Accounts Expense															
Customer	TLB	LBCAE	C05	\$	27,271,497	\$	17,570,139	\$	6,799,057	\$	241,923	\$	918,532	\$	35,289
Customer Service & Info.															
Customer	TLB	LBCSI	C05	\$	3,748,877	\$	2,415,280	\$	934,633	\$	33,256	\$	126,266	\$	4,851
C.L. F.															
Sales Expense Customer	TLB	LBSEC	C06	\$		S		\$		s		\$		\$	
Custoffier	1 LD	LDSEC	C00	3	-	Φ	-	э	-	Þ	-	Þ	-	Þ	-
Total		LBT		\$	171,476,569	\$	80,928,658	\$	23,878,317	\$	1,293,776	\$	14,732,631	\$	1,073,240

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			Allocation	Ti	me of Day		Time of Day		Service		Service	Ou	tdoor Lighting	Ligh	ting Energy	Tra	ffic Energy
Description	Ref	Name	Vector	TOI	<b>D-Secondary</b>		TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
Labor Expenses																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter.	TLB TLB TLB TLB TLB	LBPPDB LBPPDI LBPPDP LBPPEB LBPPEI	PPBDA PPWDA PPSDA E01 E01	\$	1,630,983 1,538,625 1,577,857 3,574,930	\$	3,808,143 3,592,500 3,684,100 8,593,400	\$	1,303,622 1,229,802 1,261,159 3,060,399	\$	505,999 477,346 489,517 1,129,821	\$	2,491 2,350 2,409 264,483	\$	10 9 9 956	\$	955 901 924 3,186
Production Energy - Peak Total Power Production Plant	TLB	LBPPEP LBPPT	E01	\$	8,322,396	\$	19,678,144	\$	6,854,982	\$	2,602,683	\$	271,732	\$	983	\$	5,965
<b>Transmission Plant</b> Transmission Demand	TLB	LBTRB	NCPT	\$	848,590	\$	1,966,084	\$	719,551	\$	475,760	\$	85,328	\$	357	\$	554
<b>Distribution Poles</b> Specific	TLB	LBDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	TLB	LBDSG	NCPP	\$	351,879	\$	815,263	\$	-	\$	-	\$	35,382	\$	148	\$	230
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	TLB TLB TLB TLB TLB	LBDPLS LBDPLD LBDPLC LBDSLD LBDSLC LBDLT	NCPP NCPP Cust08 SICD Cust07	\$	383,440 9,963 - 393,403	<b>s</b> <b>s</b>	888,386 4,466 - - 892,852	<b>s</b> <b>s</b>	- - - - -	<b>s</b> <b>s</b>	- - - - -	\$ \$	38,556 301,806 13,701 115,729 469,793	\$ \$	161 7 57 3 229	<b>s</b> <b>s</b>	250 1,390 89 533 2,262
Distribution Line Transformers Demand Customer Total Line Transformers	TLB TLB	LBDLTD LBDLTC LBDLTT	SICDT Cust09	\$ \$	231,169 3,420 234,589		- - -	\$ \$	- - -	s s	- - -	\$ \$	17,714 103,586 121,300	•	74 2 77		115 477 592
<b>Distribution Services</b> Customer	TLB	LBDSC	C02	\$	5,409	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	TLB	LBDMC	C03	\$	19,817	\$	52,348	\$	35,702	\$	1,511	\$	-	\$	10	\$	1,906
Distribution Street & Customer Light Customer	ing TLB	LBDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	2,360,988	\$	-	\$	-
Customer Accounts Expense Customer	TLB	LBCAE	C05	\$	630,305	\$	282,516	\$	24,478	\$	2,040	\$	763,710	\$	-	\$	3,508
Customer Service & Info. Customer	TLB	LBCSI	C05	\$	86,645	\$	38,836	\$	3,365	\$	280	\$	104,983	\$	-	\$	482
Sales Expense Customer	TLB	LBSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		LBT		\$	10,893,034	\$	23,726,042	\$	7,638,077	\$	3,082,274	\$	4,213,217	\$	1,804	\$	15,498

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			Allocation		Total		Residential		General Service	All	Electric Schools		Power Service		Power Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Depreciation Expenses															
Power Production Plant Production Demand - Base	TDEPR	DEPPDB	PPBDA	\$	52,845,706	\$	19,531,436	\$	5,742,266	\$	375,003	s	6,273,304	\$	475,822
Production Demand - Inter. Production Demand - Peak	TDEPR TDEPR	DEPPDI DEPPDP	PPWDA PPSDA	Ψ	55,359,222 45,505,094	Ψ	20,460,415 16,818,392	Ψ	6,015,387 4,944,628	Ψ	392,840 322,913	Ψ	6,571,683 5,401,901	Ψ	498,454 409,728
Production Energy - Base Production Energy - Inter. Production Energy - Peak	TDEPR TDEPR TDEPR	DEPPEB DEPPEI DEPPEP	E01 E01 E01		-		-		-		-		- - -		-
Total Power Production Plant	IDDIK	DEPPT	201	\$	153,710,022	\$	56,810,243	\$	16,702,280	\$	1,090,756	\$	18,246,889	\$	1,384,004
Transmission Plant Transmission Demand	TDEPR	DETRB	NCPT	\$	24,058,002	\$	10,232,822	\$	2,590,645	\$	250,100	\$	2,283,903	\$	179,609
<b>Distribution Poles</b> Specific	TDEPR	DEDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	TDEPR	DEDSG	NCPP	\$	6,089,359	\$	2,888,591	\$	731,305	\$	70,600	\$	644,716	\$	50,701
Distribution Primary & Secondary L															
Primary Specific	TDEPR	DEDPLS	NCPP	\$		\$		\$		\$		\$		\$	
Primary Demand	TDEPR	DEDPLO	NCPP		6,635,525		3,147,674		796,897		76,932		702,542		55,249
Primary Customer Secondary Demand	TDEPR TDEPR	DEDPLC DEDSLD	Cust08 SICD		12,304,984 3,054,706		9,832,470 2,544,630		1,902,419 458,275		13,538 32,190		102,804		3,950
Secondary Customer	TDEPR	DEDSLC	Cust07		4,669,641		3,770,312		729,492		5,191		-		-
Total Distribution Primary & Secondary		DEDLT	Custor	\$	26,664,856	\$	19,295,087	\$	3,887,083	\$	127,852	\$	805,346	\$	59,198
Distribution Line Transformers															
Demand	TDEPR	DEDLTD	SICDT	S	4,741,965	\$	3,289,921	\$	592,498	S	41.619	\$	465,213	S	_
Customer	TDEPR	DEDLTC	Cust09	Ψ.	4,219,777	Ψ	3,374,689	Ψ	652,946	Ψ	4,647	Ψ	35,284	Ψ	_
Total Line Transformers		DEDLTT		\$	8,961,742	\$	6,664,610	\$	1,245,444	\$	46,265	\$	500,497	\$	-
<b>Distribution Services</b> Customer	TDEPR	DEDSC	C02	\$	2,825,024	\$	1,981,235	\$	776,053	\$	7,350	\$	52,726	\$	-
Distribution Meters Customer	TDEPR	DEDMC	C03	\$	2,410,406	\$	1,497,977	\$	558,293	\$	11,842	\$	151,325	\$	33,364
Distribution Street & Customer Ligh Customer	ting TDEPR	DEDSCL	C04	\$	3,343,426	\$	_	\$	_	\$	_	\$	_	\$	_
Customer Accounts Expense Customer	TDEPR	DECAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	TDEPR	DECSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	TDEPR	DESEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		DET		\$	228,062,837	\$	99,370,565	\$	26,491,103	\$	1,604,765	\$	22,685,401	\$	1,706,877

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			Allocation	Ti	ime of Day		Time of Day		Service		Service	Ou	tdoor Lighting	Lightin	ng Energy	Tra	ffic Energy
Description	Ref	Name	Vector	TO	D-Secondary		TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
Depreciation Expenses																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base	TDEPR TDEPR TDEPR TDEPR	DEPPDB DEPPDI DEPPDP DEPPEB	PPBDA PPWDA PPSDA E01	\$	4,598,622 4,817,348 3,959,844	\$	10,737,213 11,247,910 9,245,744	\$	3,675,614 3,850,439 3,165,047	\$	1,426,685 1,494,543 1,228,509	\$	7,022 7,356 6,047	\$	27 28 23	\$	2,692 2,820 2,318
Production Energy - Inter. Production Energy - Peak Total Power Production Plant	TDEPR TDEPR	DEPPEI DEPPEP DEPPT	E01 E01	\$	13,375,813	\$	31,230,868	\$	10,691,100	\$	4,149,737	\$	20,425	\$	- - 78	\$	7,830
Transmission Plant Transmission Demand	TDEPR	DETRB	NCPT	\$	1,765,228	\$	4,089,829	\$	1,496,803	\$	989,671	\$	177,498	\$	743	\$	1,151
<b>Distribution Poles</b> Specific	TDEPR	DEDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	TDEPR	DEDSG	NCPP	\$	498,301	\$	1,154,505	\$	-	\$	-	\$	50,105	\$	210	\$	325
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	TDEPR TDEPR TDEPR TDEPR TDEPR	DEDPLS DEDPLD DEDPLC DEDSLD DEDSLC DEDLT	NCPP NCPP Cust08 SICD Cust07	<b>s</b> <b>s</b>	542,994 14,109 - - 557,103	\$ \$	1,258,055 6,324 - 1,264,379	<b>s</b>	- - - - -	\$ \$	- - - - -	<b>\$</b>	54,600 427,392 19,403 163,886 665,280	\$	229 10 81 4 324	<b>s</b> <b>s</b>	354 1,968 126 755 3,203
Distribution Line Transformers Demand Customer Total Line Transformers	TDEPR TDEPR	DEDLTD DEDLTC DEDLTT	SICDT Cust09	\$ \$	327,362 4,842 332,204		- - -	\$ \$	- - -	\$ \$	- - -	\$ \$	25,086 146,689 171,775	•	105 3 109		163 676 838
<b>Distribution Services</b> Customer	TDEPR	DEDSC	C02	\$	7,660	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	TDEPR	DEDMC	C03	\$	28,064	\$	74,131	\$	50,558	\$	2,140	\$	-	\$	14	\$	2,699
Distribution Street & Customer Light Customer	ting TDEPR	DEDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	3,343,426	\$	-	\$	-
Customer Accounts Expense Customer	TDEPR	DECAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	TDEPR	DECSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	TDEPR	DESEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		DET		\$	16,564,374	\$	37,813,710	\$	12,238,461	\$	5,141,548	\$	4,428,509	\$	1,478	\$	16,047

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			Allocation		Total		Residential		General Service		All Electric Schools		Power Service		Power Service	
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary	
Accretion Expenses																_
Power Production Plant																
Production Demand - Base	TACRT	ACPPDB	PPBDA	\$	_	\$	_	:	s -	9	-	\$	-		3	-
Production Demand - Inter.	TACRT	ACPPDI	PPWDA		-		-		-		-		-			-
Production Demand - Peak	TACRT	ACPPDP	PPSDA		-		-		-		-		-			-
Production Energy - Base	TACRT	ACPPEB	E01		-		-		-		-		-			-
Production Energy - Inter. Production Energy - Peak	TACRT TACRT	ACPPEI ACPPEP	E01 E01		-		-		-		-		-			-
Total Power Production Plant	TACKI	ACPPT	LUI	\$		\$	-		s -	9	-	\$	-		3	-
Transmission Plant Transmission Demand	TACRT	ACTRB	NCPT	\$		\$		:	e e	9	,	\$			,	
Transmission Demand	IACKI	ACTRB	NCPI	2	-	\$	-		-		-	2	-			•
Distribution Poles																
Specific	TACRT	ACDPS	NCPP	\$	-	\$	-	:	\$ -	5	-	\$	-		3	-
Distribution Substation																
General	TACRT	ACDSG	NCPP	\$	-	\$	-	:	\$ -	9	-	\$	-		3	-
Distribution Drimony & Cocondony I																
Distribution Primary & Secondary I Primary Specific	TACRT	ACDPLS	NCPP	\$	_	\$			s -	9		\$			2	
Primary Demand	TACRT	ACDPLD	NCPP	Φ	_	Φ	-		-		, - -	Ψ	-		,	-
Primary Customer	TACRT	ACDPLC	Cust08		-		-		-		-		-			-
Secondary Demand	TACRT	ACDSLD	SICD		-		-		-		-		=			-
Secondary Customer	TACRT	ACDSLC	Cust07		-		-		-		-		-			-
Total Distribution Primary & Secondar	y Lines	ACDLT		\$	-	\$	-		\$ -	5	-	\$	-			-
Distribution Line Transformers																
Demand	TACRT	ACDLTD	SICDT	\$	-	\$	-	:	s -	5	-	\$	=		3	-
Customer	TACRT	ACDLTC	Cust09		-		-		-		-		=			-
Total Line Transformers		ACDLTT		\$	-	\$	-		\$ -		-	\$	-			-
Distribution Services																
Customer	TACRT	ACDSC	C02	\$	-	\$	-	:	\$ -	5	-	\$	-		3	-
Distribution Meters																
Customer	TACRT	ACDMC	C03	\$	_	\$	_		s -	5	-	\$	-		3	-
Distribution Street & Customer Ligh		+ CDCCI	C0.4			Φ.			rh.						,	
Customer	TACRT	ACDSCL	C04	\$	-	\$	-		\$ -		-	\$	-			-
Customer Accounts Expense																
Customer	TACRT	ACCAE	C05	\$	-	\$	-	:	\$ -		-	\$	-		3	-
Customer Service & Info.																
Customer Customer	TACRT	ACCSI	C05	\$	-	\$	-	:	s -	5	-	\$	-	5	3	-
Sales Expense	T + CDT	DEGEG	COC			Φ.			rh.						,	
Customer	TACRT	DESEC	C06	\$	-	\$	-		\$ -	5	-	\$	-		•	-
Total		ACT		\$	-	\$	-	:	\$ -	5	-	\$	-	5	3	-

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			Allocation	Time of Da			Time of Day		Service		Service		Outdoor Lighting		y	Traffic Energy	
Description	Ref	Name	Vector	TOD-Second	lary		TOD-Primary		RTS		FLS - Transmissio	n	ST & POL	LE		TE	
Accretion Expenses																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak	TACRT TACRT TACRT TACRT TACRT TACRT	ACPPDB ACPPDI ACPPDP ACPPEB ACPPEI ACPPEP	PPBDA PPWDA PPSDA E01 E01	\$	-	\$	:	5	5	-	\$	- - - -	\$ - - - - -	\$ - - - -	5	- - - - -	
Total Power Production Plant  Transmission Plant		ACPPT		\$	-	\$	-		\$	-	\$	-	\$ -	\$ -		•	
Transmission Demand	TACRT	ACTRB	NCPT	\$	-	\$	-		\$	-	\$	-	\$ -	\$ -		-	
<b>Distribution Poles</b> Specific	TACRT	ACDPS	NCPP	\$	-	\$	-		\$	-	\$	-	\$ -	\$ -		-	
Distribution Substation General	TACRT	ACDSG	NCPP	\$	-	\$	-		5	-	\$	-	\$ -	\$ -		-	
Distribution Primary & Secondary L Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	TACRT TACRT TACRT TACRT TACRT	ACDPLS ACDPLD ACDPLC ACDSLD ACDSLC ACDLT	NCPP NCPP Cust08 SICD Cust07	\$	-	\$ \$	- - - - -		5	-	\$ \$	- - - -	\$ - - - - - - -	\$ - - - - - - -	5	- - -	
Distribution Line Transformers Demand Customer Total Line Transformers	TACRT TACRT	ACDLTD ACDLTC ACDLTT	SICDT Cust09	\$ \$	-	\$ \$	- - -		\$	-	\$ \$	- - -	\$ - \$ -	\$ - \$ -	9	-	
<b>Distribution Services</b> Customer	TACRT	ACDSC	C02	\$	-	\$	-		\$	-	\$	-	\$ -	\$ -		-	
<b>Distribution Meters</b> Customer	TACRT	ACDMC	C03	\$	-	\$	-	5	\$	-	\$	-	s -	\$ -		-	
Distribution Street & Customer Ligh Customer	ting TACRT	ACDSCL	C04	\$	-	\$	-		\$	-	\$	-	\$ -	\$ -		-	
Customer Accounts Expense Customer	TACRT	ACCAE	C05	\$	-	\$	-		\$	-	\$	-	\$ -	\$ -		-	
Customer Service & Info. Customer	TACRT	ACCSI	C05	\$	-	\$	-		\$	-	\$	-	\$ -	\$ -		-	
Sales Expense Customer	TACRT	DESEC	C06	\$	-	\$	-		\$	-	\$	-	\$ -	\$ -	9	-	
Total		ACT		\$	-	\$	-		\$	-	\$	-	\$ -	\$ -	5	-	

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			Allocation		Total		Residential		General Service	All I	Electric Schools		Power Service	I	ower Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Property Taxes															
Power Production Plant															
Production Demand - Base	PTAX	PTPPDB	PPBDA	\$	5,182,784	\$	1,915,524	\$	563,166	\$	36,778	\$	615,247	\$	46,666
Production Demand - Inter.	PTAX	PTPPDI	PPWDA		5,429,295		2,006,633		589,952		38,527		644,511		48,885
Production Demand - Peak	PTAX	PTPPDP	PPSDA		4,462,862		1,649,445		484,939		31,669		529,786		40,184
Production Energy - Base Production Energy - Inter.	PTAX PTAX	PTPPEB PTPPEI	E01 E01		-		-		-		-		-		-
Production Energy - Peak	PTAX	PTPPEP	E01		-		-		-		-		-		-
Total Power Production Plant		PTPPT	201	\$	15,074,941	\$	5,571,602	\$	1,638,058	\$	106,975	\$	1,789,544	\$	135,735
Transmission Plant															
Transmission Demand	PTAX	PTTRB	NCPT	\$	3,342,932	\$	1,421,881	\$	359,978	\$	34,752	\$	317,355	\$	24,957
Distribution Poles															
Specific	PTAX	PTDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Substation															
General	PTAX	PTDSG	NCPP	\$	784,098	\$	371,950	\$	94,167	\$	9,091	\$	83,017	\$	6,529
Distribution Primary & Secondary L															
Primary Specific	PTAX	PTDPLS	NCPP	\$	- 054 426	\$	405 211	\$	102 (12	\$	- 0.006	\$	- 00.463	\$	
Primary Demand Primary Customer	PTAX PTAX	PTDPLD PTDPLC	NCPP Cust08		854,426 1,584,455		405,311 1,266,081		102,613 244,966		9,906 1,743		90,463 13,238		7,114 509
Secondary Demand	PTAX	PTDSLD	SICD		393,340		327,660		59,010		4.145		13,236		-
Secondary Customer	PTAX	PTDSLC	Cust07		601,288		485,486		93,933		668		_		-
Total Distribution Primary & Secondary		PTDLT		\$	3,433,509	\$	2,484,538	\$	500,522	\$	16,463	\$	103,701	\$	7,623
Distribution Line Transformers															
Demand	PTAX	PTDLTD	SICDT	\$	610,601	\$	423,628	\$	76,293	\$	5,359	\$	59,903	\$	-
Customer	PTAX	PTDLTC	Cust09	6	543,361		434,543	•	84,077		598	•	4,543	•	-
Total Line Transformers		PTDLTT		\$	1,153,962	2	858,171	3	160,370	3	5,957	3	64,447	3	-
Distribution Services Customer	PTAX	PTDSC	C02	\$	363,765	e	255,114	•	99,929	•	946	•	6,789	•	
	TIAA	FIDSC	C02	J	303,703	Ф	233,114	J	99,929	J	940	J	0,789	J	-
Distribution Meters	DT 437	DTD14G	G02		210.255	Φ.	102.000	•	71.000		1.525	6	10.405	•	4.206
Customer	PTAX	PTDMC	C03	\$	310,377	2	192,888	3	71,889	3	1,525	3	19,485	3	4,296
Distribution Street & Customer Ligh		PERCOL	G0.4		120 517	Ф.		•						•	
Customer	PTAX	PTDSCL	C04	\$	430,517	2	-	\$	-	\$	-	\$	-	\$	-
Customer Accounts Expense	DT 437	DECLE	G0.5			ф.		•				•		•	
Customer	PTAX	PTCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info.	DTAV	DTCCI	COS	¢		¢		e		•		•		e	
Customer	PTAX	PTCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense				_		_		_		_		_		_	
Customer	PTAX	PTSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		PTT		\$	24,894,101	\$	11,156,145	\$	2,924,911	\$	175,709	\$	2,384,338	\$	179,139

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			Allocation	Ti	me of Day	Time of Day		Service		Service	Οι	ıtdoor Lighting	Lig	hting Energy	Traff	fic Energy
Description	Ref	Name	Vector	TOI	<b>D-Secondary</b>	TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
Property Taxes																
Power Production Plant Production Demand - Base Production Demand - Inter.	PTAX PTAX	PTPPDB PTPPDI	PPBDA PPWDA	\$	451,005 472,456	\$ 1,053,040 1,103,126	\$	360,482 377,628	\$	139,921 146,576	\$	689 721	\$	3 3	\$	264 277
Production Demand - Inter.  Production Demand - Peak  Production Energy - Base  Production Energy - Inter.	PTAX PTAX PTAX PTAX	PTPPDP PTPPEB PTPPEI	PPSDA E01 E01		388,357	906,766		310,409		120,485		593		2		227
Production Energy - Peak Total Power Production Plant	PTAX	PTPPEP PTPPT	E01	\$	1,311,818	\$ 3,062,933	\$	1,048,518	\$	406,981	\$	2,003	\$	- 8	\$	768
<b>Transmission Plant</b> Transmission Demand	PTAX	PTTRB	NCPT	\$	245,284	\$ 568,294	\$	207,985	\$	137,518	\$	24,664	\$	103	\$	160
<b>Distribution Poles</b> Specific	PTAX	PTDPS	NCPP	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	PTAX	PTDSG	NCPP	\$	64,164	\$ 148,660	\$	-	\$	-	\$	6,452	\$	27	\$	42
Distribution Primary & Secondary L Primary Specific Primary Demand	ines PTAX PTAX PTAX	PTDPLS PTDPLD PTDPLC	NCPP NCPP	\$	69,919 1,817	\$ - 161,994 814	\$	-	\$	-	\$	7,031	\$	- 29 1	\$	- 46 253
Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	PTAX PTAX	PTDSLD PTDSLC PTDLT	Cust08 SICD Cust07	\$	71,736	\$ 162,808	s	- - -	\$	- - -	s	55,033 2,498 21,103 85,665	\$	10 1 42	s	16 97 412
Distribution Line Transformers Demand	PTAX	PTDLTD	SICDT	\$	42,153	,,,,,,	s		\$		s	3,230		14		21
Customer Total Line Transformers	PTAX	PTDLTD PTDLTC PTDLTT	Cust09	\$	42,133 624 42,776	- - -	\$	- - -	\$	- - -	\$	18,888 22,119		0 14		87 108
<b>Distribution Services</b> Customer	PTAX	PTDSC	C02	\$	986	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	PTAX	PTDMC	C03	\$	3,614	\$ 9,545	\$	6,510	\$	276	\$	-	\$	2	\$	348
<b>Distribution Street &amp; Customer Ligh</b> Customer	ting PTAX	PTDSCL	C04	\$	-	\$ -	\$	-	\$	-	\$	430,517	\$	-	\$	-
Customer Accounts Expense Customer	PTAX	PTCAE	C05	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	PTAX	PTCSI	C05	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	PTAX	PTSEC	C06	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-
Total		PTT		\$	1,740,378	\$ 3,952,241	\$	1,263,013	\$	544,774	\$	571,420	\$	195	\$	1,838

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			Allocation		Total	l I	Residential		General Service	All E	lectric Schools		Power Service		Power Service
Description	Ref	Name	Vector		System	1	Rate RS		GS		AES		PS-Secondary		PS-Primary
Other Taxes															
Power Production Plant															
Production Demand - Base	OTAX	OTPPDB	PPBDA	\$	2,691,268	\$	994,675	\$	292,436	\$	19,098	\$	319,480	\$	24,232
Production Demand - Inter.	OTAX	OTPPDI	PPWDA		2,819,273		1,041,985		306,345		20,006		334,675		25,385
Production Demand - Peak	OTAX	OTPPDP	PPSDA		2,317,433		856,508		251,815		16,445		275,102		20,866
Production Energy - Base Production Energy - Inter.	OTAX OTAX	OTPPEB OTPPEI	E01 E01		-		-		-		-		-		-
Production Energy - Peak	OTAX	OTPPEP	E01		-		-		-		-		-		-
Total Power Production Plant	011.22	OTPPT	201	\$	7,827,974	\$	2,893,169	\$	850,595	\$	55,549	\$	929,257	\$	70,483
Transmission Plant															
Transmission Demand	OTAX	OTTRB	NCPT	\$	1,735,886	\$	738,341	\$	186,926	\$	18,046	\$	164,793	\$	12,960
Distribution Poles															
Specific Specific	OTAX	OTDPS	NCPP	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_
•				*		*		-						-	
Distribution Substation General	OTAX	OTDSG	NCPP	\$	407,159	e	193,143	e	48,898		4,721	6	43,108	e	3,390
General	OTAX	OIDSG	NCFF	3	407,139	э	193,143	э	40,090	3	4,721	э	43,108	э	3,390
Distribution Primary & Secondary L				_		_						_			
Primary Specific	OTAX	OTDPLS	NCPP	\$	- 442 670	\$	210.466	\$	52.204	\$		\$	46.077	\$	2.004
Primary Demand Primary Customer	OTAX OTAX	OTDPLD OTDPLC	NCPP Cust08		443,678 822,761		210,466 657,439		53,284 127,203		5,144 905		46,975 6,874		3,694 264
Secondary Demand	OTAX	OTDSLD	SICD		204,250		170,144		30,642		2,152		0,874		204
Secondary Customer	OTAX	OTDSLC	Cust07		312,231		252,098		48,777		347		-		-
Total Distribution Primary & Secondary		OTDLT	Custor	\$	1,782,920	\$	1,290,148	\$	259,906	\$	8,549	\$	53,849	\$	3,958
Distribution Line Transformers															
Demand	OTAX	OTDLTD	SICDT	\$	317,067	\$	219,977	\$	39,617	\$	2,783	\$	31,106	\$	-
Customer	OTAX	OTDLTC	Cust09		282,151		225,645		43,659		311		2,359		-
Total Line Transformers		OTDLTT		\$	599,218	\$	445,623	\$	83,275	\$	3,093	\$	33,465	\$	-
Distribution Services															
Customer	OTAX	OTDSC	C02	\$	188,893	\$	132,473	\$	51,890	\$	491	\$	3,525	\$	-
Distribution Meters															
Customer	OTAX	OTDMC	C03	\$	161,170	\$	100,161	\$	37,330	\$	792	\$	10,118	\$	2,231
Distribution Street & Customer Ligh	tina														
Customer Customer Light	OTAX	OTDSCL	C04	\$	223,555	\$	-	\$	_	\$	_	\$	-	\$	-
					ŕ										
Customer Accounts Expense Customer	OTAX	OTCAE	C05	\$	_	\$		\$		\$	_	\$		\$	
Customer	OTAX	OTCAL	C03	J.	-	Φ	-	Ф	-	٥	-	Ģ	-	Þ	-
Customer Service & Info.	OTAX	ОТООТ	005					•						•	
Customer	OTAX	OTCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense															
Customer	OTAX	OTSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		OTT		\$	12,926,774	\$	5,793,058	\$	1,518,820	\$	91,241	\$	1,238,116	\$	93,022

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			Allocation	Tin	ne of Day		Time of Day		Service		Service	Οι	ıtdoor Lighting	Ligl	nting Energy	Tra	affic Energy
Description	Ref	Name	Vector	TOD	-Secondary		TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
Other Taxes																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base	OTAX OTAX OTAX OTAX	OTPPDB OTPPDI OTPPDP OTPPEB	PPBDA PPWDA PPSDA E01	\$	234,194 245,333 201,663	\$	546,813 572,821 470,857	\$	187,188 196,091 161,186	\$	72,657 76,112 62,564	\$	358 375 308	\$	1 1 1	\$	137 144 118
Production Energy - Inter. Production Energy - Peak Total Power Production Plant	OTAX OTAX	OTPPEI OTPPEP OTPPT	E01 E01	\$	681,189	\$	1,590,491	\$	544,464	\$	211,333	\$	1,040	\$	- 4	\$	399
<b>Transmission Plant</b> Transmission Demand	OTAX	OTTRB	NCPT	\$	127,369	\$	295,098	\$	108,001	\$	71,409	\$	12,807	\$	54	\$	83
<b>Distribution Poles</b> Specific	OTAX	OTDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	OTAX	OTDSG	NCPP	\$	33,318	\$	77,195	\$	-	\$	-	\$	3,350	\$	14	\$	22
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	OTAX OTAX OTAX OTAX OTAX	OTDPLS OTDPLD OTDPLC OTDSLD OTDSLC OTDLT	NCPP NCPP Cust08 SICD Cust07	\$ \$	36,307 943 - 37,250	\$ \$	84,119 423 - - 84,541	<b>s</b>	- - - - -	\$ \$	: : :	s s	3,651 28,577 1,297 10,958 44,483	\$ \$	15 1 5 0 22	\$ \$	24 132 8 50 214
Distribution Line Transformers Demand Customer Total Line Transformers	OTAX OTAX	OTDLTD OTDLTC OTDLTT	SICDT Cust09	\$ \$	21,889 324 22,213		- - -	\$ \$	- - -	\$ \$	- - -	\$ \$	1,677 9,808 11,486		0	s s	11 45 56
<b>Distribution Services</b> Customer	OTAX	OTDSC	C02	\$	512	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	OTAX	OTDMC	C03	\$	1,876	\$	4,957	\$	3,381	\$	143	\$	-	\$	1	\$	180
Distribution Street & Customer Light Customer	ting OTAX	OTDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	223,555	\$	-	\$	-
Customer Accounts Expense Customer	OTAX	OTCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	OTAX	OTCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	OTAX	OTSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		OTT		\$	903,727	\$	2,052,282	\$	655,846	\$	282,885	\$	296,721	\$	102	\$	954

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			Allocation		Total	l	Residential		General Service		All Electric Schools		Power Service		Power Service	
Description	Ref	Name	Vector		System	1	Rate RS		GS		AES		PS-Secondary		PS-Primary	
Gain Disposition of Allowances					•								•		<u> </u>	_
Power Production Plant																
Production Demand - Base	GAIN	OTPPDB	PPBDA	\$	_	\$	_	9		s	_	\$	_	s		_
Production Demand - Inter.	GAIN	OTPPDI	PPWDA	Ψ.	-	Ψ	-	4	-		-	Ψ.	-			-
Production Demand - Peak	GAIN	OTPPDP	PPSDA		-		-		-		-		-			-
Production Energy - Base	GAIN	OTPPEB	E01		-		-		-		-		-			-
Production Energy - Inter.	GAIN	OTPPEI	E01		-		-		-		-		-			-
Production Energy - Peak Total Power Production Plant	GAIN	OTPPEP OTPPT	E01	\$	-	\$	-	5	-	\$	-	\$	-	\$		-
Total Power Production Plant		OIPPI		2	-	3	-	1	-	3	-	3	-	3		-
Transmission Plant																
Transmission Demand	GAIN	OTTRB	NCPT	\$	-	\$	-	\$	-	\$	-	\$	-	\$		-
Distribution Poles																
Specific	GAIN	OTDPS	NCPP	\$	-	\$	-	9	ş -	\$	_	\$	-	\$		_
•																
Distribution Substation	CARI	OTDGG	MCDD			œ.			ħ.			•				
General	GAIN	OTDSG	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$		-
Distribution Primary & Secondary L	ines															
Primary Specific	GAIN	OTDPLS	NCPP	\$	-	\$	-	5	-	\$	-	\$	-	\$		-
Primary Demand	GAIN	OTDPLD	NCPP		-		-		-		-		-			-
Primary Customer	GAIN	OTDPLC	Cust08		-		-		-		-		-			-
Secondary Demand Secondary Customer	GAIN GAIN	OTDSLD OTDSLC	SICD Cust07		-		-		-		-		-			-
Total Distribution Primary & Secondar		OTDLT	Custor	\$	-	\$	-	9	· -	\$	-	\$	-	\$		-
	-															
Distribution Line Transformers	CARI	OTDI TD	CLODE			œ.			ħ.			•				
Demand Customer	GAIN GAIN	OTDLTD OTDLTC	SICDT Cust09	\$	-	\$	-	\$	-	\$	-	\$	-	\$		-
Total Line Transformers	GAIN	OTDLTC	Cusios	\$	-	\$	-	5		\$	-	\$	-	\$		-
Total Ellie Transformers		015211		Ψ		Ψ		,	,							
Distribution Services						_			_			_				
Customer	GAIN	OTDSC	C02	\$	-	\$	-	\$	-	\$	-	\$	-	\$		-
Distribution Meters																
Customer	GAIN	OTDMC	C03	\$	-	\$	-	5	-	\$	-	\$	-	\$		-
Distribution Street & Customer Light Customer	iting GAIN	OTDSCL	C04	\$	_	\$	_	5	r	\$	_	\$	_	\$		
Customer	GAIN	OIDSCL	C04	J.	-	Ф	-	4	-	Φ	-	Þ	-	Φ		-
Customer Accounts Expense																
Customer	GAIN	OTCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$		-
Customer Service & Info.																
Customer	GAIN	OTCSI	C05	\$	-	\$	-	9	-	\$	-	\$	-	\$		-
Sales Expense	CADI	OTCEC	COC	e		e			ħ			6				
Customer	GAIN	OTSEC	C06	\$	-	\$	-	9	-	\$	-	\$	-	\$		-
Total		OTT		\$	-	\$	-	\$	-	\$	-	\$	-	\$		-

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			Allocation	Time of Da	•		Time of Day		Service		Service	O	utdoor Lighting	Ligl	hting Energy	Traff	fic Energy
Description	Ref	Name	Vector	TOD-Second	ary		TOD-Primary		RTS	]	FLS - Transmission		ST & POL		LE		TE
Gain Disposition of Allowances																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	GAIN GAIN GAIN GAIN GAIN GAIN	OTPPDB OTPPDI OTPPDP OTPPEB OTPPEI OTPPEP OTPPT	PPBDA PPWDA PPSDA E01 E01	s	-	\$	- - - - -	<b>S</b>	-	s s	- - - -	\$	- - - - -	\$ \$	- - - - -	\$	- - - - -
Transmission Plant Transmission Demand	GAIN	OTTRB	NCPT	\$	-	\$	-	\$	-	\$		\$	-	\$	-	\$	-
<b>Distribution Poles</b> Specific	GAIN	OTDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	GAIN	OTDSG	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Primary & Secondary Li Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	GAIN GAIN GAIN GAIN GAIN	OTDPLS OTDPLD OTDPLC OTDSLD OTDSLC OTDLT	NCPP NCPP Cust08 SICD Cust07	s s	-	\$	- - - - -	<b>s</b> <b>s</b>	- - - -	\$	- - -	\$	- - - - -	\$	- - - -	\$	- - - - -
Distribution Line Transformers Demand Customer Total Line Transformers	GAIN GAIN	OTDLTD OTDLTC OTDLTT	SICDT Cust09	\$ \$	-	<b>s</b>		\$ \$	- - -	\$ \$	-	s s	- - -	\$ \$	- - -	s s	- - -
<b>Distribution Services</b> Customer	GAIN	OTDSC	C02	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	GAIN	OTDMC	C03	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Distribution Street & Customer Light Customer	ting GAIN	OTDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Accounts Expense Customer	GAIN	OTCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	GAIN	OTCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	GAIN	OTSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		OTT		\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

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			Allocation		Total		Residential		General Service	All E	lectric Schools		Power Service		Power Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Interest															
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base	INTLTD INTLTD INTLTD INTLTD	INTPPDB INTPPDI INTPPDP INTPPEB	PPBDA PPWDA PPSDA E01	\$	17,924,442 18,776,988 15,434,620	\$	6,624,759 6,939,855 5,704,537	\$	1,947,687 2,040,326 1,677,141	\$	127,195 133,245 109,527	\$	2,127,807 2,229,013 1,832,241	\$	161,392 169,068 138,973
Production Energy - Inter. Production Energy - Peak Total Power Production Plant	INTLTD INTLTD	INTPPEI INTPPEP INTPPT	E01 E01	\$	52,136,050	\$	19,269,151	\$	5,665,154	\$	369,967	\$	- 6,189,061	\$	469,433
<b>Transmission Plant</b> Transmission Demand	INTLTD	INTTRB	NCPT	\$	11,561,389	\$	4,917,517	\$	1,244,968	\$	120,189	\$	1,097,559	\$	86,313
<b>Distribution Poles</b> Specific	INTLTD	INTDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	INTLTD	INTDSG	NCPP	\$	2,711,771	\$	1,286,375	\$	325,672	\$	31,440	\$	287,111	\$	22,579
Distribution Primary & Secondary L Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	INTLTD INTLTD INTLTD INTLTD INTLTD	INTDPLS INTDPLD INTDPLC INTDSLD INTDSLC INTDLT	NCPP NCPP Cust08 SICD Cust07	\$	2,954,995 5,479,772 1,360,350 2,079,529 11,874,646	\$ \$	1,401,752 4,378,688 1,133,199 1,679,031 8,592,671	\$ \$	354,882 847,203 204,083 324,864 1,731,033	s s	34,260 6,029 14,335 2,312 56,936	<b>s</b>	312,862 45,782 - - 358,644	\$ \$	24,604 1,759 - - 26,363
Distribution Line Transformers Demand Customer Total Line Transformers	INTLTD INTLTD	INTDLTD INTDLTC INTDLTT	SICDT Cust09	\$ \$	2,111,737 1,879,191 3,990,928		1,465,099 1,502,849 2,967,947		263,857 290,776 554,633		18,534 2,069 20,603		207,173 15,713 222,886		- - -
<b>Distribution Services</b> Customer	INTLTD	INTDSC	C02	\$	1,258,066	\$	882,302	\$	345,599	\$	3,273	\$	23,480	\$	-
<b>Distribution Meters</b> Customer	INTLTD	INTDMC	C03	\$	1,073,425	\$	667,093	\$	248,624	\$	5,274	\$	67,389	\$	14,858
Distribution Street & Customer Ligh Customer	ting INTLTD	INTDSCL	C04	\$	1,488,926	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Accounts Expense Customer	INTLTD	INTCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	INTLTD	INTCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	INTLTD	INTSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		INTT		\$	86,095,200	\$	38,583,056	\$	10,115,683	\$	607,683	\$	8,246,132	\$	619,546

		1	2		11		12		13		14		15		16		17
			Allocation	Tir	ne of Day		Time of Day		Service		Service	Ou	ıtdoor Lighting	Lig	hting Energy	Traf	ffic Energy
Description	Ref	Name	Vector	TOD	-Secondary		TOD-Primary		RTS	FL	S - Transmission		ST & POL		LE		TE
<u>Interest</u>																	
Power Production Plant Production Demand - Base Production Demand - Inter. Production Demand - Peak Production Energy - Base Production Energy - Inter. Production Energy - Peak Total Power Production Plant	INTLTD INTLTD INTLTD INTLTD INTLTD INTLTD	INTPPDB INTPPDI INTPPDP INTPPEB INTPPEI INTPPEP INTPPT	PPBDA PPWDA PPSDA E01 E01	\$	1,559,781 1,633,969 1,343,117 - - - 4,536,868		3,641,896 3,815,116 3,136,013 - - - 10,593,025		1,246,711 1,306,009 1,073,535 - - 3,626,255		483,909 506,926 416,691 - - 1,407,526		2,382 2,495 2,051 - - - 6,928		9 10 8 - - - 26		913 956 786 - - 2,656
Transmission Plant Transmission Demand	INTLTD	INTTRB	NCPT	\$	848,304	\$	1,965,421	\$	719,308	\$	475,599	\$	85,299	\$	357	\$	553
<b>Distribution Poles</b> Specific	INTLTD	INTDPS	NCPP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Substation</b> General	INTLTD	INTDSG	NCPP	\$	221,908	\$	514,135	\$	-	\$	-	\$	22,313	\$	93	\$	145
Distribution Primary & Secondary L Primary Specific Primary Demand Primary Customer Secondary Demand Secondary Customer Total Distribution Primary & Secondary	INTLTD INTLTD INTLTD INTLTD INTLTD	INTDPLS INTDPLD INTDPLC INTDSLD INTDSLC INTDLT	NCPP NCPP Cust08 SICD Cust07	\$	241,811 6,283 - 248,095	\$ \$	560,249 2,816 - - 563,065	<b>s</b>	- - - - -	<b>s</b> <b>s</b>	- - - - -	s s	24,315 190,330 8,641 72,983 296,269	<b>s</b>	102 5 36 2 144	\$	158 877 56 336 1,426
Distribution Line Transformers Demand Customer Total Line Transformers	INTLTD INTLTD	INTDLTD INTDLTC INTDLTT	SICDT Cust09	\$ \$	145,784 2,157 147,940		- - -	s \$	- - -	\$ \$	- - -	\$ \$	11,171 65,325 76,496		47 2 48		72 301 373
<b>Distribution Services</b> Customer	INTLTD	INTDSC	C02	\$	3,411	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Distribution Meters</b> Customer	INTLTD	INTDMC	C03	\$	12,498	\$	33,013	\$	22,515	\$	953	\$	-	\$	6	\$	1,202
Distribution Street & Customer Ligh Customer	ting INTLTD	INTDSCL	C04	\$	-	\$	-	\$	-	\$	-	\$	1,488,926	\$	-	\$	-
Customer Accounts Expense Customer	INTLTD	INTCAE	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Customer Service & Info. Customer	INTLTD	INTCSI	C05	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Sales Expense Customer	INTLTD	INTSEC	C06	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total		INTT		\$	6,019,023	\$	13,668,658	\$	4,368,078	\$	1,884,079	\$	1,976,231	\$	676	\$	6,355

		1	2	3	4		5		7	9		10
			Allocation	Total	Residential	G	eneral Service	All	Electric Schools	Power Service	1	Power Service
Description	Ref	Name	Vector	System	Rate RS		GS		AES	PS-Secondary		PS-Primary
Cost of Service Summary Unadjusted												
Operating Revenues Sales Intercompany Sales Curtailable Service Rider		REVUC SFRS	R01 E01 INTCRE	\$ 1,464,489,053 8,422,903 (17,395,776)	\$ 554,543,189 2,827,720 (6,429,368)	\$	198,233,994 843,635 (1,890,242)	\$	12,037,991 70,490 (123,444)	\$ 174,459,441 996,388 (2,065,049)	\$	13,950,651 76,891 (156,631)
LATE PAYMENT CHARGES OTHER SERVICE CHARGES RENT FROM ELEC PROPERTY OTHER MISC REVENUES			LPAY MISCSERV RBT MISCSERV	3,857,505 2,108,282 3,142,645 22,338,060	3,012,898 1,967,237 1,415,594 20,843,640		568,302 136,875 370,402 1,450,249		3,750 853 22,319 9,036	98,651 1,335 298,159 14,148		5,535 51 22,411 542
Total Operating Revenues		TOR		\$ 1,486,962,672	\$ 578,180,912	\$	199,713,215	\$	12,020,995	\$ 173,803,074	\$	13,899,449
Operating Expenses Operation and Maintenance Expenses Depreciation and Amortization Expenses Regulatory Credits and Accretion Expenses				\$ 933,774,239 228,062,837	\$ 366,207,210 99,370,565	\$	107,888,071 26,491,103	\$	7,554,633 1,604,765	\$ 98,429,159 22,685,401	\$	7,589,257 1,706,877
Property Taxes Other Taxes Gain Disposition of Allowances			NPT	24,894,101 12,926,774	11,156,145 5,793,058		2,924,911 1,518,820		175,709 91,241	2,384,338 1,238,116		179,139 93,022
State and Federal Income Taxes			TAXINC	84,161,734	\$ 23,871,555	\$	21,237,964	\$	831,106	\$ 17,074,122	\$	1,552,488
Total Operating Expenses		TOE		\$ 1,283,819,685	\$ 506,398,532	\$	160,060,870	\$	10,257,453	\$ 141,811,137	\$	11,120,783
Net Operating Income (Unadjusted)		TOM		\$ 203,142,987	\$ 71,782,380	\$	39,652,345	\$	1,763,542	\$ 31,991,937	\$	2,778,666
Net Cost Rate Base				\$ 3,639,079,759	\$ 1,639,211,792	\$	428,913,296	\$	25,844,638	\$ 345,258,413	\$	25,951,247

		1	2		11	12	13	14	15	16	17
			Allocation		Time of Day	Time of Day	Service	Service	Outdoor Lighting	Lighting Energy	Traffic Energy
Description	Ref	Name	Vector	TO	OD-Secondary	TOD-Primary	RTS	FLS - Transmission	ST & POL	LE	TE
Cost of Service Summary Unadjusted											_
Operating Revenues Sales Intercompany Sales Curtailable Service Rider LATE PAYMENT CHARGES OTHER SERVICE CHARGES RENT FROM ELEC PROPERTY OTHER MISC REVENUES		REVUC SFRS	R01 E01 INTCRE LPAY MISCSERV RBT MISCSERV	\$	116,879,945 775,692 (1,513,777) 41,764 982 217,951 10,403	\$ 251,561,897 1,864,604 (3,534,481) 107,885 439 494,628 4,653	86,711,460 664,048 (1,209,941) 18,686 48 157,898 505	\$ 29,892,107 245,150 (469,637) - 68,510	57,388	207	\$ 156,512 691 (886) - - 237
Total Operating Revenues		TOR		\$	116,412,961	\$ 250,499,625	\$ 86,342,704	\$ 29,736,130	\$ 26,167,357	\$ 29,696	\$ 156,554
Operating Expenses Operation and Maintenance Expenses Depreciation and Amortization Expenses Regulatory Credits and Accretion Expenses				\$	75,186,180 16,564,374	\$ 176,498,041 37,813,710	\$ 61,153,721 12,238,461	\$ 23,421,412 5,141,548	\$ 9,739,693 4,428,509	\$ 18,263 1,478	\$ 88,599 16,047
Property Taxes Other Taxes			NPT		1,740,378 903,727	3,952,241 2,052,282	1,263,013 655,846	544,774 282,885	571,420 296,721	195 102	1,838 954
Gain Disposition of Allowances State and Federal Income Taxes			TAXINC	\$	6,692,163	\$ 6,907,750	\$ 2,787,239	\$ (643,551)	\$ 3,829,254	\$ 3,757	\$ 17,886
Total Operating Expenses		TOE		\$	101,086,823	\$ 227,224,025	\$ 78,098,279	\$ 28,747,068	\$ 18,865,597	\$ 23,795	\$ 125,324
Net Operating Income (Unadjusted)		TOM		\$	15,326,138	\$ 23,275,600	\$ 8,244,425	\$ 989,061	\$ 7,301,760	\$ 5,901	\$ 31,231
Net Cost Rate Base				\$	252,380,530	\$ 572,762,574	\$ 182,841,135	\$ 79,332,423	\$ 86,277,348	\$ 31,557	\$ 274,806

### KENTUCKY UTILITIES COMPANY Cost of Service Study

#### Class Allocation 12 Months Ended June 30, 2018

		1	2	3	4	5		7	9		10
			Allocation	Total	Residential	General Service	All	Electric Schools	Power Service	I	Power Service
Description	Ref	Name	Vector	System	Rate RS	GS		AES	PS-Secondary		PS-Primary
Taxable Income Unadjusted											
Total Operating Revenue				\$ 1,486,962,672	\$ 578,180,912	\$ 199,713,215	\$	12,020,995	\$ 173,803,074	\$	13,899,449
Operating Expenses				\$ 1,199,657,950	\$ 482,526,977	\$ 138,822,906	\$	9,426,347	\$ 124,737,015	\$	9,568,295
Interest Expense		INTEXP		\$ 86,095,200	\$ 38,583,056	\$ 10,115,683	\$	607,683	\$ 8,246,132	\$	619,546
Taxable Income		TAXINC		\$ 201,209,521	\$ 57,070,879	\$ 50,774,626	\$	1,986,965	\$ 40,819,927	\$	3,711,609

### KENTUCKY UTILITIES COMPANY Cost of Service Study

Class Allocation 12 Months Ended June 30, 2018

		1	2		11	12	13		14		15	16		17
			Allocation	Т	Time of Day	Time of Day	Service		Service	O	utdoor Lighting	Lighting Energy	Tı	affic Energy
Description	Ref	Name	Vector	TO	D-Secondary	TOD-Primary	RTS	FL	S - Transmission		ST & POL	LE		TE
Taxable Income Unadjusted														
Total Operating Revenue				\$	116,412,961	\$ 250,499,625 \$	86,342,704	\$	29,736,130	\$	26,167,357	\$ 29,696	\$	156,554
Operating Expenses				\$	94,394,659	\$ 220,316,274 \$	75,311,041	\$	29,390,619	\$	15,036,342	\$ 20,038	\$	107,438
Interest Expense		INTEXP		\$	6,019,023	\$ 13,668,658 \$	4,368,078	\$	1,884,079	\$	1,976,231	\$ 676	\$	6,355
Taxable Income		TAXINC		\$	15,999,278	\$ 16,514,692 \$	6,663,586	\$	(1,538,568)	\$	9,154,783	\$ 8,982	\$	42,761

### KENTUCKY UTILITIES COMPANY

#### Cost of Service Study Class Allocation 12 Months Ended June 30, 2018

		1	2	3	4	5	7	9	10
			Allocation	Total	Residential	General Service	All Electric Schools	Power Service	Power Service
Description	Ref	Name	Vector	System	Rate RS	GS	AES	PS-Secondary	PS-Primary
Cost of Service Summary Pro-Forma									
Operating Revenues									
Total Operating Revenue Actual				\$ 1,486,962,672 \$	578,180,912	199,713,215	\$ 12,020,995 \$	173,803,074 \$	13,899,449
Pro-Forma Adjustments: Adj to eliminate Off System ECR rev	venues		ECRREV	(1,635,232) \$	(609,965)	(368,766)	\$ (23,373) \$	(168,730) \$	(13,653)
Total Pro-Forma Operating Revenue				\$ 1,485,327,440 \$	577,570,946	199,344,450	\$ 11,997,623 \$	173,634,344 \$	13,885,796

#### KENTUCKY UTILITIES COMPANY

#### Cost of Service Study Class Allocation 12 Months Ended June 30, 2018

		1	2		11	12	13	14	15	16	17
			Allocation	1	Time of Day	Time of Day	Service	Service	Outdoor Lighting	Lighting Energy	Traffic Energy
Description	Ref	Name	Vector	TO	DD-Secondary	TOD-Primary	RTS	FLS - Transmission	ST & POL	LE	TE
Cost of Service Summary Pro-Forma											
Operating Revenues											
Total Operating Revenue Actual				\$	116,412,961	250,499,625	86,342,704	\$ 29,736,130	\$ 26,167,357	\$ 29,696	\$ 156,554
Pro-Forma Adjustments: Adj to eliminate Off System ECR re	venues		ECRREV	\$	(105,682)	(210,279)	(68,614)	\$ (23,719)	\$ (42,194)	\$ (66)	\$ (192)
Total Pro-Forma Operating Revenue				\$	116,307,279	250,289,346	86,274,090	\$ 29,712,411	\$ 26,125,163	\$ 29,630	\$ 156,362

		1	2	3	4		5		7	9		10
			Allocation	Total	Residential	G	General Service	All	Electric Schools	Power Service	Powe	r Service
Description	Ref	Name	Vector	System	Rate RS		GS		AES	PS-Secondary	PS-I	Primary
Operating Expenses												
Operation and Maintenance Expenses Depreciation and Amortization Expenses Regulatory Credits and Accretion Expenses				\$ 933,774,239 228,062,837	\$ 366,207,210 99,370,565	\$	107,888,071 26,491,103	\$	7,554,633 1,604,765	\$ 98,429,159 \$ 22,685,401		7,589,257 1,706,877
Property Taxes Other Taxes Gain Disposition of Allowances			NPT	24,894,101 12,926,774	11,156,145 5,793,058		2,924,911 1,518,820		175,709 91,241	2,384,338 1,238,116		179,139 93,022
State and Federal Income Taxes Specific Assignment of Curtailable Service Ric	ler Cred	lit	TAXINC	84,161,734	\$ 23,871,555	\$	21,237,964	\$	831,106	\$ 17,074,122 \$		1,552,488
Allocation of Curtailable Service Rider Credits			INTCRE	\$ -	\$ -	\$	-	\$	-	\$ - \$		-
Adjustments to Operating Expenses: Eliminate advertising expenses Federal & State Income Tax Adjustm Total Expense Adjustments	ent		REVUC TAXINC	\$ (838,116) (164,668) (1,002,784)	\$ (317,361) (46,706) (364,067)	\$	(113,448) (41,553) (155,001)		(6,889) (1,626) (8,515)	\$ (99,842) (33,407) (133,248) \$		(7,984) (3,038) (11,021)
Total Operating Expenses		TOE		\$ 1,282,816,901	\$ 506,034,464	\$	159,905,869	\$	10,248,938	\$ 141,677,888 \$		11,109,762
Net Operating Income (Adjusted)				\$ 202,510,539	\$ 71,536,482	\$	39,438,581	\$	1,748,685	\$ 31,956,456 \$		2,776,034
Net Cost Rate Base				\$ 3,639,079,759	\$ 1,639,211,792	\$	428,913,296	\$	25,844,638	\$ 345,258,413 \$		25,951,247
Rate of Return				5.56%	4.36%		9.20%		6.77%	9.26%		10.70%

		1	2		11		12	13		14		15		16		17
			Allocation	1	Time of Day		Time of Day	Service		Service	Out	door Lighting	Ligh	ting Energy	Traffic	c Energy
Description	Ref	Name	Vector	TO	D-Secondary		TOD-Primary	RTS	FL	S - Transmission	5	ST & POL		LE	7	TE
Operating Expenses																
Operation and Maintenance Expenses Depreciation and Amortization Expenses Regulatory Credits and Accretion Expenses				\$	75,186,180 16,564,374	\$	176,498,041 37,813,710	\$ 61,153,721 12,238,461	\$	23,421,412 5,141,548	\$	9,739,693 4,428,509	\$	18,263 1,478	\$	88,599 16,047
Property Taxes Other Taxes Gain Disposition of Allowances			NPT		1,740,378 903,727		3,952,241 2,052,282	1,263,013 655,846		544,774 282,885		571,420 296,721		195 102		1,838 954
State and Federal Income Taxes Specific Assignment of Curtailable Service Ric	der Cred	lit	TAXINC	\$	6,692,163	\$	6,907,750	\$ 2,787,239	\$	(643,551)	\$	3,829,254	\$	3,757	\$	17,886
Allocation of Curtailable Service Rider Credits			INTCRE	\$	-	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-
Adjustments to Operating Expenses: Eliminate advertising expenses Federal & State Income Tax Adjustments Total Expense Adjustments	ent		REVUC TAXINC	\$	(66,890) (13,094) (79,983)		(143,967) (13,515) (157,482)	(49,624) (5,453) (55,078)	\$	(17,107) 1,259 (15,848)		(14,898) (7,492) (22,390)	1	(17) (7) (24)		(90) (35) (125)
Total Operating Expenses		TOE		\$	101,006,839	\$	227,066,542	\$ 78,043,201	\$	28,731,220	\$	18,843,207	\$	23,770	\$	125,199
Net Operating Income (Adjusted)				\$	15,300,439	\$	23,222,804	\$ 8,230,889	\$	981,190	\$	7,281,957	\$	5,859	\$	31,163
Net Cost Rate Base				\$	252,380,530	\$	572,762,574	\$ 182,841,135	\$	79,332,423	\$	86,277,348	\$	31,557	\$	274,806
Rate of Return					6.06%	I	4.05%	4.50%		1.24%		8.44%		18.57%		11.34%

		1	2	3		4	5		7	9	10
			Allocation	Total		Residential	General Service	All	Electric Schools	Power Service	Power Service
Description	Ref	Name	Vector	System	ı	Rate RS	GS		AES	PS-Secondary	PS-Primary
Taxable Income Pro-Forma											
Total Operating Revenue				\$ 1,485,327,440	\$	577,570,946	\$ 199,344,450	\$	11,997,623	\$ 173,634,344	\$ 13,885,796
Operating Expenses				\$ 1,198,655,166	\$	482,162,910	\$ 138,667,905	\$	9,417,832	\$ 124,603,766	\$ 9,557,273
Interest Expense		INTEXP		\$ 86,095,200	\$	38,583,056	\$ 10,115,683	\$	607,683	\$ 8,246,132	\$ 619,546
Interest Syncronization Adjustment			INTEXP	\$ 7,411,055	\$	3,321,221	\$ 870,756	\$	52,309	\$ 709,825	\$ 53,330
Taxable Income		TXINCPF		\$ 193,166,018	\$	53,503,760	\$ 49,690,106	\$	1,919,799	\$ 40,074,621	\$ 3,655,647

		1	2		11	12	13		14		15		16		17
			Allocation	Т	ime of Day	Time of Day	Service		Service	Ου	ıtdoor Lighting	Lig	ghting Energy	T	raffic Energy
Description	Ref	Name	Vector	TO	D-Secondary	TOD-Primary	RTS	Fl	S - Transmission		ST & POL		LE		TE
Taxable Income Pro-Forma															
Total Operating Revenue				\$	116,307,279	\$ 250,289,346	\$ 86,274,090	\$	29,712,411	\$	26,125,163	\$	29,630	\$	156,362
Operating Expenses				\$	94,314,676	\$ 220,158,792	\$ 75,255,963	\$	29,374,771	\$	15,013,952	\$	20,013	\$	107,313
Interest Expense		INTEXP		\$	6,019,023	\$ 13,668,658	\$ 4,368,078	\$	1,884,079	\$	1,976,231	\$	676	\$	6,355
Interest Syncronization Adjustment			INTEXP	\$	518,116	\$ 1,176,595	\$ 376,003	\$	162,181	\$	170,114	\$	58	\$	547
Taxable Income		TXINCPF		\$	15,455,463	\$ 15,285,301	\$ 6,274,046	\$	(1,708,620)	\$	8,964,867	\$	8,882	\$	42,147

		1	2		3		4		5		7		9		10
			Allocation		Total		Residential		General Service	All	l Electric Schools		Power Service		Power Service
Description	Ref	Name	Vector		System		Rate RS		GS		AES		PS-Secondary		PS-Primary
Cost of Service Summary Adjusted for Pr	oposed	Increase													
Operating Revenue															
Total Operating Revenue Proposed Increase				\$ \$	1,485,327,440 94,389,823	\$ \$	577,570,946 37,000,062		199,344,450 12,094,455		11,997,623 777,151		173,634,344 9,478,307		13,885,796 705,851
Proposed Reduction to CSR Credit			INTCRE	\$	8,688,375	\$	3,211,168	\$	944,087	\$	61,654	\$	1,031,395	\$	78,230
Increase in Miscellaneous Charges			MISCSERV	\$	19,720	\$ \$	18,401	\$ \$	1,280	\$ \$	- 8	\$ \$		\$ \$	- 0
Total Pro-Forma Operating Revenue				\$	1,588,425,358	\$	617,800,577	\$	212,384,272	\$	12,836,436	\$	184,144,059	\$	14,669,878
Operating Expenses															
Total Operating Expenses				\$	1,283,819,685	\$	506,398,532	\$	160,060,870	\$	10,257,453	\$	141,811,137	\$	11,120,783
Pro-Forma Adjustments				\$	(1,002,784)		(364,067)		(155,001)		(8,515)		(133,248)		(11,021)
Increase in Uncollectible Expense Increase in PSC Fees			Cust01 R01	\$ \$	362,905 200,113		226,690 75,775		43,861 27,087		312 1,645		2,370 23,839		91 1,906
increase in FSC Fees			KUI	э	200,113	Ф	13,113	Ф	27,087	Þ	1,043	э	23,839	э	1,900
Incremental Income Taxes			0.385574631	\$	39,751,942	\$	15,511,525	\$	5,027,825	\$	323,425	\$	4,052,279	\$	302,322
Total Pro-Forma Operating Expenses				\$	1,323,131,860	\$	521,848,454	\$	165,004,642	\$	10,574,320	\$	145,756,376	\$	11,414,081
Net Operating Income				\$	265,293,498	\$	95,952,122	\$	47,379,630	\$	2,262,116	\$	38,387,683	\$	3,255,797
Net Cost Rate Base				\$	3,639,079,759	\$	1,639,211,792	\$	428,913,296	\$	25,844,638	\$	345,258,413	\$	25,951,247
Rate of Return					7.29%		5.85%		11.05%		8.75%		11.12%		12.55%

		1	2 Allocation	т	11 me of Day	12 Time of Day	13 Service		14 Service	0.	15 utdoor Lighting	Lia	16 hting Energy	т.	17 affic Energy
Description	Ref	Name	Vector		D-Secondary	TOD-Primary	RTS	FL	S - Transmission	O	ST & POL	Lig	LE	11	TE
Cost of Service Summary Adjusted for I	Proposed	Increase													
Operating Revenue															
Total Operating Revenue Proposed Increase Proposed Reduction to CSR Credit Increase in Miscellaneous Charges			INTCRE MISCSERV	\$ \$ \$ \$ \$	116,307,279 6,865,949 756,061 9	250,289,346 17,335,551 1,765,308 4	\$ 86,274,090 6,022,823 604,309 0	\$	29,712,411 2,235,015 234,562 -	\$	26,125,163 1,866,484 1,155 4	\$	29,630 - 4 -	\$ \$ \$ \$	156,362 8,175 443
Total Pro-Forma Operating Revenue				\$	123,929,298	\$ 269,390,209	\$ 92,901,222	\$	32,181,987	\$	27,992,806	\$	29,634	\$	164,980
Operating Expenses															
Total Operating Expenses				\$	101,086,823	\$ 227,224,025	\$ 78,098,279	\$	28,747,068	\$	18,865,597	\$	23,795	\$	125,324
Pro-Forma Adjustments Increase in Uncollectible Expense Increase in PSC Fees			Cust01 R01	\$ \$ \$	(79,983) 325 15,971	\$ (157,482) 146 34,374	\$ (55,078) 16 11,849	\$	(15,848) 1 4,085	\$	(22,390) 88,683 3,557	\$	(24) 2 4	\$	(125) 408 21
Incremental Income Taxes			0.385574631	\$	2,938,857	\$ 7,364,808	\$ 2,555,254	\$	952,206	\$	720,116	\$	2	\$	3,323
Total Pro-Forma Operating Expenses				\$	103,961,993	\$ 234,465,870	\$ 80,610,320	\$	29,687,512	\$	19,655,562	\$	23,778	\$	128,952
Net Operating Income				\$	19,967,305	\$ 34,924,338	\$ 12,290,903	\$	2,494,476	\$	8,337,244	\$	5,856	\$	36,028
Net Cost Rate Base				\$	252,380,530	\$ 572,762,574	\$ 182,841,135	\$	79,332,423	\$	86,277,348	\$	31,557	\$	274,806
Rate of Return					7.91%	6.10%	6.72%		3.14%		9.66%		18.56%		13.11%

	1	2	3	4	5	7	9	10
		Allocation	Total	Residential	General Service	All Electric Schools	Power Service	Power Service
<b>Description</b> Ref	Name	Vector	System	Rate RS	GS	AES	PS-Secondary	PS-Primary
Allocation Factors								
Energy Allocation Factors Energy Usage by Class	E01	Energy	1.000000	0.335718	0.100160	0.008369	0.118295	0.009129
Customer Allocation Factors Primary Distribution Plant Average Number of Custo	m C08	Cust08	1.000000	0.79906	0.15461	0.00110	0.00835	0.00032
Customer Services Weighted cost of Services Meter Costs Weighted Cost of Meters	C02 C03		1.000000 1.000000	0.701316 0.621463	0.274707 0.231618	0.002602 0.004913	0.018664 0.062780	0.013842
Lighting Systems Lighting Customers Meter Reading and Billing Weighted Cost	C04 C05	Cust04 Cust05	1.000000 1.000000	0.64427	0.24931	0.00887	0.03368	0.00129
Marketing/Economic Development	C06	Cust06	1.000000	0.79902	0.15460	0.00110	0.00835	0.00032
Total billed revenue per Billing Determinants Energy (at the Meter) Energy (Loss Adjusted)(at Source)	R01 Energy		1,464,489,053 18,343,080,487 19,428,782,556	554,543,189 6,091,971,051 6,522,592,615	198,233,994 1,817,505,619 1,945,979,163	12,037,991 151,861,000 162,595,559	174,459,441 2,146,594,132 2,298,329,870	13,950,651 169,814,471 177,361,189
O&M Customer Allocators Customers (Monthly Bills)			8,273,588	5,168,140	999,948	7,118	54,034	2,070
Average Customers (Bills/12) Average Customers (Lighting = Lights) Weighted Average Customers (Lighting =9 Lights per Customers)	Su Cheet05		689,466 689,466 668,477	430,678 430,678 430,678	83,329 83,329 166,658	593 593 5,930	4,503 4,503 22,515	173 173 865
Street Lighting	Cust04		114,827,799	-	-	´-	-	-
Average Customers Average Customers (Lighting = 9 Lights per Cust) Average Secondary Customers	Cust01 Cust06 Cust07		689,466 539,008 533,407	430,678 430,678 430,678	83,329 83,329 83,329	593 593 593	4,503 4,503	173 173
Average Primary Customers Average Transformer Customers	Cust08 Cust09		538,978 538,528	430,678 430,678 430,678	83,329 83,329 83,329	593 593	4,503 4,503	173
Plant Customer Allocators			ŕ	ŕ	ŕ			
Customers (Monthly Bills) Average Customers (Bills/12) Average Customers (Lighting = Lights) Weighted Average Customers (Lighting =9 Lights per G	Cust)		8,273,588 689,466 689,466 668,477	5,168,140 430,678 430,678 430,678	999,948 83,329 83,329 166,658	7,118 593 593 5,930	54,034 4,503 4,503 22,515	2,070 173 173 865
Street Lighting Average Customers			114,827,799 689,466	430,678	83,329	593	4,503	173
Average Customers (Lighting = 9 Lights per Cust) Average Secondary Customers Average Primary Customers			539,008 533,407 538,978	430,678 430,678 430,678	83,329 83,329 83,329	593 593 593	4,503 - 4,503	173 - 173
Average Frinary Customers Average Transformer Customers			538,528	430,678	83,329	593	4,503	-
Demand Allocators  Maximum Class Non-Coincident Peak Demands (Trans Maximum Class Non-Coincident Peak Demands (Prima			5,021,135 4,502,184	2,135,688 2.135,688	540,692 540,692	52,198 52,198	476,672 476,672	37,486 37,486
Sum of the Individual Customer Demands (Transformer Sum of the Individual Customer Demands (Secondary)	) SICDT		6,459,671 5,379,998	4,481,645 4,481,645	807,122 807,122	56,694 56,694	633,729	- -
Summer Peak Period Demand Allocator Winter Peak Period Demand Allocator	SCP WCP		45,301 45,301	16,743 16,743	4,922 4,922	321 321	5,378 5,378	408 408
Base Demand Allocator	BDEM		45,301	16,743	4,922	321	5,378	408

	1	2	11	12	13	14	15	16	17
		Allocation	Time of Day	Time of Day	Service	Service	Outdoor Lighting	Lighting Energy	Traffic Energy
<b>Description</b> Ref	Name	Vector	TOD-Secondary	TOD-Primary	RTS	FLS - Transmission	ST & POL	LE	TE
Allocation Factors									
Energy Allocation Factors Energy Usage by Class	E01	Energy	0.092093	0.221373	0.078838	0.029105	0.006813	0.000025	0.000082
<u>Customer Allocation Factors</u> Primary Distribution Plant Average Number of Cus		Cust08	0.00115	0.00051	-	-	0.03473	0.00000	0.00016
Customer Services Weighted cost of Services Meter Costs Weighted Cost of Meters Lighting Systems Lighting Customers	C02 C03 C04	Cust04	0.002712 0.011643	0.030754	0.020975	0.000888	1.00000	0.000006	0.001120
Meter Reading and Billing Weighted Cost Marketing/Economic Development	C05 C06	Cust05 Cust06	0.02311 0.00115	0.01036 0.00051	0.00090 0.00006	0.00007 0.00000	0.02800 0.03473		0.00013 0.00016
Total billed revenue per Billing Determinants Energy (at the Meter) Energy (Loss Adjusted)(at Source)	R01 Energy		116,879,945 1,671,130,915 1,789,257,708	251,561,897 4,118,000,917 4,301,008,844	86,711,460 1,497,714,279 1,531,734,094	29,892,107 552,917,598 565,476,838	26,032,396 123,634,653 132,373,983	29,470 446,721 478,298	156,512 1,489,131 1,594,393
O&M Customer Allocators Customers (Monthly Bills) Average Customers (Bills/12) Average Customers (Lighting = Lights) Weighted Average Customers (Lighting = 9 Lights pe Street Lighting Average Customers Average Customers (Lighting = 9 Lights per Cust) Average Secondary Customers Average Primary Customers Average Transformer Customers	r Cu Cust05 Cust04 Cust01 Cust06 Cust07 Cust08 Cust09		7,419 618 618 15,450 - 618 618 - 618	3,318 277 277 6,925 - 277 277 - 277	360 30 30 600 - 30 30 -	12 1 1 50 - 1 1	2,021,809 168,484 168,484 18,720 114,827,799 168,484 18,720 18,720 18,720 18,720	48 4 4 - - - 0 0 0	9,312 776 776 86 - 776 86 86 86
Plant Customer Allocators Customers (Monthly Bills) Average Customers (Bills/12) Average Customers (Lighting = Lights) Weighted Average Customers (Lighting = 9 Lights pe Street Lighting Average Customers Average Customers (Lighting = 9 Lights per Cust) Average Secondary Customers Average Primary Customers Average Primary Customers Average Transformer Customers	r Cust)		7,419 618 618 15,450 - 618 618 - 618	3,318 277 277 6,925 - 277 277 - 277	360 30 30 600 - 30 30 -	12 1 1 50 - 1 1 1	2,021,809 168,484 168,484 18,720 114,827,799 168,484 18,720 18,720 18,720 18,720	48 4 4 - - 0 0 0	9,312 776 776 86 - 776 86 86 86
Demand Allocators  Maximum Class Non-Coincident Peak Demands (Tra Maximum Class Non-Coincident Peak Demands (Prir Sum of the Individual Customer Demands (Transform Sum of the Individual Customer Demands (Secondary Summer Peak Period Demand Allocator Winter Peak Period Demand Allocator Base Demand Allocator	nary NCPP ner) SICDT		368,420 368,420 445,944 - 3,942 3,942 3,942	853,586 853,586 - - 9,204 9,204 9,204	312,397 - - - 3,151 3,151 3,151	206,554 - - 1,223 1,223 1,223	37,046 37,046 34,173 34,173 6 6	155 155 143 143 0 0	240 240 221 221 2 2 2

		1	2		3	4		5		7	9	10
			Allocation		Total	Residential	(	General Service	All I	Electric Schools	Power Service	Power Service
Description	Ref	Name	Vector		System	Rate RS		GS		AES	PS-Secondary	PS-Primary
Unadjusted Production Allocation Production Residual Winter Demand Allocator Production Winter Demand Costs Customer Specific Assignment Production Winter Demand Residual Production Winter Demand Total Production Winter Demand Allocator		PPWDRA PPWDT PPWDA	PPWDRA PPWDT	\$ \$ \$ \$	45,301 35,951,279 - 35,951,279 35,951,279 1.000000	16,743 13,287,363 13,287,363 13,287,363 0,36959	\$	4,922 3,906,501 3,906,501 3,906,501 0.10866		321 255,117 0 255,117 255,117 0.00710	\$ 5,378 4,267,770 - 4,267,770 4,267,770 0.11871	\$ 408 323,705 323,705 323,705 0.00900
Production Residual Summer Demand Allocator Production Summer Demand Costs Customer Specific Assignment Production Summer Demand Residual Production Summer Demand Total Production Summer Demand Allocator	r	PPSDRA PPSDT PPSDA	PPSDRA PPSDT	\$ \$ \$ \$	45,301 35,933,656 - 35,933,656 35,933,656 1.000000	16,743 13,280,850 13,280,850 13,280,850 0,36959		4,922 3,904,586 - 3,904,586 3,904,586 0.10866		321 254,992 0 254,992 254,992 0.00710	5,378 4,265,678 - 4,265,678 4,265,678 0.11871	408 323,546 - 323,546 323,546 0.00900
Production Residual Base Demand Allocator Production Base Demand Costs Customer Specific Assignment Production Base Demand Residual Production Base Demand Total Production Base Demand Allocator		PPBDRA PPBDT PPBDA	PPBDRA PPBDT	\$ \$ \$ \$	45,301 37,625,250 - 37,625,250 37,625,250 1.000000	\$ 16,743 13,906,052 13,906,052 0.36959	\$	4,922 4,088,396 4,088,396 0.10866	\$	321 266,996 266,996 0.00710	\$ 5,378 4,466,487 4,466,487 0.11871	\$ 338,778 338,778 0.00900
Revenue Adjustment Allocators Remove ECR Revenues Interruptible Credit Allocator Base Rate Revenue Late Payment Revenue Misc Service Revenue Allocator		ECRREV INTCRE LPAY MISCSERV			183,699,328 2,787,666,238 1,464,489,053 3,719,777 2,232,238	68,522,534 1,030,303,640 554,543,189 2,905,326 2,082,901		41,426,529 302,910,516 198,233,994 548,011 144,923		2,625,661 19,781,814 12,037,991 3,616 903	18,954,821 330,923,353 174,459,441 95,129 1,414	1,533,784 25,100,130 13,950,651 5,337 54
Operation and Maintenance Less Fuel		OMLF			293,386,691.81	151,217,563.65		43,747,108.26		2,195,358.63	22,674,447.24	1,743,296.68

		1	2		11	12	13		14		15		16		17
			Allocation	T	ime of Day	Time of Day	Service		Service	Ou	tdoor Lighting	Li	ighting Energy	Tra	affic Energy
Description R	ef Na	ame	Vector	TO	D-Secondary	TOD-Primary	RTS	FL	S - Transmission		ST & POL		LE		TE
Unadjusted Production Allocation Production Residual Winter Demand Allocator Production Winter Demand Costs Customer Specific Assignment Production Winter Demand Residual Production Winter Demand Total Production Winter Demand Allocator	PP	PWDRA PWDT PWDA	PPWDRA PPWDT	\$ \$ \$	3,942 3,128,473 - 3,128,473 3,128,473 0,08702	\$ 9,204 7,304,596 - 7,304,596 7,304,596 0.20318	\$ 3,151 2,500,544 - 2,500,544 2,500,544 0,06955	\$	1,223 970,583 - 970,583 970,583 0,02700	\$	6 4,777 - 4,777 4,777 0,00013	\$	0 18 18 18 0.00000	\$	2 1,831 1,831 1,831 0,00005
Production Residual Summer Demand Allocator Production Summer Demand Costs Customer Specific Assignment Production Summer Demand Residual		PSDRA	PPSDRA	\$	3,942 3,126,939 - 3,126,939	\$ 9,204 7,301,015 - 7,301,015	\$ 3,151 2,499,319 - 2,499,319	\$	1,223 970,107 - 970,107	\$	6 4,775 - 4,775	\$	0 18	\$	2 1,830
Production Summer Demand Total Production Summer Demand Allocator		PSDT PSDA	PPSDT	\$	3,126,939 3,126,939 0.08702	\$ 7,301,015 7,301,015 0.20318	\$ 2,499,319 2,499,319 0.06955	\$	970,107 970,107 0.02700	\$	4,775 0.00013	\$	18 0.00000	\$	1,830 0.00005
Production Residual Base Demand Allocator Production Base Demand Costs Customer Specific Assignment	PP	PBDRA			3,942	9,204	3,151		1,223		6		0		2
Production Base Demand Residual Production Base Demand Total Production Base Demand Allocator		PBDT PBDA	PPBDRA PPBDT	\$	3,274,141 3,274,141 0.08702	\$ 7,644,714 7,644,714 0.20318	\$ 2,616,975 2,616,975 0.06955	\$	1,015,776 1,015,776 0.02700	\$	5,000 5,000 0.00013	\$	19 19 0.00000	\$	1,917 1,917 0.00005
Revenue Adjustment Allocators Remove ECR Revenues Interruptible Credit Allocator Base Rate Revenue Late Payment Revenue Misc Service Revenue Allocator	IN LP	CRREV TCRE PAY ISCSERV			11,872,123 242,582,119 116,879,945 40,273 1,040	23,622,372 566,399,212 251,561,897 104,034 465	7,708,001 193,892,490 86,711,460 18,019 50		2,664,539 75,259,126 29,892,107		4,739,976 370,429 26,032,396 32 488		7,407 1,413 29,470		21,581 141,997 156,512
Operation and Maintenance Less Fuel	ON	MLF			16,210,876.61	34,733,496.61	10,666,592.25		4,782,862.51		5,376,544.72		2,497.77		36,046.89

## COMMONWEALTH OF KENTUCKY

## BEFORE THE PUBLIC SERVICE COMMISSION

In	the	Ma	tter	Λf•
	HHE	IVI 2	Her	

APPLICATION OF KENTUCKY UTILITIES	)	
COMPANY FOR AN ADJUSTMENT OF ITS	)	
ELECTRIC RATES AND FOR	)	CASE NO. 2016-00370
CERTIFICATES OF PUBLIC	)	
CONVENIENCE AND NECESSITY	)	

TESTIMONY OF CHRISTOPHER M. GARRETT DIRECTOR, RATES KENTUCKY UTILITIES COMPANY

Filed: November 23, 2016

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- Q. Please state your name, position, and business address.
- 2 A. My name is Christopher M. Garrett. I am the Director of Rates for Kentucky Utilities
- 3 Company ("KU" or "Company") and Louisville Gas and Electric Company
- 4 ("LG&E") and an employee of LG&E and KU Services Company, which provides
- 5 services to LG&E and KU (collectively "Companies"). My business address is 220
- 6 West Main Street, Louisville, Kentucky 40202.
- 7 Q. Please describe your educational and professional background.
- 8 A. A statement of my professional history and education is attached to this testimony as
- 9 Appendix A.

- 10 Q. Have you previously testified before this Commission?
- 11 A. Yes. I have previously testified before the Commission on behalf of the Company in
- the Commission's review of the Company's 2016 environmental compliance plan<sup>1</sup>
- and two recent six-month reviews of the Company's environmental surcharge
- 14 mechanism.<sup>2</sup>
- 15 Q. What are the purposes of your testimony?
- 16 A. The purposes of my testimony are: (1) to present certain schedules required by 807
- 17 KAR 5:001 Section 16 filed with the Company's application; (2) to describe the
- calculation of KU's adjusted net operating income and revenue deficiency for the 12-
- month forecasted test period, beginning July 1, 2017, and ending June 30, 2018 for its

Application of Kentucky Utilities Company For Certificates of Public Convenience and Necessity and Approval of Its 2016 Compliance Plan For Recovery By Environmental Surcharge, Case No. 2016-00026 (Ky. PSC filed Feb. 9, 2016).

<sup>&</sup>lt;sup>2</sup> An Examination By the Public Service Commission of the Environmental Surcharge Mechanism of Kentucky Utilities Company For the Six-Month Billing Periods Ending April 30, 2014 And October 31, 2014, Case No. 2015-00020 (Ky. PSC initiated Jan. 20, 2015); An Examination By the Public Service Commission of the Environmental Surcharge Mechanism of Kentucky Utilities Company For The Six-Month Billing Period Ending April 30, 2016, Case No. 2016-00214 (Ky. PSC initiated July 14, 2016).

1		jurisdictional operations; (3) to explain certain pro	forma adjustments	to each revenue
2		requirement calculation; (4) to describe the need to	o establish a regulat	ory asset for the
3		net book value <sup>3</sup> of electric meters that are ret	ired as a result of	the Advanced
4		Metering System ("AMS") deployment; (5) to des	scribe the proposed	amortization of
5		the regulatory liability related to reservation	and termination	fees from the
6		Company's refined coal arrangements; and (	6) provide an ov	verview of the
7		Company's recently completed depreciation study	and proposed depre	ciation rates.
8		SCHEDULES REQUIRED BY 807 KAR 5	::001, SECTION 16	<u>6(8)</u>
9	Q.	Are you sponsoring certain information i	required by the	Commission's
10		regulation 807 KAR 5:001 Section 16(8)?		
11	A.	Yes, I am sponsoring the following informat	tion for the corres	sponding filing
12		requirements:		
13 14		<ul> <li>Jurisdictional financial summary for base and forecasted periods</li> </ul>	Section 16(8)(a)	Tab 54
15 16		<ul> <li>Jurisdictional rate base summary for base and forecasted periods</li> </ul>	Section 16(8)(b)	Tab 55
17 18		<ul> <li>Jurisdictional operating income summary for base and forecasted periods</li> </ul>	Section 16(8)(c)	Tab 56
19 20		<ul> <li>Summary of jurisdictional adjustments to operating income</li> </ul>	Section 16(8)(d)	Tab 57
21 22		<ul> <li>Jurisdictional federal and state income tax summary</li> </ul>	Section 16(8)(e)	Tab 58
23 24 25 26 27		<ul> <li>Summary schedules for base and forecasted periods of organizational membership dues; initiation fees; expenditures for country club; charitable contributions; marketing, sales, and</li> </ul>		

Net book value is gross plant-in-service less accumulated depreciation.

1 2 3		advertising; professional services; civic and political activities; employee parties and outings; employee gifts; and rate cases Section 16(8)(f) Tab 59
4 5		• Computation of gross revenue conversion factor for forecasted period Section 16(8)(h) Tab 61
6 7		• Typical bill comparison under present and proposed rates for all customer classes Section 16(8)(n) Tab 67
8 9		PROPERTY VALUATIONS PRESENTED: CAPITALIZATION AND RATE BASE
10	Q:	Are you sponsoring certain information required by the Commission's
11		regulation 807 KAR 5:001 Section 16(6)?
12	A.	Yes, I am sponsoring all information that 807 KAR 5:001 Section 16(6) requires.
13	Q.	What are the property valuation measures to be considered by the Commission
14		for ratemaking purposes?
15	A.	Section 278.290 of the Kentucky Revised Statutes requires the Commission to give
16		due consideration to three quantifiable values: original cost (rate base), cost of
17		reproduction as a going concern, and capital structure. The Commission is also
18		required to consider the history and development of the utility and its property and
19		other elements of value long recognized for ratemaking purposes.
20	Q.	Which property-valuation methodology has the Company chosen to support its
21		requested rate changes in this case?
22	A.	The calculation of the Company's rate base and capitalization valuations is shown on
23		Section 16(7)h 11 and 12 at Tab 32. In keeping with the Company's approach in its
24		five most recent base rate cases, the Company has chosen the capitalization
25		methodology of property valuation. The Commission approved this approach in each
26		of those base rate cases.

# Q. Should the Commission extensively consider using the cost of reproduction as a going concern valuation methodology in this case?

A. No. The Commission has consistently found such methodology is not the most appropriate or reasonable measure for rate of return valuation.<sup>4</sup> This methodology typically leads to a significantly higher revenue requirement than the capitalization or rate base methodologies.<sup>5</sup> Moreover, the United States Supreme Court has been critical of the use of this methodology for ratemaking purposes.<sup>6</sup> In light of this extensive precedent, the Company believes presenting the reproduction methodology's results and raising the methodology's use as an issue for the Commission's review and consideration in detail will not result in a productive or efficient use of the Commission's limited resources or those of any intervening party.

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See, e.g., General Adjustment of Rates of Kentucky Utilities Company, Case No. 7804 (Ky. PSC Oct. 1, 1980) at 2 ("KU presented the net original cost, capital structure, and reproduction cost as the valuation methods in this case. The Commission has given due consideration to these and other elements of value in determining the reasonableness of the proposed rates and charges. As in the past, the Commission has given limited consideration to the proposed reproduction cost."); General Adjustment of Electric Rates of Kentucky Utilities Company, Case No. 8177 (Ky. PSC Sept. 11, 1981) at 9-10; General Adjustment of Electric Rates of Kentucky Utilities Company, Case No. 8624 (Ky. PSC Mar. 18, 1983) at 2; An Adjustment of the Electric Rates, Terms and Conditions of Kentucky Utilities Company, Case No. 2003-00434 (Ky. PSC June 30, 2004) at 15; Application of Kentucky Utilities Company For An Adjustment of Electric Base Rates, Case No. 2008-00251 (Ky. PSC Feb. 5, 2009) at 16-17.

See An Adjustment of the Rates of Elzie Neeley Gas Company, Case No. 90-076 (Ky. PSC Dec. 7, 1990) at 3 (noting that reproduction cost appraisal inflates a utility's rate base, results in a valuation that has no economic substance, and could result in rates that are excessive in relation to the actual investment made by the owners of the utility). See also The Application of Western Kentucky Gas Company For Authority to Adjust Its Rates, Case No. 8227 (Ky. PSC Oct. 9, 1981) at 3 ("net original cost, net investment and capital structure valuation methods are still the most prudent, efficient and economical measures of reasonable rate of return valuation").

See, e.g., State of Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission of Missouri, 262 U.S. 276, 301 (1923) (Brandeis, J. concurring) ("[the] conviction is wide-spread that a sound conclusion as to the actual value of a utility is not to be reached by a meticulous study of conflicting estimates of the cost of reproducing new the congeries of old machinery and equipment, called the plant, and the still more fanciful estimates concerning the value of the intangible elements of an established business"). See also St. Joseph Stock Yards Co. v. U.S., 298 U.S. 38 (1936); Federal Power Commission v. Natural Gas Pipeline Co. of America, 315 U.S. 575 (1942).

1		The Commission's consideration of this evidence should be sufficient in light of this
2		extensive precedent.
3		FORECASTED TEST PERIOD
4	Q.	What is the forecasted test period the Company used for supporting the
5		requested increase in revenue for its operations in this case?
6	A.	The forecasted test period begins July 1, 2017, and ends June 30, 2018.
7	Q.	What is the base period the Company used for purposes of its base rate
8		application in this case?
9	A.	The base period is the 12-month period ending February 28, 2017, and consists of 6
10		months actual data from March 1, 2016 to August 31, 2016, and 6 months of
11		estimated data from September 1, 2016 to February 28, 2017. KU expects to file
12		updated information, any corrections and the actual data from September 1, 2016 to
13		February 28, 2017 with the Commission no later than April 14, 2017 or 45 days after
14		the end of the base period.
15		CALCULATION OF JURISDICTIONAL REVENUE DEFICIENCY
16	Q.	Has the Company prepared a jurisdictional financial summary of its
17		jurisdictional operations for both base and forecasted test periods as required by
18		807 KAR 5:001 Section 16(8)(a)?
19	A.	Yes. This information ("Schedule A") is located at Tab 54 to the application and
20		shows how the Company determined the amount of the requested revenue increases
21		for its jurisdictional operations.
22	Q.	Briefly describe how the jurisdictional financial summary shown in Schedule A
23		was prepared

1 A. The Company first determined the amount of required operating income by 2 multiplying the required rate of return by the total capital allocated to the Company's 3 jurisdictional operations for the forecasted test period. The total allocated capital and 4 required rate of return are obtained from the cost of capital summary required by 807 5 KAR 5:001 Section 16(8)(j) ("Schedule J"). Total adjusted operating income 6 produced by the Company's present rates, which is found in the jurisdictional 7 operating summary required by 807 KAR 5:001 Section 16(8)(c) ("Schedule C"), is 8 then subtracted from the total required operating income. The difference is then 9 multiplied by the gross revenue conversion factor, whose computation is required by 10 807 KAR 5:001 Section 16(8)(h) ("Schedule H"), which takes into account the effects of various state and federal income taxes and bad debt expense. This product 12 represents the additional revenues that the Company's operations require to meet the 13 Company's reasonable operating expenses and earn a reasonable rate of return. 14 When these additional revenues are added to adjusted operating revenues in the 15 forecasted test period per Schedule C-1, the sum represents the Company's revenue 16 requirement for the forecasted test period.

#### What does the Company's financial summary on Schedule A show? Q.

11

17

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A.

The financial summary for the Company's jurisdictional operations shows that the Company's jurisdictional operations, at current rates, will incur a projected revenue deficiency of \$103,098,006 for the forecasted test period, the 12-month period ending June 30, 2018. The projected revenue deficiency is based upon a required rate of return on capital of 7.29 percent. During the forecasted test period at current rates,

- the Company's jurisdictional operations are projected to earn a rate of return of only

  5.57 percent.
- 3 Q. How do the results for the forecasted test period compare to the base period?
- A. For the base period, which ends February 28, 2017, the Company's operations are expected to have a revenue deficiency of \$29,472,985 and an earned rate of return on capital of 6.93 percent. During the forecasted test period, the revenue deficiency for the Company's jurisdictional operations is projected to increase and its earned rate of

### JURISDICTIONAL RATE BASE SUMMARY

10 Q. Has the Company prepared a jurisdictional rate base summary of its utility
11 operations for both base and forecasted test periods as required by 807 KAR
12 5:001 Section 16(8)(b)?

return on capital is projected to further decline.

- 13 A. Yes. The Company has prepared Schedule B to satisfy the requirements of 807 KAR
  14 5:001 Section 16(8)(b); this schedule is located at Tab 55 of the application. The
  15 information contained in Schedule B provides KU's net original cost rate base
  16 property as required under KRS 278.290. The calculated rate base amounts are for
  17 the base period and for a 13-month average for the forecasted test period as required
  18 by 807 KAR 5:001 Section 16(6)(c).
- 19 Q. Please describe the components of Schedule B.

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A. Schedule B consists of a summary schedule, Schedule B-1, showing KU's calculated rate base for the base period and the forecasted test period. The information contained in Schedule B-1 derives from the remaining schedules in Schedule B, which calculate the rate-base components and adjustments: Plant in Service (Schedules B-2 – B-2.7), Accumulated Depreciation and Amortization (Schedules B-

1	3 – B-3.2), Construction Work in Progress (Schedule B-4 – B-4.2), Allowance for
2	Working Capital (Schedules B-5 - B-5.2), Deferred Credits and Accumulated
3	Deferred Income Taxes (Schedule B-6), and Jurisdictional Percentages (Schedules B-
4	7 - B-7.2). Schedule B-8 provides comparative balance sheets for calendar years
5	2011-2015, as well as for the base period and for a 13-month average for the
6	forecasted test period. In keeping with the Company's prior base-rate cases, Schedule
7	B-5.2 computes cash working capital using the 45-day (1/8) methodology.

# Q. Please explain the adjustments to base period and forecasted test period rate base shown in Schedule B-2.2.

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Schedule B-2.2 removes from the utility's rate base the portions of rate base for which the utility's other rate mechanisms provide a recovery of and a return on the utility's investment. These mechanisms are the Demand Side Management ("DSM") cost-recovery mechanism and the Environmental Cost Recovery ("ECR") surcharge.

Schedule B-2.2 further removes Asset Retirement Obligation assets from rate base, which is consistent with the Company's approach in its prior base-rate cases. In Case No. 2003-00427,<sup>7</sup> the Commission approved a stipulation that requested the Commission's approval for the following:

- 1) Approving the regulatory assets and liabilities associated with adopting SFAS No. 143 and going forward;<sup>8</sup>
- 2) Eliminating the impact on net operating income in the 2003 ESM annual filing caused by adopting SFAS No. 143;

<sup>&</sup>lt;sup>7</sup> Application of Kentucky Utilities Company For An Order Approving An Accounting Adjustment to be Included in Earnings Sharing Mechanism Calculations for 2003, Case No. 2003-00427 (Ky. PSC Dec. 23, 2003) at 3.

The Financial Accounting Standards Board, which promulgates the U.S. Generally Accepted Accounting Principles, has renamed SFAS No. 143; it is now Accounting Standards Codification ("ASC") 410-20.

1 2 3 4	3)	To the extent accumulated depreciation related to the cost of removal is recorded in regulatory assets or regulatory liabilities, reclassifying such amounts to accumulated depreciation for rate-making purposes of calculating rate base; and
5	4)	Excluding from rate base the ARO assets, related ARO asset
6		accumulated depreciation, ARO liabilities, and remaining regulatory

In Case No. 2003-00434,<sup>9</sup> the Commission approved KU's proposed exclusion<sup>10</sup> of ARO assets from rate base. It again approved the exclusion in Case No. 2009-00548.<sup>11</sup> KU similarly excluded such amounts in Cases No. 2014-00371,<sup>12</sup> No. 2012-00221<sup>13</sup> and No. 2008-00251,<sup>14</sup> which were resolved by Commission-approved settlements.

assets associated with the adoption of SFAS No. 143.

## Q. Please explain KU Schedule B-7, Jurisdictional Percentages.

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A. Schedule B-7 provides Kentucky-jurisdictional allocation factors by FERC account number. Using the same methodology KU has historically used in its base-rate cases, Mr. Seelye performed a Kentucky jurisdictional separation study for the forecasted test period that generated the factors shown in Schedule B-7. The Kentucky-jurisdictional allocation factors in Schedule B-7 appear in the "Juris. Percent" column of Schedule B-2.1 to calculate the Kentucky-jurisdictional amounts of KU's plant in service for each FERC account.

An Adjustment of the Electric Rates, Terms and Conditions of Kentucky Utilities Company, Case No. 2003-00434 (Ky. PSC June 30, 2004) at 20-22.

<sup>&</sup>lt;sup>10</sup> KU Response to Commission Staff's Third Set of Data Requests, Item No. 39 in *An Adjustment of the Electric Rates, Terms and Conditions of Kentucky Utilities Company*, Case No. 2003-00434 (Ky. PSC) (filed Mar. 11, 2004).

<sup>&</sup>lt;sup>11</sup> Application of Kentucky Utilities Company For An Adjustment of Base Rates, Case No. 2009-00548 (Ky. PSC July 30, 2010).

<sup>&</sup>lt;sup>12</sup> Application of Kentucky Utilities Company For An Adjustment Its Electric Rates, Case No. 2014-00371 (Ky. PSC June 30, 2015).

Application of Kentucky Utilities Company For An Adjustment of Its Electric Rates, Case No. 2012-00221 (Ky. PSC Dec 20, 2012).

<sup>&</sup>lt;sup>14</sup> Application of Kentucky Utilities Company For An Adjustment of Electric Base Rates, Case No. 2008-00251 (Ky. PSC Feb. 5, 2009).

- 1 Q. Please explain KU Schedule B-7.1, Jurisdictional Statistics Rate Base.
- 2 A. Using the same major groupings for rate base shown in Schedule B-1, Schedule B-7.1
- 3 shows for the base period (as of February 28, 2017) and the forecasted test period
- 4 (13-month average): total-company rate base (Column C); adjustments to total-
- 5 company rate base (Column D); adjusted total-company rate base (Column E);
- 6 Kentucky-jurisdictional adjusted rate base (Column F), which amounts appear also in
- Schedule B-1); and the Kentucky-jurisdictional allocation factor for each major
- 8 grouping, which is calculated for each major grouping by dividing the amount in
- 9 Column F by the amount in Column E. The adjustment amounts in Column D
- remove the ECR, DSM, and asset retirement obligations ("ARO") rate base
- 11 components. This schedule therefore provides information in addition to what is
- shown in Schedule B-7 because it provides Kentucky-jurisdictional allocation factors
- for major groupings.
- 14 Q. Please explain KU Schedule B-7.2, Explanation of Changes in Jurisdictional
- 15 **Procedures Rate Base.**
- 16 A. KU's Kentucky jurisdictional separation study was conducted using the same
- methodology KU has historically used in its base-rate cases. Accordingly, the
- schedule indicates no changes in methodology between Case No. 2014-00371 and
- this application.
- 20 Q. In summary, what does Schedule B show?
- 21 A. Schedule B shows that KU's jurisdictional rate base for the base period will be
- \$3,607,814,177 which will increase to a 13-month average of \$3,639,079,760 for the
- forecasted test period. When the adjusted operating income shown in Schedule A for

1 the forecasted test period of \$202,510,540 is divided by the 13-month-average rate 2 base for the same period, the result is that KU's utility operation will produce a rate 3 of return on average rate base of 5.57 percent. If the Commission approves the 4 requested increase and KU's utility operation earns its required operating income 5 shown in Schedule A for the forecasted test period of \$265,293,552, it will earn a rate 6 of return on average rate base of 7.29 percent. 7 JURISDICTIONAL OPERATING INCOME SUMMARY 8 Q. Has the Company prepared a jurisdictional operating income summary of its 9 operations for both base and forecasted test periods as required by 807 KAR 10 5:001 Section 16(8)(c)? 11 Α. Yes. This information ("Schedule C") is located at Tab 56 to the application. 12 O. Briefly describe Schedule C. 13 A. Schedule C is a jurisdictional operating income summary for the base period and the 14 forecasted test period with supporting schedules that are broken down by major 15 account group and by individual account. It consists of four schedules: 16 Schedule C-1 (Jurisdictional Operating Income Summary) 17 Schedule C-2 (Jurisdictional Adjusted Operating Income Statement) 18 Schedule C-2.1 (Jurisdictional Operating Revenues and Expenses By 19 Account) 20 Schedule C-2.2 (Comparison of Total Company Activity) 21 Q. Please describe Operations Schedule C-1.

Schedule C-1 summarizes the Company's jurisdictional operating revenues and

expenses for KU's operations for the base and forecasted test periods. The schedule

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depicts the base period level (Column 1), forecasted test period level at current rates (Column 3), and forecasted test period levels at the proposed rates (Column 5).

The amounts set forth in Schedule C-1, Column 1 reflect the Company's adjusted base period amounts as shown at pages 1 – 6 of Schedule C-2.1, Column 5. These amounts represent base year totals adjusted to remove revenues and expenses associated with the DSM, ECR, the Fuel Adjustment Clause ("FAC") and the Off-System Sales Adjustment Clause ("OSS") mechanisms as these represent revenues and costs recovered outside of base rates. In addition, an interest synchronization adjustment is made to remove the tax benefit for the deduction of interest on debt capitalization associated with capital projects recovered through the rate mechanisms. The removal of these revenues and expenses is shown on Schedule D-2. The adjustments in Schedule C-1, Column 2 are detailed in Schedule D-1.

Schedule C-1, Column 4 reflects the change in revenues and expenses resulting from the implementation of the proposed rates. Revenues will increase \$103,098,006, which is equal to the amount of the "Revenue Deficiency" and "Revenue Increase Requested" reported on Schedule A. Expenses will increase \$40,314,994 to reflect increased income taxes, bad debt expenses (included in "Operation and Maintenance Expenses"), and KPSC assessment fees (included in "Taxes Other Than Income") related to the increased revenues. The proposed increase in "Net Operating Income" (Column 4, line 14) is equal to the Operating Income Deficiency reported in Schedule A.

Schedule C-1, Column 5 reflects projected revenues and expenses for the forecasted test period at the Company's proposed rates.

### Q. What does Schedule C-1 show?

A.

A. For the base period, the Company projects total net operating income of \$247,762,662, which results in a return on capitalization of 6.93 percent. Total net operating income during the forecasted test period is projected to decrease to \$202,510,540. The Company's rate of return on capitalization will decrease during the forecasted test period to 5.57 percent unless rates are increased.

### Q. Please describe Schedule C-2.

Schedule C-2 details the Company's adjusted jurisdictional operating income statement for the base period and the forecasted test period as used in Columns 1 and 3 of Schedule C-1, and breaks down "Forecasted Adjustments at Current Rates" per Column 2 of Schedule C-1 between "Jurisdictional Adjustments to Base period" (Column 2 of Schedule C-2) and "Jurisdictional Pro-Forma Adjustments to Forecasted Period" (Column 4 of Schedule C-2).

Schedule C-2, Column 2 represents adjustments to the base period amounts to reflect forecasted test period conditions. These adjustments are shown in detail on Schedule D-1, Column 2 and are described at Schedule D-1, Column 6.

Schedule C-2, Column 4 reflects the pro forma adjustments to forecasted test period operations. These adjustments are listed in detail in Schedule D-2.1. The amounts in Schedule C-2, Column 4 correspond to the amounts in the column labeled "Jurisdictional Pro Forma Adjustments to Forecast Period" on Schedule D-2.1.

Schedule C-2, Column 5 represents the pro forma forecasted test period amount. The amounts in Column 5 correspond to those in Schedule C-1, Column 3.

### Q. Please describe Schedule C-2.1.

A. Schedule C-2.1 is a statement of jurisdictional operating revenues and expenses by account for the base period and for the forecasted test period. It details how the Company's jurisdictional net operating income was determined for the base period and forecasted test period.

### 5 Q. Please describe Schedule C-2.2.

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A. Schedule C-2.2 is a comparison of the Company's operations on a monthly basis for the base period and for the forecasted test period. The information in this schedule is further classified by account. The information for the six months ending August 31, 2016 reflects actual results. The remaining months of the base period and all of the forecasted test period are forecasted.

### **OPERATING INCOME COMPARISON**

- Q. Has the Company prepared jurisdictional adjustments to operating income by major account for both base and forecasted test periods as required by 807 KAR 5:001 Section 16(8)(d)?
- 15 A. Yes. This information ("Schedule D") with supporting schedules is located at Tab 57
  16 to the application. Schedule D provides the required comparisons between the base
  17 period and the forecasted test period.

### 18 Q. Please summarize Schedule D.

A. Schedule D is comprised of three schedules. Schedule D-1 shows operating revenue and expenses by account, for both the base period and the forecasted test period and the level of variance between the two. Certain jurisdictional pro forma adjustments are then applied to the forecasted test period to derive the pro forma forecasted test period used in Schedule C.

Schedule D-2 provides the adjustments for both the base period and the forecasted test period to operating revenues and expenses by FERC account necessary to remove the effects of KU's other recovery mechanisms: FAC, OSS, ECR, and DSM. In addition, an interest synchronization adjustment is made to remove the tax benefit for the deduction of interest on debt capitalization associated with capital projects recovered through the rate mechanisms. The amounts shown in the "Jurisdictional Adjustments" column appear in column 4 of Schedule C-2.1 in the column "Jurisdictional Adjustments Sch D-2." These adjustments are discussed in further detail later in the next section of my testimony.

Q.

Schedule D-2.1 provides the pro forma adjustments to operating revenues and expenses by FERC account KU is proposing in this proceeding for the forecasted test period. The amounts shown in the "Jurisdictional Pro Forma Adjustments to Forecast Period" column appear in column 4 of Schedule D-1 in the column "Jurisdictional Pro Forma Adjustments to Forecasted Period."

- Please summarize the differences in KU's jurisdictional operating revenues between the base period and the pro forma forecasted test period as shown on Schedule D-1.
- A. Jurisdictional operating revenues are projected to increase by \$6.4 million or about

  0.4 percent between the base period and pro forma forecasted test period. However,

  fuel and purchased power are projected to increase approximately \$0.8 million during

  this same time period. As a result, net revenues are project to increase \$5.6 million.

  The increase is primarily driven by higher residential and industrial sales as discussed

  in the testimony of Mr. Sinclair.

Q. Please summarize the differences in jurisdictional operating expenses between 2 the base period and pro forma forecasted test period as shown on Schedule D-1.

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- 3 Jurisdictional operation and maintenance expenses after removing fuel and purchased Α. 4 power (rows 23, 51 and 61 on Schedule D-1) are projected to increase by \$35.4 5 million between the base period and the pro forma forecasted test period. This increase has four primary drivers. First, steam and other generation maintenance is 6 7 expected to increase \$9.1 million due primarily to an increase in generation plant 8 maintenance and outage expenses. Second, meter expenses and maintenance, misc. 9 distribution expenses, and customer accounts and services expenses are expected to 10 increase \$7.8 million largely as a result of the AMS, Distribution Automation 11 ("DA"), and SAP Upgrade projects. Third, transmission maintenance of overhead 12 lines is expected to increase \$5.0 million due primarily to increased vegetation 13 management as a result of the move to a five-year cycled approach from a just-in-14 time approach. Lastly, employee pension and benefits expense is expected to 15 increase \$4.5 million due to a reduction in discount rates and higher medical costs. 16 Remaining jurisdictional operation and maintenance expenses are projected to 17 increase \$9.0 million between the base period and pro forma forecasted period.
  - Are there any other significant jurisdictional Operating Expense increases Q. between the base period and pro forma forecasted period?
- 20 A. Yes. Depreciation expense is projected to increase by \$42.1 million driven by new 21 plant-in-service and higher proposed depreciation rates. Taxes other than income 22 taxes are also expected to increase by \$2.1 million due primarily to higher property 23 taxes associated with the increased investment.

1	Q.	Please explain why KU's federal and state income tax expense shown on
2		Schedule D is expected to decrease during the forecasted period.
3	A.	The decrease is due to an anticipated decrease in Pretax Book Income from \$293.8
4		million in the base period to \$219.5 million in the pro forma forecasted period as
5		shown on Row 3 of Schedule E-1.
6 7		EFFECT OF CERTAIN RATEMAKING MECHANISMS ON REQUESTED RATE INCREASES
8	Q.	What effect, if any, do ratemaking mechanisms such as the FAC, OSS, ECR, and
9		DSM have on the base rate increases KU is requesting?
10	A.	As discussed in my description of Schedule D, the impact of those mechanisms has
11		been removed from the calculation of KU's operating revenues and expenses for both
12		the base period ending February 28, 2017, and the forecasted test period ending June
13		30, 2018. The mechanisms and the costs and revenues associated with them
14		therefore, have no effect on the calculation of the revenue deficiency and
15		corresponding base rate increases KU is requesting in this case. However, ECR costs
16		allocated to intercompany and off-system sales are recovered through base rates
17		rather than the mechanism as discussed later in my testimony. Most importantly
18		there is no double recovery of these costs.
19		PRO FORMA ADJUSTMENTS
20		<b>DSM Related Adjustments</b>
21	Q.	Please explain the adjustment to operating revenues and expenses shown in
22		Schedule D-2 that eliminates revenues recovered through the DSM mechanism
23		and related expenses.

- A. Consistent with the Commission's practice of eliminating the revenues and expenses associated with full-cost-recovery trackers, an adjustment was made to eliminate electric revenues to be recovered through the DSM mechanism and the corresponding expenses for both the base period and the forecasted test period. The operating revenue and expense components of the adjustment are shown in the column labeled "Adj 1 Remove DSM Mechanism" of Schedule D-2. The supporting details are contained in Schedule WPD-2.
- 9 Please explain the adjustments shown in Schedule J-1.1/1.2 and Supporting Schedule B-1.1, which remove DSM rate base from the Company's rate base and capitalization, respectively.
- In accordance with the Commission's orders in Cases No. 2011-00134 and No. 2014-11 A. 12 00003, the Company capitalizes the cost of installing load-control switches and related equipment used in two of its DSM programs, the Residential Load 13 14 Management/Demand Conservation Program and the Commercial Load 15 Management/Demand Conservation Program. 16 Also in accordance with the Commission's order in Case No. 2014-00003, the Company capitalizes the cost of 16 17 advanced meters, related communications equipment, and other related capital items

The Commission has previously reviewed and accepted adjustments similar to the proposed adjustment. See An Adjustment of the Electric Rates, Terms and Conditions of Kentucky Utilities Company, Case No. 2003-00434 (Ky. PSC June 30, 2004) at 22; Application of Kentucky Utilities Company For An Adjustment of Base Rates, Case No. 2009-00548 (Ky. PSC July 30, 2010).at 18. In Cases No. 2008-00251, No. 2012-00221, and No. 2014-00371, base rate cases that were resolved by Commission –approved settlement agreements, KU also proposed similar adjustments.

Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Review, Modification, and Continuation of Existing, and Addition of New, Demand-Side Management and Energy-Efficiency Programs, Case No. 2011-00134 (Ky. PSC Nov. 9, 2011) at 14 ("The Companies' request to add a fifth element to the DSMRC to account for the capital expenditure needed to develop the Residential and Commercial Load Management/Demand Conservation Program in the DSM/EE Program Plan is granted."); Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Review, Modification, and Continuation of Existing, and Addition of New, Demand-Side Management and Energy Efficiency Programs, Case No. 2014-00003 (Ky. PSC Nov. 14, 2014).

related to its Advanced Metering Systems customer offering.<sup>17</sup> Because the Company recovers the cost of those investments, as well as a return on those investments, through the DSM mechanism, column 4 of Supporting Schedule B-1.1 removes DSM rate base from the Company's rate base and column H of page 1 of Schedule J-1.1/1.2 removes DSM rate base and other mechanism-related rate base from the Company's capitalization. These adjustments were performed using a methodology similar to that used in the Company's two most recent base-rate cases, both of which were resolved by Commission-approved settlement agreements.

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### **FAC Adjustment**

- 10 Q. Please explain the adjustment to operating expenses and revenues to eliminate 11 the FAC revenues shown in Schedule D-2.
- 12 A. Consistent with past Commission practice in the Company's prior base rate cases, this
  13 adjustment eliminates the difference between fuel expenses and base fuel revenues.
  14 The operating revenue and expense components of the adjustment for both the base
  15 period and the forecasted test period are shown in the column labeled "Adj 3 Remove
  16 FAC Mechanism" of Schedule D-2. The supporting details are contained in Schedule
  17 WPD-2.<sup>18</sup>

<sup>17</sup> Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Review, Modification, and Continuation of Existing, and Addition of New, Demand-Side Management and Energy Efficiency Programs, Case No. 2014-00003 (Ky. PSC Nov. 14, 2014).

The Commission has previously reviewed and accepted adjustments similar to the proposed adjustment. See An Adjustment of the Electric Rates, Terms and Conditions of Kentucky Utilities Company, Case No. 2003-00434 (Ky. PSC June 30, 2004) at 22; Application of Kentucky Utilities Company For An Adjustment of Base Rates, Case No. 2009-00548 (Ky. PSC July 30, 2010).at 18. In Cases No. 2008-00251, No. 2012-00221, and No. 2014-00371, base rate cases that were resolved by Commission –approved settlement agreements, KU also proposed similar adjustments.

### **OSS Adjustment**

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2	Q.	Please explain the adjustment to operating expenses and revenues to eliminate
3		off-system sales revenues, OSS mechanism revenues, and off-system sales
4		expenses shown in Schedule D-2.

In the Company's last base rate case, Case No. 2014-00371, the Commission ordered that an OSS be implemented under which electric off-system sales margins would be shared on a 75 percent - 25 percent basis between customers and KU. Commission further ordered that off-system sales margins attributable to customers (seventy-five percent) be flowed through the FAC.

Consistent with the Commission's practice of eliminating the revenues and expenses associated with full-cost-recovery trackers, an adjustment was made to eliminate off-system sales revenues, OSS mechanism revenues, and off-system sales expenses included in the forecasted test period. The operating revenue and expense component of the adjustment for the base period and the forecasted test period are shown in the column labeled "ADJ 4 Remove OSS Mechanism" of Schedule D-2. Supporting details are contained in WPD-2. Off-system revenues and expenses will continue to be addressed through the OSS mechanism after the implementation of new base rates

### **ECR Adjustments**

- 20 0. Please explain the adjustment to operating expenses and revenues to eliminate ECR revenues and expenses shown in Schedule D-2.
  - A. Consistent with the Commission's practice of eliminating the revenues and expenses associated with full-cost-recovery trackers, an adjustment was made to eliminate ECR revenues and expenses during the forecasted test period that will continue to be

included through the ECR mechanism after the implementation of new base rates. The operating revenue and expense components of the adjustment for both the base period and the forecasted test period are shown in the column labeled "Adj 2 Remove ECR Mechanism" of Schedule D-2. The supporting details are contained in Schedule WPD-2. The ECR surcharge provides for full recovery of approved environmental costs that qualify for the surcharge.

Consistent with the Commission's Order in Case No. 2009-00310 approving the use of the revenue requirement method for calculating the monthly ECR billing factor, KU is removing all ECR revenues collected in the environmental surcharge and in base rates. <sup>19</sup> The removal of ECR revenues from base rates is necessary to ensure base revenues reflect only base rate components and costs are recovered through the appropriate rate-making mechanism. KU proposed such an adjustment using this methodology in Cases No. 2012-00221 and No. 2014-00371, both of which were resolved by Commission-approved settlement agreements.

- Q. Please explain the adjustment to operating revenues shown in Schedule D-2.1 that concerns off-system sales revenues related to the ECR calculation.
- A. In determining the monthly ECR surcharge, a portion of KU's environmental compliance costs are allocated to off-system sales, including intercompany sales, through the jurisdictional allocation ratio. Because total ECR expenses are removed through the adjustment in Schedule D-2, the expenses associated with off-system and intercompany sales are understated. This results in a mismatch of the revenues and

<sup>&</sup>lt;sup>19</sup> An Examination By The Public Service Commission of the Environmental Surcharge Mechanism of Kentucky Utilities Electric Company for the Two-Year Billing Period Ending April 30, 2009, Case No. 2009-00310 (Ky. PSC Dec. 2, 2009).

expenses related to the off-system and intercompany sales portion of the allocated environmental surcharge monthly revenue requirement. KU has included in this adjustment a reduction to electric revenues associated with ECR-related off-system and intercompany sales revenues. The electric operating revenue components of this adjustment are shown in the column labeled "Adj 6 ECR for Off-System Sales" of Schedule D-2.1. The supporting details are contained in Schedule WPD-2.1.

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KU performed the adjustment in a manner consistent with the methodology used in Cases No. 2009-00548, No. 2012-00221, and No. 2014-00371. The Commission found the adjustment reasonable in Case No. 2009-00548. Cases No. 2012-00221 and No. 2014-00371 were resolved by Commission-approved settlement agreements.

- Please explain the adjustments shown in Schedule J-1.1/1.2 and Supporting Schedule B-1.1, which remove ECR rate base from the Company's rate base and capitalization, respectively.
- Removing the Company's ECR rate base from its capitalization and rate base is necessary because the Company is recovering its investment, as well as a return on its investment, through the ECR mechanism. Column 3 of Supporting Schedule B-1.1 removes ECR rate base from the Company's rate base and Column H of page 1 of Schedule J-1.1/1.2 removes ECR rate base and other mechanism-related rate base from the Company's capitalization.

The Company performed these adjustments using a methodology the Commission approved in Cases No. 2009-00548 and No. 2003-00434 and the

1	Company proposed in Cases No. 2014-00371, No. 2012-00221 and No. 2008-00251,
2	which were resolved by Commission-approved settlement agreements.

# Q. Has the Company proposed any other adjustments related to its ECR mechanism?

A. Yes. The Company proposes to remove from base rates approximately \$10.3 million of capital costs for environmental compliance and to recover those expenditures though the ECR mechanism.

In Case No. 2014-00371, KU included capital costs for five environmental projects not yet included in an approved ECR plan in its revenue requirement calculation. These projects are designed to comply with the Coal Combustion Residual Rule and involved the construction of a landfill (Project 36) and the closure of a surface impoundment (Project 42) at the E.W. Brown Generating Station, the closure of surface impoundments at the Green River Generating Station (Project 39); the closure of surface impoundments at the Ghent Generating Station (Project 40) and the closure of surface impoundments Trimble County Station (Project 41). The Commission approved these projects as part of the Company's 2016 ECR Compliance Plan in Case No. 2016-00026.<sup>20</sup>

Using the 13-month average capital expenditure for the period from July 1, 2015 through June 30, 2016, the Company determined that approximately \$10.3 million of capital expenditures on these projects were included in the Company's base rates. Exhibit CMG-1 shows this calculation. In Case No. 2016-00026, the Company

<sup>&</sup>lt;sup>20</sup> Application of Kentucky Utilities Company For Certificates of Public Convenience and Necessity and Approval of Its 2016 Compliance Plan For Recovery By Environmental Surcharge, Case No. 2016-00026 (Ky. PSC Aug. 8, 2016).

reported the inclusion of these capital expenditures in base rates and excluded those expenditures from the Project Costs for which it sought recovery through the ECR mechanism.<sup>21</sup> The portion of these Projects included in base rates represents approximately 1.5 percent of the Projects' estimated total cost of \$677.7 million.

As the projected expenditures in the previous base rate case constitute only a very small portion of the total project costs and the forecast used for the projection is no longer applicable, the Company proposes to synchronize the ECR with the proposed change in base rates by removing the capital expenditures from base rates and including them in its ECR mechanism.

- Q. Will the proposed treatment affect the total revenue related to the capital expenditures the Company recovers?
- A. No. The Company will recover the same approximate amount of revenue related to the capital expenditures regardless of the method of recovery. However, permitting recovery of the projects' entire costs through the ECR mechanism rather than dividing the recovery of the costs between the ECR mechanism and base rates will simplify accounting for the projects and make Commission oversight of the recovery of those costs much easier.

### **Interest Synchronization Adjustment**

Q. Please explain the adjustment shown in Schedule D-2 labeled "Adj 5 Interest
 Synchronization."

Direct Testimony of Christopher M. Garrett at 7-8 (filed Jan. 29, 2016); KU's Response to Commission Staff's Initial Request for Information, Items 1 and 4-7 (filed Mar. 24, 2016); KU's Supplemental Response to Commission Staff's Initial Request for Information, Items 1 and 4-7 (filed Apr. 19, 2016).

This adjustment is for federal and state income taxes corresponding to the adjustment of interest expense. The Commission has historically recognized the income tax effects of adjustments to interest expense through an "interest synchronization" adjustment. Income tax expense is adjusted to remove the tax benefit for the deduction of interest on debt capitalization associated with capital projects recovered through the other rate mechanisms, predominantly the ECR surcharge. The interest expense included in KU's "Jurisdictional Adjusted Capital" is computed from Schedule J-1.1/J-1.2 Column I and that amount is then compared to KU's interest per books (excluding other interest) to arrive at the interest synchronization amount. The composite federal and state income tax rate is then applied to the interest synchronization amount. The supporting details are contained in Schedule WPD-2. The Company performed the adjustment consistent with the methodology used in its last base rate case, Case No. 2014-00371.

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# NON-MECHANISM-RELATED ADJUSTMENTS

# **Customer Account Changes**

- Please explain the adjustments to operating revenues and expenses shown in the column labeled "Adj 7 Customer Account Changes" on Schedule D-2.1.
  - The column labeled "Adj 7 Customer Account Changes" on Schedule D-2.1 shows the revenue impacts associated with three customer account changes that should be included in the forecasted test period. These changes are described below. The support for each revenue adjustment is shown in work-paper Schedule WPD-2.1.

First, revenues from KU's Rider RC (Redundant Capacity) were inadvertently excluded from forecasted test period data. The operating revenue adjustments calculated in the rows labeled "CUST 442.2 Redundant Capacity Rider Revenue,"

"CUST 442.3 Redundant Capacity Rider Revenue," and "CUST 445 Redundant Capacity Rider Revenue" in Schedule WPD-2.1 increase revenues to reflect the projected revenues from KU's Rider RC customers. Specific details of the calculations are shown in Exhibit CMG-2.

Second, KU has a contract with a customer ("Customer A") to provide service under Rider SS (Supplemental or Standby Service) when Customer A's own generation is unavailable. Customer A is the sole customer receiving service under Rider SS. The revenue from this contract was inadvertently excluded from forecasted test period data. The operating revenue adjustments calculated in the row labeled "CUST 442.3 Standby Service Revenue" in Schedule WPD-2.1 increase revenues to reflect the projected revenues from Rider SS service. As KU proposes to discontinue Rider SS, revenue from Rider SS will cease upon approval of the proposed discontinuance. Specific details of the calculations are shown in Exhibit CMG-3.

Third, the forecasted load for KU's Granville lighting fixtures was based on historical billed data that was not adjusted to reflect the sale of KU's Granville lighting fixtures to the Lexington-Fayette Urban County Government in early 2015. As a result, KU's revenues from Rate RLS (Restricted Lighting Service) should be reduced. The operating revenue adjustments calculated in the row labeled "CUST 445 Granville Light Revenue" on Schedule WPD-2.1 decrease revenues to reflect the appropriate projected revenues from KU's Granville lighting fixtures. Specific details of the calculations are shown in Exhibit CMG-4.

### **Advertising Expenses**

Q. Please explain the adjustment to electric operating expenses shown in the column labeled "Adj 8 Advertising Expenses" on Schedule D-2.1.

A. This adjustment eliminates *all* institutional and promotional advertising expenses.

Commission regulation 807 KAR 5:016 Section 2(1) provides that a utility will be allowed to recover, for ratemaking purposes, only those advertising expenses that produce a "material benefit" for its ratepayers. In previous rate cases the Company has proposed, and the Commission has approved, adjustments to remove only the portion of its advertising expenses attributable to primarily institutional or promotional advertisements.<sup>22</sup>

# JURISDICTIONAL FEDERAL AND STATE INCOME TAX SUMMARY

- 9 Q. Has the Company prepared a jurisdictional federal and state income tax
  10 summary for both base and forecasted test periods as required by 807 KAR
  11 5:001 Section 16(8)(e)?
- 12 A. Yes. This information ("Schedule E") is located in Tab 58 to the application.
- 13 O. Please describe Schedule E.

8

A. Schedule E has two parts: Schedule E-1 shows the Company's jurisdictional income tax at current rates for the base period and shows pro forma adjustments at both current and proposed rates for the forecasted test period; Schedule E-2 shows how the jurisdictional allocation was derived. This allocation was based on the same methodology KU has historically used in its base rate cases, and is unchanged from its last rate case, Case No. 2014-00371. The effective tax rate, computed as "Total Income Taxes" per row 98 divided by "Book Net Income before Income Tax &

The Commission determined such adjustments to be reasonable in Cases No. 2003-00434 and No. 2009-00548, two of KU's previous base-rate cases. KU proposed such an adjustment in Cases No. 2008-00251 and No. 2012-00221, which were resolved by settlement agreements approved by the Commission.

1 Credits" per row 3, is 38.4 percent for the base period and 38.3 percent for the pro 2 forma forecasted test period.

# **GROSS REVENUE CONVERSION FACTOR**

- 4 Q. Has the Company prepared a computation of a gross revenue conversion factor for the forecasted test period as required by 807 KAR 5:001 Section 16(8)(h)?
- 6 A. Yes. This information ("Schedule H") is located at Tab 61 to the application.
- 7 Q. Please describe Schedule H.

A.

Schedule H sets forth the calculation of the gross revenue conversion factor ("GRCF"). This is the factor, or multiplier, used to gross-up the operating income deficiency to a revenue deficiency amount. The use of a GRCF is a long-standing practice in calculating the revenue requirement. This factor is designed to cover income taxes, uncollectible accounts expense and revenue-based fees assessed by the Commission on the requested revenue increase. The federal and state income tax rates are calculated as shown in the attached Workpaper WPH-1.A at Tab 61. The federal income tax rate calculation excludes the production activities deduction (Section 199) given KU's net operating loss carryforward as a result of the extension of bonus depreciation. The uncollectible accounts expense rate of 0.352 percent is based on the historic 5-year average. The rate used for the KPSC assessment fee is based on the last assessment notice received by the Company. The GRCF is used to compute the respective calculated revenue deficiency based on the associated calculated net operating income deficiency.

# 22 <u>CREATION OF REGULATORY ASSET FOR RETIRED METERS</u>

Q. Please describe the accounting treatment the Companies are requesting for the net book value of their existing electric meters.

1 A. In his testimony, John Malloy discusses the Companies' plan to deploy an AMS. As
2 a consequence of this deployment, the Companies' existing electric meters will be
3 retired. The Companies are requesting authority to reflect the remaining net book

value of these electric meters in a regulatory asset account after the meters are retired.

- 5 Q. What is the estimated net book value of the meters KU plans to retire?
- 6 A. The estimated net book value is \$26,934,708.

4

- 7 Q. Has the Commission previously allowed electric utilities to recognize a regulatory asset for such a purpose?
- 9 A. Yes. In Case No. 2014-00376,<sup>23</sup> the Commission authorized Kenergy Corp. to record
  10 as a regulatory asset the net book value of electric meters Kenergy Corp. planned to
  11 retire as part of its deployment of an advanced metering infrastructure system. The
  12 Commission has authorized the creation of regulatory assets under similar
  13 circumstances for Shelby Electric Cooperative<sup>24</sup> and Taylor County Rural Electric
  14 Cooperative Corporation<sup>25</sup>.
- 15 Q. Under what circumstances has the Commission previously authorized the 16 creation of a regulatory asset?
- 17 A. The most common instances in which the Commission has authorized the creation of 18 a regulatory asset have been where a utility has incurred: (1) an extraordinary, 19 nonrecurring expense which could not have reasonably been anticipated or included 20 in the utility's planning; (2) an expense resulting from a statutory or administrative

Request of Kenergy Corp. for Approval to Establish a Regulatory Asset in the Amount of \$3,884,717 Amortized Over a Ten (10) Year Period, Case No. 2015-00141 (Ky. PSC Aug. 31, 2015).

<sup>&</sup>lt;sup>24</sup> Request of Shelby Electric Cooperative for Approval to Establish a Regulatory Asset in the Amount of \$443,562.75 and Amortized the Amount Over a Period of Five (5) Years, Case No. 2012-00102 (Ky. PSC Apr. 16, 2012).

<sup>&</sup>lt;sup>25</sup> Filing of Taylor County Rural Electric Cooperative Corporation Requesting Approval of Deferred Plan for Retiring Meters, Case No. 2008-00376 (Ky. PSC Dec. 9, 2008).

- directive; (3) an expense in relation to an industry sponsored initiative; or (4) an extraordinary or nonrecurring expense that over time will result in a saving that fully offsets the cost.<sup>26</sup>
- 4 Q. Are the circumstances of the Company's request for a regulatory asset account similar to those circumstances?
- A. Yes. The proposed retirement of the Company's existing electric meters to permit

  AMS deployment across the System is an extraordinary and non-recurring expense

  that will produce savings that fully offset the costs associated with the existing

  meters' retirement. For a detailed discussion of the benefits and savings that will

  result from AMS deployment, please refer to Mr. Malloy's testimony in this

  proceeding.
- 12 Q. If the creation of a regulatory asset account for the remaining net book value of 13 replaced electric meters is authorized, what journal entry will the Company 14 make to reflect the creation of this account?
- 15 A. In summary, the Company will make the following journal entry to reflect the 16 retirement of the electric meters and the creation of the regulatory asset account:

		2019
Account No.	Description	DR (CR)
	Accumulated provision for depreciation of electric	
108	utility plant	\$ 36,251,959
182.2	Unrecovered plant and regulatory study costs	\$ 26,934,708
101	Electric plant in service	\$ (63,186,667)

The actual recording of the regulatory asset will be dependent upon the book value, net of accumulated depreciation, of the related retired meters.

17

18

<sup>&</sup>lt;sup>26</sup> The Application of East Kentucky Power Cooperative, Inc. for an Order Approving Accounting Practices to Establish a Regulatory Asset Related to Certain Replacement Power Costs Resulting from Forced Outages, Case No. 2008-00436 (Ky. PSC Dec. 23, 2008).

- 1 Q. What effect, if any, will authorization to create the requested regulatory asset
- 2 have on the base rates proposed in this proceeding?
- 3 A. None. The Company has not proposed to begin amortization of the regulatory asset
- 4 in this case to avoid double recovery of costs until the AMS program is implemented
- 5 and cost savings are realized. It recognizes such recovery would be subject to
- 6 Commission review and approval in a future base rate proceeding.

# 7 <u>AMORTIZATION OF REGULATORY LIABILITY FOR REFINED COAL</u> 8 <u>ARRANGEMENTS</u>

- 9 Q. Briefly describe the accounting treatment approved by the Commission 10 regarding the Company's refined coal arrangements and the proposed 11 amortization of the regulatory liability included in this proceeding.
  - A. In Case No. 2015-00264,<sup>27</sup> the Commission authorized LG&E and KU to establish regulatory liabilities for the proceeds, including any reservation or termination fees, from agreements related to the installation and operation of certain refined coal production facilities at their Ghent, Mill Creek, and Trimble County Generating Stations. The Commission further provided that this liability should be addressed at the next general rate proceeding of each Company. KU projects jurisdictional reservation and termination fees of \$861,843 pursuant to these agreements by December 31, 2016 and has recognized this amount as a regulatory liability in this proceeding. It proposes to amortize this liability over three years. The journal entry KU included in the forecasted test year to amortize this liability is shown below. To

<sup>&</sup>lt;sup>27</sup> Application of Louisville Gas and Electric Company and Kentucky Utilities Company Regarding Entrance Into Refined Coal Agreements, For Proposed Accounting and Fuel Adjustment Clause Treatment, and For Declaratory Ruling, Case No. 2015-00264 (Ky. PSC Nov. 24, 2015).

the extent actual reservation and termination fees differ from the projected results, KU proposes to true-up the amount in this proceeding.

		FC TYE
Account No.	<u>Description</u>	6/30/2018
254	Other regulatory liabilities	\$ 287,281
456	Other electric revenues	\$ (287,281)
	(KY Jurisdictional)	

### **DEPRECIATION STUDY**

# 2 Q. Why did KU choose Mr. John Spanos of Gannett Fleming, Inc. to conduct its

# 3 **new depreciation study?**

1

- 4 A. Mr. Spanos has extensive experience in the regulated utility accounting field, and
- 5 particularly in the area of depreciation rates. Mr. Spanos is a member of the Society
- of Depreciation Professionals, and has submitted testimony to over twenty-five
- 7 regulatory commissions on the subject of utility plant depreciation. He has
- 8 previously prepared depreciation studies for KU that were presented to the
- 9 Commission in Cases No. 2007-00565, 28 No. 2012-00221, No. 2014-00371 and No.
- 10 2016-00063.<sup>29</sup>

### 11 Q. What did KU ask Mr. Spanos to do?

- 12 A. Maintenance of sound depreciation rates requires periodic reviews and assessments.
- Four years have passed since KU's last study and a new study is needed to ensure
- depreciation rates are appropriate.<sup>30</sup> The Commission has indicated that utilities

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<sup>&</sup>lt;sup>28</sup> Application of Kentucky Utilities Company to File Depreciation Study, Case No. 2007-00565 (Ky. PSC filed Dec. 28, 2007).

<sup>&</sup>lt;sup>29</sup> Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company For Approval of Depreciation Rates For Brown Solar, Case No. 2016-00063 (Ky. PSC Apr. 8, 2016)

KU's business policy is to review and update its depreciation rates approximately every five years.

should periodically review and update their depreciation rates.<sup>31</sup> Accordingly, KU asked Mr. Spanos to perform an independent depreciation study, using data from historical records of KU's plant, his generation asset life assessment analysis of KU's assets, and his extensive experience in depreciation studies. The purpose of the study was to evaluate KU's depreciation rates and, if necessary, recommend updated depreciation rates to reflect the actual deprecation of KU's assets.

# Q. What did Mr. Spanos find and recommend?

A. As in the case of many depreciation studies, Mr. Spanos found KU's current depreciation rates need to be updated to fully reflect the current or actual depreciation of KU's assets. Mr. Spanos recommended KU continue to use the Average Service Life ("ASL") and remaining life basis methodology of depreciation, consistent with the method and resulting rates the Commission accepted in the settlement of Cases No. 2007-00565, No. 2008-00251, and No. 2012-00221. The study resulted in revised life and salvage parameters based on updated historical information, industry benchmarks and site visits to KU's facilities.

# Q. Did KU accept Mr. Spanos' recommendation to use the ASL methodology in its new depreciation study?

Yes. KU accepted Mr. Spanos' recommendation to continue to use the ASL and remaining life basis methodology because it reasonably allocates depreciation over the remaining useful lives of KU's assets.

A.

<sup>&</sup>lt;sup>31</sup> See, e.g., Adjustment of Rates of Fleming-Mason Energy Cooperative Corporation, Case No. 2001-00244 (Ky. PSC Aug. 7, 2002).

# **CONCLUSION**

# 2 Q. Do you have any recommendations for the Commission?

A. Yes. I recommend that the Commission: (1) approve the removal of approximately \$10.3 million of capital costs for environmental compliance from base rates and permit their recovery through the ECR mechanism; (2) authorize the creation of a regulatory asset account to reflect the remaining net book value of the electric meters that will be retired as a consequence of the Company's deployment of AMS; (3) approve the proposed amortization of the regulatory liability for the proceeds from agreements related to the installation and operation of certain refined coal production facilities; and (4) accept and approve the depreciation rates set forth in Mr. Spanos' depreciation study.

# 12 Q. Does this conclude your testimony?

13 A. Yes, it does.

# VERIFICATION

COMMONWEALTH OF KENTUCKY	)	
	)	SS:
COUNTY OF JEFFERSON	)	

The undersigned, Christopher M. Garrett, being duly sworn, deposes and says that he is Director – Rates for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.

Christopher M. Garrett

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 18th day of 18th day of 2016.

Jany Dubles

(SEAL)

My Commission Expires:

JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2018
Notary ID # 512743

### APPENDIX A

# **Christopher M. Garrett**

Director, Rates LG&E and KU Services Company 220 West Main Street Louisville, Kentucky 40202

Telephone: (502) 627-3328

# **Previous Positions:**

Director, Accounting and Regulatory Reporting	Dec 2012 – Jan 2016
Director, Financial Planning & Controlling	Feb 2010 - Nov 2012
Manager, Financial Planning	Nov 2007 – Feb 2010
Manager, Corporate Accounting	Jan 2006 – Oct 2007
Manager, Utility Tax	May 2002 – Jan 2006
Tax Analyst, various positions	Aug 1995 – May 2002

# **Education:**

Eastern Kentucky University, Bachelor of Business Administration - Accounting, 1995 Graduated Magna Cum Laude Certified Public Accountant, Kentucky, 1999

# **Professional Memberships:**

American Institute of Certified Public Accountants (AICPA) Kentucky Society of Certified Public Accountants (KSCPA)

# **Civic Activities:**

St. Joseph School Board Member

# Exhibit CMG-1 2016 ECR Plan Capital Expenditures in Base Rates

KU Project	Control Facility	Generating Station	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Revised Amount in Base Rates (13- Month Average)
36	CCR Storage Landfill (Phase II)	Brown Station	\$0	\$0	\$0.5	\$1.1	\$1.6	\$1.9	\$2.2	\$2.5	\$2.7	\$3.0	\$3.3	\$3.6	\$4.4	\$2.1
39	Surface Impoundment Closure	Green River Station	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.1	\$0.3	\$0.4	\$0.1
39	Surface Impoundment Closure	Pineville Station	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39	Surface Impoundment Closure	Tyrone Station	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
40	CCR Rule Compliance Construction and Construction of New Process Water Systems	Ghent Station	\$0.5	\$0.7	\$0.9	\$1.0	\$1.3	\$1.6	\$1.9	\$4.2	\$6.6	\$8.9	\$13.7	\$18.4	\$23.1	\$6.4
41	CCR Rule Compliance Construction and Construction of New Process Water Systems	Trimble County Station	\$0.1	\$0.2	\$0.2	\$0.2	\$0.3	\$0.4	\$0.4	\$0.7	\$1.0	\$1.3	\$1.9	\$2.5	\$3.1	\$1.0
42	CCR Rule Compliance Construction and Construction of New Process Water Systems	Brown Station	\$0	\$0.1	\$0.1	\$0.2	\$0.3	\$0.4	\$0.4	\$0.7	\$0.9	\$1.2	\$1.6	\$2.1	\$2.6	\$0.8
Total KU (\$ Millions)			\$0.7	\$0.9	\$1.8	\$2.6	\$3.5	\$4.2	\$4.9	\$8.1	\$11.3	\$14.5	\$20.7	\$26.9	\$33.7	\$10.3

Note: Values represent project cumulative capital expenditures since project inception by month.

# Exhibit CMG-2 Redundant Capacity Adjustment

# KENTUCKY UTILITIES COMPANY

# Case No. 2016-00370

# Adjustment to Reflect Billed Redundant Capacity Not in Revenue Forecast

		Avorago				Average						
		Average Contracted	D.	edundant	Monthly Redundant							
Rate							EI	ERC Acct	EE	DC A set	EE	RC Acct
		Monthly	(	Capacity	Capacity		г		FERC Acct		ГE	
Schedule	C t 1	Demand	Φ.	Rate		Revenue	Φ	442.2		442.3		445
PSS	Customer 1	225	\$	1.12	\$	252	\$	252				
PSP	Customer 1	650	\$	1.11	\$	722	\$	722				
TODS	Customer 1	420	\$	1.12	\$	470			\$	470		
	Customer 2	452	\$	1.12	\$	506			\$	506		
	Customer 3	500	\$	1.12	\$	560			\$	560		
	Customer 4	718	\$	1.12	\$	804			\$	804		
	Customer 5	1,500	\$	1.12	\$	1,680	\$	1,680				
	Customer 6	1,500	\$	1.12	\$	1,680	\$	1,680				
	Customer 7	270	\$	1.12	\$	302	\$	302				
	Customer 8	1,460	\$	1.12	\$	1,635	\$	1,635				
		6,820	•		\$	7,638	\$	5,297	\$	2,341	\$	-
TODP	Customer 1	4,177	\$	1.11	\$	4,637			\$	4,637		
	Customer 2	2,100	\$	1.11	\$	2,331	\$	2,331		,		
	Customer 3	2,128	\$	1.11	\$	2,362		<b>9</b>			\$	2,362
	Customer 4	1,636	\$	1.11	\$	1,816					\$	1,816
	Customer 5	1,922	\$	1.11	\$	2,134					\$	2,134
	Customer 6	1,412	\$	1.11	\$	1,567	\$	1,567				
		13,375			\$	14,847	\$	3,898	\$	4,637	\$	6,312
		Total Monthly RC Revenue			\$	23,459	\$	10,169	\$	6,978	\$	6,312
		A	nnu	al revenue	\$	281,504	\$	122,025	\$	83,736	\$	75,743

# Exhibit CMG-3 Customer A Standby Revenue Adjustment

# KENTUCKY UTILITIES COMPANY Case No. 2016-00370 Customer A Standby Revenues Adjustment

# Contract for Standby Service (Rate SS) 800 kW-Month Contract Capacity

	kW	Rate	F	Revenue
Jul-17	800	\$ 11.63	\$	9,304
Aug-17	800	\$ 11.63	\$	9,304
Sep-17	800	\$ 11.63	\$	9,304
Oct-17	800	\$ 11.63	\$	9,304
Nov-17	800	\$ 11.63	\$	9,304
Dec-17	800	\$ 11.63	\$	9,304
Jan-18	800	\$ 11.63	\$	9,304
Feb-18	800	\$ 11.63	\$	9,304
Mar-18	800	\$ 11.63	\$	9,304
Apr-18	800	\$ 11.63	\$	9,304
May-18	800	\$ 11.63	\$	9,304
Jun-18	800	\$ 11.63	\$	9,304
Total	9,600		\$	111,648
Total Increme	ental Revenue		\$	111,648

# Exhibit CMG-4

Adjustment for Removal of Granville Light Revenue

# KENTUCKY UTILITIES COMPANY Case No. 2016-00370 Adjustment for Removal of Granville Light Revenue

Month	Rate		Fore	caste	ed .	Co	rrected		Р	roforma
WOITH		nate	# of Lights	ı	Revenue	# of Lights	Re	evenue	Adjustment	
Sep-16	\$	62.30	3	\$	215	4	\$	249	\$	35
Oct-16	\$	62.30	4	\$	240	4	\$	249	\$	9
Nov-16	\$	62.30	4	\$	251	4	\$	249	\$	(2)
Dec-16	\$	62.30	4	\$	246	4	\$	249	\$	3
Jan-17	\$	62.30	170	\$	10,586	4	\$	249	\$	(10,337)
Feb-17	\$	62.30	175	\$	10,922	4	\$	249	\$	(10,673)
Mar-17	\$	62.30	4	\$	275	4	\$	249	\$	(26)
Apr-17	\$	62.30	4	\$	234	4	\$	249	\$	15
May-17	\$	62.30	4	\$	257	4	\$	249	\$	(8)
Jun-17	\$	62.30	4	\$	267	4	\$	249	\$	(18)
Jul-17	\$	62.30	4	\$	248	4	\$	249	\$	1
Aug-17	\$	62.30	4	\$	232	4	\$	249	\$	17
Total			385	\$	23,974	48	\$	2,990	\$	(20,984)

# COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

# In the Matter of: APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES AND CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY DIRECT TESTIMONY OF JOHN J. SPANOS ON BEHALF OF KENTUCKY UTILITIES COMPANY

Filed: November 23, 2016

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III.	CONCLUSION	- 13 -

# I. <u>INTRODUCTION AND PURPOSE</u>

### 1 Q. PLEASE STATE YOUR NAME AND ADDRESS.

- 2 A. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp Hill,
- 3 Pennsylvania.

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# 4 Q. ARE YOU ASSOCIATED WITH ANY FIRM?

- 5 A. Yes. I am associated with the firm of Gannett Fleming Valuation and Rate Consultants,
- 6 LLC ("Gannett Fleming").

# 7 Q. CAN YOU BRIEFLY DESCRIBE GANNETT FLEMING?

A. Yes. Gannett Fleming, Inc. is an international engineering consulting firm with expertise in numerous disciplines. Founded in 1915, Gannett Fleming Inc. has a long history of The firm's headquarters is located in suburban Harrisburg, consulting services. Pennsylvania. Regional offices are maintained in 22 states, two Canadian provinces, and an office in Abu Dhabi, United Arab Emirates. With 2,000 highly qualified individuals across a global network of 60 offices, we help shape infrastructure and improve communities in more than 65 countries. Gannett Fleming Valuation and Rate Consultants, LLC and its predecessor, the Valuation and Rate Division of Gannett Fleming, Inc., have provided service to utility companies since the late 1930s and, in the last five years alone, have prepared over 100 depreciation and valuation studies. The Gannett Fleming Valuation and Rate Consultants, LLC (Gannett Fleming) staff has an unparalleled depth and breadth of experience in the field of depreciation. This expertise has been gained not only by conducting depreciation studies but also by actively participating within the depreciation field as educators and members of organizations that form depreciation standards.

# 1 Q. HOW LONG HAVE YOU BEEN ASSOCIATED WITH GANNETT FLEMING?

- 2 A. I have been associated with the firm since college graduation in June, 1986.
- 3 Q. WHAT IS YOUR POSITION WITH THE FIRM?
- 4 A. I am Senior Vice President.
- 5 Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?
- 6 A. I have Bachelor of Science degrees in Industrial Management and Mathematics from
- 7 Carnegie-Mellon University and a Master of Business Administration from York College
- 8 of Pennsylvania.
- 9 Q. DO YOU BELONG TO ANY PROFESSIONAL SOCIETIES?
- 10 A. Yes. I am a member and past President of the Society of Depreciation Professionals. I am
- also a member of the American Gas Association/Edison Electric Institute Industry
- 12 Accounting Committee.
- 13 Q. DO YOU HOLD ANY SPECIAL CERTIFICATION AS A DEPRECIATION
- 14 **EXPERT?**
- 15 A. Yes. The Society of Depreciation Professionals has established national standards for
- depreciation professionals. The Society administers an examination to become certified in
- this field. I passed the certification exam in September 1997 and was recertified in August
- 18 2003, February 2008, and January 2013.
- 19 Q. HAVE YOU HAD ANY ADDITIONAL EDUCATION RELATING TO UTILITY
- 20 **PLANT DEPRECIATION?**
- 21 A. Yes. I have completed the following courses conducted by Depreciation Programs, Inc.:
- 22 "Techniques of Life Analysis," "Techniques of Salvage and Depreciation Analysis,"
- 23 "Forecasting Life and Salvage," "Modeling and Life Analysis Using Simulation," and

1 "Managing a Depreciation Study." I have also completed the "Introduction to Public 2 Utility Accounting" program conducted by the American Gas Association. 3 Q. PLEASE OUTLINE YOUR EXPERIENCE IN THE FIELD OF DEPRECIATION. 4 A. Yes. I have 30 years of depreciation experience which includes giving expert testimony in 5 over 230 cases before 40 regulatory commissions, including this Commission. Please refer to Exhibit JJS-1 for my qualifications. In addition to the cases that I have submitted 6 testimony, I have supervised in over 400 other depreciation or valuation projects. 7 8 0. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING? 9 I sponsor the depreciation study that Gannett Fleming performed for Kentucky Utilities A. 10 Company attached hereto as Exhibit JJS-KU-1. II. **DEPRECIATION STUDY** 11 PLEASE DEFINE THE CONCEPT OF DEPRECIATION. Q. 12 A. Depreciation refers to the loss in service value not restored by current maintenance, 13 incurred in connection with the consumption or prospective retirement of utility plant in 14 the course of service from causes which can be reasonably anticipated or contemplated, 15 against which the company is not protected by insurance. Among the causes to be given 16 consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, 17 changes in the art, changes in demand and the requirements of public authorities. 18 O. DID YOU PREPARE THE DEPRECIATION STUDY FILED BY KENTUCKY UTILITIES COMPANY IN THIS PROCEEDING? 19

JOHN J. SPANOS DIRECT

Yes. I prepared the depreciation study submitted by Kentucky Utilities Company with its

filing in this proceeding. This study is attached as Exhibit JJS-KU-1. My report is

entitled: "2015 Depreciation Study - Calculated Annual Depreciation Accruals Related to

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22

A.

1		Electric Plant as of December 31, 2015." This report sets forth the results of my
2		depreciation study for Kentucky Utilities Company.
3	Q.	IN PREPARING THE DEPRECIATION STUDY, DID YOU FOLLOW
4		GENERALLY ACCEPTED PRACTICES IN THE FIELD OF DEPRECIATION
5		VALUATION?
6	A.	Yes.
7	Q.	ARE THE METHODS AND PROCEDURES OF THIS DEPRECIATION STUDY
8		CONSISTENT WITH PAST PRACTICES?
9	A.	The methods and procedures of this study are the same as those utilized in past studies of
10		this Company as well as others before this Commission. The depreciation rates
11		recommended in my study are determined based on the average service life procedure and
12		the remaining life method.
13	Q.	ARE THE UNDERLYING LIFE AND SALVAGE PARAMETERS AND
14		RESULTING DEPRECIATION ISSUES IN THIS STUDY CONSISTENT WITH
15		INDUSTRY TRENDS?
16	A.	Yes. The life and salvage parameters for KU has changed consistently with others in the
17		industry as well as the major changes to steam production asset mix.
18	Q.	PLEASE DESCRIBE THE CONTENTS OF YOUR REPORT.
19	A.	The Depreciation Study is presented in nine parts; Part I, Introduction, presents the scope
20		and basis for the depreciation study. Part II, Estimation of Survivor Curves, includes
21		descriptions of the methodology of estimating survivor curves. Parts III and IV set forth
22		the analysis for determining life and net salvage estimates. Part V, Calculation of Annual
23		and Accrued Depreciation, includes the concepts of depreciation and amortization using

the remaining life. Part VI, Results of Study, presents a description of the results of my analysis and a summary of the depreciation calculations. Parts VII, VIII and IX include graphs and tables that relate to the service life and net salvage analyses, and the detailed depreciation calculations by account.

A.

Table 1 on pages VI-4 through VI-9 presents the estimated survivor curve, the net salvage percent, the original cost as of December 31, 2015, the book depreciation reserve and the calculated annual depreciation accrual and rate for each account or subaccount. The section beginning on page VII-2 presents the results of the retirement rate analyses prepared as the historical bases for the service life estimates. The section beginning on page VIII-2 presents the results of the salvage analysis. The section beginning on page IX-2 presents the depreciation calculations related to surviving original cost as of December 31, 2015.

### O. PLEASE EXPLAIN HOW YOU PERFORMED YOUR DEPRECIATION STUDY.

I used the straight line remaining life method of depreciation, with the average service life procedure. The annual depreciation is based on a method of depreciation accounting that seeks to distribute the unrecovered cost of fixed capital assets over the estimated remaining useful life of each unit, or group of assets, in a systematic and reasonable manner.

For General Plant Accounts 391.1, 391.2, 391.31, 393, 394, 397.1 and 397.2 in electric plant, I used the straight line remaining life method of amortization. The account numbers identified throughout my testimony represent those in effect as of December 31, 2015. The annual amortization is based on amortization accounting that distributes the unrecovered cost of fixed capital assets over the remaining amortization period selected for each account and vintage.

1	Q.	HOW DID YOU DETERMINE THE RECOMMENDED ANNUAL
2		DEPRECIATION ACCRUAL RATES?
3	A.	I did this in two phases. In the first phase, I estimated the service life and net salvage
4		characteristics for each depreciable group, that is, each plant account or subaccount
5		identified as having similar characteristics. In the second phase, I calculated the composite
6		remaining lives and annual depreciation accrual rates based on the service life and net
7		salvage estimates determined in the first phase.
8	Q.	WILL YOU PLEASE DESCRIBE THE FIRST PHASE OF THE DEPRECIATION
9		STUDY, IN WHICH YOU ESTIMATED THE SERVICE LIFE AND NET
10		SALVAGE CHARACTERISTICS FOR EACH DEPRECIABLE GROUP?
11	A.	The service life and net salvage study consisted of compiling historical data from records
12		related to Kentucky Utilities Company's plant; analyzing these data to obtain historical
13		trends of survivor characteristics; obtaining supplementary information from management
14		and operating personnel concerning practices and plans related to plant operations; and
15		interpreting the data and the estimates used by other electric utilities to form judgments of
16		average service life and net salvage characteristics.
17	Q.	WHAT HISTORICAL DATA DID YOU ANALYZE FOR THE PURPOSE OF
18		ESTIMATING SERVICE LIFE CHARACTERISTICS?
19	A.	I analyzed the Company's accounting entries that record plant transactions during the
20		period 1900 through 2015. The transactions included additions, retirements, transfers,
21		sales and the related balances.
22	Q.	WHAT METHOD DID YOU USE TO ANALYZE THESE SERVICE LIFE DATA?

1	A.	I used the retirement rate method. This is the most appropriate method when retirement
2		data covering a long period of time is available because this method determines the average
3		rates of retirement actually experienced by the Company during the period of time covered
4		by the depreciation study.
5	Q.	PLEASE DESCRIBE HOW YOU USED THE RETIREMENT RATE METHOD TO
6		ANALYZE KENTUCKY UTILITIES' SERVICE LIFE DATA.
7	A.	I applied the retirement rate analysis to each different group of property in the study. For
8		each property group, I used the retirement rate data to form a life table which, when
9		plotted, shows an original survivor curve for that property group. Each original survivor
10		curve represents the average survivor pattern experienced by the several vintage groups
11		during the experience band studied. The survivor patterns do not necessarily describe the
12		life characteristics of the property group; therefore, interpretation of the original survivor
13		curves is required in order to use them as valid considerations in estimating service life.
14		The Iowa type survivor curves were used to perform these interpretations.
15	Q.	WHAT IS AN "IOWA-TYPE SURVIVOR CURVE" AND HOW DID YOU USE
16		SUCH CURVES TO ESTIMATE THE SERVICE LIFE CHARACTERISTICS FOR
17		EACH PROPERTY GROUP?
18	A.	Iowa type curves are a widely-used group of survivor curves that contain the range of
19		survivor characteristics usually experienced by utilities and other industrial companies. A

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survivor curve is a graphical depiction of the amount of property existing at each age throughout the life of an asset class. The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observing and

classifying the ages at which various types of property used by utilities and other industri	al
companies had been retired.	

Q.

Α.

Iowa type curves are used to smooth and extrapolate original survivor curves determined by the retirement rate method. The Iowa curves and truncated Iowa curves were used in this study to describe the forecasted rates of retirement based on the observed rates of retirement and the outlook for future retirements.

The estimated survivor curve designations for each depreciable property group indicate the average service life, the family within the Iowa curve system to which the property group belongs, and the relative height of the mode. For example, the Iowa 50-R1.5 indicates an average service life of fifty years; a right-moded, or R, type curve (the mode occurs after average life for right-moded curves); and a relatively low height, 1.5, for the mode (possible modes for R type curves range from 1 to 5).

# WHAT APPROACH DID YOU USE TO ESTIMATE THE LIVES OF SIGNIFICANT FACILITIES STRUCTURES SUCH AS PRODUCTION PLANTS? I used the life span technique to estimate the lives of significant facilities for which concurrent retirement of the entire facility is anticipated. In this technique, the survivor characteristics of such facilities are described by the use of interim survivor curves and estimated probable retirement dates.

The interim survivor curves describe the rate of retirement related to the replacement of elements of the facility, such as, for a building, the retirements of plumbing, heating, doors, windows, roofs, etc., that occur during the life of the facility. The probable retirement date provides the rate of final retirement for each year of installation for the facility by truncating the interim survivor curve for each installation year at its attained age

1		at the date of probable retirement. The use of interim survivor curves truncated at the date
2		of probable retirement provides a consistent method for estimating the lives of the several
3		years of installation for a particular facility inasmuch as a single concurrent retirement for
4		all years of installation will occur when it is retired.
5	Q.	HAS GANNETT FLEMING USED THIS APPROACH IN OTHER
6		PROCEEDINGS?
7	A.	Yes, we have used the life span technique in performing depreciation studies presented to
8		and accepted by many public utility commissions across the United States and Canada,
9		including Kentucky. This technique is currently being utilized by Kentucky Utilities
10		Company in the same manner recommended in this case.
11	Q.	WHAT ARE THE BASES FOR THE PROBABLE RETIREMENT YEARS THAT
12		YOU HAVE ESTIMATED FOR EACH FACILITY?
13	A.	The bases for the probable retirement years are life spans for each facility that are based on
14		informed judgment, and incorporate consideration of the age, use, size, nature of
15		construction, management outlook and typical life spans experienced and used by other
16		electric utilities for similar facilities. Most of the life spans result in probable retirement
17		years that are many years in the future. As a result, the retirements of these facilities are
18		not yet subject to specific management plans. Such plans would be premature. At the
19		appropriate time, studies of the economics of rehabilitation and continued use or retirement
20		of the structure will be performed and the results incorporated in the estimation of the
21		facility's life span.

PLANT AND EQUIPMENT AS PART OF YOUR DEPRECIATION STUDY?

DID YOU PHYSICALLY OBSERVE KENTUCKY UTILITIES COMPANY'S

Q.

22

23

1	A.	Yes. I made a field review of Kentucky Utilities Company's property as part of this study
2		during October 2015 and previously reviewed assets in April 2007 and October 2011 to
3		observe representative portions of plant. Field reviews are conducted to become familiar
4		with Company operations and obtain an understanding of the function of the plant and
5		information with respect to the reasons for past retirements and the expected future causes
6		of retirements. This knowledge as well as information from other discussions with
7		management was incorporated in the interpretation and extrapolation of the statistical
8		analyses.

# 9 Q. PLEASE DESCRIBE HOW YOU ESTIMATED NET SALVAGE PERCENTAGES.

- 10 A. I estimated the net salvage percentages by incorporating the historical data for the period 1988 through 2015 and considered estimates for other electric companies.
- 12 Q. HAVE YOU INCLUDED A DISMANTLEMENT COMPONENT INTO THE
  13 OVERALL RECOVERY OF GENERATING FACILITIES?
- 14 A. Yes. A dismantlement component has been included to the net salvage percentage for steam, hydro and other production facilities.
- 16 Q. CAN YOU EXPLAIN HOW THE DISMANTLEMENT COMPONENT IS
  17 INCLUDED IN THE DEPRECIATION STUDY?
- A. Yes. The dismantlement component is part of the overall net salvage for each location within the production assets. Based on studies for other utilities and the cost estimates of KU, it was determined that the dismantlement or decommissioning costs for steam production facilities is best calculated at \$40/KW of the assets subject to final retirement.

  The percentage for dismantlement of hydro and other production facilities is \$10/KW of the assets surviving at final retirement with the exception of the combined facility which is

1		\$20/KW. These amounts at a location basis are added to the interim net salvage percentage
2		of the assets anticipated to be retired on an interim basis to produce the weighted net
3		salvage percentage for each location. The detailed calculation for each location is set forth
4		on pages VIII-2 and VIII-3 of Exhibit JJS-KU-1.
5	Q.	IS THIS METHODOLOGY A CHANGE FROM CURRENT PRACTICES?
6	A.	No. The current practice for KU includes a low level of terminal net salvage combined
7		with the interim net salvage percentage. In this study, the methodology continues to
8		advance to a more precise practice and is utilized by most utilities. The weighting of the
9		interim and final net salvage by location establishes a more precise recovery pattern for
10		each location.
11	Q.	PLEASE DESCRIBE THE SECOND PHASE OF THE PROCESS THAT YOU
12		USED IN THE DEPRECIATION STUDY IN WHICH YOU CALCULATED
13		COMPOSITE REMAINING LIVES AND ANNUAL DEPRECIATION ACCRUAL
14		RATES.
15	A.	After I estimated the service life and net salvage characteristics for each depreciable
16		property group, I calculated the annual depreciation accrual rates for each group, using the
17		straight line remaining life method, and using remaining lives weighted consistent with the
18		average service life procedure.
19	Q.	PLEASE DESCRIBE THE STRAIGHT LINE REMAINING LIFE METHOD OF
20		DEPRECIATION.
21	A.	The straight line remaining life method of depreciation allocates the original cost of the
22		property, less accumulated depreciation, less future net salvage, in equal amounts to each
23		year of remaining service life.

1 (	).	PLEASE DESCRIBE AMORTIZATION ACCOUNTING
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A. In amortization accounting, units of property are capitalized in the same manner as they are in depreciation accounting. Amortization accounting is used for accounts with a large number of units, but small asset values. Therefore, depreciation accounting is difficult for these assets because periodic inventories are required to properly reflect plant in service. Consequently, retirements are recorded when a vintage is fully amortized rather than as the units are removed from service. That is, there is no dispersion of retirement. All units are retired when the age of the vintage reaches the amortization period. Each plant account or group of assets is assigned a fixed period which represents an anticipated life during which the asset will render full benefit. For example, in amortization accounting, assets that have a 25-year amortization period will be fully recovered after 25 years of service and taken off the Company's books, but not necessarily removed from service. In contrast, assets that are taken out of service before 25 years remain on the books until the amortization period for that vintage has expired.

# 15 Q. AMORTIZATION ACCOUNTING IS BEING UTILIZED FOR WHICH PLANT 16 ACCOUNTS?

- A. Amortization accounting is only appropriate for certain General Plant accounts. These accounts are 391.1, 391.2, 391.31, 393, 394, 395, 397.1 and 397.2 for electric plant which represents slightly less than one percent of depreciable plant.
- Q. PLEASE USE AN EXAMPLE TO ILLUSTRATE HOW THE ANNUAL
  DEPRECIATION ACCRUAL RATE FOR A PARTICULAR GROUP OF
  PROPERTY IS PRESENTED IN YOUR DEPRECIATION STUDY.

A.	I will use Account 368, Line Transformers, as an example because it is one of the largest
	depreciable mass accounts and represents approximately 4% of depreciable plant.

The retirement rate method was used to analyze the survivor characteristics of this property group. Aged plant accounting data was compiled from 1900 through 2015 and analyzed in periods that best represent the overall service life of this property. The life tables for the 1900-2015 and 1961-2015 experience bands are presented on pages VII-156 through VII-161 of the report. The life table displays the retirement and surviving ratios of the aged plant data exposed to retirement by age interval. For example, page VII-156 shows \$1,000,314 retired at age 0.5 with \$358,997,061 exposed to retirement. Consequently, the retirement ratio is 0.0028 and the surviving ratio is 0.9972. These life tables, or original survivor curves, are plotted along with the estimated smooth survivor curve, the 46-R2 on page VII-155.

The net salvage analyses for Account 368, Line Transformers, is presented on pages VIII-58 and VIII-59 of the Depreciation Study. The percentage is based on the result of annual gross salvage minus the cost to remove plant assets as compared to the original cost of plant retired during the period 1985 through 2015. This 31-year period experienced \$2,723,059 (\$6,364,201 - \$9,087,260) in negative net salvage for \$41,778,150 plant retired. The result is negative net salvage of 7 percent (\$2,723,059/\$41,778,150). Based on the overall negative 7 percent net salvage and the most recent five years of positive 5 percent, as well as industry ranges and Company expectations, it was determined that negative 5 percent is the most appropriate estimate.

My calculation of the annual depreciation related to the original cost at December 31, 2015, of utility plant is presented on pages IX-126 and IX-127. The calculation is based

on the 46-R2 survivor curve, 5% negative net salvage, the attained age, and the allocated book reserve. The tabulation sets forth the installation year, the original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual. These totals are brought forward to the table on page VI-9.

# 5 Q. WERE THERE ANY SPECIFIC ACCOUNT CHANGES TO DEPRECIATION

## METHODS PROPOSED IN THE DEPRECIATION STUDY?

Yes. The depreciation calculations for Account 370.0, Meters, and Account 370.1, Metering Equipment, including the anticipated Advanced Metering System (AMS) program of new technology meters. First, the life characteristics of these two subaccounts include historical data through 2015 and projected data through 2021. This combined life analyses properly estimates the full life cycle of the current meters and metering equipment. Second, the application of the full life characteristics of the two accounts are used to determine the annual depreciation accrual rate in the study. This calculation is performed in the segregated book reserve in order to avoid unnecessarily high depreciation expense due to the accelerated replacement or conversion of the meters. According to Mr. Garrett's testimony, the regulatory asset which represents the remaining reserve amount will be established at the end of the program and recovered in a future period. The segregation does not change the past recovery or the total amount to be recovered, however, it does create a more systematic and natural recovery that will not affect future meter assets.

## Q. WAS THERE ALSO A NEW ASSET CLASS ADDED TO METERS SINCE THE

#### 22 LAST DEPRECIATION STUDY?

Α.

1	A.	Yes. Account 370.20, Meters – AMS, represent the new technology meters which were
2		first placed into service in 2015. These meters are expected to have a shorter average life
3		and maximum life than the standard meters they are replacing. The most consistent
4		average life within the industry for new technology electric meters is 15 years, with a
5		maximum life potential of 25 years. The 15-S2.5 survivor curve best fits this life
6		characteristic.
7	Q.	WHAT IS THE EFFECT OF THESE CHANGES ON DEPRECIATION?
8	A.	The annual depreciation rates and annual depreciation expense for meters has increased as
9		of December 31, 2015.
10	Q.	DOES THE INCREASED DEPRECIATION EXPENSE FOR METERS AFFECT
11		ELECTRIC PLANT?
12	A.	Yes, although the distribution plant function in Electric Plant has decreased, the changes in
13		depreciation practices for Accounts 370.0 and 370.1 as well as the addition for Account
14		370.2, cause the overall decrease to be smaller.
15		
16		III. <u>CONCLUSION</u>
17	Q.	IN YOUR OPINION, ARE THE DEPRECIATION RATES SET FORTH IN
18		EXHIBIT JJS-KU-1 THE RECOMMENDED RATES FOR THE KENTUCKY
19		PUBLIC SERVICE COMMISSION TO ADOPT IN THIS PROCEEDING FOR KU?
20	A.	Yes, these rates appropriately reflect the rates at which the value of KU's assets are being
21		consumed over their useful lives. These rates are an appropriate basis for setting electric
22		rates in this matter and for the Company to use for booking depreciation and amortization
23		expense going forward.

1 (	).	<b>DOES THIS</b>	<b>CONCLUDE</b>	YOUR PRE-FILED	<b>DIRECT TESTIMONY?</b>
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2 A. Yes.

## VERIFICATION

COMMONWEALTH OF PENNSYLVANIA	)	
	)	SS:
COUNTY OF CUMBERLAND	)	

The undersigned, **John J. Spanos**, being duly sworn, deposes and says he is Senior Vice President, for Gannett Fleming Valuation and Rate Consultants, LLC, that he has personal knowledge of the matters set forth in the foregoing testimony and exhibits, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

John J. Spanos

Subscribed and sworn to before me, a Notary Public in and before said County and Commonwealth, this day of 2016.

\_(SEAL)

My Commission Expires:

February 20, 2019

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Cheryl Ann Rutter, Notary Public

Cheryl Ann Rutter, Notary Public
East Pennsboro Twp., Cumberland County
My Commission Expires Feb. 20, 2019
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES



#### **JOHN SPANOS**

#### **DEPRECIATION EXPERIENCE**

- Q. Please state your name.
- A. My name is John J. Spanos.
- Q. Please outline your experience in the field of depreciation.
- A. In June, 1986, I was employed by Gannett Fleming Valuation and Rate Consultants, Inc. as a Depreciation Analyst. During the period from June, 1986 through December, 1995, I helped prepare numerous depreciation and original cost studies for utility companies in various industries. I helped perform depreciation studies for the following telephone companies: United Telephone of Pennsylvania, United Telephone of New Jersey, and Anchorage Telephone Utility. I helped perform depreciation studies for the following companies in the railroad industry: Union Pacific Railroad, Burlington Northern Railroad, and Wisconsin Central Transportation Corporation.

I helped perform depreciation studies for the following organizations in the electric utility industry: Chugach Electric Association, The Cincinnati Gas and Electric Company (CG&E), The Union Light, Heat and Power Company (ULH&P), Northwest Territories Power Corporation, and the City of Calgary - Electric System.

I helped perform depreciation studies for the following pipeline companies: TransCanada Pipelines Limited, Trans Mountain Pipe Line Company Ltd., Interprovincial Pipe Line Inc., Nova Gas Transmission Limited and Lakehead Pipeline Company.

I helped perform depreciation studies for the following gas utility companies: Columbia Gas of Pennsylvania, Columbia Gas of Maryland, The Peoples Natural Gas Company, T. W. Phillips Gas & Oil Company, CG&E, ULH&P, Lawrenceburg Gas Company and Penn Fuel Gas, Inc.

I helped perform depreciation studies for the following water utility companies: Indiana-American Water Company, Consumers Pennsylvania Water Company and The York Water Company; and depreciation and original cost studies for Philadelphia Suburban Water Company and Pennsylvania-American Water Company.

In each of the above studies, I assembled and analyzed historical and simulated data, performed field reviews, developed preliminary estimates of service life and net salvage, calculated annual depreciation, and prepared reports for submission to state public utility commissions or federal regulatory agencies. I performed these studies under the general direction of William M. Stout, P.E.

In January, 1996, I was assigned to the position of Supervisor of Depreciation Studies. In July, 1999, I was promoted to the position of Manager, Depreciation and Valuation Studies. In December, 2000, I was promoted to the position as Vice-President of Gannett Fleming Valuation and Rate Consultants, Inc. and in April 2012, I was promoted to my present position as Senior Vice President of the Valuation and Rate Division of Gannett Fleming Inc. (now doing business as Gannett Fleming Valuation and Rate Consultants, LLC). In my current position I am responsible for conducting all depreciation, valuation and original cost studies, including the preparation of final exhibits and responses to data requests for submission to the appropriate regulatory bodies.

Since January 1996, I have conducted depreciation studies similar to those previously listed including assignments for Pennsylvania-American Water Company; Aqua Pennsylvania; Kentucky-American Water Company; Virginia-American Water Company; Indiana-American Water Company; Hampton Water Works Company; Omaha

Public Power District; Enbridge Pipe Line Company; Inc.; Columbia Gas of Virginia, Inc.; Virginia Natural Gas Company National Fuel Gas Distribution Corporation - New York and Pennsylvania Divisions; The City of Bethlehem - Bureau of Water; The City of Coatesville Authority; The City of Lancaster - Bureau of Water; Peoples Energy Corporation; The York Water Company; Public Service Company of Colorado; Enbridge Pipelines; Enbridge Gas Distribution, Inc.; Reliant Energy-HLP; Massachusetts-American Water Company; St. Louis County Water Company; Missouri-American Water Company; Chugach Electric Association; Alliant Energy; Oklahoma Gas & Electric Company; Nevada Power Company; Dominion Virginia Power; NUI-Virginia Gas Companies; Pacific Gas & Electric Company; PSI Energy; NUI - Elizabethtown Gas Company; Cinergy Corporation - CG&E; Cinergy Corporation - ULH&P; Columbia Gas of Kentucky; South Carolina Electric & Gas Company; Idaho Power Company; El Paso Electric Company; Aqua North Carolina; Aqua Ohio; Aqua Texas, Inc.; Ameren Missouri; Central Hudson Gas & Electric; Centennial Pipeline Company; CenterPoint Energy-Arkansas; CenterPoint Energy - Oklahoma; CenterPoint Energy - Entex; CenterPoint Energy - Louisiana; NSTAR - Boston Edison Company; Westar Energy, Inc.; United Water Pennsylvania; PPL Electric Utilities; PPL Gas Utilities; Wisconsin Power & Light Company; TransAlaska Pipeline; Avista Corporation; Northwest Natural Gas; Allegheny Energy Supply, Inc.; Public Service Company of North Carolina; South Jersey Gas Company; Duquesne Light Company; MidAmerican Energy Company; Laclede Gas; Duke Energy Company; E.ON U.S. Services Inc.; Elkton Gas Services; Anchorage Water and Wastewater Utility; Kansas City Power and Light; Duke Energy North Carolina; Duke Energy South Carolina; Monongahela Power Company; Potomac Edison Company; Duke Energy Ohio Gas; Duke Energy Kentucky; Duke Energy Indiana; Northern Indiana Public

Service Company; Tennessee-American Water Company; Columbia Gas of Maryland; Bonneville Power Administration; NSTAR Electric and Gas Company; EPCOR Distribution, Inc.; B. C. Gas Utility, Ltd; Entergy Arkansas; Entergy Texas; Entergy Mississippi; Entergy Louisiana; Entergy Gulf States Louisiana; the Borough of Hanover; Louisville Gas and Electric Company; Kentucky Utilities Company; Madison Gas and Electric; Central Maine Power; PEPCO; PacifiCorp; Minnesota Energy Resource Group; Jersey Central Power & Light Company; Chevenne Light, Fuel and Power Company; United Water Arkansas; Central Vermont Public Service Corporation; Green Mountain Power Corporation; Portland General Electric Company; Atlantic City Electric; Nicor Gas Company; Black Hills Power; Black Hills Colorado Gas; Black Hills Kansas Gas; Black Hills Service Company; Black Hills Utility Holdings; Public Service Company of Oklahoma; City of Dubois; Peoples Gas Light and Coke Company; North Shore Gas Company; Connecticut Light and Power; New York State Electric and Gas Corporation; Rochester Gas and Electric Corporation; Greater Missouri Operations; Tennessee Valley Authority; Omaha Public Power District; Indianapolis Power & Light Company; Vermont Gas Systems, Inc.; Metropolitan Edison; Pennsylvania Electric; West Penn Power; Pennsylvania Power; PHI Service Company - Delarva Power and Light; Atmos Energy Corporation; Citizens Energy Group; and Alabama Gas Corporation.

My additional duties include determining final life and salvage estimates, conducting field reviews, presenting recommended depreciation rates to management for its consideration and supporting such rates before regulatory bodies.

Q. Have you submitted testimony to any state utility commission on the subject of utility plant depreciation?

A. Yes. I have submitted testimony to the Pennsylvania Public Utility Commission; the Commonwealth of Kentucky Public Service Commission; the Public Utilities Commission of Ohio; the Nevada Public Utility Commission; the Public Utilities Board of New Jersey; the Missouri Public Service Commission; the Massachusetts Department of Telecommunications and Energy; the Alberta Energy & Utility Board; the Idaho Public Utility Commission; the Louisiana Public Service Commission; the State Corporation Commission of Kansas; the Oklahoma Corporate Commission; the Public Service Commission of South Carolina; Railroad Commission of Texas – Gas Services Division; the New York Public Service Commission; Illinois Commerce Commission; the Indiana Utility Regulatory Commission; the California Public Utilities Commission; the Federal Energy Regulatory Commission ("FERC"); the Arkansas Public Service Commission; the Public Utility Commission of Texas; Maryland Public Service Commission; Washington Utilities and Transportation Commission; The Tennessee Regulatory Commission; the Regulatory Commission of Alaska; Minnesota Public Utility Commission; Utah Public Service Commission; District of Columbia Public Service Commission; the Mississippi Public Service Commission; Delaware Public Service Commission; Virginia State Corporation Commission; Colorado Public Utility Commission; Oregon Public Utility Commission; South Dakota Public Utilities Commission; Wisconsin Public Service Commission; Wyoming Public Service Commission; Maine Public Utility Commission; Iowa Utilities Board; Connecticut Public Utilities Regulatory Authority; West Virginia Public Service Commission; New Mexico Public Regulation Commission and the North Carolina Utilities Commission.

## Q. Does this conclude your qualification statement?

A. Yes.

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
01.	1998	PA PUC	R-00984375	City of Bethlehem – Bureau of Water	Original Cost and Depreciation
02.	1998	PA PUC	R-00984567	City of Lancaster	Original Cost and Depreciation
03.	1999	PA PUC	R-00994605	The York Water Company	Depreciation
04.	2000	D.T.&E.	DTE 00-105	Massachusetts-American Water Company	Depreciation
05.	2001	PA PUC	R-00016114	City of Lancaster	Original Cost and Depreciation
06.	2001	PA PUC	R-00017236	The York Water Company	Depreciation
07.	2001	PA PUC	R-00016339	Pennsylvania-American Water Company	Depreciation
08.	2001	OH PUC	01-1228-GA-AIR	Cinergy Corp – Cincinnati Gas & Elect Co.	Depreciation
09.	2001	KY PSC	2001-092	Cinergy Corp – Union Light, Heat & Power Co.	Depreciation
10.	2002	PA PUC	R-00016750	Philadelphia Suburban Water Company	Depreciation
11.	2002	KY PSC	2002-00145	Columbia Gas of Kentucky	Depreciation
12.	2002	NJ BPU	GF02040245	NUI Corporation/Elizabethtown Gas Co.	Depreciation
13.	2002	ID PUC	IPC-E-03-7	Idaho Power Company	Depreciation
14.	2003	PA PUC	R-0027975	The York Water Company	Depreciation
15.	2003	IN URC	R-0027975	Cinergy Corp – PSI Energy, Inc.	Depreciation
16.	2003	PA PUC	R-00038304	Pennsylvania-American Water Co.	Depreciation
17.	2003	MO PSC	WR-2003-0500	Missouri-American Water Co.	Depreciation
18.	2003	FERC	ER-03-1274-000	NSTAR-Boston Edison Company	Depreciation
19.	2003	NJ BPU	BPU 03080683	South Jersey Gas Company	Depreciation
20.	2003	NV PUC	03-10001	Nevada Power Company	Depreciation
21.	2003	LA PSC	U-27676	CenterPoint Energy – Arkla	Depreciation
22.	2003	PA PUC	R-00038805	Pennsylvania Suburban Water Company	Depreciation
23.	2004	AB En/Util Bd	1306821	EPCOR Distribution, Inc.	Depreciation
24.	2004	PA PUC	R-00038168	National Fuel Gas Distribution Corp (PA)	Depreciation
25.	2004	PA PUC	R-00049255	PPL Electric Utilities	Depreciation
26.	2004	PA PUC	R-00049165	The York Water Company	Depreciation
27.	2004	OK Corp Cm	PUC 200400187	CenterPoint Energy – Arkla	Depreciation
28.	2004	OH PUC	04-680-EI-AIR	Cinergy Corp. – Cincinnati Gas and Electric Company	Depreciation
29.	2004	RR Com of TX	GUD#	CenterPoint Energy – Entex Gas Services Div.	Depreciation
30.	2004	NY PUC	04-G-1047	National Fuel Gas Distribution Gas (NY)	Depreciation
31.	2004	AR PSC	04-121-U	CenterPoint Energy – Arkla	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
32.	2005	IL CC	05-	North Shore Gas Company	Depreciation
33.	2005	IL CC	05-	Peoples Gas Light and Coke Company	Depreciation
34.	2005	KY PSC	2005-00042	Union Light Heat & Power	Depreciation
35.	2005	IL CC	05-0308	MidAmerican Energy Company	Depreciation
36.	2005	MO PSC	GF-2005	Laclede Gas Company	Depreciation
37.	2005	KS CC	05-WSEE-981-RTS	Westar Energy	Depreciation
38.	2005	RR Com of TX	GUD#	CenterPoint Energy – Entex Gas Services Div.	Depreciation
39.	2005	FERC		Cinergy Corporation	Accounting
40.	2005	OK CC	PUD 200500151	Oklahoma Gas and Electric Co.	Depreciation
41.	2005	MA Dept Tele-	DTE 05-85	NSTAR	Depreciation
		com & Ergy			
42.	2005	NY PUC	05-E-934/05-G-0935	Central Hudson Gas & Electric Co.	Depreciation
43.	2005	AK Reg Com	U-04-102	Chugach Electric Association	Depreciation
44.	2005	CA PUC	A05-12-002	Pacific Gas & Electric	Depreciation
45.	2006	PA PUC	R-00051030	Aqua Pennsylvania, Inc.	Depreciation
46.	2006	PA PUC	R-00051178	T.W. Phillips Gas and Oil Co.	Depreciation
47.	2006	NC Util Cm.		Pub. Service Co. of North Carolina	Depreciation
48.	2006	PA PUC	R-00051167	City of Lancaster	Depreciation
49.	2006	PA PUC	R00061346	Duquesne Light Company	Depreciation
50.	2006	PA PUC	R-00061322	The York Water Company	Depreciation
51.	2006	PA PUC	R-00051298	PPL GAS Utilities	Depreciation
52.	2006	PUC of TX	32093	CenterPoint Energy – Houston Electric	Depreciation
53.	2006	KY PSC	2006-00172	Duke Energy Kentucky	Depreciation
54.	2006	SC PSC		SCANA	
55.	2006	AK Reg Com	U-06-6	Municipal Light and Power	Depreciation
56.	2006	DE PSC	06-284	Delmarva Power and Light	Depreciation
57.	2006	IN URC	IURC43081	Indiana American Water Company	Depreciation
58.	2006	AK Reg Com	U-06-134	Chugach Electric Association	Depreciation
59.	2006	MO PSC	WR-2007-0216	Missouri American Water Company	Depreciation
60.	2006	FERC	ISO82, ETC. AL	TransAlaska Pipeline	Depreciation
61.	2006	PA PUC	R-00061493	National Fuel Gas Distribution Corp. (PA)	Depreciation
62.	2007	NC Util Com.	E-7 SUB 828	Duke Energy Carolinas, LLC	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
63.	2007	OH PSC	08-709-EL-AIR	Duke Energy Ohio Gas	Depreciation
64.	2007	PA PUC	R-00072155	PPL Electric Utilities Corporation	Depreciation
65.	2007	KY PSC	2007-00143	Kentucky American Water Company	Depreciation
66.	2007	PA PUC	R-00072229	Pennsylvania American Water Company	Depreciation
67.	2007	KY PSC	2007-0008	NiSource – Columbia Gas of Kentucky	Depreciation
68.	2007	NY PSC	07-G-0141	National Fuel Gas Distribution Corp (NY)	Depreciation
69.	2008	AK PSC	U-08-004	Anchorage Water & Wastewater Utility	Depreciation
70.	2008	TN Reg Auth	08-00039	Tennessee-American Water Company	Depreciation
71.	2008	DE PSC	08-96	Artesian Water Company	Depreciation
72.	2008	PA PUC	R-2008-2023067	The York Water Company	Depreciation
73.	2008	KS CC	08-WSEE1-RTS	Westar Energy	Depreciation
74.	2008	IN URC	43526	Northern Indiana Public Service Co.	Depreciation
75.	2008	IN URC	43501	Duke Energy Indiana	Depreciation
76.	2008	MD PSC	9159	NiSource – Columbia Gas of Maryland	Depreciation
77.	2008	KY PSC	2008-000251	Kentucky Utilities	Depreciation
78.	2008	KY PSC	2008-000252	Louisville Gas & Electric	Depreciation
79.	2008	PA PUC	2008-20322689	Pennsylvania American Water CoWastewater	Depreciation
80.	2008	NY PSC	08-E887/08-00888	Central Hudson	Depreciation
81.	2008	WV TC	VE-080416/VG-8080417	Avista Corporation	Depreciation
82.	2008	IL CC	ICC-09-166	Peoples Gas, Light and Coke Co.	Depreciation
83.	2009	IL CC	ICC-09-167	North Shore Gas Company	Depreciation
84.	2009	DC PSC	1076	Potomac Electric Power Company	Depreciation
85.	2009	KY PSC	2009-00141	NiSource – Columbia Gas of Kentucky	Depreciation
86.	2009	FERC	ER08-1056-002	Entergy Services	Depreciation
87.	2009	PA PUC	R-2009-2097323	Pennsylvania American Water Co.	Depreciation
88.	2009	NC Util Cm	E-7, Sub 090	Duke Energy Carolinas, LLC	Depreciation
89.	2009	KY PSC	2009-00202	Duke Energy Kentucky	Depreciation
90.	2009	VA St. CC	PUE-2009-00059	Aqua Virginia, Inc.	Depreciation
91.	2009	PA PUC	2009-2132019	Aqua Pennsylvania, Inc.	Depreciation
92.	2009	MS PSC	09-	Entergy Mississippi	Depreciation
93.	2009	AK PSC	09-08-U	Entergy Arkansas	Depreciation
94.	2009	TX PUC	37744	Entergy Texas	Depreciation
95.	2009	TX PUC	37690	El Paso Electric Company	Depreciation

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96.	2009	PA PUC	R-2009-2106908	The Borough of Hanover	Depreciation
97.	2009	KS CC	10-KCPE-415-RTS	Kansas City Power & Light	Depreciation
98.	2009	PA PUC	R-2009-	United Water Pennsylvania	Depreciation
99.	2009	OH PUC		Aqua Ohio Water Company	Depreciation
100.	2009	WI PSC	3270-DU-103	Madison Gas & Electric Co.	Depreciation
101.	2009	MO PSC	WR-2010	Missouri American Water Co.	Depreciation
102.	2009	AK Reg Cm	U-09-097	Chugach Electric Association	Depreciation
103.	2010	IN URC	43969	Northern Indiana Public Service Co.	Depreciation
104.	2010	WI PSC	6690-DU-104	Wisconsin Public Service Corp.	Depreciation
105.	2010	PA PUC	R-2010-2161694	PPL Electric Utilities Corp.	Depreciation
106.	2010	KY PSC	2010-00036	Kentucky American Water Company	Depreciation
107.	2010	PA PUC	R-2009-2149262	Columbia Gas of Pennsylvania	Depreciation
108.	2010	MO PSC	GR-2010-0171	Laclede Gas Company	Depreciation
109.	2010	SC PSC	2009-489-E	South Carolina Electric & Gas Co.	Depreciation
110.	2010	NJ BD OF PU	ER09080664	Atlantic City Electric	Depreciation
111.	2010	VA St. CC	PUE-2010-00001	Virginia American Water Company	Depreciation
112.	2010	PA PUC	R-2010-2157140	The York Water Company	Depreciation
113.	2010	MO PSC	ER-2010-0356	Greater Missouri Operations Co.	Depreciation
114.	2010	MO PSC	ER-2010-0355	Kansas City Power and Light	Depreciation
115.	2010	PA PUC	R-2010-2167797	T.W. Phillips Gas and Oil Co.	Depreciation
116.	2010	PSC SC	2009-489-E	SCANA – Electric	Depreciation
117.	2010	PA PUC	R-2010-22010702	Peoples Natural Gas, LLC	Depreciation
118.	2010	AK PSC	10-067-U	Oklahoma Gas and Electric Co.	Depreciation
119.	2010	IN URC		Northern Indiana Public Serv. Co NIFL	Depreciation
120.	2010	IN URC		Northern Indiana Public Serv. Co Kokomo	Depreciation
121.	2010	PA PUC	R-2010-2166212	Pennsylvania American Water Co - WW	Depreciation
122.	2010	NC Util Cn.	W-218,SUB310	Aqua North Carolina, Inc.	Depreciation
123.	2011	OH PUC	11-4161-WS-AIR	Ohio American Water Company	Depreciation
124.	2011	MS PSC	EC-123-0082-00	Entergy Mississippi	Depreciation
125.	2011	CO PUC	11AL-387E	Black Hills Colorado	Depreciation
126.	2011	PA PUC	R-2010-2215623	Columbia Gas of Pennsylvania	Depreciation
127.	2011	PA PUC	R-2010-2179103	Lancaster, City of – Bureau of Water	Depreciation
128.	2011	IN URC	43114 IGCC 4S	Duke Energy Indiana	Depreciation
129.	2011	FERC	IS11-146-000	Enbridge Pipelines (Southern Lights)	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
130.	2011	II CC	11-0217	MidAmerican Energy Corporation	Depreciation
131.	2011	OK CC	201100087	Oklahoma Gas & Electric Co.	Depreciation
132.	2011	PA PUC	2011-2232243	Pennsylvania American Water Company	Depreciation
133.	2011	FERC	2011-2232243	Carolina Gas Transmission	Depreciation
134.	2012	WA UTC	UE-120436/UG-120437	Avista Corporation	Depreciation
135.	2012	AK Reg Cm	U-12-009	Chugach Electric Association	Depreciation
136.	2012	MA PUC	DPU 12-25	Columbia Gas of Massachusetts	Depreciation
137.	2012	TX PUC	40094	El Paso Electric Company	Depreciation
138.	2012	ID PUC	IPC-E-12	Idaho Power Company	Depreciation
139.	2012	PA PUC	R-2012-2290597	PPL Electric Utilities	Depreciation
140.	2012	PA PUC	R-2012-2311725	Hanover, Borough of – Bureau of Water	Depreciation
141.	2012	KY PSC	2012-00222	Louisville Gas and Electric Company	Depreciation
142.	2012	KY PSC	2012-00221	Kentucky Utilities Company	Depreciation
143.	2012	PA PUC	R-2012-2285985	Peoples Natural Gas Company	Depreciation
144.	2012	DC PSC	Case 1087	Potomac Electric Power Company	Depreciation
145.	2012	OH PSC	12-1682-EL-AIR	Duke Energy Ohio (Electric)	Depreciation
146.	2012	OH PSC	12-1685-GA-AIR	Duke Energy Ohio (Gas)	Depreciation
147.	2012	PA PUC	R-2012-2310366	Lancaster, City of – Sewer Fund	Depreciation
148.	2012	PA PUC	R-2012-2321748	Columbia Gas of Pennsylvania	Depreciation
149.	2012	FERC	ER-12-2681-000	ITC Holdings	Depreciation
150.	2012	MO PSC	ER-2012-0174	Kansas City Power and Light	Depreciation
151.	2012	MO PSC	ER-2012-0175	KCPL Greater Missouri Operations Co.	Depreciation
152.	2012	MO PSC	GO-2012-0363	Laclede Gas Company	Depreciation
153.	2012	MN PUC	G007,001/D-12-533	Integrys – MN Energy Resource Group	Depreciation
153.	2012	TX PUC		Aqua Texas	Depreciation
155.	2012	PA PUC	2012-2336379	York Water Company	Depreciation
156.	2013	NJ BPU	ER12121071	PHI Service Co. – Atlantic City Electric	Depreciation
157.	2013	KY PSC	2013-00167	Columbia Gas of Kentucky	Depreciation
158.	2013	VA St CC	2013-00020	Virginia Electric and Power Co.	Depreciation
159.	2013	IA Util Bd	2013-0004	MidAmerican Energy Corporation	Depreciation
160.	2013	PA PUC	2013-2355276	Pennsylvania American Water Co.	Depreciation
161.	2013	NY PSC	13-E-0030, 13-G-0031, 13-S-0032	Consolidated Edison of New York	Depreciation
162.	2013	PA PUC	2013-2355886	Peoples TWP LLC	Depreciation

	<u>Year</u>	Jurisdiction	Docket No.	<u>Client Utility</u>	<u>Subject</u>
163.	2013	TN Reg Auth	12-0504	Tennessee American Water	Depreciation
164.	2013	ME PUC	2013-168	Central Maine Power Company	Depreciation
165.	2013	DC PSC	Case 1103	PHI Service Co. – PEPCO	Depreciation
166.	2013	WY PSC	2003-ER-13	Cheyenne Light, Fuel and Power Co.	Depreciation
167.	2013	FERC	ER130000	Kentucky Utilities	Depreciation
168.	2013	FERC	ER130000	MidAmerican Energy Company	Depreciation
169.	2013	FERC	ER130000	PPL Utilities	Depreciation
170.	2013	PA PUC	R-2013-2372129	Duquesne Light Company	Depreciation
171.	2013	NJ BPU	ER12111052	Jersey Central Power and Light Co.	Depreciation
172.	2013	PA PUC	R-2013-2390244	Bethlehem, City of – Bureau of Water	Depreciation
173.	2013	OK CC	UM 1679	Oklahoma, Public Service Company of	Depreciation
174.	2013	IL CC	13-0500	Nicor Gas Company	Depreciation
175.	2013	WY PSC	20000-427-EA-13	PacifiCorp	Depreciation
176.	2013	UT PSC	13-035-02	PacifiCorp	Depreciation
177.	2013	OR PUC	UM 1647	PacifiCorp	Depreciation
178.	2013	PA PUC	2013-2350509	Dubois, City of	Depreciation
179.	2014	IL CC	14-0224	North Shore Gas Company	Depreciation
180.	2014	FERC	ER14-	Duquesne Light Company	Depreciation
181.	2014	SD PUC	EL14-026	Black Hills Power Company	Depreciation
182.	2014	WY PSC	20002-91-ER-14	Black Hills Power Company	Depreciation
183.	2014	PA PUC	2014-2428304	Hanover, Borough of – Municipal Water Works	Depreciation
184.	2014	PA PUC	2014-2406274	Columbia Gas of Pennsylvania	Depreciation
185.	2014	IL CC	14-0225	Peoples Gas Light and Coke Company	Depreciation
186.	2014	MO PSC	ER-2014-0258	Ameren Missouri	Depreciation
187.	2014	KS CC	14-BHCG-502-RTS	Black Hills Service Company	Depreciation
188.	2014	KS CC	14-BHCG-502-RTS	Black Hills Utility Holdings	Depreciation
189.	2014	KS CC	14-BHCG-502-RTS	Black Hills Kansas Gas	Depreciation
190.	2014	PA PUC	2014-2418872	Lancaster, City of – Bureau of Water	Depreciation
191.	2014	WV PSC	14-0701-E-D	First Energy – MonPower/PotomacEdison	Depreciation
192	2014	VA St CC	PUC-2014-00045	Aqua Virginia	Depreciation
193.	2014	VA St CC	PUE-2013	Virginia American	Depreciation
194.	2014	OK CC	PUD201400229	Oklahoma Gas and Electric	Depreciation
195.	2014	OR PUC	UM1679	Portland General Electric	Depreciation
196.	2014	IN URC	Cause No. 44576	Indianapolis Power & Light	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
197.	2014	MA DPU	DPU. 14-150	NSTAR Gas	Depreciation
198.	2014	CT PURA	14-05-06	Connecticut Light and Power	Depreciation
199.	2014	MO PSC	ER-2014-0370	Kansas City Power & Light	Depreciation
200.	2014	KY PSC	2014-00371	Kentucky Utilities Company	Depreciation
201.	2014	KY PSC	2014-00372	Louisville Gas and Electric Company	Depreciation
202.	2015	PA PUC	R-2015-2462723	United Water Pennsylvania Inc.	Depreciation
203.	2015	PA PUC	R-2015-2468056	Columbia Gas of Pennsylvania	Depreciation
204.	2015	NY PSC	15-E-0283/15-G-0284	New York State Electric and Gas Corporation	Depreciation
205.	2015	NY PSC	15-E-0285/15-G-0286	Rochester Gas and Electric Corporation	Depreciation
206.	2015	MO PSC	WR-2015-0301/SR-2015-0302	Missouri American Water Company	Depreciation
207.	2015	OK CC	PUD 201500208	Oklahoma, Public Service Company of	Depreciation
208.	2015	WV PSC	15-0676-W-42T	West Virginia American Water Company	Depreciation
209.	2015	PA PUC	2015-2469275	PPL Electric Utilities	Depreciation
210.	2015	IN URC	Cause No. 44688	Northern Indiana Public Service Company	Depreciation
211.	2015	OH PSC	14-1929-EL-RDR	First Energy-Ohio Edison/Cleveland Electric/ Toledo Edison	Depreciation
212.	2015	NM PRC	15-00127-UT	El Paso Electric	Depreciation
213.	2015	TX PUC	PUC-44941; SOAH 473-15-5257	El Paso Electric	Depreciation
214.	2015	WI PSC	3370-DU-104	Madison Gas and Electric Company	Depreciation
215.	2015	OK CC	PUD 201500273	Oklahoma Gas and Electric	Depreciation
216.	2015	KY PSC	Doc. No. 2015-00418	Kentucky American Water Company	Depreciation
217.	2015	NC UC	Doc. No. G-5, Sub 565	Public Service Company of North Carolina	Depreciation
218.	2016	WA UTC		Puget Sound Energy	Depreciation
219.	2016	NY PSC	Case No. 16-W-0130	Suez Water New York, Inc.	Depreciation
220.	2016	MO PSC	ER-2016-0156	KCPL – Greater Missouri	Depreciation
221.	2016	WI PSC		Wisconsin Public Service Commission	Depreciation
222.	2016	KY PSC	Case No. 2016-00026	Kentucky Utilities Company	Depreciation
223.	2016	KY PSC	Case No. 2016-00027	Louisville Gas and Electric Company	Depreciation
224.	2016	OH PUC		Aqua Ohio	Depreciation
225.	2016	MD PSC	Case 9417	Columbia Gas of Maryland	Depreciation
226.	2016	KY SCP	2016-00162	Columbia Gas of Kentucky	Depreciation
227.	2016	DE PSC	16-0649	Delmarva Power and Light Co. – Gas	Depreciation
228.	2016	DE PSC	16-0650	Delmarva Power and Light Co. – Electric	Depreciation
229.	2016	NY PSC	Case 16-G-0257	National Fuel Gas Distribution Corp – NY Div	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
230.	2016	PA PUC	R-2016-2537349	Metropolitan Edison Company	Depreciation
231.	2016	PA PUC	R-2016-2537352	Pennsylvania Electric Company	Depreciation
232.	2016	PA PUC	R-2016-2537355	Pennsylvania Power Company	Depreciation
233.	2016	PA PUC	R-2016-2537359	West Penn Power Company	Depreciation
234.	2016	PA PUC	R-2016-2529660	Columbia Gas of PA	Depreciation
235.	2016	KY PSC	Case No. 2016-00063	Kentucky Utilities / Louisville Gas & Electric Co	Depreciation
236.	2016	MO PSC	ER-2016-0285	KCPL Missouri	Depreciation
237.	2016	AR PSC	16-052-U	Oklahoma Gas & Electric Co	Depreciation
238.	2016	PSCW	6680-DU-104	Wisconsin Power and Light	Depreciation
239.	2016	ID PUC	IPC-E-16-23	Idaho Power Company	Depreciation
240.	2016	OR PUC	UM1801	Idaho Power Company	Depreciation
241.	2016	ILL CC		MidAmerican Energy Company	Depreciation



## **KENTUCKY UTILITIES COMPANY**

LOUISVILLE, KENTUCKY

## **2015 DEPRECIATION STUDY**

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2015

Prepared by:



Excellence Delivered As Promised

## KENTUCKY UTILITIES COMPANY

Louisville, Kentucky

2015 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2015



#### Excellence Delivered As Promised

November 17, 2016

Kentucky Utilities Company 220 West Main Street, Suite 1400 Louisville, KY 40202-1345

Attention Ms. Heather Metts

Director of Accounting and Regulatory Reporting

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the electric plant of Kentucky Utilities Company as of December 31, 2015. The attached report presents a description of the methods used in the estimation of depreciation, the summary of annual depreciation accrual rates, the statistical support for the life and net salvage estimates and the detailed tabulations of annual depreciation.

Respectfully submitted,

John J. Spanos

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

JOHN J. SPANOS Sr. Vice President

JJS:mlw

060231.301

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#### KENTUCKY UTILITIES COMPANY

#### **DEPRECIATION STUDY**

### **EXECUTIVE SUMMARY**

Pursuant to Kentucky Utilities Company's ("KU" or "Company") request, Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a depreciation study related to the electric plant as of December 31, 2015. The purpose of this study was to determine the annual depreciation accrual rates and amounts for book and ratemaking purposes.

The depreciation rates are based on the straight line method using the average service life ("ASL") procedure and were applied on a remaining life basis. The calculations were based on attained ages and estimated average service life, and forecasted net salvage characteristics for each depreciable group of assets.

KU's accounting policy has not changed since the last depreciation study was prepared. However, there have been significant changes in past and future retirement plans of assets, particularly at steam facilities. These changes have caused the proposed remaining lives for many accounts to fluctuate from those proposed in the previous depreciation study as of December 31, 2011. Some average service lives are longer than those currently utilized.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to electric plant in service as of December 31, 2015 as summarized by Table 1 of the study. Supporting analysis and calculations are provided within the study.



The study results set forth an annual depreciation expense of \$287.6 million when applied to depreciable plant balances as of December 31, 2015. The results are summarized at the functional level as follows:

## SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS

FUNCTION	ORIGINAL COST AS OF DECEMBER 31, 2015	PROPOSED RATE	PROPOSED EXPENSE
Intangible Plant	\$ 92,310,845.32	16.10	\$ 14,864,850
Steam Production Plant	4,713,368,149.23	3.45	162,401,592
Hydroelectric Production Plant	39,524,601.44	3.04	1,203,447
Other Production Plant	968.820,182.33	4.00	38,767,650
Transmission Plant	804,608,304.85	2.25	18,130,691
Distribution Plant	1,655,605,208.08	2.43	40,309,673
General Plant	174,908,741.19	6.84	11,961,440
Total	\$8,449,146,032.4 <b>4</b>	3.40	<u>\$287,639,343</u>



## PART I. INTRODUCTION

# KENTUCKY UTILITIES COMPANY DEPRECIATION STUDY

#### PART I. INTRODUCTION

#### SCOPE

This report sets forth the results of the depreciation study for Kentucky Utilities Company ("Company"), as applied to specific electric plant in service as of December 31, 2015. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to current electric plant in service.

The service life and net salvage estimates resulting from the study were based on informed judgment which incorporated analyses of historical plant retirement data as recorded through 2015, the net salvage analyses of historical plant retirement data recorded through 2015; a review of Company practice and outlook as they relate to plant operation and retirement, and consideration of current practice in the electric industry, including knowledge of service lives and net salvage estimates used for other electric companies.

#### PLAN OF REPORT

Part I, Introduction, contains statements with respect to the plan of the report, and the basis of the study. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and the methods used in the service life study. Part III, Service Life Considerations, presents the factors and judgment utilized in the average servicelife analysis. Part IV, Net Salvage Considerations, presents the judgment utilized for the net salvage study. Part V, Calculation of Annual and Accrued



Depreciation, describes the procedures used in the calculation of group depreciation. Part VI, Results of Study, presents a summary by depreciable group of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VII, Service Life Statistics presents the statistical analysis of service life estimates, Part VIII, Net Salvage Statistics sets forth the statistical indications of net salvage percents, and Part IX, Detailed Depreciation Calculations presents the detailed tabulations of annual depreciation.

#### **BASIS OF THE STUDY**

## **Depreciation**

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among causes to be given consideration are wear and tear, deterioration, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and the requirements of public authorities.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing electric utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight-line method of depreciation.

For all accounts, the annual depreciation was calculated by the straight line



method using the average service life procedure and the remaining life basis. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group. Amortization accounting or vintage pooling is proposed for most general plant accounts.

The straight line method, average service life procedure is a commonly used depreciation calculation procedure that has been widely accepted in jurisdictions throughout North America. Gannett Fleming recommends its continued use.

## Service Life and Net Salvage Estimates

The service life and net salvage estimates used in the depreciation calculations were based on informed judgment which incorporated a review of management's plans, policies and outlook, a general knowledge of the electric utility industry, and comparisons of the service life and net salvage estimates from our studies of other electric utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for utility property. lowa type survivor curves were used to depict the estimated survivor curves for the plant accounts. For steam, hydroelectric, and other production plants, the life span technique was used. In this technique, the date of final retirement was estimated for each unit, and the estimated survivor curves applied to each vintage were truncated at ages coinciding with the date of final retirement.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data analyses and the probable future. The combination of the historical experience and the estimated



future yielded estimated survivor curves from which the average service lives were derived.

The estimates of net salvage by account incorporated a review of experienced costs of removal and salvage related to plant retirements, and consideration of trends exhibited by the historical data. Each component of net salvage, i.e., cost of removal and salvage, was stated in dollars and as a percent of retirement.

An understanding of the function of the plant and information with respect to the reasons for past retirements and the expected causes of future retirements was obtained through discussions with operating and management personnel. The supplemental information obtained in this manner was considered in the interpretation and extrapolation of the statistical analyses.



PART II. ESTIMATION OF SURVIVOR CURVES

## PART II. ESTIMATION OF SURVIVOR CURVES

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

#### **SURVIVOR CURVES**

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units, or by constructing a survivor curve by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation For example, in Figure 1, the remaining life at age 30 is equal to the age. crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining If the probable life of the property is calculated for each year of age, the life. probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning



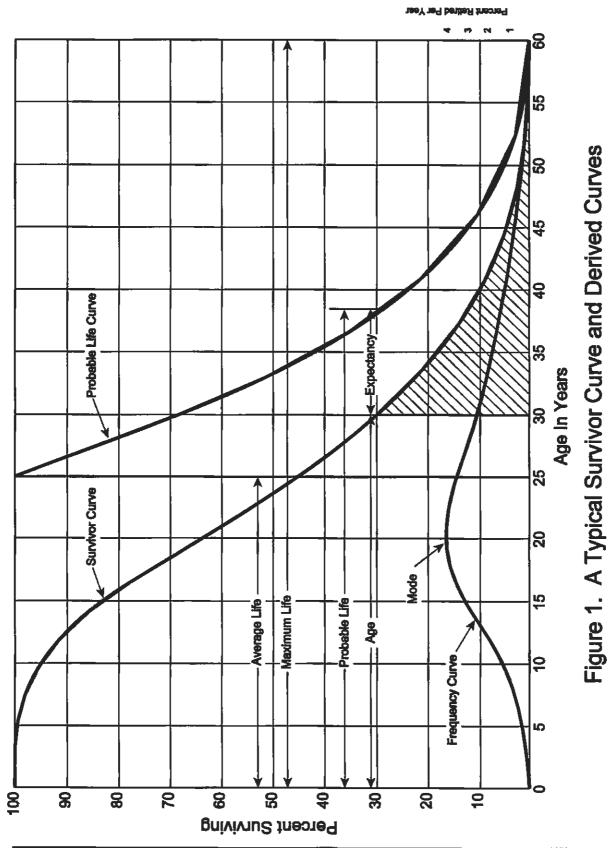
and at the end of each interval.

This study has incorporated the use of lowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

## Iowa Type Curves

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the lowa type curves. There are four families in the lowa system, labeled in accordance with the location of the modes of the retirements in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or 0) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family.

The lowa curves were developed at the lowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of



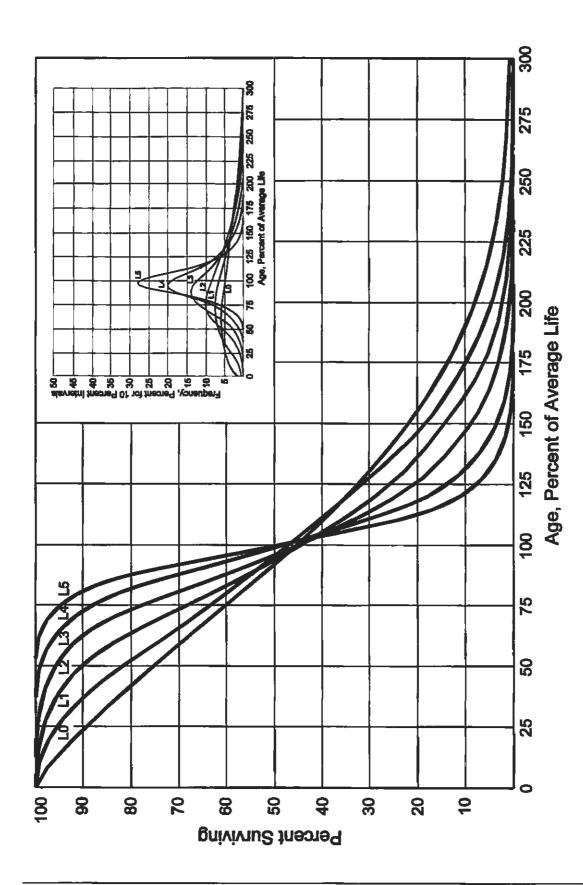


Figure 2. Left Modal or "L" lowa Type Survivor Curves

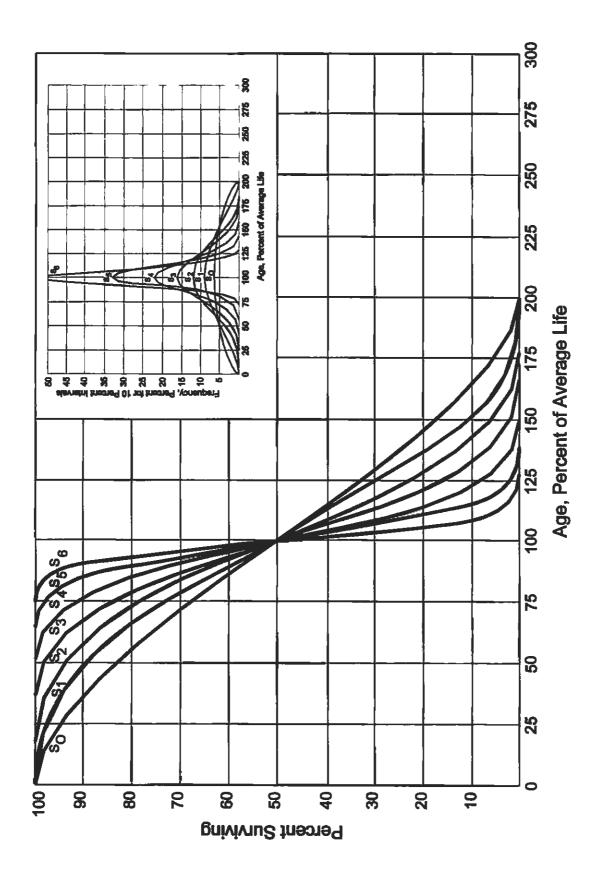


Figure 3. Symmetrical or "S" lowa Type Survivor Curves

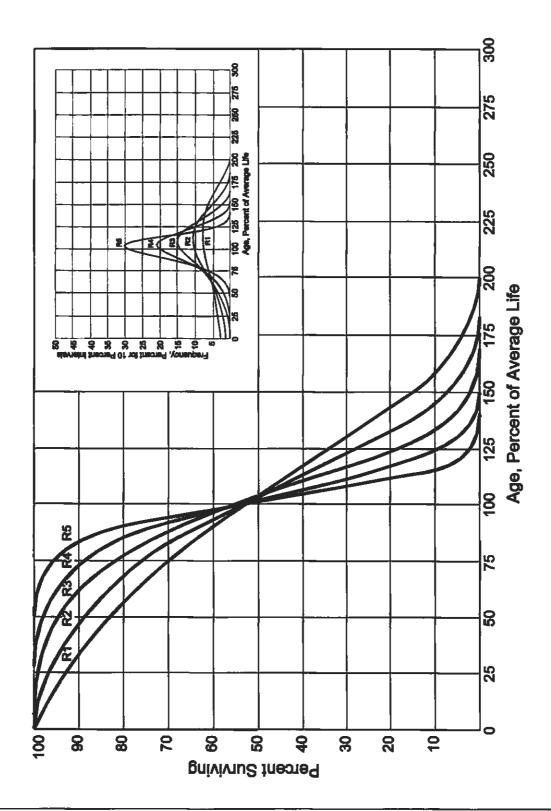


Figure 4. Right Modal or "R" lowa Type Survivor Curves

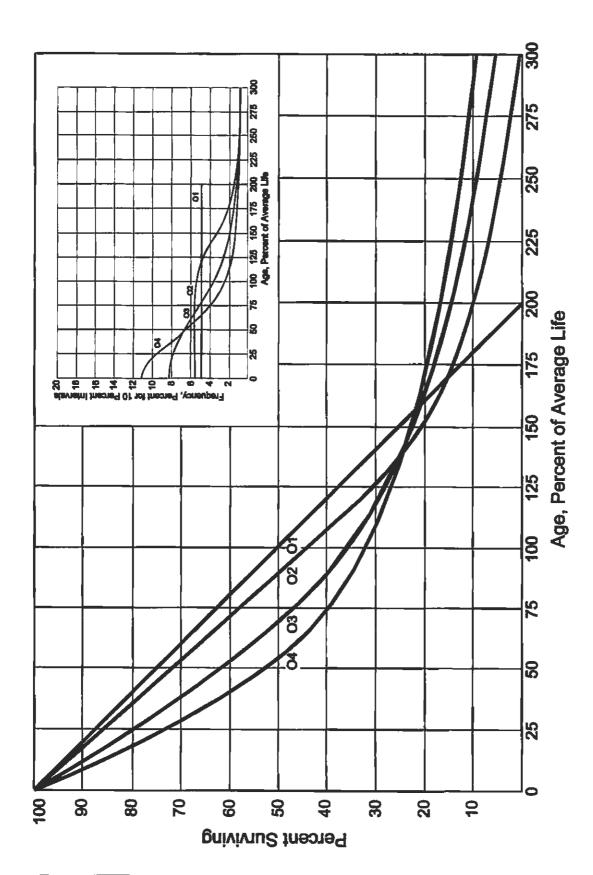


Figure 5. Origin Modal or "O" lowa Type Survivor Curves

the Experiment Station's Bulletin 125. These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation." In 1957, Frank V. B. Couch, Jr., an lowa State College graduate student, submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

#### Retirement Rate Method of Analysis

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text, and is also explained in several publications, including "Statistical Analyses of Industrial Property Retirements"<sup>2</sup>, "Engineering Valuation and Depreciation," and "Depreciation Systems."

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band, and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows.

Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.



<sup>&</sup>lt;sup>1</sup>Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

<sup>&</sup>lt;sup>2</sup>Winfrey, Roble, <u>Statistical Analyses of Industrial Property Retirements</u>. lowa State College Engineering Experiment Station, Bulletin 125, 1935.

<sup>&</sup>lt;sup>3</sup>Marston, Anson, Roble Winfrey, and Jean C. Hempstead, Supra Note 1.

The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

#### Schedules of Annual Transactions in Plant Records

The property group used to illustrate the retirement rate method is observed for the experience band 2006-2015 during which there were placements during the years 2001-2015. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2001 were retired in 2006. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval  $4\frac{1}{2} - 5\frac{1}{2}$  is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2006 retirements of 2001 installations and ending with the 2015 retirements of the 2010 installations. Thus, the total amount of 143 for age interval  $4\frac{1}{2} - 5\frac{1}{2}$  equals the sum of:

10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.



Placement Band 2001-2015 21/2-131/2 111/2-12/2 101/2-111/2 972-1072 13%-14% Interval 71/2-81/2 61/2-71/2 512-612 4½-5½ 3½-4½ 2½-3½ 1½-2½ ½-1½ 0-½ 875-976 Age Total During Age Interval 124 150 1,606 05 13 53 (12)2015 23 25 25 24 308 (11) SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2006-2015 19 16 273 2014 8 9 6 19 22 22 23 (10) 2013 6 SUMMARIZED BY AGE INTERVAL 15 16 7 17 20 20 11 231 2 2 2 2012 Retirements, Thousands of Dollars (8) 196 9 16 9 9 9 2011 8 5 157 **During Year** 2010 9 16 13 128 16 \$\frac{1}{6}\$ 7 2009 (5) <del>5</del> <del>5</del> 106 4 2008 3 8 5 5 33 9 Experience Band 2006-2015 2007 <u>@</u> O 9 റെ വ 68 2006 3 53 00 Placed Year 2005 2006 2007 2008 2009 2010 2011 Total 2002 2003 2004 2012 2013 2014 2001

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2006-2015 SUMMARIZED BY AGE INTERVAL

Placement Band 2001-2015

	Age Interval	(13)	13/2-14/2	121/2-131/2	111/2-12/2	10%-11%	912-1012	812-912	71/2-81/2	61/2-71/2	51/2-61/2	41/2-51/2	3%-4%	21/2-31/2	11/2-21/2	12-172	0-%	
	Total During Age Interval	(12)	ı	•	1	09	•	(2)	9	1	1	•	10		(121)	•	1	(20)
	2015		•	•		,	•	•	•	ı	1	ı			(102) <sup>e</sup>	•		(102)
	2014	(10)	ı	,	1	1	•	•	•	,	•	22ª	1	•	1	1		22
of Dollars	2013	(e)	t	•	ı	(2) <sub>p</sub>	ගී	ı	ı	•	(12) <sub>b</sub>	ı	(19) <sub>6</sub>	,	•			(30)
onsands	2012	(o)	0	,	•		•	1	•	1	•		1	•				9
Sales, The Year	2011	S		•	1	٠	1	ŧ	ı	•	ŧ	•	•					•
Acquisitions, Transfers and Sales, Thousands of Dollars During Year	<u>2010</u>	(o)			•		•	,	1	4	•	•						-
ons, Trans	2009	(c)	ı	•	•	ı	•	ŧ	ı	•	ı							
Acquisitic	2008	ŧ)	t	В	•	,	k		•	1								,
	2007	(2)	•	,	•	1	,	•	t									,
	2006	(7)	1	,	•	•	•	1										,
•	Year Placed	(1)	7007	2002	2003	2004	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total

<sup>&</sup>lt;sup>a</sup> Transfer Affecting Exposures at Beginning of Year

Experience Band 2006-2015

<sup>&</sup>lt;sup>b</sup> Transfer Affecting Exposures at End of Year <sup>c</sup> Sale with Continued Use

Sale with Continued Use
Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

#### Schedule of Plant Exposed to Retirement

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2006 through 2015 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or additions are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2011 are calculated in the following manner:

Exposures at age 0 = amount of addition	= \$750,000
Exposures at age ½ = \$750,000 - \$8,000	= \$742,000
Exposures at age $1\frac{1}{2}$ = \$742,000 - \$18,000	= \$724,000
Exposures at age $2\frac{1}{2}$ = \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½ = \$685,000 - \$22,000	= \$663,000



Placement Band 2001-2015 101/2-111/2 13%-141/2 111/2-12/3 9%-10% 121/2-131/3 Interval 812-912 71/2-81/2 61/2-71/2 51/2-61/2 41/2-51/2 3%-4% 2%-3% 11/2-21/2 11/2 0-1/2 Age (13) Beginning of Age Interval 44,780 4,955 5,719 6,579 1,097 1,503 1,952 2,463 3,057 3,789 4,332 7,490 Total at (12) 1,220a 900' (11) 7,799 ,080 6,852 (0) SCHEDULE 3. PLANT EXPOSED TO RETIREMENT JANUARY 1 OF EACH YEAR 2006-2015 6,017 SUMMARIZED BY AGE INTERVAL Annual Survivors at the Beginning of the Year 850a 5,247 Exposures, Thousands of Dollars 4,494 660a 3,872 3,318 (5) 510a 2,824 Experience Band 2006-2015 Additions during the year 460a 2,382 **©** 420a 1,975 Placed Year Total €

For the entire experience band 2006-2015, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval  $4\frac{1}{2} - 5\frac{1}{2}$ , is obtained by summing:

#### **Original Life Table**

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ areas as follows:

Percent surviving at age  $4\frac{1}{2}$  = 88.15 Exposures at age  $4\frac{1}{2}$  = 3,789,000 Retirements from age  $4\frac{1}{2}$  to  $5\frac{1}{2}$  = 143,000

Retirement Ratio =  $143,000 \div 3,789,000 = 0.0377$ Survivor Ratio = 1.000 - 0.0377 = 0.9623Percent surviving at age  $5\frac{1}{2}$  =  $(88.15) \times (0.9623) = 84.83$ 

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

## SCHEDULE 4. ORIGINAL LIFE TABLE CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2006-2015

Placement Band 2001-2015

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5 9.5 10.5 12.5	7,490 6,579 5,719 4,955 4,332 3,789 3,057 2,463 1,952 1,503 1,097 823 531 323	80 153 151 150 146 143 131 124 113 105 93 83 64 44	0.0107 0.0233 0.0264 0.0303 0.0337 0.0377 0.0429 0.0503 0.0579 0.0699 0.0848 0.1009 0.1205 0.1362	0.9893 0.9767 0.9736 0.9697 0.9663 0.9623 0.9571 0.9497 0.9421 0.9301 0.9152 0.8991 0.8795 0.8638	100.00 98.93 96.62 94.07 91.22 88.15 84.83 81.19 77.11 72.65 67.57 61.84 55.60 48.90
13.5	167	26	0.1557	0.8443	42.24 35.66
Total	<u>44,780</u>	<u>1,606</u>			



Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.

The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

#### **Smoothing the Original Survivor Curve**

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The lowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the lowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R lowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 lowa curve would be selected as the most representative of the plotted survivor characteristics of the group.



FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE ORIGINAL CURVE = 2006-2015 EXPERIENCE: 2001-2015 PLACEMENTS 35 30 ORIGINAL AND SMOOTH SURVIVOR CURVES IOWA 12-L1 IOWA 13-L1 20 25 AGE IN YEARS 15 10 8 80 70 8 30 20 10 PERCENT SURVIVING

FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN SO IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

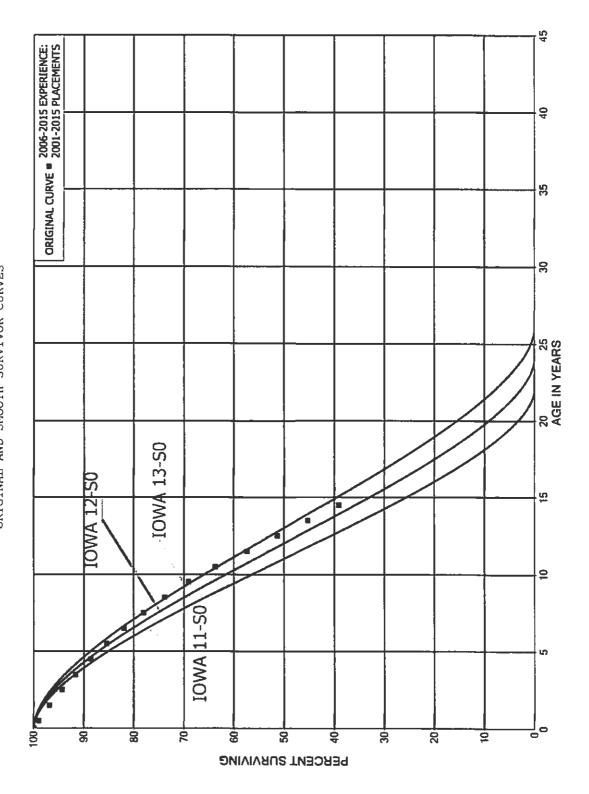
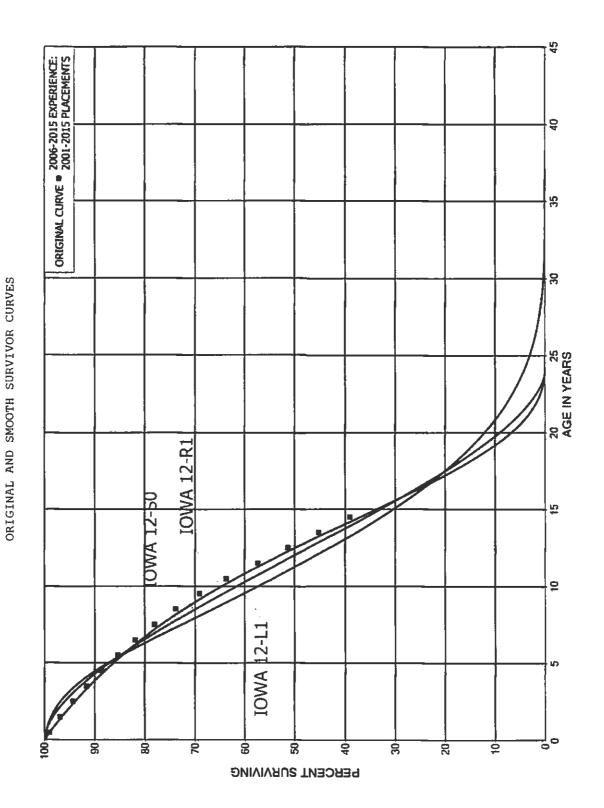


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN RI IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES 2006-2015 EXPERIENCE: 2001-2015 PLACEMENTS 9 ORIGINAL CURVE 怒 8 20 25 AGE IN YEARS IOWA 13-R1 햔 IOWA 12-R1 유 IOWA 11-R1 S ē ġ 5 9 50 Ŕ 20 PERCENT SURVIVING

SO AND R1 IOWA TYPE CURVE FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1,



PART III.	SERVICE	LIFE C	CONSIDER	ATIONS
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#### PART III. SERVICE LIFE CONSIDERATIONS

#### **FIELD TRIPS**

In order to be familiar with the operation of the Company and observe representative portions of the plant, field trips have been conducted. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during recent field trips.

#### October 20, 2015

E.W. Brown Generating Facility Ghent Generating Facility Higby Mill Substation

#### October 10-11, 2011

E.W. Brown Generating Facility
Tyrone Generating Facility
Ghent Generating Facility
Trimble County Generating Facility

#### April 23-25, 2007

Trimble County Generating Facility
Ghent Generating Facility
E.W. Brown Generating Facility
E.W. Brown Ice Plant
E.W. Brown Dispatch Center
Dix Dam Hydro Plant
Shelbyville General Office

#### **SERVICE LIFE ANALYSIS**

The service life estimates were based on judgment which considered a number of factors. The primary factors were the statistical analyses of data, current Company policies and outlook as determined during conversations with management; and the survivor curve estimates from previous studies of this company and other electric utility companies.



For 29 plant accounts and subaccounts for which survivor curves were estimated, the statistical analyses using the retirement rate method resulted in good to excellent indications of the survivor patterns experienced. These accounts represent 84 percent of depreciable plant. Generally, the information external to the statistics led to minimal or no significant departure from the indicated survivor curves for the accounts listed below. The statistical support for the service life estimates is presented in the section beginning on page VII-2.

#### STEAM PRODUCTION PLANT 312 Boiler Plant Equipment 314 **Turbogenerator Units** Miscellaneous Power Plant Equipment 316 HYDRO PRODUCTION PLANT 331 Structures and Improvements 333 Water Wheels, Turbines and Generators 335 Miscellaneous Power Plant Equipment OTHER PRODUCTION PLANT Prime Movers 343 TRANSMISSION PLANT Structures and Improvements 352.1 Structures and Improvements – System Control / Communication 352.2 353.1 Station Equipment 353.2 Station Equipment - System Control/Communication Towers and Fixtures 354 355 Poles and Fixtures 356 **Overhead Conductors and Devices** DISTRIBUTION PLANT 361 Structures and Improvements 362 Station Equipment 364 Poles, Towers and Fixtures Overhead Conductors and Devices 365 366 **Underground Conduit Underground Conductors and Devices** 367 368 Line Transformers 369 Services

Meters

370

371 373 Installations on Customers' Premises

Street Lighting and Signal Systems

#### GENERAL PLANT

390.1 Structures and Improvements - To Owned Property
 390.2 Structures and Improvements - To Leased Property
 392 Transportation Equipment - Cars and Light Trucks
 396 Power Operated Equipment

Account 364, Poles, Towers and Fixtures and Account 368, Line Transformers, are used to illustrate the manner in which the study was conducted for the groups in the preceding list. Account 364 represents approximately 4 percent, and Account 368 also represents approximately 4 percent, of the total depreciable plant. Aged plant accounting data have been compiled for the years 1905 through 2015 for poles and 1900 through 2015 for line transformers. These data have been coded in the course of the Company's normal record keeping according to account or property group, type of transaction, year in which the transaction took place, and year in which the electric plant was placed in service. The retirements, other plant transactions, and plant additions were analyzed by the retirement rate method.

The survivor curve estimate for Account 364, Poles, Towers and Fixtures, is based on the statistical indications for the periods 1905 through 2015 and 1961 through 2015. The Iowa 50-R1.5 is an excellent fit of the original survivor curve. The 50-year service life is within the typical service life range of 35 to 50 years for poles. The 50-year life reflects the Company's practices of longer lives through extensive maintenance on its poles and steady retirements for all vintages due to load demands. The previous estimate was the lowa 50-R1.

The survivor curve estimate for Account 368, Line Transformers, is the 46-R2 and is based on the statistical indication for the periods 1900 through 2015 and 1961 through 2015. The 46-R2 is an excellent fit of the significant portion of the original survivor curve as set forth on page VII-155 and consistent with management outlook for a continuation of

historical experience, and within the typical service life range of 35 to 50 years for line transformers.

#### Life Span Estimates

Inasmuch as production plant consists of large generating units, the life span technique was employed in conjunction with the use of interim survivor curves which reflect interim retirements that occur prior to the ultimate retirement of the major unit. An interim survivor curve was estimated for each plant account, inasmuch as the rate of interim retirements differs from account to account. The interim survivor curves estimated for steam, hydro, and other production plant were based on the retirement rate method of life analysis which incorporated experienced aged retirements for the period 1926 through 2015 for steam, 1941 through 2015 for hydro, and 1970 through 2015 for other production.

The depreciable life span estimates for power generating stations were the result of considering experienced life spans of similar generating units, the age of surviving units, general operating characteristics of the units, major refurbishing, and discussions with management personnel concerning the probable long-term outlook for the units, and observed features and conditions at the time of the field visit. These life spans represent the expected depreciable life of each facility under their current configuration. Future capital expenditures can extend a facility's depreciable life, however, such changes to depreciable life would not be prudent until the capital expenditures are actually put into plant in service.

The life span estimate for most steam, base-load units is 54 to 67 years, which is within the typical range of life spans for such units. The 100-year life span for the hydro production facility is within the typical range. Life spans of 30 to 37 years were estimated for the majority of combustion turbines. These life span estimates are typical for combustion turbines which are used primarily as peaking units.



A summary of the year in service, life span and probable retirement year for each power production unit follows:

	Major Year in	Probable Retirement	
Depreciable Group	Service	Year	<u>Life Span</u>
Steam Production Plant			
Tyrone Unit 3	1947,1953	2015	68,62
Tyrone Units 1 & 2	1947,1948	2015	68,67
Green River Unit 3	1954	2015	61
Green River Unit 4	1959	2015	56
Green River Units 1 & 2	1950	2015	65
Brown Unit 1	1956	2023	67
Brown Unit 2	1963	2029	66
Brown Unit 3	1971	2035	64
Pineville Unit 3	1951	2015	64
Ghent Unit 1	1974	2034	60
Ghent Unit 2	1977	2034	57
Ghent Unit 3	1981	2037	56
Ghent Unit 4	1984	2038	54
System Laboratory	1989	2040	51
Trimble County Unit 2	1990,2011	2066	76,55
Hydro Plant			
Dix Dam	1941	2041	100
Other Production Plant			
Paddy's Run Generator 13	2001	2031	30
Brown Unit 5	2001	2031	30
Brown Unit 6	1999	2029	30
Brown Unit 7	1999	2029	30
Brown Unit 8	1995	2025	30
Brown Unit 9	1994	2031	37
Brown Unit 10	1995	2031	36
Brown Unit 11	1996	2026	30
Trimble County Unit 5	2002	2032	30
Trimble County Unit 6	2002	2032	30
Trimble County Unit 7	2004	2034	30
Trimble County Unit 8	2004	2034	30
Trimble County Unit 9	2004	2034	30

Trimble County Unit 10	2004	2034	30
Haefling Units 1, 2, & 3	1970	2020	50
Cane Run Unit 7	2015	2055	40

Similar studies were performed for the remaining plant accounts. Each of the judgments represented a consideration of statistical analyses of aged plant activity, management's outlook for the future, and the typical range of lives used by other electric companies.

The selected amortization periods for other General Plant accounts are described in the section "Calculated Annual and Accrued Amortization."

PART IV.	NET	SALVAGE	CONSIDERATIONS
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#### PART IV. NET SALVAGE CONSIDERATIONS

#### SALVAGE ANALYSIS

The estimates of net salvage by account were based in part on historical data compiled through 2015. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates by account are expressed as a percent of the original cost of plant retired.

#### Net Salvage Considerations

The estimates of future net salvage are expressed as percentages of surviving plant in service, i.e., all future retirements. In cases in which removal costs are expected to exceed salvage receipts, a negative net salvage percentage is estimated. The net salvage estimates were based on judgment which incorporated analyses of historical cost of removal and salvage data, expectations with respect to future removal requirements and markets for retired equipment and materials.

The analyses of historical cost of removal and salvage data are presented in the section titled "Net Salvage Statistics" for the plant accounts for which the net salvage estimate relied partially on those analyses.

Statistical analyses of historical data for the period, 1985 through 2015 by plant account were analyzed. The analyses contributed significantly toward the net salvage estimates for 28 plant accounts, representing 88 percent of the depreciable plant, as follows:

#### STEAM PRODUCTION

- 311 Structures and Improvements
- 312 Boiler Plant Equipment
- 314 Turbogenerator Units
- 316 Miscellaneous Power Plant Equipment



CTRIC PRODUCTION
Structures and Improvements
Accessory Electric Equipment
Miscellaneous Power Plant Equipment
DDUCTION
Fuel Holders, Producers and Accessories
Prime Movers
Generators
Accessory Electric Equipment
SION PLANT
Station Equipment
Station Equipment - System Control/Communication
Overhead Conductors and Devices
ON PLANT
Station Equipment
Poles, Towers and Fixtures
Overhead Conductors and Devices
Underground Conduit
Underground Conductors and Devices
Line Transformers
Services
Meters
Installations on Customers' Premises
Street Lighting and Signal Systems
PLANT
Structures and Improvements - To Owned Property
Structures and improvements - To Leased Property
Transportation Equipment - Cars and Light Trucks
Power Operated Equipment

Account 368, Line Transformers, is used to illustrate the manner in which the study was conducted for the groups in the preceding list. Net salvage data for the period 1985 through 2015 were analyzed for this account. The data include cost of removal, gross salvage and net salvage amounts and each of these amounts is expressed as a percent of the original cost of regular retirements. Three-year moving averages for the 1985-1987 through 2013-2015 periods were computed to smooth the annual amounts.



Cost of removal was slightly higher during the eight year period, 2002 through 2009, then a reduction in recent years as a percentage of retirements. The high removal costs during the eight year period were not expected to continue based on the current practices, however future levels will increase beyond the most recent five years for line transformers. Cost of removal for the most recent five years averaged 10 percent.

Gross salvage has been steady for most years with the exception of 2001-2006. The most recent five-year average of 15 percent gross salvage reflects recent trends of salvage value for line transformers due to new practices of refurbishing the assets. These recent levels are expected to continue for salvage value.

The net salvage percent based on the overall period 1985 through 2015 is 7 percent negative net salvage. The range of estimates made by other electric companies for line transformers is positive 5 to negative 10 percent. The net salvage estimate for line transformers is negative 5 percent, is within the range of estimates for other electric companies and reflects the level of negative net salvage for the 31 years.

The net salvage percents for the remaining accounts were based on judgment incorporating estimates of previous studies of this and other electric utilities.

The overall net salvage estimates for the Company's production facilities, for which the life span method is used, is based on estimates of both terminal net salvage and interim net salvage. Terminal net salvage is the net salvage experienced at the end of a production plant's life span. Interim net salvage is the net salvage experienced for interim retirements that occur prior to the final retirement of the plant. The terminal net salvage estimates in the study were based on decommissioning costs assigned to comparable facilities. The interim net salvage estimates were based in part on an analysis of historical interim retirement and net salvage data. Based on informed judgment that incorporated these interim net salvage analyses for each plant account, an

interim net salvage estimate between 5 and 30 percent was used for each steam plant account and a negative salvage estimate between 0 and 15 percent was used for each other production plant account.

The interim survivor curve estimates for each account and production facility were used to calculate the percentage of plant expected to be retired as interim retirements and terminal retirements. These are shown on Table 2 in the Net Salvage Statistics section on pages VIII-2 and VIII-3. These percentages were used to determine the weighted net salvage estimate for each account and production facility based on the interim and terminal net salvage estimates. These calculations, as well as the estimated terminal net salvage amounts and interim net salvage percents, are shown on Table 2 of the Net Salvage Statistics section on pages VIII-2 and VIII-3.

Generally, the net salvage estimates for the remaining general plant accounts were zero percent, consistent with amortization accounting.



# PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

## PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

#### **GROUP DEPRECIATION PROCEDURES**

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives, but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

#### Single Unit of Property

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4+6)}$$
 = \\$100 per year.

The accrued depreciation is:

$$$1,000\left(1-\frac{6}{10}\right)=$400.$$

#### Remaining Life Annual Accruals

For the purpose of calculating remaining life accruals as of December 31, 2015, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of December 31, 2015, are set forth in the Results of Study section of the report.

#### Average Service LifeProcedure

In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining life is a directly weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future depreciation accruals if current forecasts of life characteristics are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account based upon the attained age and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:



#### CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization, as defined in the Uniform System of Accounts, is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization periods and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is appropriate for certain General Plant accounts that represent numerous units of property, but a very small portion of total depreciable electric plant in service. The accounts and their amortization periods are as follows:

		Amortization Period,
	Account	Years
391.1	Office Furniture and Equipment	20
391.2	Non-PC Computer Equipment	5
391.31	Personal Computers	4
393	Stores Equipment	25
394	Tools, Shop and Garage Equipment	25
397.1	Communication Equipment - Radio and Telephone	10
397.2	Communication Equipment - DSM	10

For the purpose of calculating annual amortization amounts as of December 31, 2015, the book depreciation reserve for each plant account or subaccount is assigned or allocated to vintages. The book reserve assigned to vintages with an age greater than the amortization period is equal to the vintage's original cost. The



remaining book reserve is allocated among vintages with an age less than the amortization period in proportion to the calculated accrued amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount is determined by dividing the future amortizations (original cost less allocated book reserve) by the remaining period of amortization for the vintage.

### **PART VI. RESULTS OF STUDY**



#### PART VI. RESULTS OF STUDY

#### **QUALIFICATION OF RESULTS**

The calculated annual and accrued depreciation are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line remaining life method of depreciation, using the average service life procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

The annual depreciation accrual rates are applicable specifically to the electric plant in service as of December 31, 2015. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to December 31, 2015, is reasonable for a period of three to five years.

#### **DESCRIPTION OF STATISTICAL SUPPORT**

The service life and salvage estimates were based on judgment which incorporated statistical analyses of retirement data, discussions with management and consideration of estimates made for other electric utility companies. The results of the statistical analyses of service life are presented in the section titled "Service Life Statistics".

The estimated survivor curves for each account are presented in graphical form. The charts depict the estimated smooth survivor curve and original survivor



curve(s), when applicable, related to each specific group. For groups where the original survivor curve was plotted, the calculation of the original life table is also presented.

The analyses of salvage data are presented in the section titled, "Net Salvage Statistics". The tabulations present annual cost of removal and salvage data, three-year moving averages and the most recent five-year average. Data are shown in dollars and as percentages of original costs retired.

#### **DESCRIPTION OF DEPRECIATION TABULATIONS**

A summary of the results of the study, as applied to the original cost of electric plant as of December 31, 2015, is presented on pages VI-4 through VI-9 of this report. The schedule sets forth the original cost, the book reserve, future accruals, the calculated annual depreciation rate and amount, and the composite remaining life related to electric plant.

The tables of the calculated annual depreciation accruals are presented in account sequence in the section titled "Detailed Depreciation Calculations." The tables indicate the estimated survivor curve and net salvage percent for the account and set forth, for each installation year, the original cost, the calculated accrued depreciation, the allocated book reserve, future accruals, the remaining life and the calculated annual accrual amount.

# KENTUCKY UTBITTES COMPANY

COMPOSITE REMAINING LIPE (3)-(5)-(5)-(7) CALCULATED ANNUAL
ACCRUAL
AMOUNT RATE
(9) 22.00 25.00 00 00 10 . . . . . 2,029 1,754,695 64,321 16,023 11,758 15,069 31,758 18,758 190,620 190,144 160,164 160,164 160,164 160,164 160,164 160,164 160,164 174,666 48,425 274 986 49,685 8.049.599 4,864,850 3,341 3.195,997 400,425 112,715 426,375 9.991,096 1953,803 2,754,839 2,754,839 2,1655,996 19,715,245,539 508,778,824 63,912,006 10,944,100 28,002,580 221,100,870 276,645,58 101,872,395 101,994,327 84,208,748 194,079,328 2,414,481 5,061 18,243 67,843,323 3,014 801,148 190,173,670 2,437,785 ACCRUALS (8) FABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, HET SALVAGE PERCENT, ORIGHAL COST, BOOK DEPRECATION RESERVE AND CALCULATED ANNUAL DEPRECATION ACCRUAL RATES AS OF DECEMBER 31, 2015 \$2,578 17 768,070 26 586,675 23,445,099 3,002,793 713,561 4,658,756 2,008,651 14,003,124 8,775,716 7,331,103 16,115,555 14,507,970 14,507,970 14,503,970 15,503,157 2,148,119 34,420 304,598 92,306,117 16,902,423 16,903,592 74,041,334 47,058,422 96,144,903 167,704,359 168,531,725 155,116,942 155,116,942 155,116,443 156,217 155,116,443 156,217 156,116,443 156,217 157,811,634 177,811,634 BOOK DEPRECIATION RESERVE (5) 2,804,720 2,804,214 5,016,024 1,714,392 40,964 14,427,523 2,487,125 159,284,854 12,079,588 55,918.83 51,209,431.98 41,045,494.53 95 533,749,13 5 556,451,40 1,102,963,94 4 680,069,40 22,711,518,61 45,507,722,44 45,507,722,44 45,507,722,42 19,508,601,71 16,258,655,69 15,109,601,71 15,217,330,72 4,562,600.30 39,480.55 322,828.55 1,692,976.56 503,381.44 2,549,285.01 4,560,022.06 1,558,539.26 37,239.96 531,931,578,48 40,216,199,41 13,629,932,23 13,639,939,63 14,726,29,939 14,726,29,939 14,726,29,939 14,726,29,939 14,726,29,939 14,726,29,939 14,629,29 118,496,532,34 25,170,622,20 92,310,045,32 321,692,853,29 1 924,909 40 3,711,467,554.40 10,981,443,29 COST (4) MET SALVAGE PERCENT **EEEEEE** 556666666666 000 SURPRICE (2) 100 R2 5 100 100-R25 100-R25 100-R25 100-R25 SOLARE TOTAL ACCOUNT 311.2 - STRUCTURES AND MARROVEMENTS - RETIRED PLANT TOTAL ACCOUNT 311 1 - STRUCTURES AND IMPROVEMENTS - ASH PONDS TOTAL ACCOUNT 311 - STRUCTURES AND IMPROVEMENTS STEAM PRODUCTION PLANT STRUCTURES AND MPROVEMENTS - RETURED PLANT TYRONE UNIT 3 TYRONE UNITS 1 AMD 2 BITANGBLE PLANT TOTAL ACCOUNT 312 - BOLLER PLANT EDUPMENT STRUCTURES AND MAROVEMENTS - ASH PONDS TRANSE COUNTY UNIT 2 ASH POND CHENT UNIT 1 SCRUBBER ASH POND GHENT UNIT 1 ASH POND ACCOUNT (1) BROWN UNT 1 BROWN UNT 3 BROWN UNT 1,2 AND 3 SCRUBBER GHENT UNT 1 SCRUBBER GHENT UNT 2 GHENT UNT 2 TRABLE COUNTY UNIT 2 TRABLE COUNTY UNIT 2 SCRUBBER SYSTEM LABORATORY BROWN UNIT 1 BOLER PLANT EQUPMENT TRIMBLE COUNTY UNT 2 TRIMBLE COUNTY UNT 2 SCRUBBER BROWN UNT 1 FRANCHISES AND CONSENTS MISCELLANEOUS INTANGIBLE PLANT CCS SOFTWARE BROWN UNT 1, 2 AND 3 SCRUBBER GHENT UNT 1 SCRUBBER GHENT UNT 1 STRUCTURES AND IMPROVEMENTS GREEN RIVER UNITS 1 AND 2 PINEVALE UNIT 3 TOTAL INTANGIBLE PLANT GHENT UNIT 4 GHENT UNIT 2 SCRUBBER SREEN RIVER UNIT 3 DEPRECIABLE PLANT 00 COK 311 00 311 10 311.20 312 00

3.1

24.66 24.66 24.66 25.75 26.75 26.75 27.75

18.5

TABLE 1. SUMMARY OF ESTMATED SURVIVOR CURVES, NET SALVAGE PERCENT, GRIGHUL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2015

31210	ACCOUNT (1) BOLER PLANT EQUIPMENT ASH PONDS	SURVIVOR CURVE	- 3 5	NET BALVAGE PERCENT (3)	ORICHAL COST (4)	BOOK DEPRECATION RESERVE [5]	FUTURE ACCRUALS (6)	CALCULATED AMMUAL ACCRUMI AMOUNT (\$P={7K4})	ACCRUAL ACCRUAL RATE (8)={7,744}	COMPOSITE REMANNO LIFE (9)=(6/17)
		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		000000000	4,610,685,23 175,455,72 13.11,640,96 81,265,89 9,299,115,00 1,269,116,00 1,777,72,39 1,777,72,39 1,607,133,18 78,491,074,19	575.456 1931.641 1931.641 1935.644 3756.446 1937.651 1,330.503 1,3	3,934,543 0 0 1,700,089 682,586 13,775,085 31,507 19,24,161 39,731,483	222,77 0 0 222,007 24,141 26,907 26,903 18,9	169 124 124 124 135 135 160 160 160 160 160 160 160 160 160 160	20.5 7.5 13.5 18.5 22.5 22.5 20.5
312.20	BOBLER PLANT EQUIPMENT RETRED PLANT TYRONE UNITS 1 AND 2 GREEN RAVER UNITS 3 GREEN RAVER UNITS 1 AND 2 GREEN RAVER UNITS 1 AND 2 FINEVALLE UNITS 3 FINEVALLE UNITS 3 TOTAL ACCOUNT 3122 - BOLER PLANT EQUIPMENT - RETRED PLANT AND ASH PONDS	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		555555	91,182,48 35,837,44 41,300,90 569,315,53 145,203,78 145,202,53 1,085,182,84	90,279 18,331 45,431 65,924 167,488 175,181	000000	000000		
314.00	TURBOGENERATOR UNITS RIGHALE COUNTY UNIT 2 RIGHAN UNIT 1 RIGHAN UNIT 3 GHENT UNIT 1 GHENT UNIT 3 GHENT UNIT 3 GHENT UNIT 4 TOTAL ACCOUNT 314 - TURBOGENERATOR UNITS	22 22 22 24 25 25 25 25 25 25 25 25 25 25 25 25 25		56666666	69 907,000,94 8,340,751,67 45,458,100,43 38,748,250,59 31,748,250,59 43,067,723,16 57,857,72,14 57,857,72,14 57,857,72,14	20.271.673 3.601.260 8.601.260 20.611.566 20.626.042 21.364.30 22.423.726 136.467.415	61.22.246 5.036.037 5.036.037 27.571.020 27.571.020 27.571.020 27.571.020 27.571.020 27.571.020 16.663.734 16.663.734 16.663.734 16.663.734	1,076,033 801,075 801,075 1,470,359 1,173,145 7,44,559 803,375 1,406,391	208 323 323 323 323 234 243 243	43.2 7.3.2 13.1 17.6 17.6 17.6 20.6 20.6
314 10	TURBOGENERATOR UNITS RETIRED PLANT TYRONE UNITS TYRONE UNITS 1 AND 2 GREEN RIVER UNIT 4 GREEN RIVER UNIT 4 TOTAL ACCOUNT 314 1- TURBOGENERATOR UNITS - RETIRED PLANT					460,340 377,537 361,544 2,233,645 3,433,228				
315.00	ACCESSORY ELECTRIC EQUIPMENT TRAMBLE COUNTY UNIT 2 BROWN UNIT 1 BROWN UNIT 1 BROWN UNIT 1 BROWN UNIT 1 BROWN UNIT 2 BROWN UNIT 3 BROWN UNIT 3 BROWN UNIT 3 BROWN UNIT 3 BROWN UNIT 4 GHENT UNIT 3 GHENT UNIT 3 GHENT UNIT 4 GHENT UNIT 4 GHENT UNIT 4 GHENT UNIT 4 GHENT UNIT 5 GHENT UNIT 5 GHENT UNIT 5 GHENT UNIT 4 GHENT UNIT 5 GHENT	742 742 742 742 742 743 743 743 743 743 743 743 743 743 743			47,150,600,94 1,415,499,10 4,224,540,53 2,449,996,58 8,959,77,01 20,300,840,00 11,755,940,70 11,755,950,70 27,465,559,07 27,465,559,07 27,465,559,07 12,041,899,28	8,002,472 75,016 1,219,136 1,409,941 6,735,046 8,505,593 11,203,200 24,419,733 11,203,200 11,203,200 12,419,733 11,203,819 13,008,819 13,008,819 13,008,819 13,008,819 13,008,819 13,008,819 13,008,819 13,008,819 13,008,819	45.204,484 1.2548,472 1.2548,475 1.143,397 2.782,118 2.32,777 4.006,271 4.006,273 11,412,554 11,412,554 11,412,554 11,412,554 11,412,554 11,413,635 11,650,525 11,650,525	970,475 20,750 186,586 85,479 112,301 13,003,904 440,467 225,530 225,530 225,530 225,530 225,530 225,530 227,807 45,517 43,601 621,100	2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00	48 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
315.10	TOTAL ACCOUNT 315 - ACCESSORY ELECTRIC EQUIPMENT ACCESSORY ELECTRIC EQUIPMENT - RETIRED PLANT TYRONE UNIT 3 GREEN RIVER UNIT 3 GREEN RIVER UNIT 3 GREEN RIVER UNIT 4 TOTAL ACCOUNT 315 1 - ACCESSORY ELECTRIC EQUIPMENT - RETIRED PLANT	70-R3 70-R3 70-R3		555	220,741,678.05 24,878.67 165,716.59 480,433.11 670,828.37	527,147 27,147 182,286 528,478	139,441,795	5,774,137 0 0 0	29:2	24.5

TABLE 1. SUMMARY OF ESTMATED SURVNOR CURVES, NET SALVAGE PERCENT, ORIGAAL COST, BOOK DEPRECATION RESERVE AND CALCULATED ANNUAL DEPRECATION ACCRUAL RATES AS OF DECEMBER 31, 2015

COMPOSITE REMANING LIFE (9)\*(6)(7) 20112882428 17.6 17.6 21.9 15.5 24.7 24.7 25.1 25.1 25.2 25.2 22.7 22.7 CALCULATED ANNUAL
ACCRUAL
AMDUNT
RATE
(7)
(8)-(7)(4) 3.45 2.48 2.61 261 3.26 3.76 3.33 • 2.48 3.88 3.81 3.81 3.78 무 3 2.19 885,149 20,518 570,125 570,125 542,711 542,711 50,351 11,924 11,924 3,865 162,401,592 50,351 7,820 7,620 3,863 1,203,447 (27) (22) (33,022) 8,735,846 116,952 23,443 3,476,886 156,477 346,77 346,77 346,77 1591,572 5,817,313 59,677 506,869 14,325,596 709,807 170,071 170,071 3,507,804,825 506,869 14.125.598 1,140,821 1,140,621 209,897 59,877 22,816,909 13,662,941 13,662,941 29,984,079 FUTURE ACCRUALS (6) 721,700 901,711 355,531 107,051 3287,152 946,662 1,649,503 1,449,503 2,871,355 3,546,709 81,841 12,695 418,210 50,258 912,333 220 518 BOOK DEPRECIATION RESERVE (5) 15,678,072 563,104 912,333 345,562 345,562 817,722 B12,022 116,558 70,587 70,567 116,532 116,532 1,475,084,816 8,218,820 8,218,620 817,722 116,558 10,599,880 8,269,509,80 445,832,87 445,832,87 123,107,10 6,381,108,11 1,033,027,09 1,083,27,545 1,083,27,545 1,083,27,545 1,084,043,73 1,082,95 74,491.69 11,541.15 380,191.26 45,689.51 679,311.47 827,602.64 35,753,605,29 511,913.61 4,713,368,149,23 679,311.47 21,865,646.37 1,121,668 77 27,602 64 21,885,548.37 14,058,898,32 14,058,886,32 1,321,686.77 316,948.74 315,948.74 234,509.13 234,509.13 19,524,601.44 178,409 31 176,409.31 COST (4) NET SALVAGE PERCENT (3) 5555 2399996666 ē 6 ê ĉ đ 6 0 SURVINOR CURVE (2) 75.815 75.815 75.815 75.815 75.815 75.815 75.815 75.815 75-R15 75-R15 75-R15 75-R15 100-R4 90-525 05-52 5 40-125 SQUARE 75.R3 05-01 20 A. TOTAL ACCOUNT 316.1 - MISCELLANEOUS POWER PLANT EQUIPMENT - RETIRED PLANT TOTAL ACCOUNT 316 - MISCELLANEOUS POWER PLANT EQUIPMENT TOTAL ACCOUNT 335 - MISCELLAMEDUS POWER PLANT EQUIPMENT TOTAL ACCOUNT 113 - WATER WHEELS, TURBNES & GENERATORS MASCELLANEOUS POWER PLANT EQUIPMENT RETIRED PLANT TYRONE UNIT 3 TYRONE UNITS 1 AND 2 TOTAL ACCOUNT 332 - RESERVOIRS, DAMS AND WATERWAYS HYDROELECTRIC PRODUCTION PLANT TOTAL ACCOUNT 331 - STRUCTURES AND MPROVEMENTS TOTAL ACCOUNT 334 - ACCESSORY ELECTRIC EQUIPMENT TOTAL ACCOUNT 338 - ROADS, RAILHOADS AND BRIDGES OTHER PRODUCTION PLANT ACCOUNT (1) TOTAL ACCOUNT 340 f - LAND AND LAND RIGHTS TOTAL HYDROELECTRIC PRODUCTION PLANT WATER WHEELS, TURBINES AND GENERATORS DIX DAM MISCELLANEOUS POWER PLANT EQUIPMENT TRIMBLE COUNTY UNIT 2 SYSTEM LABORATORY MISCELLANEOUS POWER PLANT EQUIPMENT RESERVOIRS, DAMS AND WATERWAYS TOTAL ACCOUNT 330.1 - LAND RIGHTS TOTAL STEAM PRODUCTION PLANT STRUCTURES AND IMPROVEMENTS DIX DAM ACCESSORY ELECTRIC EQUIPMENT DIX DAM ROADS, RALIGOADS AND BRIDGES DIX DAM GREEN RIVER UNIT 4 GREEN RIVER UNITS 1 AND 2 BROWN UNT 2 BROWN UNT 3 GRENT UNT 1 GRENT UNT 1 GRENT UNT 2 GRENT UNT 3 GRENT UNT 4 LAND RIGHTS BROWN CT UNT 9 GAS PIPE LAND RIGHTS DIX DAM DIX DAM 316.00 316.10 330.10 21.00 332 00 333 00 334.00 336.00 340.10 335.00

TABLE † BUMMARY OF ESTMATED SURTWORN CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BUON DEPRECATION RESERVE AND CALCULATED AWMAN, DEPRECATION ACCRUAL, PATES AS OF DECEMBER 11, 7015

		CALCU	ATED ANDRINAL DEPI	ECIATION ACCRUM	calculated anammal depreciation accruml rates as of december 31, 2015	31, 2015				
<u> </u>			SURWINE	MET	DRIGHTY	BOOM	FUTURE	ACCRUAL ACCI	ARMUAL ACCRUAL	COMPOSITE REMANDING
		ACCOUNT (1)	CONVA	PERCENT (3)	(4)	RESERVE (5)	ACCRUALS (F)	(7)	IN-THE	(\$PH6)47)
Α	M1.00	STRUCTURES AND MPROVEMENTS CAME RUN CC 7 TRIMBLE COUNTY CT 5	50-R2 5 50-R2 5	₽. 5.	46,895,473,79 3,740,231,32	663.228	51,859,703 2,290,836	1,421,593	300	365 158
_		TRABLE COUNTY CT 8 TRABLE COUNTY CT 7 TRABLE CANNATY CT 7	5 24 95 5 24 95 5 26 95	6E6	3,568,684,24	1,647,141	2,192,751	138,513	3.00 3.73 8.17 8.17	17.7
		TRABLE CONTINUE TO THE TRABLE CONTINUE TO BE	50-R25		3,655,876.41	1,652,931	2,458,964	130,000	3.79	22
		REGORD CTS BROWN CTS	20.425	: :	7.65,900.23	110,054	460,802	20,946	10.5	14.9
		BROWN CT 7	20-R25	E E I	567,512.07	287,418	319,820	24,545	17	100
_		BROWN CT 8 BROWN CT 9	50-472.5 50-472.5	E E	2,012,654,95	3 115,511	1,870,856	79,897	3 97 2 76	14.8
_		BROWN CT 10 ARGUM CT 11	50-R2 5	E <b>E</b>	1,865 718 20	1,202,272	784,048	54,497	2	146
		HARFLING UNTS 1, 2 AND 3 PADDY'S RUN GENERATOR 13	50-R2 5 50-R2 5	£.	291,451.55	71,380	1,327,833	55,861	19 17	14.5
		TOTAL ACCOUNT 341 - STRUCTURES AND MAPROVEMENTS			63,072,927,45	18,467,643	12,732,304	2,804,913	P 60	25.9
Ā	342.00	FUEL HOLDERS PRODUCEAS AND ACCESSORIES								
		CAVE RUN CAS PUPELINE	45-82.5	65 5 	22,414,528.87	1,643,640 345,052	25.879.218	3,459,896	2 C	35 25 8
_		TRAMBLE COUNTY CT 8 TRAMBLE COUNTY CT 8	45-R2 5 45-R2 5	€€	239,584,43	110,150	148,205	8,354 9,340	21.8d 21.8d	15.6 15.8
		TRANSLE COUNTY OF PRELIME TRANSLE COUNTY OF 7	45-725	£6	4,856,134,65 578,DS8,38	2,718,019	2,960,025	171,646	3 2	17.4
_		TRANSIC COUNTY CT &	45,625	::6	578,385,74	21,230	385,494	22,016	25	17.5
		TRIMBLE COUNTY CT 10	45-82.5	: E	622.872.60	246.541	410,033	23,962	300	17.5
_		BROWN CT 8	45-R2.5 45-R2.5	E E	959,617.20	261,412	580,081	38,789	00 gg n iii	148
		BROWN CT 7 BROWN CT 8	45-R25 45-R25	e e	263,045,52	120,424	161,035	67,004 17,167	8 C	13.2
		BROWN	45-R2 5	:68	3,155,168,57	1205.201	2,170,829	146,809	4 85	148
		BROWN CT 11	45.82.5		301,560.87	82,783	789,622	22,275	7.36	10:
		BROWN UNIT 1 2 AND 3 HABFING UNITS 1 2 AND 3 PAIDTING RIN GENERATOR 13	45-R25	 558	472,116,83	102,271	127,056	74,296	15.74	4 4
		TOTAL ACCOUNT 342 - FUEL HOLDERS, PRODUCERS AND ACCESSORES			160,050,131.64	13,626.547	164,168,791	5,243,072	328	31,3
Ą	343 00	PRINE MOVERS	1	!						
			28.83		38.873,336 68 31.056.261.24	13,187,243	22,182,978	1,513,668	156	7 K
_		TRIMBLE COUNTY CT 8 TRIMBLE COUNTY CT 7	15-R15	SE 	26,290,569,68	13.347.490 8.547.624	19,463,286	1,165,928	2 24	184
		THRIBLE COUNTY CT 8 TRANSLE COUNTY CT 8	35-R1.5 35-R1.5	ee 	25,156,461.02 24,869,310.25	0,050,054	18,820,700	1.150,385	4.57	16.5
·		TRANSLE COUNTY CT 10 BROWN CT 8	35-81.5	e e	24,739,825 43	8,285,715	18,185,898	1 (11,919	4.49	13.8
		BROWN CT &	35-815	: E i	N.702,471,57	14,208,645	22,925,000	1,979,835	5.42	12.2
		BROWN CT 8	25.85	SE!	26,676,975,25	14,860,649	13,886.871	1,549,572	188	33:
114		BROWN CT 9	35-815	£E	25,026,007.42	12,156,038	17,689,050	1,380,287	3	44.5
1144		BROWN CT 11 PADOYS RUN GENERATOR 13	15-R15 15-R15	€€	19,558,878,85	5,054,698	15,080,571	1,081,306	5.53	9 G 8 G
		TOTAL ACCOUNT 343 - PRIME MOVERS			473,814,317.58	159,808,238	351,371,162	21,931,976	450	18.0
	341.00	GENERATORS								
		CAME RIVIC 7 TRAMELE COUNTY CT 5 TRAMBLE COUNTY CT 6	20 20 20 20 20 20 20 20 20 20 20 20 20 2	 Gee	113,390,208,33 3,800,400,42 3,795,072,48	0.00 CDQ ( CZT (68) ( 64.0 GA) (	125,083,471 2,374,685 2,371,190	3,278,131 148,280 146,085	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	8 8 8 8 2 8 8 8
-		NOMBLE COUNTY CT 8 THARBLE COUNTY CT 8	1 2 2 1 2 2 2 1	993	2,870,613,50	21.021.1	2,028,700	112,470	373	122
		TRIMBLE COUNTY CT 10	20-02	<b>\$</b>	2,967,092,13	1.149,000	2,047,104	CTT/711	9/1	781

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, MET SALVAGE PERCENT, ORIGINAL, COST. BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2015

- ك					To be of Distriction of					
	ALTERNACY CONTRACTOR	SURVIVOR	NET SALVAGE BEDEFAT	AGE	ORIGINAL	BDOK DEPRECIATION PERSENTE	FUTURE	ACCRUAL ACCRUAL	AANUAL ACCRUAL BATE	COMPOSITE REMANNO
	(1)	(2)	1		<u> </u>	6	(9)	63	(8)=(7)4(4)	(SHSM2)
	BROWN CT 5	\$5-25 \$		_	2,866,621 78	1,127,186	1,740,113	114,116	3.98	15.2
		55-52 5			1721,293,63	1,994,405	1,987,379	149,758	8 2	13.3
	BROWN CT 8	55-52			4 962.634.83	3,437,474	1,872,545	200,474	4.0	. 6
	BROWN CT 9	\$5-82.5			5,460 715.08	3,599,863	2243,102	151,116	277	14.6
	BROWN CT 10	55-52 55-52			4,742,589,588 4,742,894,98	2,129,054	3,318,788	319,972	2. 10 2. 10 2. 10 3. 10	10.1
	HAEFLING CINTS 1 2 AND 3	55-52-5		· 6 :	2,682,135,68	2,341,531	608.818	143,804	152	42
	PADOYS RUN GENERATOR 13	02-95			24 84C,UC4,C	181,802,5	104-005-5	060/677	7.	?
	TOTAL ACCOUNT 344 - GENERATORS				172 508,939 62	32,807,403	157,472,631	5,625,273	128	28.0
345.00	0 ACCESSORY ELECTRIC EQUIPMENT							;	,	!
	CAME RUN CC 7	5 S		a -	26,266,452,56	421,424 754 B35	1.267.605	778.044	2.98	16.1
	TRANSLE COUNTY CT6	50-R3			4,329,641.09	1,668,232	2,944,698	184,149	2,	16.0
	TRANSLE COUNTY CT 7	5.683			3,144,581,31	1 229 820	2,134,862	19,062	3.79	17.9
	TRIMBLE COUNTY CT 9	50-83			3,423,274.57	1257,225	2,405,679	133,945	391	180
	TRIBELE COUNTY CT 10	50-R3			2, 202,076,07	1,003,516	1,466,433	87,644	<u> </u>	15.0
	BROWN CT 6	S-8			2,028,642.85	987,425	1,181,083	90,024	1	13.1
	BROWN CT 7	S S			1,987,208,52 23,507,70	966,000	1,160,313	184.311	4.45 8.85	13.1
	BROWN CT 8	2043			4 707 156.48	2,491,751	2,541,903	171.278	986	14.8
	BROWN CT 10	50-83		_	3,245 691 87	1,659,833	1,813 471	122.283	77.5	14.8
	BROWN CT 11	2 S		ce	2 454 258 42	13.01.23	1244 619	120,670	22 18	10,3
_	PADOY'S RUN GENERATOR 13	50-R3		: :=	2,499,630,62	1,141,302	1,500,278	100,236	4.01	15.0
	TOTAL ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT				73,541,548 19	20,605,881	59,387 711	2,912,196	3.98	20.4
748 m	ANACEL ANEONIS BOARED DI ANT FOLISHENT									
\$		40-R2		2	21,085 55	3	23,505	700	3,22	911
	TRIMBLE COUNTY CT 5 THIMBLE COUNTY CT 2	40-K2			E0.500.02	3,661	5,650	346	3.69	16.91
	TRIMBLE COUNTY CT 8	40-R2			8,66101	3,649	5,832	345	3.89	169
_	TRANSLE COUNTY OT 9 TRAINE E COUNTY OT 10	40-R2			8.113 52 41.868 51	11.271	32,62	1,930	2.54	17.4
_	BROWN CT 5	40-R2			2,139,352.61	1,067,229	1221 878	85,804	107	14.2
_	BROWN CT 6	40-R2			102,224,88 64,123,48	21 717	88.295	5.249	25	13.0
_	BROWN CT 8	40-R2			291 228 01	160 825	197 001	14,504	4 96	0.6
	BROWN CT 9 BROWN CT 10	24-04 24-04 24-04			274,390.87	170,711	122,887	906.8	27.	13.8
	BROWN CT 11	40-82		E	580,562,82	323,616	308,086	30,796	522	0.01
	PADDYS RIN GENERATOR 13	10-R2		- -	1,068,550.03	546,300	608 623	42,769	3.83	142
	TOTAL ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT			İ	5 655,608 44	2,633,105	3,111,701	246,337	4.36	12.8
	TOTAL OTHER PRODUCTION PLANT				968,820,182.33	248,685,587	404,314,177	38,767,650	4.00	
	TRANSMISSION PLANT									
			•		Or 300 801 00	TOAA OK	12 184 017	194 194	96	667
<u> </u>		70-R3	, FI	ŝ	25,314,463.82	6,625,662	25.017.98	420,302	90	28.5
22.5		85-R4	25	a a	183,226.01	71,970	169,563	4.800.786	13. 13. 13. 13. 13.	47.9
25.2	0 STATION EQUIPMENT - SYSTEM CONTROL/COMMUNICATION	45-R2	Ξ	គេ	6.568,080.27	7,553,789	0	0	, ;	' ;
25.0		70-R4	3.6	84	76,403,298.64	49,143,732	57,620 886 377,428,510	1,289,110	1.69	44.8
3 8		30-r4 85-R3	: 6	7 J	176,542,714.22	114,180,318	196.259,432	4,527,001	757	8
35 88 8 88		50-R4 40-R3			448,760.28	229,646 966,623	219,114	7,645	0.70	28.7
_					304 608 304 35	139 259 584	847.439.437	18.130.691	2.35	
	DIAL IMMUNISORUM TLANI									

TABLE 1. BUNDARY OF ESTIMATED SURVIVOR CURVES, MET SALVAGE PERCENT, DRICHAL COST, BOOK DEPRECATION RESERVE AND CALCULATED SAMBUL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2015

<b>S</b> Ganı	9888888889	VI-9	용유유유유 등등국왕등등 Kentucky Utilities Company
ACCOUNT [1]	LAND RICHTS STRUCTURES AND MARROYEMENTS STRUCTURES AND MARROYEMENTS STRUCTURES AND DEVICES DOVERHEAD CONDUCTORS AND DEVICES UNDERGROUND CONDUCTORS AND DEVICES UNDERGROUND CONDUCTORS AND DEVICES LINE TRANSFORMERS SERVICES METERS RESERVE AMORTIZATION METERS AMS METERS AMS METERS AMS TOTAL DISTRIBUTION PLANT	GENERAL PLANT STRUCTURES AND MERCOVEMENTS TO OMNED PROPERTY STRUCTURES AND MERCOVEMENTS . LEASEHOLDS OFFICE PLIBATINES AND MERCOVEMENTS . LEASEHOLDS OFFICE PLIBATINES AND MERCOVEMENTS . LEASEHOLDS TRANSPORTATION EQUIPMENT CARS AND LIGHT TRUCKS TRANSPORTATION EQUIPMENT HEAVY TRUCKS AND OTHER STORES EQUIPMENT HEAVY TRUCKS AND OTHER STORES EQUIPMENT HEAVY TRUCKS AND OTHER STORES EQUIPMENT TO EQUIPMENT FOUND AND TELEPHONE COMMUNICATION EQUIPMENT DSM TOTAL GENERAL PLANT	MONDEPRECIBLE PLANT  ORGANIZATION  LAND  LAND  LAND  LAND  TOTAL ELECTRIC PLANT  TOTAL E
SURVIVOR CURVE (2)	70-R4 80-R2.5 94-R2 50-R1.5 47-R1 50-R4 60-R2 40-R2 40-R2 40-R2 20-L1 15-R2.5 20-C1 78-L0.5	8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-8-	
MET SALVAGE PERCENT (3)	ං දිදිලිලිලිලිලිලිලිලිලිලිලිලිලිලිලිලිලිල	55 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
SURVICE PERCENT COST R  (2) (3) (4)	2, (68, 929, 31, 10, 716, 796, 73, 11, 32, 26, 79, 24, 79, 24, 79, 240, 23, 24, 79, 240, 24, 24, 24, 24, 24, 24, 24, 24, 24, 24	\$4 076.301.14 \$20.639.33 \$20.639.33 \$20.632.79 \$2.637.79 \$2.63.79 \$2.63.702.79 \$2.63.702.79 \$2.63.702.70 \$2.63.702.70 \$2.63.702.702.70 \$2.63.702.70 \$2.63.702.702.70 \$2.63.702.702.70 \$2.63.702.702.702.70 \$2.63.702.702.702.702.702.702.702.702.702.702	44.455.90 22.858.272.42 135.009.02 2.350.2710.07 5.673.027.92 2.801.001.60 33,931.036.64
BOOK DEPRECATION RESERVE (5)	1,458 (05 2,258 784 47,643 001 152,141 111 118,40,224 10,256 002 14,196 604 10,56 002 14,196 115 1,012,710 20,047 002 14,143,337	11,157,160 445,844 5,877,517 14,275,309 3,340,200 3,540,231 7,1972 7,194,231 7,1972 1,	2.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0
FUTURE ACCRUALS (6)	710.624 11.11.70 11.11.70 10.01.11.70 10.01.11.70 11.70.00 17.70.0	54 IZO 649 1.155 860 4.170 242 12.860.204 4.138.299 1.182 898 1.182 898 1.182 898 1.182 898 1.182 898 1.182 898 1.182 898 1.182 898 1.182 898 1.182 898 1.182 898 1.182 898 1.182 898 1.182 898 148	245.874. a
CALCHATE ACCRUAL ANOUNT	13,623 2,900,57 3,901,74 4,77,71,84 9,477,91 4,408,100 5,515,504 1,549,72 47,270 47,27	1,276,746 1,551 (25) 2,152,43 1,152,243 1,132,243 1,136,43 1,136,43 1,26,243 1,26,240 1,26,240 2,169,315 62,7,32 1,26,315	ZE7,039,543
CALCULATED AWHUAL ACCRUAL AMOUNT RATE (7) (8)-(7)/(4)	0.64 2.15 2.15 2.15 2.24 2.24 1.13 1.13 1.13 1.13 1.13 1.13 1.13 1.1	24 1 4 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
COMPOSITE REMANDIO LIFE (9)4(6)/[7]	28 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	39.2 2.2 2.2 2.2 2.2 2.3 2.3 2.3 2.3 3.4 5.5 5.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6	

**PART VII. SERVICE LIFE STATISTICS** 

120 1976-2015 EXPERIENCE 1926-2015 PLACEMENTS ORIGINAL CURVE - 1926-2015 EXPERIENCE IOWA 100-R2 5 100 ORIGINAL AND SMOOTH SURVIVOR CURVES 80 AGE IN YEARS 49 20 90 8 80 70 20 30 0 PERCENT SURVIVING

ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

KENTUCKY UTILITIES COMPANY

#### ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BANI	D 1926-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	337,711,379 335,921,546 307,105,704 248,048,847 246,048,630 184,796,029 181,647,212 180,633,514 180,116,265 163,570,424	5,735 542,452 99,706 50,433 734,062 104,730 21,095 167,151 170,873	0.0000 0.0000 0.0018 0.0004 0.0002 0.0040 0.0006 0.0001 0.0009	1.0000 1.0000 0.9982 0.9996 0.9998 0.9960 0.9994 0.9999 0.9991	100.00 100.00 100.00 99.82 99.78 99.76 99.36 99.31 99.30
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	163,415,271 161,969,532 158,542,342 141,780,449 141,138,208 140,526,796 155,890,582 155,752,615 155,317,127 143,781,496	39,157 27,824 27,779 154,244 17,498 118,767 64,102 78,589 109,268 42,662	0.0002 0.0002 0.0002 0.0011 0.0001 0.0008 0.0004 0.0005 0.0007	0.9998 0.9998 0.9989 0.9999 0.9992 0.9996 0.9995 0.9993	99.10 99.08 99.06 99.04 98.93 98.92 98.84 98.80 98.75 98.68
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	142,795,062 142,047,611 170,319,769 170,121,476 169,184,258 168,197,690 122,751,507 119,702,180 119,208,061 116,081,507	153,036 563,063 46,096 15,619 232,862 175,871 1,751,941 244,413 17,931 61,674	0.0011 0.0040 0.0003 0.0001 0.0014 0.0010 0.0143 0.0020 0.0002	0.9989 0.9960 0.9997 0.9999 0.9986 0.9990 0.9857 0.9980 0.9998	98.65 98.54 98.15 98.13 98.12 97.98 97.88 96.48 96.29
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	114,767,331 113,310,206 96,070,239 95,928,031 93,538,597 59,043,090 58,523,468 57,540,140 57,413,411 40,528,106	298,696 3,716 91,787 122,300 87,047 41,008 77,282 44,328 111,949 77,564	0.0026 0.0000 0.0010 0.0013 0.0009 0.0007 0.0013 0.0008 0.0019	0.9974 1.0000 0.9990 0.9987 0.9991 0.9993 0.9987 0.9981 0.9981	96.22 95.97 95.87 95.75 95.66 95.60 95.47 95.40 95.21

## ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1926-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	40,450,281 40,039,194 25,180,089 25,152,831 24,835,276 17,371,879 17,344,756 17,307,631 17,304,595 17,280,178	63,504 2,128 244,580 5,000 2,942 17,705 35,694	0.0000 0.0016 0.0001 0.0097 0.0000 0.0000 0.0003 0.0002 0.0010 0.0021	1.0000 0.9984 0.9999 0.9903 1.0000 1.0000 0.9997 0.9998 0.9990	95.03 95.03 94.88 94.87 93.95 93.95 93.95 93.90 93.81
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	17,217,264 17,137,237 16,376,654 15,106,983 15,105,162 13,953,568 13,885,422 11,485,394 11,484,183 11,482,350	60,621 1,141 9,523 13,326 30,823 829 1,385 82,243	0.0035 0.0000 0.0001 0.0000 0.0006 0.0010 0.0022 0.0001 0.0001	0.9965 1.0000 0.9999 1.0000 0.9994 0.9990 0.9978 0.9999 0.9999	93.61 93.29 93.28 93.28 93.22 93.13 92.92 92.92
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	8,948,886 7,328,009 5,636,061 5,333,436 5,333,436 5,253,505 3,580,620 2,382,257 2,078,984 1,041,808		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	92.24 92.24 92.24 92.24 92.24 92.24 92.24 92.24 92.24
69.5 70.5 71.5 72.5 73.5 74.5 75.5	1,041,808 1,041,808 1,041,808 1,041,808 1,041,808 1,041,808		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	92.24 92.24 92.24 92.24 92.24 92.24 92.24

# ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1976-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	296,323,923 295,177,830 281,300,016 222,270,996 220,509,991 166,963,629 163,949,191 162,977,522 162,463,584 145,935,938	5,735 542,452 99,706 50,433 709,034 95,401 21,095 167,151 170,873	0.0000 0.0000 0.0019 0.0004 0.0002 0.0042 0.0006 0.0001 0.0010	1.0000 1.0000 0.9981 0.9996 0.9998 0.9958 0.9994 0.9999 0.9990	100.00 100.00 100.00 99.81 99.76 99.74 99.31 99.26 99.24 99.14
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	145,792,364 144,370,015 140,983,875 125,502,394 124,880,975 124,289,749 139,709,915 141,956,248 141,603,448 130,070,073	35,941 18,151 27,779 135,057 17,498 118,767 64,102 77,268 107,012 42,662	0.0002 0.0001 0.0002 0.0011 0.0001 0.0010 0.0005 0.0005 0.0008	0.9998 0.9999 0.9989 0.9999 0.9999 0.9995 0.9995 0.9992	99.03 99.00 98.99 98.97 98.86 98.85 98.75 98.71 98.66 98.58
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	131,588,711 130,883,044 160,934,305 162,605,509 161,668,570 161,506,684 118,915,764 115,955,960 115,823,803 114,914,475	153,036 562,763 46,096 15,619 232,862 122,952 1,701,956 244,413 17,931 61,174	0.0012 0.0043 0.0003 0.0001 0.0014 0.0008 0.0143 0.0021 0.0002 0.0005	0.9988 0.9957 0.9997 0.9999 0.9986 0.9992 0.9857 0.9979 0.9998	98.55 98.43 98.01 97.98 97.97 97.83 97.76 96.36 96.15
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	113,600,799 112,143,674 94,903,707 94,761,499 92,372,065 57,876,558 57,356,936 56,373,608 56,246,879 39,384,311	298,696 3,716 91,787 122,300 87,047 41,008 77,282 44,328 111,949 77,564	0.0026 0.0000 0.0010 0.0013 0.0009 0.0007 0.0013 0.0008 0.0020	0.9974 1.0000 0.9990 0.9987 0.9991 0.9993 0.9987 0.9992 0.9980	96.09 95.84 95.83 95.74 95.62 95.53 95.46 95.33 95.26 95.07

## ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1976-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	39,306,486 38,895,399 24,066,083 24,038,825 23,721,270 16,257,873 16,230,750 16,198,625 16,195,589 16,171,172	33,715 2,128 244,580 2,942 17,705 35,694	0.0000 0.0009 0.0001 0.0102 0.0000 0.0000 0.0000 0.0002 0.0011 0.0022	1.0000 0.9991 0.9999 0.9898 1.0000 1.0000 1.0000 0.9998 0.9989 0.9978	94.88 94.80 94.79 93.82 93.82 93.82 93.82 93.81 93.70
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	17,217,264 17,137,237 16,376,654 15,106,983 15,105,162 13,953,568 13,885,422 11,485,394 11,484,183 11,482,350	60,621 1,141 9,523 13,326 30,823 829 1,385 82,243	0.0035 0.0000 0.0001 0.0000 0.0006 0.0010 0.0022 0.0001 0.0001	0.9965 1.0000 0.9999 1.0000 0.9994 0.9990 0.9978 0.9999 0.9999	93.50 93.17 93.17 93.16 93.16 93.10 93.01 92.81 92.80 92.79
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	8,948,886 7,328,009 5,636,061 5,333,436 5,333,436 5,253,505 3,580,620 2,382,257 2,078,984 1,041,808		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	92.12 92.12 92.12 92.12 92.12 92.12 92.12 92.12 92.12
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5	1,041,808 1,041,808 1,041,808 1,041,808 1,041,808 1,041,808		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	92.12 92.12 92.12 92.12 92.12 92.12 92.12 92.12

120 9 IOWA 100-S4 ACCOUNT 311.1 STRUCTURES AND IMPROVEMENTS - ASH PONDS 8 SMOOTH SURVIVOR CURVE 60 AGE IN YEARS 9 20 6 PERCENT SURVIVING



120 ORIGINAL CURVE = 1926-2015 EXPERIENCE 1976-2015 EXPERIENCE 1926-2015 PLACEMENTS 100 **IOWA 65-R2** 80 ORIGINAL AND SMOOTH SURVIVOR CURVES AGE IN YEARS 40 2 90 100 8 80 70 50 30 8 20 PERCENT SURVIVING

KENTUCKY UTILITIES COMPANY ACCOUNT 312 BOILER PLANT EQUIPMENT

## ACCOUNT 312 BOILER PLANT EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1926-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	3,964,907,108 3,548,964,753 2,916,422,965 2,555,416,736 1,909,929,353 1,331,325,896 1,269,682,618 1,239,878,622 1,203,339,330 1,077,227,794	628,572 17,126 1,440,042 7,868,514 4,003,178 6,363,665 2,157,410 1,354,059 2,362,438 4,415,349	0.0002 0.0000 0.0005 0.0031 0.0021 0.0048 0.0017 0.0011 0.0020 0.0041	0.9998 1.0000 0.9995 0.9969 0.9979 0.9952 0.9983 0.9989 0.9980	100.00 99.98 99.93 99.63 99.42 98.94 98.77 98.67
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	1,064,018,815 1,032,488,706 813,604,278 745,023,967 733,078,562 717,605,591 768,037,032 755,303,679 753,320,625 721,132,742	5,352,409 5,617,385 2,056,819 860,036 6,404,419 1,152,589 735,951 1,048,295 6,364,467 2,630,376	0.0050 0.0054 0.0025 0.0012 0.0087 0.0016 0.0010 0.0014 0.0084 0.0036	0.9950 0.9946 0.9975 0.9988 0.9913 0.9984 0.9990 0.9986 0.9916	98.07 97.58 97.05 96.80 96.69 95.84 95.69 95.60 95.46
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	712,663,900 688,654,703 636,753,403 615,027,294 598,027,526 582,788,088 535,051,094 533,096,601 527,216,492 512,084,802	2,397,737 4,309,440 3,756,576 3,308,548 1,863,101 4,688,331 822,046 2,752,663 10,521,562 3,127,145	0.0034 0.0063 0.0059 0.0054 0.0031 0.0080 0.0015 0.0052 0.0200 0.0061	0.9966 0.9937 0.9941 0.9946 0.9969 0.9920 0.9985 0.9948 0.9800	94.31 94.00 93.41 92.86 92.36 92.07 91.33 91.19 90.72 88.91
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	504,361,238 502,781,220 358,963,295 357,000,532 348,016,813 216,630,394 213,277,004 205,423,994 200,305,261 132,992,717	1,404,474 8,746,216 1,437,765 2,396,662 1,008,415 2,129,527 6,403,648 2,826,368 345,814 424,632	0.0028 0.0174 0.0040 0.0067 0.0029 0.0098 0.0300 0.0138 0.0017 0.0032	0.9972 0.9826 0.9960 0.9933 0.9971 0.9902 0.9700 0.9862 0.9983 0.9968	88.36 88.12 86.59 86.24 85.66 85.41 84.57 82.03 80.90 80.76

# ACCOUNT 312 BOILER PLANT EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1926-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5	123,074,891 116,090,981 61,992,095 57,728,323 57,088,574 32,114,615 31,569,968 30,838,783 30,504,729	515,769 151,765 1,065,625 397,555 1,095,896 358,176 721,056 318,881 83,359	0.0042 0.0013 0.0172 0.0069 0.0192 0.0112 0.0228 0.0103 0.0027	0.9958 0.9987 0.9828 0.9931 0.9808 0.9888 0.9772 0.9897	80.51 80.17 80.06 78.69 78.15 76.65 75.79 74.06 73.29
48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	30,407,180 30,111,720 29,776,194 27,692,114 22,219,470 21,672,499 18,013,474 17,879,094 13,780,186 13,647,599 13,437,716	293,407 310,091 87,355 432,148 546,971 147,727 132,553 288,131 49,273 11,088 578,571	0.0096 0.0103 0.0029 0.0156 0.0246 0.0068 0.0074 0.0161 0.0036 0.0008 0.0431	0.9904 0.9897 0.9971 0.9844 0.9754 0.9932 0.9926 0.9839 0.9964 0.9992 0.9569	73.09 72.39 71.64 71.43 70.32 68.59 68.12 67.62 66.53 66.29 66.24
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	7,811,799 3,584,044 565,974 546,419 546,419 483,959 363,068 127,687 127,433 127,433	22,566 18,726 56,616 235,381	0.0000 0.0063 0.0331 0.0000 0.1036 0.0000 0.6483 0.0000 0.0000	1.0000 0.9937 0.9669 1.0000 0.8964 1.0000 0.3517 1.0000 1.0000	63.38 63.38 62.99 60.90 60.90 54.59 54.59 19.20 19.20
69.5 70.5 71.5 72.5 73.5 74.5 75.5	127, 433 127, 433 127, 433 127, 433 127, 433 127, 433		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	19.20 19.20 19.20 19.20 19.20 19.20 19.20

# ACCOUNT 312 BOILER PLANT EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1976-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	3,808,369,001 3,404,749,804 2,840,080,663 2,482,638,878 1,839,111,145 1,293,818,208 1,232,433,412 1,202,651,314 1,166,135,972 1,040,044,752	622,429 6,944 1,440,042 7,864,512 3,995,742 6,337,523 2,157,410 1,343,109 2,362,438 4,370,580	0.0002 0.0000 0.0005 0.0032 0.0022 0.0049 0.0018 0.0011 0.0020 0.0042	0.9998 1.0000 0.9995 0.9968 0.9978 0.9951 0.9982 0.9989 0.9980	100.00 99.98 99.93 99.62 99.40 98.91 98.74 98.63 98.43
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	1,026,925,346 995,445,057 776,717,208 715,241,738 703,318,581 687,864,691 738,318,717 731,065,979 729,395,544 698,148,515	5,352,409 5,565,677 2,021,819 842,180 6,385,339 1,139,041 689,765 1,045,251 6,197,832 2,615,262	0.0052 0.0056 0.0026 0.0012 0.0091 0.0017 0.0009 0.0014 0.0085 0.0037	0.9948 0.9944 0.9974 0.9988 0.9909 0.9983 0.9991 0.9986 0.9915 0.9963	98.02 97.51 96.96 96.71 96.59 95.72 95.56 95.47 95.33
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	694,550,468 670,709,040 622,590,003 604,501,186 587,574,281 574,318,285 530,540,749 529,003,351 524,750,092 510,881,311	2,331,959 4,262,079 3,727,399 3,279,615 1,863,101 4,663,795 461,567 2,743,363 10,515,735 3,127,145	0.0034 0.0064 0.0060 0.0054 0.0032 0.0081 0.0009 0.0052 0.0200 0.0061	0.9966 0.9936 0.9940 0.9946 0.9968 0.9919 0.9991 0.9948 0.9800 0.9939	94.17 93.85 93.26 92.70 92.19 91.90 91.16 91.08 90.60 88.79
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	503,178,163 501,599,243 357,781,318 355,818,555 346,834,836 215,448,417 212,095,027 204,242,017 199,123,284 132,865,284	1,403,862 8,746,216 1,437,765 2,396,662 1,008,415 2,129,527 6,403,648 2,826,368 345,814 424,632	0.0028 0.0174 0.0040 0.0067 0.0029 0.0099 0.0302 0.0138 0.0017 0.0032	0.9972 0.9826 0.9960 0.9933 0.9971 0.9901 0.9698 0.9862 0.9983 0.9968	88.25 88.00 86.46 86.12 85.54 85.29 84.45 81.90 80.76 80.62

## ACCOUNT 312 BOILER PLANT EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1976-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	122,947,458 115,963,548 61,864,662 57,600,890 56,961,141 31,987,182 31,442,535 30,711,350 30,377,296 30,279,747	515,769 151,765 1,065,625 397,555 1,095,896 358,176 721,056 318,881 83,359 293,407	0.0042 0.0013 0.0172 0.0069 0.0192 0.0112 0.0229 0.0104 0.0027 0.0097	0.9958 0.9987 0.9828 0.9931 0.9808 0.9888 0.9771 0.9896 0.9973	80.36 80.03 79.92 78.55 78.00 76.50 75.65 73.91 73.14 72.94
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	30,111,720 29,776,194 27,692,114 22,219,470 21,672,499 18,013,474 17,879,094 13,780,186 13,647,599 13,437,716	310,091 87,355 432,148 546,971 147,727 132,553 288,131 49,273 11,088 578,571	0.0103 0.0029 0.0156 0.0246 0.0068 0.0074 0.0161 0.0036 0.0008	0.9897 0.9971 0.9844 0.9754 0.9932 0.9926 0.9839 0.9964 0.9992 0.9569	72.24 71.49 71.28 70.17 68.44 67.98 67.48 66.39 66.15 66.10
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	7,811,799 3,584,044 565,974 546,419 546,419 483,959 363,068 127,687 127,433	22,566 18,726 56,616 235,381	0.0000 0.0063 0.0331 0.0000 0.1036 0.0000 0.6483 0.0000 0.0000	1.0000 0.9937 0.9669 1.0000 0.8964 1.0000 0.3517 1.0000 1.0000	63.25 63.25 62.85 60.77 60.77 54.48 54.48 19.16 19.16
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5	127,433 127,433 127,433 127,433 127,433 127,433		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	19.16 19.16 19.16 19.16 19.16 19.16 19.16

120 용 IOWA 100-S4 ACCOUNT 312.1 BOILER PLANT EQUIPMENT - ASH PONDS 8 SMOOTH SURVIVOR CURVE AGE IN YEARS 40 8 8 80 9 8 20 РЕКСЕИТ SURVIVING

120 ORIGINAL CURVE = 1926-2015 EXPERIENCE 1976-2015 EXPERIENCE 1926-2015 PLACEMENTS 100 **IOWA 60-R2** ORIGINAL AND SMOOTH SURVIVOR CURVES 8 AGE IN YEARS 9 20 8 8 80 2 8 09 20 20 РЕВСЕИТ SURVIVING

KENTUCKY UTILITIES COMPANY ACCOUNT 314 TURBOGENERATOR UNITS

## ACCOUNT 314 TURBOGENERATOR UNITS

PLACEMENT I	BAND 1926-2015		EXPER	RIENCE BAN	D 1926-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	374,533,163 367,626,563 360,087,319 356,912,184 341,454,413 268,495,182 266,990,831 258,857,378 234,763,627 231,524,326	7,250 134,051 480,666 36,430 20,195 1,122,467 366,895 960,583	0.0000 0.0000 0.0000 0.0004 0.0014 0.0001 0.0001 0.0043 0.0016 0.0041	1.0000 1.0000 1.0000 0.9996 0.9986 0.9999 0.9997 0.9984 0.9959	100.00 100.00 100.00 100.00 99.96 99.82 99.81 99.80 99.37 99.21
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	224,382,045 217,059,189 209,510,148 201,149,021 199,077,803 196,519,380 196,415,750 194,933,559 194,075,868 179,077,323	612,448 478,500 1,152,535 388,345 1,959,530 34,900 371,673 496,466 3,600 3,863,067	0.0027 0.0022 0.0055 0.0019 0.0098 0.0002 0.0019 0.0025 0.0000 0.0216	0.9973 0.9978 0.9945 0.9981 0.9902 0.9998 0.9981 0.9975 1.0000 0.9784	98.80 98.53 98.31 97.77 97.58 96.62 96.60 96.42 96.18 96.17
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	172,394,603 168,465,190 174,780,557 172,693,987 171,930,203 171,459,052 157,412,579 156,253,298 155,904,866 154,558,693	335,070 367,194 1,871,499 705,556 449,660 3,527,233 787,410 348,432 1,236,741 304,676	0.0019 0.0022 0.0107 0.0041 0.0026 0.0206 0.0050 0.0022 0.0079 0.0020	0.9981 0.9978 0.9893 0.9959 0.9974 0.9794 0.9950 0.9978 0.9921	94.10 93.92 93.71 92.71 92.33 92.09 90.19 89.74 89.54 88.83
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	154,202,611 152,188,528 101,692,882 100,536,336 96,891,874 72,859,106 71,916,641 71,472,742 66,341,089 46,675,603	1,256,147 1,627,433 1,126,634 3,150,011 58,664 937,038 394,253 818,379 1,109,198 267,521	0.0081 0.0107 0.0111 0.0313 0.0006 0.0129 0.0055 0.0115 0.0167 0.0057	0.9919 0.9893 0.9889 0.9687 0.9994 0.9871 0.9945 0.9885 0.9833	88.66 87.94 86.99 86.03 83.34 83.29 82.21 81.76 80.83 79.48

#### ACCOUNT 314 TURBOGENERATOR UNITS

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1926-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF		DURING AGE	RETMT		BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	46,402,344	98,858	0.0021	0.9979	79.02
40.5	46,264,565	682,698	0.0148	0.9852	78.85
41.5	31,761,853	2,664,171	0.0839	0.9161	77.69
42.5	29,095,305	289,944	0.0100	0.9900	71.17
43.5	28,792,378	46,969	0.0016	0.9984	70.46
44.5	22,054,984	426,198	0.0193	0.9807	70.35
45.5	21,627,897	86,296	0.0040	0.9960	68.99
46.5	21,538,845	221,501	0.0103	0.9897	68.71
47.5	21,311,570	33,901	0.0016	0.9984	68.01
48.5	21,277,669	118,197	0.0056	0.9944	67.90
49.5	21,159,472	106,372	0.0050	0.9950	67.52
50.5	20,984,179	23, 139	0.0011	0.9989	67.18
51.5	19,439,157	418,909	0.0215	0.9785	67.11
52.5	15,002,440	82,920	0.0055	0.9945	65.66
53.5	14,916,327	11,547	0.0008	0.9992	65.30
54.5	12,618,892	63,208	0.0050	0.9950	65.25
55.5	12,555,028	261,631	0.0208	0.9792	64.92
56.5	9,551,849	1,805	0.0002	0.9998	63.57
57.5	9,550,044	38,530	0.0040	0.9960	63.56
58.5	9,511,514	275,161	0.0289	0.9711	63.30
59,5	5,175,915		0.0000	1.0000	61.47
60.5	2,363,599		0.0000	1.0000	61,47
61.5	96,695		0.0000	1.0000	61.47
62.5	96,695		0.0000	1.0000	61.47
63.5	96,695		0.0000	1.0000	61.47
64.5	96,695	68,206	0.7054	0.2946	61.47
65.5	28,489		0.0000	1.0000	18.11
66.5	28,489		0.0000	1,0000	18.11
67.5	28,489		0.0000	1,0000	18.11
68.5	28,489		0.0000	1.0000	18.11
69.5	28,489		0.0000	1.0000	18.11
70.5	28,489		0.0000	1.0000	18.11
71.5	28,489		0.0000	1.0000	18.11
72.5	28,489		0.0000	1,0000	18.11
73.5	28,489		0.0000	1.0000	18.11
74.5	28,489		0.0000	1.0000	18.11
75.5	28,489		0,0000	1.0000	18.11
76.5					18.11

## ACCOUNT 314 TURBOGENERATOR UNITS

PLACEMENT	BAND 1926-2015		EXPE	RIENCE BAN	D 1976-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	315,285,399 313,054,179 321,195,528 318,022,769 305,512,010 243,111,705 241,614,708 233,481,255 209,400,859 206,161,558	7,250 134,051 480,666 36,430 20,195 1,122,467 366,895 960,583	0.0000 0.0000 0.0004 0.0016 0.0001 0.0001 0.0048 0.0018	1.0000 1.0000 0.9996 0.9984 0.9999 0.9999 0.9952 0.9982 0.9953	100.00 100.00 100.00 99.96 99.80 99.78 99.78 99.78 99.30
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	199,019,277 191,732,186 184,183,374 181,202,184 179,130,967 176,579,410 176,476,436 179,256,189 178,405,957 163,411,012	612,448 478,500 1,152,535 388,345 1,959,530 34,900 371,673 496,466	0.0031 0.0025 0.0063 0.0021 0.0109 0.0002 0.0021 0.0028 0.0000 0.0236	0.9969 0.9975 0.9937 0.9979 0.9891 0.9998 0.9979 0.9972 1.0000 0.9764	98.66 98.36 98.11 97.50 97.29 96.22 96.20 96.00 95.74
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	160,977,569 157,051,757 165,872,510 166,106,029 165,380,683 166,438,916 154,725,272 153,565,991 154,062,949 153,467,264	331,470 367,194 1,871,499 703,027 449,660 3,508,835 787,410 348,432 1,236,741 304,676	0.0021 0.0023 0.0113 0.0042 0.0027 0.0211 0.0051 0.0023 0.0080 0.0020	0.9979 0.9977 0.9887 0.9958 0.9973 0.9789 0.9949 0.9977 0.9920	93.47 93.28 93.06 92.01 91.62 91.37 89.45 88.99 88.79 88.08
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	153,111,182 151,101,629 100,605,983 99,449,437 95,804,975 71,772,207 70,829,742 70,385,843 65,254,190 46,647,114	1,251,617 1,627,433 1,126,634 3,150,011 58,664 937,038 394,253 818,379 1,109,198 267,521	0.0082 0.0108 0.0112 0.0317 0.0006 0.0131 0.0056 0.0116 0.0170 0.0057	0.9918 0.9892 0.9888 0.9683 0.9994 0.9869 0.9944 0.9884 0.9830 0.9943	87.90 87.18 86.24 85.28 82.58 82.53 81.45 81.00 80.05 78.69

## ACCOUNT 314 TURBOGENERATOR UNITS

PLACEMENT	BAND 1926-2015		EXPE	RIENCE BAN	D 1976-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	46,373,855 46,236,076 31,733,364 29,066,816 28,763,889 22,026,495 21,599,408 21,510,356 21,283,081 21,249,180	98,858 682,698 2,664,171 289,944 46,969 426,198 86,296 221,501 33,901 118,197	0.0021 0.0148 0.0840 0.0100 0.0016 0.0193 0.0040 0.0103 0.0016 0.0056	0.9979 0.9852 0.9160 0.9900 0.9984 0.9807 0.9960 0.9897 0.9984 0.9944	78.24 78.08 76.92 70.46 69.76 69.65 68.30 68.03 67.33
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	21,159,472 20,984,179 19,439,157 15,002,440 14,916,327 12,618,892 12,555,028 9,551,849 9,550,044 9,511,514	106,372 23,139 418,909 82,920 11,547 63,208 261,631 1,805 38,530 275,161	0.0050 0.0011 0.0215 0.0055 0.0008 0.0050 0.0208 0.0002 0.0040 0.0289	0.9950 0.9989 0.9785 0.9945 0.9992 0.9950 0.9792 0.9998 0.9960 0.9711	66.85 66.51 66.44 65.00 64.65 64.60 64.27 62.93 62.92 62.67
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	5,175,915 2,363,599 96,695 96,695 96,695 96,695 28,489 28,489 28,489	68,206	0.0000 0.0000 0.0000 0.0000 0.7054 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.2946 1.0000 1.0000	60.85 60.85 60.85 60.85 60.85 17.93 17.93 17.93
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5	28,489 28,489 28,489 28,489 28,489 28,489		0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	17.93 17.93 17.93 17.93 17.93 17.93 17.93

120 ORIGINAL CURVE = 1926-2015 EXPERIENCE 1976-2015 EXPERIENCE 1926-2015 PLACEMENTS 100 IOWA 70-R3 ORIGINAL AND SMOOTH SURVIVOR CURVES 8 AGE IN YEARS 40 20 90 8 80 70 8 20 30 20 PERCENT SURVIVING

ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT KENTUCKY UTILITIES COMPANY

# ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	IENCE BAN	D 1926-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	205,946,828 201,448,908 196,790,977 167,099,184 137,893,667 98,577,560 98,093,619 97,866,958 97,808,025 84,550,687	2,825 60,852 1,251 21,375 29,193 30,588 61,116 9,673	0.0000 0.0003 0.0000 0.0001 0.0000 0.0003 0.0003 0.0006 0.0001	1.0000 0.9997 1.0000 0.9999 1.0000 1.0000 0.9997 0.9994 0.9999	100.00 100.00 99.97 99.97 99.95 99.95 99.93 99.89
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	90,534,054 89,402,831 89,331,222 89,020,710 88,924,968 88,710,833 81,557,638 81,521,012 81,490,474 77,466,332	55,311 16,618 24,289 112,214 366,252 17,840 11,364 39,628 49,990	0.0006 0.0002 0.0003 0.0000 0.0013 0.0041 0.0002 0.0001 0.0005 0.0006	0.9994 0.9998 0.9997 1.0000 0.9987 0.9959 0.9998 0.9999	99.82 99.76 99.74 99.71 99.71 99.59 99.18 99.15 99.14 99.09
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	77,242,916 75,608,420 85,146,696 85,661,638 85,582,314 85,507,533 76,951,479 76,877,444 76,814,593 76,052,130	38,097 77,507 16,906 77,981 4,526 7,439 21,218 15,600 2,400 8,680	0.0005 0.0010 0.0002 0.0009 0.0001 0.0001 0.0003 0.0002 0.0000	0.9995 0.9990 0.9998 0.9991 0.9999 0.9999 0.9998 1.0000 0.9999	99.03 98.98 98.88 98.86 98.77 98.76 98.76 98.71 98.70
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	76,012,145 75,941,891 52,908,006 52,890,800 52,759,435 27,557,161 27,203,227 27,103,537 26,773,993 16,728,866	21,169 51,076 17,207 83,157 150,784 10,163 40,930 60,283 54,375 83,656	0.0003 0.0007 0.0003 0.0016 0.0029 0.0004 0.0015 0.0022 0.0020	0.9997 0.9993 0.9997 0.9984 0.9971 0.9996 0.9985 0.9980 0.9950	98.69 98.67 98.60 98.57 98.41 98.13 98.10 97.95 97.73

# ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1926-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	16,005,575 15,928,746 9,495,755 9,402,319 5,190,353 5,188,928 5,178,436 5,409,607 5,402,426 5,567,324	76,829 18,279 23,417 3,717 8,553 530 109,351 34,150	0.0048 0.0011 0.0025 0.0004 0.0000 0.0016 0.0000 0.0001 0.0202 0.0061	0.9952 0.9989 0.9975 0.9996 1.0000 0.9984 1.0000 0.9999 0.9798	97.04 96.58 96.47 96.23 96.19 96.19 96.03 96.03 96.02 94.08
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	5,528,958 5,409,742 5,086,306 4,239,357 4,108,970 3,014,647 3,555,458 3,024,314 2,829,314 2,829,008	47,257 10,923 26,194 127,637 3,485 63,419 185 94,142 306	0.0085 0.0020 0.0051 0.0301 0.0008 0.0210 0.0001 0.0311 0.0001	0.9915 0.9980 0.9949 0.9699 0.9992 0.9790 0.9999 0.9689 0.9999	93.50 92.70 92.52 92.04 89.27 89.19 87.32 87.31 84.59 84.58
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	2,102,467 1,507,589 653,925 622,576 439,626 439,626 153,727 144,907 144,523	883 9,782 65,636 8,820	0.0055 0.0000 0.0013 0.0157 0.0000 0.1493 0.0574 0.0000 0.0000	0.9945 1.0000 0.9987 0.9843 1.0000 0.8507 0.9426 1.0000 1.0000	84.58 84.12 84.12 84.01 82.69 82.69 70.34 66.31 66.31
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5	144,523 144,523 144,523 144,523 144,523 144,523		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	66.31 66.31 66.31 66.31 66.31 66.31 66.31

# ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1976-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3,5	189,643,257 185,148,162 187,027,889 157,406,792 132,363,012	60,852 9,264	0.0000 0.0003 0.0000 0.0001 0.0000	1.0000 0.9997 1.0000 0.9999 1.0000	100.00 100.00 99.97 99.97 99.96
4.5 5.5 6.5 7.5 8.5	93,049,257 92,566,110 92,339,448 92,282,735 79,031,479	29,193 30,504 55,034 9,673	0.0000 0.0003 0.0003 0.0006 0.0001	1.0000 0.9997 0.9997 0.9994 0.9999	99.96 99.96 99.93 99.90 99.84
9.5 10.5 11.5 12.5 13.5	85,018,308 83,952,089 83,880,481 84,267,835 84,202,218	55,311 16,618 24,289 112,214	0.0007 0.0002 0.0003 0.0000 0.0013	0.9993 0.9998 0.9997 1.0000 0.9987	99.82 99.76 99.74 99.71 99.71
14.5 15.5 16.5 17.5 18.5	83,988,084 76,841,177 77,411,021 77,399,236 73,378,178	366,252 17,840 11,364 39,628 48,931	0.0044 0.0002 0.0001 0.0005 0.0007	0.9956 0.9998 0.9999 0.9995 0.9993	99.58 99.14 99.12 99.11 99.06
19.5 20.5 21.5 22.5 23.5 24.5	74,148,971 72,523,376 82,597,856 84,232,279 84,159,550 84,404,606	37,072 77,507 16,906 77,981 4,526	0.0005 0.0011 0.0002 0.0009 0.0001 0.0000	0.9995 0.9989 0.9998 0.9991 0.9999	98.99 98.94 98.83 98.81 98.72 98.72
25.5 26.5 27.5 28.5	76,434,169 76,360,134 76,437,302 75,775,997	21,218 15,600 8,680	0.0003 0.0002 0.0000 0.0001	0.9997 0.9998 1.0000 0.9999	98.72 98.69 98.67 98.67
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	75,757,264 75,687,010 52,653,125 52,635,919 52,504,554 27,302,280 26,948,346 26,848,656 26,519,112 16,578,985	21,169 51,076 17,207 83,157 150,784 10,163 40,930 60,283 54,375 83,656	0.0003 0.0007 0.0003 0.0016 0.0029 0.0004 0.0015 0.0022 0.0021	0.9997 0.9993 0.9997 0.9984 0.9971 0.9996 0.9985 0.9978 0.9979	98.66 98.63 98.56 98.53 98.38 98.09 98.06 97.91 97.69 97.49

## ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1976-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	15,855,694 15,778,865 9,345,874 9,252,438 5,040,472 5,039,047 5,028,555 5,259,726 5,252,545 5,417,443	76,829 18,279 23,417 3,717 8,553 530 109,351 34,150	0.0048 0.0012 0.0025 0.0004 0.0000 0.0017 0.0000 0.0001 0.0208 0.0063	0.9952 0.9988 0.9975 0.9996 1.0000 0.9983 1.0000 0.9999 0.9792 0.9937	97.00 96.53 96.41 96.17 96.13 96.13 95.97 95.97 95.96 93.96
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	5,528,958 5,409,742 5,086,306 4,239,357 4,108,970 3,014,647 3,555,458 3,024,314 2,829,314 2,829,008	47,257 10,923 26,194 127,637 3,485 63,419 185 94,142 306	0.0085 0.0020 0.0051 0.0301 0.0008 0.0210 0.0001 0.0311 0.0001 0.0000	0.9915 0.9980 0.9949 0.9699 0.9992 0.9790 0.9999 0.9689 0.9999	93.37 92.57 92.39 91.91 89.14 89.07 87.19 87.19 84.48 84.47
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	2,102,467 1,507,589 653,925 622,576 439,626 439,626 153,727 144,907 144,523	11,578 883 9,782 65,636 8,820	0.0055 0.0000 0.0013 0.0157 0.0000 0.1493 0.0574 0.0000 0.0000	0.9945 1.0000 0.9987 0.9843 1.0000 0.8507 0.9426 1.0000 1.0000	84.47 84.00 84.00 83.89 82.57 70.24 66.21 66.21
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5	144,523 144,523 144,523 144,523 144,523 144,523		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	66.21 66.21 66.21 66.21 66.21 66.21 66.21

120 ORIGINAL CURVE | 1926-2015 EXPERIENCE | 1926-2015 PLACEMENTS 1976-2015 EXPERIENCE 1926-2015 PLACEMENTS 108 IOWA 75-R1. ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES 8 KENTUCKY UTILITIES COMPANY AGE IN YEARS 49 20 90 70 20 20 30 10 PERCENT SURVIVING



#### ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	LIENCE BAN	D 1926-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	41,779,782 40,520,360 37,966,270 36,483,128 34,883,142 27,159,100 25,664,597 25,145,962 24,926,520 24,350,165	1,108 5,849 3,818 117,883 91,858 17,596 72,536 104,872 84,029 116,507	0.0000 0.0001 0.0001 0.0032 0.0026 0.0006 0.0028 0.0042 0.0034 0.0048	1.0000 0.9999 0.9999 0.9968 0.9974 0.9994 0.9972 0.9958 0.9966	100.00 100.00 99.98 99.97 99.65 99.39 99.32 99.04 98.63 98.30
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	24,034,182 23,445,933 22,570,571 21,110,651 20,585,650 20,000,008 19,763,024 18,586,747 18,364,058 16,287,866	107,515 44,310 114,108 128,375 197,348 43,132 163,029 48,424 10,956 50,485	0.0045 0.0019 0.0051 0.0061 0.0096 0.0022 0.0082 0.0026 0.0006	0.9955 0.9981 0.9949 0.9939 0.9904 0.9978 0.9918 0.9974 0.9994	97.83 97.39 97.20 96.71 96.13 95.20 95.00 94.21 93.97 93.91
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	15,660,404 14,588,884 13,917,828 13,519,169 12,924,601 12,125,204 11,274,686 10,633,129 9,825,958 9,076,962	62,957 30,435 16,599 96,177 39,193 50,089 28,285 281,290 11,816 3,132	0.0040 0.0021 0.0012 0.0071 0.0030 0.0041 0.0025 0.0265 0.0012 0.0003	0.9960 0.9979 0.9988 0.9929 0.9970 0.9959 0.9975 0.9735 0.9988	93.62 93.25 93.05 92.94 92.28 92.00 91.62 91.39 88.97 88.86
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	8,805,582 8,662,702 6,448,337 6,340,248 6,072,589 3,891,935 3,794,693 3,740,625 3,136,509 2,413,716	15,807 28,703 2,273 36,125 23,690 32,634 4,866 2,107	0.0018 0.0033 0.0004 0.0057 0.0039 0.0084 0.0013 0.0006 0.0000	0.9982 0.9967 0.9996 0.9943 0.9961 0.9916 0.9987 0.9994 1.0000	88.83 88.67 88.38 88.35 87.85 87.50 86.77 86.66 86.61

## ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1926-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	2,300,124 2,205,371 1,131,719 1,119,423 1,098,466 721,803 704,672 641,081 631,876 628,610	1,532 4,498 1,516 3 13,942 1,852 8,685 600	0.0007 0.0020 0.0000 0.0014 0.0000 0.0193 0.0026 0.0135 0.0009 0.0000	0.9993 0.9980 1.0000 0.9986 1.0000 0.9807 0.9974 0.9865 0.9991 1.0000	86.61 86.55 86.37 86.37 86.25 86.25 84.59 84.37 83.22 83.14
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5	619,037 617,851 605,485 537,605 533,311 465,373 461,815 385,989 385,425	6,885 657 8,688	0.0000 0.0000 0.0114 0.0000 0.0014 0.0000 0.0000 0.0025	1.0000 1.0000 0.9886 1.0000 1.0000 0.9986 1.0000 1.0000	83.14 83.14 83.14 82.20 82.20 82.20 82.08 82.08
58.5 59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 68.5	368,909 220,157 206,392 185,675 185,675 184,483 183,040 93,212 59,152 54,397 54,397	1,443 34,060	0.0001 0.0000 0.0000 0.0000 0.0000 0.0000 0.3654 0.0000 0.0000 0.0000	0.9999 1.0000 1.0000 1.0000 0.9922 1.0000 0.6346 1.0000 1.0000	80.23 80.22 80.22 80.22 80.22 79.59 79.59 50.51 50.51
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5	54,397 54,397 54,397 54,397 54,397 53,501		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1,0000 1.0000 1.0000 1.0000 1.0000 1.0000	50.51 50.51 50.51 50.51 50.51 50.51 50.51

## ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BANI	1976-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	39,065,144 37,990,653 36,512,657 35,042,653 33,481,268 26,192,884 24,704,940 24,267,418 24,056,811 23,484,257	1,108 5,849 2,159 116,722 85,423 17,416 70,463 100,265 83,450 115,968	0.0000 0.0002 0.0001 0.0033 0.0026 0.0007 0.0029 0.0041 0.0035 0.0049	1.0000 0.9998 0.9999 0.9967 0.9974 0.9993 0.9971 0.9959 0.9965	100.00 100.00 99.98 99.98 99.64 99.39 99.32 99.04 98.63 98.29
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	23,181,632 22,600,085 21,727,363 20,335,248 19,819,229 19,239,619 19,011,216 17,953,940 17,734,298 15,662,374	104,631 43,405 113,113 125,642 194,864 42,767 150,509 47,436 10,428 47,910	0.0045 0.0019 0.0052 0.0062 0.0098 0.0022 0.0079 0.0026 0.0006	0.9955 0.9981 0.9948 0.9938 0.9902 0.9978 0.9921 0.9974 0.9994	97.80 97.36 97.17 96.67 96.07 95.13 94.91 94.16 93.91 93.86
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	15,214,843 14,168,801 13,530,449 13,148,484 12,560,229 11,787,155 11,112,809 10,481,562 9,709,300 9,001,155	60,954 24,852 15,037 96,158 38,998 44,700 26,216 281,290 11,816 3,132	0.0040 0.0018 0.0011 0.0073 0.0031 0.0038 0.0024 0.0268 0.0012 0.0003	0.9960 0.9982 0.9989 0.9927 0.9969 0.9962 0.9976 0.9732 0.9988 0.9997	93.57 93.20 93.03 92.93 92.25 91.96 91.62 91.40 88.95 88.84
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	8,731,756 8,588,899 6,374,629 6,266,540 5,999,408 3,819,954 3,722,712 3,668,731 3,064,615 2,354,460	15,797 28,703 2,273 36,125 23,690 32,634 4,779 2,107	0.0018 0.0033 0.0004 0.0058 0.0039 0.0085 0.0013 0.0006 0.0000	0.9982 0.9967 0.9996 0.9942 0.9961 0.9915 0.9987 0.9994 1.0000	88.81 88.65 88.35 88.32 87.81 87.46 86.72 86.60 86.56

## ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1926-2015		EXPER	RIENCE BAN	D 1976-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5	2,240,967 2,146,214 1,072,562 1,060,266 1,039,309 662,646 645,515 581,924 572,719	1,532 4,498 1,516 3 13,942 1,852 8,685 600	0.0007 0.0021 0.0000 0.0014 0.0000 0.0210 0.0029 0.0149 0.0010	0.9993 0.9979 1.0000 0.9986 1.0000 0.9790 0.9971 0.9851 0.9990	86.55 86.50 86.31 86.31 86.19 86.19 84.38 84.14 82.88
48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5	569,453 619,037 617,851 605,485 537,605 533,311 465,373 461,815	6,885 657	0.0000 0.0000 0.0000 0.0114 0.0000 0.0000 0.0014 0.0000	1.0000 1.0000 0.9886 1.0000 0.9986 1.0000	82.79 82.79 82.79 82.79 81.85 81.85 81.74
56.5 57.5 58.5	385,989 385,425 368,909	8,688 47	0.0000 0.0225 0.0001	1.0000 0.9775 0.9999	81.74 81.74 79.89
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	220,157 206,392 185,675 185,675 184,483 183,040 93,212 59,152 54,397 54,397	1,443 34,060	0.0000 0.0000 0.0000 0.0000 0.0078 0.0000 0.3654 0.0000 0.0000	1.0000 1.0000 1.0000 0.000 0.9922 1.0000 0.6346 1.0000 1.0000	79.88 79.88 79.88 79.88 79.26 79.26 50.30 50.30
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5	54,397 54,397 54,397 54,397 54,397 53,501		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1,0000 1.0000 1.0000 1.0000 1.0000 1.0000	50.30 50.30 50.30 50.30 50.30 50.30 50.30

160 ORIGINAL CURVE | 1941-2015 EXPERIENCE 140 IOWA 100-R4 120 100 AGE IN YEARS 9 40 20 70 8 70 8 80 30 20 **РЕВСЕИТ SURVIVING** 

**Gannett Fleming** 

ORIGINAL AND SMOOTH SURVIVOR CURVES

KENTUCKY UTILITIES COMPANY ACCOUNT 330.1 LAND RIGHTS

## ACCOUNT 330.1 LAND RIGHTS

PLACEMENT BAND 1941-1941			EXPERIENCE BAND 1941-2015		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	879,411 879,411 879,411 879,311 879,311 879,311 879,311 879,311	100	0.0000 0.0000 0.0000 0.0001 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9999 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 99.99 99.99 99.99 99.99
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	879,311 879,311 879,311 879,311 879,311 879,311 879,311 879,311		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	99.99 99.99 99.99 99.99 99.99 99.99 99.99
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	879,311 879,311 879,311 879,311 879,311 879,311 879,311 879,311		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	99.99 99.99 99.99 99.99 99.99 99.99
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	879,311 879,311 879,311 879,311 879,311 879,311 879,311 879,311		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	99.99 99.99 99.99 99.99 99.99 99.99 99.99

### ACCOUNT 330.1 LAND RIGHTS

PLACEMENT	BAND 1941-1941		EXPER	RIENCE BAN	D 1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	879,311 879,311 879,311 879,311 879,311 879,311 879,311 879,311 879,311		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	99.99 99.99 99.99 99.99 99.99 99.99 99.99
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	879,311 879,311 879,311 879,311 879,311 879,311 879,311 879,311 879,311		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	99.99 99.99 99.99 99.99 99.99 99.99 99.99
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	879,311 879,311 879,311 879,311 879,311 879,311 879,311 879,311 879,311		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	99.99 99.99 99.99 99.99 99.99 99.99
69.5 70.5 71.5 72.5 73.5 74.5	879,311 879,311 879,311 879,311 879,311		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	99.99 99.99 99.99 99.99 99.99

98 ORIGINAL CURVE # 1941-2015 EXPERIENCE 1941-2014 PLACEMENTS 140 IOWA 90-\$2.5 120 ORIGINAL AND SMOOTH SURVIVOR CURVES 9 AGE IN YEARS 8 4 20 Ŕ 100 8 8 ġ 8 ġ 20 10 PERCENT SURVIVING



ACCOUNT 331 STRUCTURES AND IMPROVEMENTS

### ACCOUNT 331 STRUCTURES AND IMPROVEMENTS

PLACEMENT H	BAND 1941-2014		EXPER	RIENCE BAN	D 1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	923,663 914,151 680,543 739,708 708,597 708,595 633,223 621,491 621,491 555,465	112 1,226	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1,0000 1.0000 1.0000 1.0000 0.9998 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 99.98 99.98 99.98 99.98
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	554,239 530,569 530,569 530,569 529,231 524,231 523,641 523,641 523,641	1,338 5,000 590	0.0000 0.0000 0.0000 0.0025 0.0094 0.0011 0.0000 0.0000 0.0000	1.0000 1.0000 0.9975 0.9906 0.9989 1.0000 1.0000	99.76 99.76 99.76 99.51 98.57 98.46 98.46 98.46
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	523,180 523,180 523,180 523,180 522,143 444,997 387,951 386,298 366,298	. 2,268	0.0000 0.0000 0.0000 0.0000 0.0051 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.9949 1.0000 1.0000	98.37 98.37 98.37 98.37 98.37 98.37 97.87 97.87 97.87
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	366,298 366,298 366,298 366,298 366,298 366,298 366,298 366,298 366,004	294 379	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0008 0.0010 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9992 0.9990 1.0000	97.87 97.87 97.87 97.87 97.87 97.87 97.87 97.87 97.69

#### ACCOUNT 331 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1941-2014		EXPER	RIENCE BANI	1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5	365,625 365,625 365,625 365,625 365,625 364,026 363,977 363,977	1,599 49 250	0.0000 0.0000 0.0000 0.0000 0.0044 0.0001 0.0000 0.0000	1.0000 1.0000 1.0000 0.9956 0.9999 1.0000 1.0000	97.69 97.69 97.69 97.69 97.27 97.25 97.25
48.5	362,257	242	0.0007	0,9993	97.19
49.5 50.5 51.5	362,015 362,015 359,016	2,999	0.0000 0.0083 0.0000	1.0000 0.9917 1.0000	97.12 97.12 96.32
52.5 53.5 54.5	359,016 355,490 355,490	3,526 17,489	0.0098 0.0000 0.0492	0.9902 1.0000 0.9508	96.32 95.37 95.37
55.5 56.5 57.5 58.5	338,001 338,001 338,001 338,001		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	90.68 90.68 90.68 90.68
59.5 60.5 61.5 62.5	338,001 333,513 333,513 333,513	4,488	0.0133 0.0000 0.0000 0.0000	0.9867 1.0000 1.0000 1.0000	90.68 89.47 89.47 89.47
63.5 64.5 65.5 66.5 67.5 68.5	333,513 265,610 265,610 265,610 265,610 265,610	67,902	0.2036 0.0000 0.0000 0.0000 0.0000 0.0000	0.7964 1.0000 1.0000 1.0000 1.0000	89.47 71.26 71.26 71.26 71.26 71.26
69.5 70.5 71.5 72.5 73.5 74.5	265,610 265,610 232,514 232,514 232,514	33,097	0.0000 0.1246 0.0000 0.0000 0.0000	1.0000 0.8754 1.0000 1.0000	71.26 71.26 62.38 62.38 62.38

180

1941-2015 EXPERIENCE 1941-2015 PLACEMENTS 160 IOWA 105-S2.5 ORIGINAL CURVE 140 ACCOUNT 332 RESERVOIRS, DAMS AND WATERWAYS 120 ORIGINAL AND SMOOTH SURVIVOR CURVES KENTUCKY UTILITIES COMPANY 80 100 AGE IN YEARS 8 40 20 9 8 8 70 Ò 20 30 10 20 PERCENT SURVIVING

VII-35

### ACCOUNT 332 RESERVOIRS, DAMS AND WATERWAYS

PLACEMENT	BAND 1941-2015		EXPE	RIENCE BAN	D 1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	22,389,944 22,354,971 22,057,181 22,057,181 10,563,755 10,262,979 10,262,979 10,262,979 9,387,971 8,315,151	32,914 8,000	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0032 0.0000 0.0010	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9968 1.0000 0.9990	100.00 100.00 100.00 100.00 100.00 100.00 100.00 99.68 99.68
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	8,307,151 8,307,151 8,307,151 8,168,705 8,168,705 8,168,705 8,168,705 8,168,705 8,168,705 8,159,818	2,024 8,887 56,935	0.0000 0.0000 0.0002 0.0000 0.0000 0.0000 0.0011 0.0000 0.0070	1.0000 1.0000 0.9998 1.0000 1.0000 1.0000 0.9989 1.0000 0.9930	99.58 99.58 99.56 99.56 99.56 99.56 99.56 99.56 99.45
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	8,102,883 8,102,883 8,092,022 8,057,987 7,687,967 6,487,961 6,477,397 6,477,397 6,477,397	17,565 3,210	0.0000 0.0000 0.0022 0.0000 0.0000 0.0005 0.0000 0.0000 0.0000	1.0000 1.0000 0.9978 1.0000 1.0000 0.9995 1.0000 1.0000	98.76 98.76 98.76 98.54 98.54 98.49 98.49 98.49
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	6,477,397 6,477,397 6,477,397 6,477,397 6,477,397 6,477,397 6,477,397 6,477,397 6,474,694 6,474,694	2,703	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9996 1.0000	98.49 98.49 98.49 98.49 98.49 98.49 98.49 98.45 98.45

### ACCOUNT 332 RESERVOIRS, DAMS AND WATERWAYS

PLACEMENT	BAND 1941-2015		EXPER	RIENCE BAN	1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	6,474,694 6,474,694 6,474,694 6,474,694 6,470,974 6,470,974 6,291,227 6,291,227	179,747	0.0000 0.0000 0.0000 0.0000 0.0000 0.0278 0.0000 0.0000	1,0000 1.0000 1.0000 1.0000 1.0000 0.9722 1.0000 1.0000	98.45 98.45 98.45 98.45 98.45 98.45 98.45 95.72 95.72
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	6,291,227 6,291,227 6,291,227 6,291,227 6,291,227 6,291,227 6,269,289 6,268,587 6,268,587 6,268,587	21,938 702	0.0000 0.0000 0.0000 0.0000 0.0000 0.0001 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.9965 0.9999 1.0000 1.0000	95.72 95.72 95.72 95.72 95.72 95.72 95.38 95.37 95.37
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	6,268,587 6,268,587 6,268,587 6,268,564 6,207,576 5,978,188 5,978,188 5,934,027 5,934,027	2,023 58,987 44,162	0.0000 0.0000 0.0003 0.0094 0.0000 0.0000 0.0074 0.0000	1.0000 1.0000 1.0000 0.9997 0.9906 1.0000 1.0000 0.9926 1.0000	95.37 95.37 95.37 95.37 95.34 94.45 94.45 94.45 93.75
69.5 70.5 71.5 72.5 73.5 74.5	5,934,027 5,918,836 5,917,651 5,881,904 5,868,665	15,191 323 35,748 13,239	0.0026 0.0001 0.0060 0.0023 0.0000	0.9974 0.9999 0.9940 0.9977 1.0000	93.75 93.51 93.50 92.94 92.73 92.73

140 1941-2015 EXPERIENCE 1941-2015 PLACEMENTS 120 **IOWA 75-R** ORIGINAL CURVE . 8 ORIGINAL AND SMOOTH SURVIVOR CURVES 80 AGE IN YEARS 9 28 1001 96 80 70 8 30 20 PERCENT SURVIVING

ACCOUNT 333 WATER WHEELS, TURBINES AND GENERATORS

## ACCOUNT 333 WATER WHEELS, TURBINES AND GENERATORS

PLACEMENT	BAND 1941-2015		EXPE	RIENCE BAN	D 1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	14,449,041 14,122,648 14,122,648 8,836,652 4,658,676 4,658,676 623,273 623,273 561,114		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	561,114 559,121 559,121 559,121 559,121 559,121 559,121 538,121 538,121 513,300	21,000	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 0.9624 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 96.24 96.24 96.24
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	513,300 513,300 513,300 513,300 500,887 500,887 500,887 500,887 500,887		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.24 96.24 96.24 96.24 96.24 96.24 96.24 96.24 96.24
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	500,887 500,887 500,887 500,887 500,887 500,887 500,887 497,924	2,963	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0059 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9941 1.0000	96.24 96.24 96.24 96.24 96.24 96.24 96.24 96.24 96.24

## ACCOUNT 333 WATER WHEELS, TURBINES AND GENERATORS

PLACEMENT	BAND 1941-2015		EXPER	RIENCE BAN	D 1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5	497,924 497,924 497,924 497,924 497,924 497,924 453,473 453,473	44,452	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 0.9107 1.0000 1.0000	95.67 95.67 95.67 95.67 95.67 95.67 87.13 87.13
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	453,473 453,473 452,364 452,332 439,523 439,523 439,523 438,103 433,761 366,236	1,109	0.0000 0.0024 0.0000 0.0000 0.0000 0.0000 0.0032 0.0000 0.0000	1.0000 0.9976 1.0000 1.0000 1.0000 0.9968 1.0000 1.0000	87.13 87.13 86.92 86.92 86.92 86.92 86.92 86.64
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	366,236 366,236 366,236 366,236 296,602 296,602 253,563 250,541	69,634 43,039 3,022 41,413	0.0000 0.0000 0.0000 0.0000 0.1901 0.0000 0.1451 0.0119 0.0000 0.1653	1.0000 1.0000 1.0000 0.8099 1.0000 0.8549 0.9881 1.0000 0.8347	86.64 86.64 86.64 86.64 70.17 70.17 59.98 59.27 59.27
69.5 70.5 71.5 72.5 73.5 74.5	209,128 209,128 203,994 95,353 95,353	5,134 108,641 48,318	0.0000 0.0245 0.5326 0.0000 0.5067	1.0000 0.9755 0.4674 1.0000 0.4933	49.47 49.47 48.26 22.56 22.56 11.13

120 ORIGINAL CURVE • 1941-2015 EXPERIENCE 100 80 IOWA 40-L2.5 60 AGE IN YEARS 9 20 90 88 70 9 20 20 0 PERCENT SURVIVING

ACCOUNT 334 ACCESSORY ELECTRIC EQUIPMENT

KENTUCKY UTILITIES COMPANY

ORIGINAL AND SMOOTH SURVIVOR CURVES

### ACCOUNT 334 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1941-2014		EXPER	RIENCE BAN	D 1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	1,663,639 1,663,639 1,656,273 1,314,927 913,471 906,659 420,506 420,038 420,038 418,398	6,812 468 1,640 2,360	0.0000 0.0000 0.0000 0.0000 0.0075 0.0000 0.0011 0.0000 0.0039 0.0056	1.0000 1.0000 1.0000 0.9925 1.0000 0.9989 1.0000 0.9961 0.9944	100.00 100.00 100.00 100.00 100.00 99.25 99.25 99.14 99.14
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	416,038 416,038 416,038 415,738 415,738 414,722 414,631 414,631 414,631	300 1,016 91 13 1,012	0.0000 0.0007 0.0000 0.0024 0.0000 0.0002 0.0000 0.0000	1.0000 1.0000 0.9993 1.0000 0.9976 1.0000 0.9998 1.0000 1.0000	98.20 98.20 98.20 98.13 98.13 97.89 97.89 97.87 97.87
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	413,606 413,367 389,807 126,282 124,682 122,329 121,808 116,305 113,883 113,713	239 23,560 263,525 1,600 2,353 521 2,422 170	0.0006 0.0570 0.6760 0.0127 0.0189 0.0043 0.0000 0.0208 0.0015 0.0000	0.9994 0.9430 0.3240 0.9873 0.9811 0.9957 1.0000 0.9792 0.9985 1.0000	97.63 97.57 92.01 29.81 29.43 28.87 28.75 28.75 28.15 28.11
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	113,713 113,713 113,713 112,237 112,237 111,623 110,934 110,934 110,934	1,476 614 689	0.0000 0.0000 0.0130 0.0000 0.0055 0.0062 0.0000 0.0000	1.0000 1.0000 0.9870 1.0000 0.9945 0.9938 1.0000 1.0000	28.11 28.11 28.11 27.75 27.75 27.59 27.42 27.42 27.42

### ACCOUNT 334 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1941-2014		EXPER	RIENCE BAN	D 1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	110,934 106,839 103,477 74,376 74,376 74,376 74,376 73,506 73,491 72,408	29,101 870 15 1,083	0.0000 0.0000 0.2812 0.0000 0.0000 0.0117 0.0002 0.0147 0.0000	1.0000 1.0000 0.7188 1.0000 1.0000 1.0000 0.9883 0.9998 0.9853 1.0000	27.42 27.42 27.42 19.71 19.71 19.71 19.48 19.48 19.19
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	72,408 72,408 72,408 72,252 68,528 68,471 66,732 66,732 66,732		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	19.19 19.19 19.19 19.19 19.19 19.19 19.19 19.19
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	66,732 66,732 66,732 65,960 65,753 65,753 65,342 65,052 65,052 54,187		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	19.19 19.19 19.19 19.19 19.19 19.19 19.19 19.19
69.5 70.5 71.5 72.5 73.5 74.5	54,187 54,187 54,187 54,187 54,187		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	19.19 19.19 19.19 19.19 19.19

120 ORIGINAL CURVE - 1941-2015 EXPERIENCE 1986-2015 EXPERIENCE 1941-2014 PLACEMENTS 5 ORIGINAL AND SMOOTH SURVIVOR CURVES 80 IOWA 40-50 AGE IN YEARS 4 ৪ 8 8 9 S Ŕ РЕВСЕИТ SURVIVING

**Gannett Fleming** 

ACCOUNT 335 MISCELLANEOUS POWER PLANT EQUIPMENT

# ACCOUNT 335 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT E	BAND 1941-2014		EXPER	RIENCE BAN	D 1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	212,728 222,240 196,208 198,352 198,352 196,026 185,535 185,535 185,535	2,326 465 1,588	0.0000 0.0000 0.0000 0.00117 0.0024 0.0000 0.0086 0.0000	1.0000 1.0000 1.0000 0.9883 0.9976 1.0000 1.0000 0.9914	100.00 100.00 100.00 100.00 98.83 98.59 98.59 98.59 97.75
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	183,947 183,947 167,945 163,464 163,384 163,335 153,610 153,453 151,707	16,001 80 49 9,725 157 1,746	0.0000 0.0870 0.0000 0.0005 0.0003 0.0595 0.0010 0.0114 0.0000 0.0003	1.0000 0.9130 1.0000 0.9995 0.9997 0.9405 0.9990 0.9886 1.0000 0.9997	97.75 97.75 89.25 89.25 89.20 89.18 83.87 83.78 82.83
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	142,152 126,708 380,749 271,339 260,108 260,108 256,149 256,149 70,664	1,144 1,689 109,410 2,510	0.0080 0.0133 0.2874 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.9920 0.9867 0.7126 1.0000 1.0000 0.9904 1.0000 1.0000	82.80 82.14 81.04 57.75 57.75 57.75 57.20 57.20 57.20
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	70,664 70,664 70,664 70,664 70,664 70,664 70,664 68,358	2,306	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0326 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9674 1.0000	57.20 57.20 57.20 57.20 57.20 57.20 57.20 57.20 57.33

### ACCOUNT 335 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1941-2014		EXPE	RIENCE BAN	1941-2015
AGE AT BEGIN OF INTERVAL		RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	68,358 68,193 64,094 63,792 63,772 63,751 63,574 63,574	165 4,099 302 20 21 177	0.0024 0.0601 0.0047 0.0003 0.0003 0.0028 0.0000 0.0000 0.0000	0.9976 0.9399 0.9953 0.9997 0.9997 0.9972 1.0000 1.0000 0.9978	55.33 55.20 51.88 51.63 51.62 51.60 51.46 51.46
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	63,437 59,088 57,461 57,461 36,876 36,876 31,452 31,327 31,162 29,982	4,349 1,627 2,162 5,424 125 164 1,180	0.0686 0.0275 0.0000 0.0376 0.0000 0.1471 0.0040 0.0052 0.0379 0.0000	0.9314 0.9725 1.0000 0.9624 1.0000 0.8529 0.9960 0.9948	51.35 47.83 46.51 46.51 44.76 44.76 38.18 38.03 37.83 36.39
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	29,982 29,600 29,093 28,913 28,012 7,406 7,006 6,862 6,797 3,066	383 507 180 899 20,547 400 102	0.0128 0.0171 0.0062 0.0311 0.7335 0.0540 0.0146 0.0000 0.3781 0.0000	0.9829 0.9938 0.9689 0.2665 0.9460 0.9854	36.39 35.93 35.31 35.10 34.00 9.06 8.57 8.45 8.45 5.25
69.5 70.5 71.5 72.5 73.5 74.5	3,066 3,066 3,066 3,066 3,066	46	0.0000 0.0000 0.0000 0.0000 0.0150	1.0000 1.0000 1.0000 1.0000 0.9850	5.25 5.25 5.25 5.25 5.25 5.25

### ACCOUNT 335 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT E	BAND 1941-2014		EXPER	RIENCE BAN	D 1986-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	117,058 126,570 102,227 121,142 121,142 118,998 108,972 108,972 108,972	2,144	0.0000 0.0000 0.0000 0.0000 0.0177 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9823 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 98.23 98.23 98.23 98.23 98.23
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	108,972 110,827 95,155 90,674 90,839 90,839 81,114 81,114 79,367 79,367	15,672 9,725 1,746	0.0000 0.1414 0.0000 0.0000 0.0000 0.1071 0.0000 0.0215 0.0000	1.0000 0.8586 1.0000 1.0000 0.8929 1.0000 0.9785 1.0000	98.23 98.23 84.34 84.34 84.34 75.31 75.31 75.31 73.69 73.69
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	69,855 55,555 309,596 200,260 213,574 213,854 212,405 213,244 27,760 27,760	1,689 109,410	0.0000 0.0304 0.3534 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.9696 0.6466 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	73.69 73.69 71.45 46.20 46.20 46.20 46.20 46.20 46.20
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	27,760 32,023 34,012 34,032 34,947 35,239 35,819 36,352 34,111 37,842	2,306	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0634 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9366 1.0000	46.20 46.20 46.20 46.20 46.20 46.20 46.20 46.20 43.27

## ACCOUNT 335 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1941-2014		EXPE	RIENCE BAN	D 1986-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	37,842 37,677 33,578 33,276 33,256 63,751 63,574 63,574 63,574	165 4,099 302 20 21 177	0.0044 0.1088 0.0090 0.0006 0.0006 0.0028 0.0000 0.0000 0.0000	0.9956 0.8912 0.9910 0.9994 0.9972 1.0000 1.0000 0.9978	43.27 43.08 38.39 38.05 38.02 38.00 37.89 37.89 37.89
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	63,437 59,088 57,461 57,461 36,876 36,876 31,452 31,327 31,162 29,982	4,349 1,627 2,162 5,424 125 164 1,180	0.0686 0.0275 0.0000 0.0376 0.0000 0.1471 0.0040 0.0052 0.0379 0.0000	0.9314 0.9725 1.0000 0.9624 1.0000 0.8529 0.9960 0.9948 0.9621 1.0000	37.81 35.22 34.25 34.25 32.96 32.96 28.11 28.00 27.86 26.80
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	29,982 29,600 29,093 28,913 28,012 7,406 7,006 6,862 6,797 3,066	383 507 180 899 20,547 400 102	0.0128 0.0171 0.0062 0.0311 0.7335 0.0540 0.0146 0.0000 0.3781 0.0000	0.9872 0.9829 0.9938 0.9689 0.2665 0.9460 0.9854 1.0000 0.6219 1.0000	26.80 26.46 26.01 25.84 25.04 6.67 6.31 6.22 6.22 3.87
69.5 70.5 71.5 72.5 73.5 74.5	3,066 3,066 3,066 3,066 3,066	4 6	0.0000 0.0000 0.0000 0.0000 0.0150	1.0000 1.0000 1.0000 1.0000 0.9850	3.87 3.87 3.87 3.87 3.87 3.81

120 1941-2015 EXPERIENCE 1941-2015 PLACEMENTS 8 ORIGINAL CURVE . IOWA 60-R4 8 AGE IN YEARS 8 20 8 8 5 20 8 20 PERCENT SURVIVING

ACCOUNT 336 ROADS, RAILROADS AND BRIDGES ORIGINAL AND SMOOTH SURVIVOR CURVES

### ACCOUNT 336 ROADS, RAILROADS AND BRIDGES

PLACEMENT	BAND 1941-2015		EXPER	EIENCE BANI	1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	235,679 177,529 177,529 177,529 177,529 177,529 177,529 48,146 48,146		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	48,146 48,146 48,146 48,146 48,146 48,146 48,146 48,146 48,146		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	48,146 48,146 48,146 48,146 48,146 48,146 48,146 48,146 48,146		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	48,146 48,146 48,146 48,146 48,146 48,146 48,146 48,146 48,146		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00

## ACCOUNT 336 ROADS, RAILROADS AND BRIDGES

PLACEMENT	BAND 1941-2015		EXPER	RIENCE BAN	D 1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	48,146 48,146 48,146 48,146 48,146 48,146 48,146 48,146 48,146		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	48,146 48,146 48,146 48,146 48,146 48,146 48,146 48,146 48,146		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	48,146 48,146 48,146 48,146 48,146 46,976 46,976 46,976 46,976	1,170	0.0000 0.0000 0.0000 0.0000 0.0243 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9757 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 97.57 97.57 97.57 97.57
69.5 70.5 71.5 72.5 73.5 74.5	46,976 46,976 46,976 46,976 46,976		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000	97.57 97.57 97.57 97.57 97.57

9 ORIGINAL CURVE # 1994-2015 EXPERIENCE 8 8 IOWA 50-R2.5 70 ORIGINAL AND SMOOTH SURVIVOR CURVES 8 AGE IN YEARS 9 8 50 2 ار م 500 8 œ 70 8 9 8 8 Ö РЕКСЕИТ SURVIVING



ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

### ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1994-2015		EXPER	RIENCE BANI	1994-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	84,046,518 36,985,766 36,983,243 36,879,849 36,831,181 36,446,653 35,982,154 35,982,154 35,982,154 35,982,154	42,413 348,269 464,499	0.0000 0.0000 0.0000 0.0012 0.0095 0.0127 0.0000 0.0000	1.0000 1.0000 0.9988 0.9905 0.9873 1.0000 1.0000	100.00 100.00 100.00 100.00 99.88 98.94 97.68 97.68 97.68
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	35,812,799 35,717,419 21,172,433 21,172,433 13,889,022 11,091,568 10,804,077 10,188,686 9,875,661 8,379,554	143,724 24,044	0.0000 0.0000 0.0000 0.0068 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9932 1.0000 1.0000 1.0000 0.9976 1.0000	97.68 97.68 97.68 97.02 97.02 97.02 97.02 97.02 97.02
19.5 20.5 21.5	6,619,170 2,624,149		0.0000	1.0000	96.78 96.78 96.78

100 ORIGINAL CURVE = 1970-2015 EXPERIENCE 1996-2015 EXPERIENCE 1970-2015 PLACEMENTS 8 8 IOWA 45-R2.5 2 ORIGINAL AND SMOOTH SURVIVOR CURVES 09 AGE IN YEARS 40 30 20 10 100 8 80 70 30 8 20 20 9 PERCENT SURVIVING

**Gannett Fleming** 

ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

## ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

PLACEMENT I	BAND 1970-2015		EXPER	RIENCE BAN	D 1970-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	162,224,299 27,187,059 25,973,739 24,872,117 24,742,995 24,175,618 21,219,500 21,131,405 21,131,405 21,101,840	8,061 23,300 87,378 1,329,368 46,588	0.0000 0.0003 0.0009 0.0035 0.0550 0.0022 0.0000 0.0000	1.0000 1.0000 0.9997 0.9991 0.9965 0.9450 0.9978 1.0000 1.0000	100.00 100.00 100.00 99.97 99.88 99.52 94.05 93.84 93.84
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	20,931,155 20,431,090 18,086,093 17,953,212 12,997,620 10,317,788 10,317,788 9,758,954 9,741,464 9,475,900	96,312 145,827 9,717 23,557 14,306	0.0053 0.0000 0.0053 0.0000 0.0112 0.0000 0.0000 0.0010 0.0024 0.0015	0.9947 1.0000 0.9947 1.0000 0.9888 1.0000 1.0000 0.9990 0.9976 0.9985	93.11 92.61 92.61 92.12 92.12 91.09 91.09 91.09 91.78
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	9,246,860 7,951,343 181,132 181,132 181,132 181,132 181,132 181,132 181,132	142	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9992	90.64 90.64 90.64 90.64 90.64 90.64 90.64 90.64
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	180,990 180,990 180,990 180,990 180,990 180,990 180,990 180,990		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	90.57 90.57 90.57 90.57 90.57 90.57 90.57 90.57

## ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

PLACEMENT	BAND 1970-2015		EXPE	RIENCE BAN	D 1970-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	114,454		0.0000	1.0000	90.57
40.5	114,454	59,785	0,5223	0.4777	90.57
41.5	54,669		0.0000	1.0000	43.26
42.5	54,424		0.0000	1.0000	43.26
43.5	54,424		0,0000	1.0000	43,26
44.5	29,176		0.0000	1.0000	43.26
45.5					43.26

### ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

PLACEMENT	BAND 1970-2015		EXPER	RIENCE BAN	1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	151, 428, 531 17, 799, 205 25, 792, 607 24, 690, 985 24, 561, 863 23, 994, 486 21, 038, 368 20, 950, 273 20, 950, 273 20, 920, 708	8,061 23,300 87,378 1,329,368 46,588	0.0000 0.0003 0.0009 0.0036 0.0554 0.0022 0.0000 0.0000	1.0000 1.0000 0.9997 0.9991 0.9964 0.9446 0.9978 1.0000 1.0000	100.00 100.00 100.00 99.97 99.87 99.52 94.01 93.80 93.80
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	20,750,024 20,249,958 17,904,961 17,772,081 12,816,488 10,136,656 10,136,656 9,577,822 9,560,474 9,361,447	96,312 145,827 9,717 23,557 14,306	0.0054 0.0000 0.0054 0.0000 0.0114 0.0000 0.0000 0.0010 0.0025 0.0015	0.9946 1.0000 0.9946 1.0000 0.9886 1.0000 1.0000 0.9990 0.9975	93.06 92.56 92.56 92.06 92.06 91.01 91.01 91.01 90.92 90.70
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	9,132,407 7,836,889 66,678 66,923 66,923 92,171 181,132 181,132 181,132	142	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9992	90.56 90.56 90.56 90.56 90.56 90.56 90.56 90.56
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	180,990 180,990 180,990 180,990 180,990 180,990 180,990 180,990		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	90.49 90.49 90.49 90.49 90.49 90.49 90.49 90.49 90.49

## ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

PLACEMENT BAND 1970-2015 EXPERIENCE BAND 1996-2						
AGE AT BEGIN OF	EXPOSURES AT BEGINNING OF	RETIREMENTS DURING AGE	RETMT	SURV	PCT SURV BEGIN OF	
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL	
39.5	114,454		0.0000	1.0000	90.49	
40.5	114,454	59,785	0.5223	0.4777	90.49	
41.5	54,669		0.0000	1.0000	43.22	
42.5	54,424		0.0000	1.0000	43.22	
43.5	54,424		0.0000	1,0000	43.22	
44.5	29,176		0.0000	1.0000	43.22	
45.5	•				43.22	

9 1994-2015 EXPERIENCE 1994-2015 PLACEMENTS 8 ORIGINAL CURVE 8 IOWA 35-R1.5 2 9 AGE IN YEARS 40 30 20 9 8 5 80 8 20 PERCENT SURVIVING

KENTUCKY UTILITIES COMPANY
ACCOUNT 343 PRIME MOVERS
ORIGINAL AND SMOOTH SURVIVOR CURVES

### ACCOUNT 343 PRIME MOVERS

PLACEMENT	BAND 1994-2015		EXPER	RIENCE BAN	D 1994-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	518,199,387 420,701,024 419,599,407 405,465,587 381,322,084 368,929,443 366,042,730 360,011,536 346,823,256 334,918,712	2,330,051 4,819,837 3,048,432 1,814,195 121,282 5,477,708 2,840,354 7,610,649	0.0000 0.0000 0.0056 0.0119 0.0080 0.0049 0.0003 0.0152 0.0082 0.0227	1.0000 1.0000 0.9944 0.9881 0.9920 0.9951 0.9997 0.9848 0.9918	100.00 100.00 100.00 99.44 98.26 97.48 97.00 96.97 95.49
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	314,145,068 310,660,537 222,924,539 219,693,439 162,060,538 130,343,243 115,189,289 69,984,311 64,191,211 60,088,310	3,460,624 3,421,716 1,697,301 203,255 192,030 893,966 685,185 155,367 1,086,313 211,165	0.0110 0.0110 0.0076 0.0009 0.0012 0.0069 0.0059 0.0022 0.0169 0.0035	0.9890 0.9890 0.9924 0.9991 0.9988 0.9931 0.9941 0.9978 0.9831 0.9965	92.56 91.54 90.53 89.84 89.76 89.65 89.03 88.51 88.31 86.81
19.5 20.5 21.5	42,071,773 13,186,611	2,943,402 30,332	0.0700 0.0023	0.9300 0.9977	86.51 80.46 80.27

001 ORIGINAL CURVE | 1970-2015 EXPERIENCE 1996-2015 EXPERIENCE 1970-2015 PLACEMENTS 90 80 IOWA 55-52.5 20 9 AGE IN YEARS 9 30 20 700 8 06 80 2 9 22 30 20 РЕВСЕИТ SURVIVING

ORIGINAL AND SMOOTH SURVIVOR CURVES

ACCOUNT 344 GENERATORS

## ACCOUNT 344 GENERATORS

PLACEMENT	BAND 1970-2015		EXPER	RIENCE BAN	D 1970-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	174,754,283 61,418,405 60,945,976 59,884,192 59,581,989 59,507,875 59,507,875 59,507,875 59,507,875 59,507,875	8,870 6,511	0.0000 0.0000 0.0001 0.0001 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9999 0.9999 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 99.99 99.97 99.97 99.97
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	59,507,875 59,466,891 47,612,681 47,494,363 39,778,458 31,784,949 31,784,949 24,379,209 24,379,209 23,765,495	40,984 118,318 234,105	0.0007 0.0000 0.0025 0.0049 0.0000 0.0000 0.0000 0.0000	0.9993 1.0000 0.9975 0.9951 1.0000 1.0000 1.0000 0.9797 1.0000	99.97 99.91 99.91 99.66 99.17 99.17 99.17 99.17 97.15
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	19,192,169 9,174,912 3,841,744 3,841,744 3,841,744 3,841,744 3,841,744 3,841,744 3,841,744		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	97.15 97.15 97.15 97.15 97.15 97.15 97.15 97.15
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	3,841,744 3,712,905 3,668,011 3,668,011 3,668,011 3,668,011 3,668,011 3,668,011 3,668,011	128,839 44,894	0.0335 0.0121 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.9665 0.9879 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	97.15 93.90 92.76 92.76 92.76 92.76 92.76 92.76 92.76

### ACCOUNT 344 GENERATORS

PLACEMENT :	EXPERIENCE BAND 1970-2015				
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5	3,668,011 3,649,514 3,649,514 3,649,514 2,426,966 2,280,419		0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000	92.76 92.76 92.76 92.76 92.76 92.76 92.76

### ACCOUNT 344 GENERATORS

PLACEMENT E	BAND 1970-2015		EXPER	RIENCE BAN	1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	155,546,733 52,236,982 57,104,232 56,042,448 55,740,244 55,666,130 55,666,130 55,666,130 55,666,130	8,870 6,511	0.0000 0.0000 0.0002 0.0001 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9998 0.9999 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 99.98 99.97 99.97 99.97
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	55,666,130 55,625,147 43,770,937 43,652,619 35,936,714 27,943,205 27,943,205 20,537,465 20,537,465 19,923,751	40,984 118,318 234,105	0.0007 0.0000 0.0027 0.0054 0.0000 0.0000 0.0000 0.0000 0.0241 0.0000	0.9993 1.0000 0.9973 0.9946 1.0000 1.0000 1.0000 0.9759 1.0000	99.97 99.90 99.63 99.09 99.09 99.09 99.09 99.09
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5	15,350,424 5,351,665 18,497 18,497 18,497 165,044 3,841,744 3,841,744 3,841,744		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.71 96.71 96.71 96.71 96.71 96.71 96.71 96.71
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	3,841,744 3,712,905 3,668,011 3,668,011 3,668,011 3,668,011 3,668,011 3,668,011 3,668,011	128,839 44,894	0.0335 0.0121 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.9665 0.9879 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.71 93.46 92.33 92.33 92.33 92.33 92.33 92.33 92.33

### ACCOUNT 344 GENERATORS

PLACEMENT BAND 1970-2015 EXPERIENCE BAND 1					D 1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5	3,668,011 3,649,514 3,649,514 3,649,514 2,426,966 2,280,419		0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000	92.33 92.33 92.33 92.33 92.33 92.33

120 ORIGINAL CURVE - 1941-2015 EXPERIENCE 1986-2015 EXPERIENCE 1941-2014 PLACEMENTS ğ ORIGINAL AND SMOOTH SURVIVOR CURVES 80 IOWA 40-50 AGE IN YEARS 4 ৪ 8 8 9 S Ŕ РЕВСЕИТ SURVIVING

KENTUCKY UTILITIES COMPANY
ACCOUNT 335 MISCELLANEOUS POWER PLANT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES

120 1941-2015 EXPERIENCE 1941-2015 PLACEMENTS 8 ORIGINAL CURVE . IOWA 60-R4 8 AGE IN YEARS 8 20 8 8 5 20 8 20 PERCENT SURVIVING

ACCOUNT 336 ROADS, RAILROADS AND BRIDGES ORIGINAL AND SMOOTH SURVIVOR CURVES

9 ORIGINAL CURVE # 1994-2015 EXPERIENCE 8 8 IOWA 50-R2.5 70 ACCOUNT 341 STRUCTURES AND IMPROVEMENTS ORIGINAL AND SMOOTH SURVIVOR CURVES 8 AGE IN YEARS 9 8 50 2 ار م 500 8 œ 2 8 9 8 8 Ö РЕКСЕИТ SURVIVING



100 ORIGINAL CURVE = 1970-2015 EXPERIENCE 1996-2015 EXPERIENCE 1970-2015 PLACEMENTS 8 8 IOWA 45-R2.5 ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES 2 ORIGINAL AND SMOOTH SURVIVOR CURVES KENTUCKY UTILITIES COMPANY 09 AGE IN YEARS 40 30 20 10 100 8 80 70 30 8 20 20 9 PERCENT SURVIVING



9 1994-2015 EXPERIENCE 1994-2015 PLACEMENTS 8 ORIGINAL CURVE 8 IOWA 35-R1.5 2 9 AGE IN YEARS 40 30 20 9 8 5 80 8 20 PERCENT SURVIVING

KENTUCKY UTILITIES COMPANY
ACCOUNT 343 PRIME MOVERS
ORIGINAL AND SMOOTH SURVIVOR CURVES

001 ORIGINAL CURVE | 1970-2015 EXPERIENCE 1996-2015 EXPERIENCE 1970-2015 PLACEMENTS 90 80 IOWA 55-52.5 70 9 AGE IN YEARS 9 30 20 700 8 06 80 2 9 22 30 20 РЕВСЕИТ SURVIVING



ORIGINAL AND SMOOTH SURVIVOR CURVES

ACCOUNT 344 GENERATORS

100 ORIGINAL CURVE = 1970-2015 EXPERIENCE ▲ 1996-2015 EXPERIENCE ■ 1970-2015 PLACEMENTS 8 80 IOWA \$0-R3 20 9 AGE IN YEARS 40 30 20 0 8 70 8 30 20. PERCENT SURVIVING



ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES

100 ORIGINAL CURVE = 1970-2015 EXPERIENCE ▲ 1996-2015 EXPERIENCE ■ 1970-2015 PLACEMENTS 8 80 IOWA \$0-R3 20 9 AGE IN YEARS 40 30 20 0 8 70 8 30 20. PERCENT SURVIVING



ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES

# ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1970-2015		EXPE	RIENCE BAN	D 1970-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	63,255,857 36,951,040 35,098,540 34,037,178 31,443,555 31,104,461 34,906,673 34,897,856 37,547,728 38,450,558	276,152 55,908 46,720 40,633	0.0000 0.0075 0.0000 0.0016 0.0015 0.0013 0.0000 0.0000 0.0000	1.0000 0.9925 1.0000 0.9984 0.9985 0.9987 1.0000 1.0000 0.9993	100.00 100.00 99.25 99.25 99.09 98.94 98.81 98.81 98.81
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	38,423,177 39,571,091 22,882,068 22,873,923 17,836,204 14,012,174 14,012,174 11,963,172 11,765,713 10,770,638	24,435 8,145 17,431 21,022 59,939 197,458	0.0000 0.0006 0.0004 0.0008 0.0012 0.0000 0.0043 0.0165 0.0000	1.0000 0.9994 0.9996 0.9992 0.9988 1.0000 0.9957 0.9835 1.0000	98.74 98.74 98.68 98.65 98.57 98.46 98.03 96.42 96.42
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	8,709,468 4,687,320 2,791,933 603,776 603,776 603,776 603,776 603,776 603,776		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.42 96.42 96.42 96.42 96.42 96.42 96.42 96.42 96.42
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	603,776 603,776 603,776 603,776 603,776 603,776 603,776 603,776 603,776		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.42 96.42 96.42 96.42 96.42 96.42 96.42 96.42 96.42

# ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1970-2015		EXPE	RIENCE BAN	D 1970-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5	603,776 603,776 603,776 482,938 241,408 199,409	118,011 241,530	0.0000 0.0000 0.1955 0.5001 0.0000 0.0000	1.0000 1.0000 0.8045 0.4999 1.0000	96.42 96.42 96.42 77.57 38.78 38.78 38.78



# ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1970-2015		EXPER	RIENCE BAN	D 1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	56, 971, 335 33, 953, 797 34, 167, 974 33, 433, 403 30, 839, 780 30, 500, 685 34, 302, 897 34, 294, 080 36, 943, 952 37, 846, 782	276,152 55,908 46,720 40,633	0.0000 0.0081 0.0000 0.0017 0.0015 0.0013 0.0000 0.0000 0.0000	1.0000 0.9919 1.0000 0.9983 0.9985 0.9987 1.0000 1.0000 1.0000	100.00 100.00 99.19 99.19 99.02 98.87 98.74 98.74
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	37,819,401 38,967,315 22,278,292 22,270,147 17,232,428 13,408,399 13,408,399 11,359,396 11,161,938 10,166,863	24,435 8,145 17,431 21,022 59,939 197,458	0.0000 0.0006 0.0004 0.0008 0.0012 0.0000 0.0045 0.0174 0.0000 0.0000	1.0000 0.9994 0.9996 0.9992 0.9988 1.0000 0.9955 0.9826 1.0000	98.67 98.67 98.61 98.57 98.49 98.37 98.37 97.93 96.23
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	8,105,692 4,083,545 2,188,157 2,826 2,826 44,825 603,776 603,776 603,776		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.23 96.23 96.23 96.23 96.23 96.23 96.23 96.23 96.23
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	603,776 603,776 603,776 603,776 603,776 603,776 603,776 603,776 603,776		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.23 96.23 96.23 96.23 96.23 96.23 96.23 96.23 96.23

# ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1970-2015		EXPER	RIENCE BAN	D 1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5	603,776 603,776 603,776 482,938 241,408 199,409	118,011 241,530	0.0000 0.0000 0.1955 0.5001 0.0000	1.0000 1.0000 0.8045 0.4999 1.0000	96.23 96.23 96.23 77.42 38.70 38.70

8 1970-2015 EXPERIENCE 1970-2015 PLACEMENTS 8 ORIGINAL CURVE 8 IOWA 4b-R2 2 ORIGINAL AND SMOOTH SURVIVOR CURVES 9 AGE IN YEARS 40 3 20 9 5 8 Ŕ 9 PERCENT SURVIVING



ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

# ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1970-2015		EXPER	RIENCE BANG	1970-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	5,771,616 5,673,700 5,607,015 5,536,015 5,494,838 5,320,653 5,227,550 5,227,550 5,227,550 5,183,418	1,188 1,771 35,883 65,541 66,356	0.0002 0.0000 0.0003 0.0065 0.0119 0.0125 0.0000 0.0000	0.9998 1.0000 0.9997 0.9935 0.9881 0.9875 1.0000 1.0000	100.00 99.98 99.95 99.30 98.12 96.89 96.89 96.89
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	5,168,144 5,133,373 5,028,067 4,681,001 4,675,623 1,450,133 1,450,133 1,408,810 1,408,810 1,387,548		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.89 96.89 96.89 96.89 96.89 96.89 96.89 96.89
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	1,229,609 266,976 35,805 35,805 35,805 35,805 35,805 35,805 35,805		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.89 96.89 96.89 96.89 96.89 96.89 96.89 96.89
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	35,805 35,805 35,805 35,805 35,805 35,805 35,805 35,805 35,805		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.89 96.89 96.89 96.89 96.89 96.89 96.89

# ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1970-2015		EXPER	RIENCE BAN	D 1970-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5	35,805 35,805 35,805 35,692 35,649 30,264	4 4	0.0000 0.0000 0.0000 0.0012 0.0000	1.0000 1.0000 1.0000 0.9988 1.0000	96.89 96.89 96.89 96.89 96.77 96.77

120 ORIGINAL CURVE = 1941-2015 EXPERIENCE ğ **IOWA 70-R3** 8 AGE IN YEARS \$ 쥖 70 РЕКСЕИТ SURVIVING



ORIGINAL AND SMOOTH SURVIVOR CURVES

KENTUCKY UTILITIES COMPANY ACCOUNT 350.1 LAND RIGHTS

# ACCOUNT 350.1 LAND RIGHTS

PLACEMENT	BAND 1941-2014		EXPER	RIENCE BAN	1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	30,356,869 30,356,868 30,066,243 28,264,941 24,342,549 24,278,907 24,126,296 23,737,980 23,734,427 23,723,733	1 1,233 38,734 481 34,479 3,553 10,694 3,483	0.0000 0.0000 0.0000 0.0016 0.0000 0.0014 0.0001 0.0005 0.0001	1.0000 1.0000 1.0000 0.9984 1.0000 0.9986 0.9999 0.9999	100.00 100.00 100.00 100.00 99.84 99.83 99.69 99.68 99.68
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	23,718,977 23,718,392 23,588,251 23,146,750 23,050,172 23,013,755 22,939,479 22,591,895 22,274,275 22,210,120	40 44.006 91,664 96,578 36,417 4.272 260 2,201	0.0000 0.0019 0.0039 0.0042 0.0016 0.0002 0.0000 0.0001 0.0000 0.0006	1.0000 0.9981 0.9961 0.9958 0.9984 0.9998 1.0000 0.9999	99.62 99.62 99.43 99.05 98.63 98.46 98.46 98.45 98.45
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	22,120,342 21,705,738 21,618,815 21,537,378 21,479,726 21,169,292 21,043,740 20,917,994 20,793,228 20,187,432	2,507 33,678 1,618 1,468	0.0000 0.0001 0.0016 0.0001 0.0000 0.0000 0.0000 0.0001	1.0000 0.9999 0.9984 0.9999 0.9999 1.0000 1.0000 1.0000 0.9999	98.38 98.38 98.37 98.22 98.21 98.21 98.21 98.21 98.21 98.21
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	20,016,691 18,637,420 16,400,624 16,084,820 15,225,310 14,652,769 13,894,060 13,012,208 12,109,922 11,968,740	14,769 306	0.0000 0.0008 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.9992 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	98.19 98.12 98.11 98.11 98.11 98.11 98.11 98.11 98.11

# ACCOUNT 350.1 LAND RIGHTS

PLACEMENT	BAND 1941-2014		EXPER	RIENCE BAN	1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5	11,514,099 11,341,297 10,798,351 9,820,313 9,226,846 8,256,777 6,574,014 6,171,920 6,043,265	361	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	98.11 98.11 98.11 98.11 98.11 98.11 98.11 98.11
48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	5,431,700 5,015,178 4,696,615 4,603,473 4,138,353 3,857,993 3,530,709 3,267,275 3,040,442 2,666,928 2,634,749	643	0.0001 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.9999 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	98.10 98.10 98.10 98.10 98.10 98.10 98.10 98.10 98.10 98.10
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	2,375,299 2,289,385 2,180,564 1,771,258 1,585,210 1,480,421 1,457,872 1,221,149 825,144 759,614		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	98.10 98.10 98.10 98.10 98.10 98.10 98.10 98.10 98.10
69.5 70.5 71.5 72.5 73.5 74.5	720,785 715,390 714,530 713,453 686,361		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000	98.10 98.10 98.10 98.10 98.10

ORIGINAL CURVE = 1940-2015 EXPERIENCE 1940-2015 EXPERIENCE 1940-2015 PLACEMENTS 1940-2015 PLACEMENTS 100 IOWA 70-R3 80 AGE IN YEARS 40 20 90 80 70 50 30 20 PERCENT SURVIVING

KENTUCKY UTILITIES COMPANY ACCOUNT 352.1 STRUCTURES AND IMPROVEMENTS ORIGINAL AND SMOOTH SURVIVOR CURVES

# ACCOUNT 352.1 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1940-2015		EXPER	RIENCE BAN	D 1940-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	24,669,683 23,393,062 21,306,804 17,637,859 16,742,149 15,288,760 15,156,428 12,803,571 7,423,740 7,223,030	672 2,012 4,619 1,769 43,125 1,044 1,529	0.0000 0.0000 0.0001 0.0003 0.0000 0.0001 0.0000 0.0034 0.0001 0.0002	1.0000 1.0000 0.9999 0.9997 1.0000 0.9999 1.0000 0.9966 0.9999	100.00 100.00 100.00 99.99 99.96 99.95 99.95 99.61 99.60
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	7,221,501 7,028,173 6,732,868 6,692,876 6,607,672 6,449,974 6,246,611 6,203,434 5,570,055 5,470,143	1,583 1,778 1,397 3,217 6,896 3,541 16,099 59 4,448 869	0.0002 0.0003 0.0002 0.0005 0.0010 0.0005 0.0026 0.0000 0.0008	0.9998 0.9997 0.9998 0.9995 0.9990 0.9974 1.0000 0.9992 0.9998	99.58 99.56 99.53 99.51 99.46 99.36 99.05 99.05 98.97
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	5,363,815 4,873,722 4,568,707 4,457,264 4,318,761 4,301,789 4,133,247 4,112,253 3,993,186 3,839,580	14,880 5,308 9,041 2,353 9,270 3,077 3,894 4,714 20,414 6,475	0.0028 0.0011 0.0020 0.0005 0.0021 0.0007 0.0009 0.0011 0.0051 0.0017	0.9972 0.9989 0.9980 0.9995 0.9979 0.9993 0.9991 0.9989 0.9983	98.95 98.68 98.57 98.38 98.32 98.11 98.04 97.95 97.84 97.34
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	3,780,049 3,649,750 4,296,007 3,850,353 3,134,743 2,165,823 1,952,535 1,733,204 1,518,933 1,277,951	18,111 14,681 14,287 15,326 2,696 17,613 8,343 12,986 14,803 3,625	0.0048 0.0040 0.0033 0.0040 0.0009 0.0081 0.0043 0.0075 0.0097	0.9952 0.9960 0.9967 0.9960 0.9991 0.9919 0.9957 0.9925 0.9903	97.17 96.71 96.32 96.00 95.62 95.53 94.76 94.35 93.65 92.73

#### ACCOUNT 352.1 STRUCTURES AND IMPROVEMENTS

PLACEMENT I	BAND 1940-2015		EXPER	RIENCE BAN	0 1940-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	1,230,726 1,146,290 1,115,848 1,087,936 882,689 755,274 679,285 636,678 614,963 591,604	957 177 1,786 6,152 1,526 5,441 2,717 7,913 10,637 10,833	0.0008 0.0002 0.0016 0.0057 0.0017 0.0072 0.0040 0.0124 0.0173 0.0183	0.9992 0.9998 0.9984 0.9943 0.9983 0.9928 0.9960 0.9876 0.9827 0.9817	92.47 92.40 92.38 92.24 91.71 91.56 90.90 90.53 89.41 87.86
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	534,835 502,212 454,891 442,928 429,862 412,693 370,924 458,035 405,322 392,083	413 4,921 118 513 4,500 2,583 3,482	0.0008 0.0098 0.0003 0.0012 0.0000 0.0109 0.0070 0.0076 0.0000 0.0024	0.9992 0.9902 0.9997 0.9988 1.0000 0.9891 0.9930 0.9924 1.0000 0.9976	86.25 86.19 85.34 85.32 85.22 85.22 84.29 83.70 83.07
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	230,018 214,371 168,368 140,226 138,171 106,337 84,214 58,735 57,335 54,112	2,213 5,689 1,244 219	0.0096 0.0000 0.0000 0.0000 0.0412 0.0000 0.0148 0.0000 0.0000	0.9904 1.0000 1.0000 0.9588 1.0000 0.9852 1.0000 1.0000	82.87 82.07 82.07 82.07 82.07 78.69 77.53 77.53
69.5 70.5 71.5 72.5 73.5 74.5 75.5	53,893 52,686 52,686 44,997 44,997 1,901	1,207 7,689 749	0.0224 0.0000 0.1459 0.0000 0.0166 0.0000	0.9776 1.0000 0.8541 1.0000 0.9834 1.0000	77.21 75.48 75.48 64.47 64.47 63.39 63.39

#### ACCOUNT 352.1 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1940-2015		EXPER	RIENCE BANI	1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	19,279,542 18,482,903 16,699,637 13,144,183 12,394,268 10,949,920 10,989,932 8,648,591 3,386,952 3,314,028	13 4,321 1,339 39,285	0.0000 0.0000 0.0003 0.0000 0.0001 0.0000 0.0045 0.0000	1.0000 1.0000 0.9997 1.0000 0.9999 1.0000 0.9955 1.0000	100.00 100.00 100.00 100.00 99.97 99.95 99.95 99.50
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	3,376,190 3,324,737 3,248,960 3,642,775 4,262,255 4,209,874 4,236,000 4,418,738 3,998,505 4,132,028	3,036 6,428 14,853 3,287 869	0.0000 0.0000 0.0000 0.0008 0.0015 0.0000 0.0035 0.0000 0.0008 0.0002	1.0000 1.0000 0.9992 0.9985 1.0000 0.9965 1.0000 0.9992 0.9998	99.50 99.50 99.50 99.50 99.42 99.27 99.27 98.92 98.92 98.84
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	4,070,856 3,671,837 3,406,220 3,324,724 3,390,097 3,505,973 3,413,390 3,441,153 3,339,508 3,203,605	13,238 4,399 6,969 5,104 1,538 2,087 1,092 15,648 4,045	0.0033 0.0012 0.0020 0.0000 0.0015 0.0004 0.0006 0.0003 0.0047 0.0013	0.9967 0.9988 0.9980 1.0000 0.9985 0.9996 0.9997 0.9953 0.9987	98.82 98.50 98.38 98.18 98.18 98.03 97.99 97.90
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	3,201,579 3,113,610 3,805,615 3,374,245 2,678,811 1,729,316 1,553,297 1,371,713 1,210,352 987,869	17,709 14,681 12,098 13,191 2,294 17,613 8,343 12,986 11,101 2,437	0.0055 0.0047 0.0032 0.0039 0.0009 0.0102 0.0054 0.0095 0.0092	0.9945 0.9953 0.9968 0.9961 0.9991 0.9898 0.9946 0.9905 0.9908	97.31 96.78 96.32 96.01 95.64 95.56 94.58 94.07 93.18 92.33

# ACCOUNT 352.1 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1940-2015		EXPER	RIENCE BAN	1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	978,905 912,590 928,401 934,490 731,399 636,908 586,732 571,728 551,706 531,570	957 45 1,786 6,051 1,526 3,153 2,717 7,621 10,637 9,871	0.0010 0.0000 0.0019 0.0065 0.0021 0.0050 0.0046 0.0133 0.0193 0.0186	0.9990 1.0000 0.9981 0.9935 0.9979 0.9950 0.9954 0.9867 0.9807	92.10 92.01 92.01 91.83 91.24 91.04 90.59 90.17 88.97 87.26
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	475,981 443,359 396,038 384,074 371,008 404,164 370,924 458,035 405,322 392,083	413 4,921 118 513 4,500 2,583 3,482	0.0009 0.0111 0.0003 0.0013 0.0000 0.0111 0.0070 0.0076 0.0000 0.0024	0.9991 0.9889 0.9997 0.9987 1.0000 0.9889 0.9930 0.9924 1.0000 0.9976	85.64 85.56 84.61 84.59 84.47 84.47 83.53 82.95 82.32
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	230,018 214,371 168,368 140,226 138,171 106,337 84,214 58,735 57,335 54,112	2,213 5,689 1,244 219	0.0096 0.0000 0.0000 0.0000 0.0412 0.0000 0.0148 0.0000 0.0000	0.9904 1.0000 1.0000 0.9588 1.0000 0.9852 1.0000 1.0000	82.12 81.33 81.33 81.33 77.98 77.98 76.83 76.83
69.5 70.5 71.5 72.5 73.5 74.5 75.5	53,893 52,686 52,686 44,997 44,997 1,901	1,207 7,689 749	0.0224 0.0000 0.1459 0.0000 0.0166 0.0000	0.9776 1.0000 0.8541 1.0000 0.9834 1.0000	76.52 74.81 74.81 63.89 63.89 62.83

120 ORIGINAL CURVE = 1956-2013 EXPERIENCE ▲ 1996-2015 EXPERIENCE 1956-2011 PLACEMENTS ACCOUNT 352,2 STRUCTURES AND IMPROVEMENTS - SYSTEM CONTROL/COMMUNICATION 8 **IOWA 65-R4** 8 ORIGINAL AND SMOOTH SURVIVOR CURVES KENTUCKY UTILITIES COMPANY AGE IN YEARS 8 20 100, 8 8 70 38 20 20 PERCENT SURVIVING

**Gannett Fleming** 

ACCOUNT 352.2 STRUCTURES AND IMPROVEMENTS - SYSTEM CONTROL/COMMUNICATION

PLACEMENT	BAND 1956-2011		EXPE	RIENCE BAN	D 1956-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	1,262,667 1,262,667 1,262,667 1,262,667 1,262,667 1,184,836 1,184,836 1,184,836 1,184,836		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	1,184,836 1,184,836 1,184,836 1,184,836 1,184,836 1,184,836 1,184,836 1,184,836 1,184,836		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	1,106,967 1,102,199 1,102,199 1,085,573 1,079,988 1,079,988 1,073,538 1,073,538 1,068,997	16,626	0.0000 0.0000 0.0151 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9849 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 98.49 98.49 98.49 98.49 98.49 98.49
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	1,068,997 1,068,997 191,484 191,344 191,344 191,344 190,045 190,045 188,437	1,608	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0085 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9915 1.0000	98.49 98.49 98.49 98.49 98.49 98.49 98.49 98.49 98.49

# ACCOUNT 352.2 STRUCTURES AND IMPROVEMENTS - SYSTEM CONTROL/COMMUNICATION ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1956-2011		EXPER	RIENCE BAN	D 1956-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	188, 437 188, 437 179, 591 179, 361 169, 701 169, 504 169, 504 169, 454	230 9,659 197	0.0000 0.0000 0.0013 0.0539 0.0012 0.0000 0.0000 0.0000	1.0000 1.0000 0.9987 0.9461 0.9988 1.0000 1.0000 1.0000	97.66 97.66 97.66 97.53 92.28 92.17 92.17 92.17 92.17
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	169,454 169,454 156,191 156,165 156,165 155,589 28,148 17,017	13,263 541 1,888	0.0000 0.0783 0.0000 0.0000 0.0000 0.0035 0.0000 0.0671 0.0000	1.0000 0.9217 1.0000 1.0000 0.9965 1.0000 0.9329 1.0000	92.17 92.17 84.96 84.96 84.96 84.66 84.66 78.99
59.5					78.99

ACCOUNT 352.2 STRUCTURES AND IMPROVEMENTS - SYSTEM CONTROL/COMMUNICATION

PLACEMENT	BAND 1956-2011		EXPER	RIENCE BAN	D 1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	155,700 155,700 155,700 155,700 160,468 82,638 82,638 88,222 92,763 99,213		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	99,213 99,213 99,213 99,213 99,213 993,353 993,492 993,492 993,492		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	916,922 912,154 918,768 902,142 898,165 900,397 893,947 893,947 899,116	16,626	0.0000 0.0000 0.0181 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1,0000 1.0000 0.9819 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 98.19 98.19 98.19 98.19 98.19 98.19
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	899,116 899,116 21,603 21,603 21,489 21,489 21,524 20,225 29,698 28,091	1,608	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0541 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9459 1.0000	98.19 98.19 98.19 98.19 98.19 98.19 98.19 98.19 98.19

ACCOUNT 352.2 STRUCTURES AND IMPROVEMENTS - SYSTEM CONTROL/COMMUNICATION
ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1956-2011		EXPER	RIENCE BAN	1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	188,437 188,437 179,591 179,361 169,701 169,504 169,504 169,504	230 9,659 197	0.0000 0.0000 0.0013 0.0539 0.0012 0.0000 0.0000 0.0000	1.0000 1.0000 0.9987 0.9461 0.9988 1.0000 1.0000 1.0000	92.88 92.88 92.88 92.76 87.76 87.66 87.66 87.66
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	169,454 169,454 156,191 156,165 156,165 155,589 28,148 17,017	13,263 541 1,888	0.0000 0.0783 0.0000 0.0000 0.0000 0.0035 0.0000 0.0671 0.0000 0.0000	1.0000 0.9217 1.0000 1.0000 0.9965 1.0000 0.9329 1.0000 1.0000	87.66 87.66 80.80 80.80 80.80 80.52 80.52 75.12
59.5					75.12

120 ORIGINAL CURVE - 1903-2015 EXPERIENCE ▲ 1966-2015 EXPERIENCE 1903-2015 PLACEMENTS 100 **IOWA 60-R2** 80 AGE IN YEARS 20 90 80 70 30 8 20 20 PERCENT SURVIVING

KENTUCKY UTILITIES COMPANY ACCOUNT 353.1 STATION EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES

# ACCOUNT 353.1 STATION EQUIPMENT

PLACEMENT	BAND 1903-2015		EXPER	IENCE BANI	1903-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	312,257,035 297,144,631 273,430,330 259,906,556 223,223,472 213,588,240 197,839,566 185,716,943 179,809,079 172,921,615	123,045 101,546 134,813 855,379 1,344,681 773,738 468,913 89,060 1,038,310 123,359	0.0004 0.0003 0.0005 0.0033 0.0060 0.0036 0.0024 0.0005 0.0058 0.0007	0.9996 0.9997 0.9995 0.9967 0.9940 0.9964 0.9976 0.9995 0.9992	100.00 99.96 99.93 99.88 99.55 98.95 98.36 98.31 97.74
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	163,008,905 158,148,977 155,572,551 141,676,510 139,775,868 137,949,327 133,515,880 130,315,770 126,053,965 121,825,537	353,191 205,228 817,187 308,543 977,094 865,052 260,694 418,208 337,985 404,474	0.0022 0.0013 0.0053 0.0022 0.0070 0.0063 0.0020 0.0032 0.0027 0.0033	0.9978 0.9987 0.9947 0.9978 0.9930 0.9937 0.9980 0.9968 0.9973	97.67 97.46 97.33 96.82 96.61 95.94 95.33 95.15 94.84 94.59
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	119,104,400 113,306,154 111,088,710 107,907,225 100,343,581 98,787,291 94,336,390 92,023,698 89,295,341 87,448,130	2,107,356 408,265 138,899 372,188 403,787 950,818 662,763 402,870 1,524,436 235,779	0.0177 0.0036 0.0013 0.0034 0.0040 0.0096 0.0070 0.0044 0.0171 0.0027	0.9823 0.9964 0.9987 0.9966 0.9960 0.9930 0.9956 0.9829 0.9973	94.28 92.61 92.27 92.16 91.84 91.47 90.59 89.95 89.56 88.03
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	86,822,365 78,655,388 74,391,251 72,223,364 61,272,272 57,653,540 50,232,993 45,617,433 42,563,708 34,342,176	1,261,984 297,462 562,738 664,876 380,823 870,324 820,970 308,660 262,671 478,301	0.0145 0.0038 0.0076 0.0092 0.0062 0.0151 0.0163 0.0068 0.0062 0.0139	0.9855 0.9962 0.9924 0.9908 0.9938 0.9849 0.9837 0.9932 0.9938	87.79 86.52 86.19 85.54 84.75 84.22 82.95 81.60 81.04

# ACCOUNT 353.1 STATION EQUIPMENT

PLACEMENT	BAND 1903-2015		EXPER	LIENCE BANK	1903-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	33,394,803 31,721,415 29,699,152 28,565,043 26,818,835 23,415,625 21,340,977 17,995,713 17,385,187 16,952,756	363,745 374,899 282,213 245,517 385,143 116,930 290,681 129,751 150,908 140,654	0.0109 0.0118 0.0095 0.0086 0.0144 0.0050 0.0136 0.0072 0.0087 0.0083	0.9891 0.9882 0.9905 0.9914 0.9856 0.9950 0.9864 0.9928 0.9913 0.9917	79.42 78.56 77.63 76.89 76.23 75.14 74.76 73.74 73.21 72.58
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	16,062,695 14,932,498 13,506,285 12,445,926 11,939,187 11,286,348 10,243,699 9,606,668 9,458,779 7,802,867	141,489 39,588 67,689 174,072 140,390 90,048 29,991 131,901 67,459 571,358	0.0088 0.0027 0.0050 0.0140 0.0118 0.0080 0.0029 0.0137 0.0071	0.9912 0.9973 0.9950 0.9860 0.9882 0.9920 0.9971 0.9863 0.9929 0.9268	71.97 71.34 71.15 70.79 69.80 68.98 68.43 68.23 67.30 66.82
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	5,658,843 4,315,580 3,998,969 1,888,296 1,779,395 1,330,797 641,423 175,581 157,148 132,667	49,539 124,156 50,548 6,311 58,842 9,488 4,972 74 14,404 583	0.0088 0.0288 0.0126 0.0033 0.0331 0.0071 0.0078 0.0004 0.0917 0.0044	0.9912 0.9712 0.9874 0.9967 0.9669 0.9929 0.9922 0.9996 0.9083 0.9956	61.92 61.38 59.61 58.86 58.66 56.72 56.32 55.88 55.86
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	108,985 89,575 55,508 47,693 42,404 39,961 39,346 39,346 39,346	3,161 31,495 1,409 2,103 865	0.0290 0.3516 0.0254 0.0441 0.0204 0.0000 0.0000 0.0000	0.9710 0.6484 0.9746 0.9559 0.9796 1.0000 1.0000 1.0000	50.52 49.05 31.80 31.00 29.63 29.03 29.03 29.03 29.03

# ACCOUNT 353.1 STATION EQUIPMENT

PLACEMENT E	BAND 1903-2015		EXPER	RIENCE BANI	0 1903-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5	39,346 39,346 39,346 39,346 39,346 30,656 21,560 21,560	8,690 7,767	0.0000 0.0000 0.0000 0.0000 0.2209 0.2534 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.7791 0.7466 1.0000 1.0000	29.03 29.03 29.03 29.03 29.03 29.03 22.62 16.89 16.89
89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5	21,560 21,560 21,560 21,560 21,560 21,560 21,560 21,560 21,560		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	16.89 16.89 16.89 16.89 16.89 16.89 16.89 16.89
99.5 100.5 101.5 102.5 103.5 104.5 105.5 106.5 107.5	21,560 183 183 183 183 183 183 183 183	21,377	0.9915 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.0085 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	16.89 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14
109.5 110.5 111.5	183 183	183	0.0000 1.0000	1.0000	0.14 0.14

# ACCOUNT 353.1 STATION EQUIPMENT

PLACEMENT	BAND 1903-2015		EXPER	RIENCE BAN	D 1966-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	291,563,323 277,846,656 255,701,858 243,502,963 207,241,009 198,293,292 183,363,685 172,016,965 166,812,995 161,719,203	113,542 92,209 118,409 822,819 1,323,717 745,428 440,248 65,042 995,559 94,352	0.0004 0.0003 0.0005 0.0034 0.0064 0.0038 0.0024 0.0004 0.0060	0.9996 0.9997 0.9995 0.9966 0.9936 0.9962 0.9976 0.9996	100.00 99.96 99.93 99.88 99.54 98.91 98.54 98.26 97.68
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	153,452,663 150,135,428 149,053,932 137,472,026 135,752,511 134,576,010 131,410,407 128,715,511 124,580,144 120,465,590	290,120 155,664 800,744 291,052 898,179 842,296 254,519 379,597 325,147 399,026	0.0019 0.0010 0.0054 0.0021 0.0066 0.0063 0.0019 0.0029 0.0026 0.0033	0.9981 0.9990 0.9946 0.9979 0.9934 0.9937 0.9981 0.9971 0.9974	97.62 97.43 97.33 96.81 96.61 95.97 95.37 95.18 94.90 94.65
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	117,778,074 112,013,547 109,801,833 106,678,306 99,134,403 97,799,462 93,362,103 91,062,854 88,356,087 86,531,076	2,091,248 406,215 128,310 363,997 399,145 941,306 649,347 381,281 1,502,235 228,600	0.0178 0.0036 0.0012 0.0034 0.0040 0.0096 0.0070 0.0042 0.0170 0.0026	0.9822 0.9964 0.9988 0.9966 0.9960 0.9930 0.9930 0.9958 0.9830	94.34 92.66 92.33 92.22 91.91 91.54 90.65 90.02 89.65 88.12
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	85,912,491 77,755,316 73,508,924 71,354,784 60,413,634 56,819,843 49,419,356 44,821,832 41,785,687 33,566,108	1,252,182 279,717 548,990 654,935 355,881 850,384 820,720 298,123 260,718 433,023	0.0146 0.0036 0.0075 0.0092 0.0059 0.0150 0.0166 0.0067 0.0062 0.0129	0.9854 0.9964 0.9925 0.9908 0.9941 0.9850 0.9834 0.9933 0.9938	87.89 86.61 86.30 85.65 84.87 84.37 83.10 81.72 81.18

# ACCOUNT 353.1 STATION EQUIPMENT

PLACEMENT	BAND 1903-2015		EXPE	RIENCE BANI	1966-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	32,664,013 31,092,626 29,486,657 28,368,876 26,640,607 23,239,421 21,164,773 17,819,511 17,208,985 16,776,554	261,745 351,724 280,425 227,577 383,120 116,930 290,679 129,751 150,908 140,654	0.0080 0.0113 0.0095 0.0080 0.0144 0.0050 0.0137 0.0073 0.0088 0.0084	0.9920 0.9887 0.9905 0.9920 0.9856 0.9950 0.9863 0.9927 0.9912	79.63 79.00 78.10 77.36 76.74 75.63 75.25 74.22 73.68 73.03
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	15,886,492 14,762,803 13,357,967 12,297,609 11,790,869 11,138,031 10,095,381 9,458,350 9,310,461 7,695,191	134,982 39,588 67,689 174,072 140,390 90,048 29,991 131,901 26,817 561,336	0.0085 0.0027 0.0051 0.0142 0.0119 0.0081 0.0030 0.0139 0.0029 0.0729	0.9915 0.9973 0.9949 0.9858 0.9881 0.9919 0.9970 0.9861 0.9971	72.42 71.81 71.61 71.25 70.24 69.41 68.84 68.64 67.68 67.49
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	5,561,189 4,217,926 3,998,787 1,888,296 1,779,395 1,330,797 641,423 175,581 157,148 132,667	49,539 75.488 50.548 6,311 58,842 9,488 4,972 74 14,404 583	0.0089 0.0179 0.0126 0.0033 0.0331 0.0071 0.0078 0.0004 0.0917	0.9911 0.9821 0.9874 0.9967 0.9669 0.9929 0.9922 0.9996 0.9083	62.57 62.01 60.90 60.13 59.93 57.95 57.53 57.09 57.06 51.83
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	108,985 89,575 55,508 47,693 42,404 39,961 39,346 39,346 39,346	3,161 31,495 1,409 2,103 865	0.0290 0.3516 0.0254 0.0441 0.0204 0.0000 0.0000 0.0000 0.0000	0.9710 0.6484 0.9746 0.9559 0.9796 1.0000 1.0000 1.0000	51.60 50.11 32.49 31.66 30.27 29.65 29.65 29.65 29.65

# ACCOUNT 353.1 STATION EQUIPMENT

PLACEMENT	BAND 1903-2015		EXPER	RIENCE BAN	D 1966-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5	39,346 39,346 39,346 39,346 39,346 30,656 21,560 21,560	8,690 7,767	0.0000 0.0000 0.0000 0.0000 0.0000 0.2209 0.2534 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.7791 0.7466 1.0000 1.0000	29.65 29.65 29.65 29.65 29.65 29.65 23.10 17.25 17.25
89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5	21,560 21,560 21,560 21,560 21,560 21,560 21,560 21,560 21,560		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	17.25 17.25 17.25 17.25 17.25 17.25 17.25 17.25 17.25
99.5 100.5 101.5 102.5 103.5 104.5 105.5 106.5 107.5	21,560 183 183 183 183 183 183 183 183	21,377	0.9915 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.0085 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	17.25 0.15 0.15 0.15 0.15 0.15 0.15 0.15
109.5 110.5 111.5	183 183	183	0.0000 1.0000	1.0000	0.15 0.15

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1956-2015 EXPERIENCE 1953-2003 PLACEMENTS 8 ACCOUNT 353.2 STATION EQUIPMENT - SYSTEM CONTROL/COMMUNICATION ORIGINAL CURVE . **IOWA 45-R2** ORIGINAL AND SMOOTH SURVIVOR CURVES 8 KENTUCKY UTILITIES COMPANY AGE IN YEARS 유 2 8 8 70 Ś ė 20 PERCENT SURVIVING

**Gannett Fleming** 

# ACCOUNT 353.2 STATION EQUIPMENT - SYSTEM CONTROL/COMMUNICATION

PLACEMENT	BAND 1953-2003		EXPER	RIENCE BANG	1956-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5	16,685,849 16,634,687 17,481,399 17,490,214	87,826 85,124	0.0000 0.0053 0.0000 0.0049	1.0000 0.9947 1.0000 0.9951	100.00 100.00 99.47 99.47
3.5 4.5 5.5	17,405,090 17,405,090 17,395,221	37,858	0.0000 0.0000 0.0022	1.0000 1.0000 0.9978	98.99 98.99 98.99
6.5 7.5 8.5	17,357,363 17,252,937 17,306,699	104,426	0.0060 0.0000 0.0011	0.9940 1.0000 0.9989	98.77 98.18 98.18
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	17,233,610 17,231,100 17,198,816 16,098,437 15,738,258 15,741,626 12,699,181 12,549,215 10,533,824 9,120,876	5,635 29,159 373,179 4,219 7,003 38,113 1,272 342,279 33,697 569	0.0003 0.0017 0.0217 0.0003 0.0004 0.0024 0.0001 0.0273 0.0032 0.0001	0.9997 0.9983 0.9783 0.9997 0.9996 0.9976 0.9999 0.9727 0.9968 0.9999	98.07 98.04 97.87 95.75 95.72 95.68 95.45 95.44 92.84
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	8,942,747 7,586,273 6,362,498 6,352,559 5,496,124 5,422,352 5,250,319 5,217,585 5,215,838 5,213,877	344,038 161,094 2,646 2,830 22,217 148,646 30,057 577 1,961 3,981	0.0385 0.0212 0.0004 0.0004 0.0040 0.0274 0.0057 0.0001 0.0004 0.0008	0.9615 0.9788 0.9996 0.9996 0.9960 0.9726 0.9943 0.9999 0.9999	92.53 88.97 87.08 87.05 87.01 86.66 84.28 83.80 83.79 83.76
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	5,209,896 5,154,225 4,535,129 410,810 409,335 405,581 366,400 361,310 303,503 299,573	15,802 6,928 160 2,737 388 212 40,429 2,218 10,928	0.0030 0.0013 0.0000 0.0000 0.0067 0.0010 0.0006 0.1119 0.0073 0.0365	0.9970 0.9987 1.0000 1.0000 0.9933 0.9990 0.9994 0.8881 0.9927 0.9635	83.69 83.44 83.33 83.32 83.32 82.77 82.69 82.64 73.39 72.86

# ACCOUNT 353.2 STATION EQUIPMENT - SYSTEM CONTROL/COMMUNICATION ORIGINAL LIFE TABLE, CONT.

#### PLACEMENT BAND 1953-2003 EXPERIENCE BAND 1956-2015 AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF AGE INTERVAL INTERVAL INTERVAL RATIO RATIO INTERVAL 39.5 270,743 1,308 0.0048 0.9952 70.20 40.5 131,626 3,386 0.0257 69.86 0.9743 41.5 107,306 6,102 0.0569 0.9431 68.06 42.5 101,204 0.0000 64.19 1.0000 43.5 100,925 3,296 0.0327 64.19 0.9673 97,034 62.10 44.5 0.0000 1.0000 45.5 96,639 0.0000 1.0000 62.10 82,105 1,0000 46.5 0.0000 62.10 82,105 47.5 0.0000 62.10 1.0000 82,105 48.5 0.0000 1.0000 62.10 49.5 81,978 0.0017 0.9983 62.10 135 50.5 77,212 0.0000 1.0000 61.99 51.5 76,692 0.0000 1.0000 61.99 52.5 76,674 61.99 0.0000 1.0000 76,674 53.5 0.0000 1.0000 61.99 54.5 76,674 3,304 0.0431 61.99 0.9569 55.5 73,369 0.0000 59.32 1.0000 72,701 56.5 0.0000 1.0000 59.32 57.5 51,515 0.0000 1.0000 59.32 47,410 58.5 0.0000 1,0000 59.32

59.5

59.32

8 ORIGINAL CURVE = 1904-2015 EXPERIENCE 1996-2015 EXPERIENCE 1941-2015 PLACEMENTS 윤 **IOWA 70-R4** 8 **AGE IN YEARS** 9 ଷ 8 5 5 8 6 8 9 8 ŝ 20 PERCENT SURVIVING

KENTUCKY UTILITIES COMPANY ACCOUNT 354 TOWERS AND FIXTURES ORIGINAL AND SMOOTH SURVIVOR CURVES

#### ACCOUNT 354 TOWERS AND FIXTURES

PLACEMENT	BAND 1904-2015		EXPER	RIENCE BAN	D 1904-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	79,916,818 79,016,134 78,112,691 74,987,882 66,842,969 66,781,889 65,938,764 64,360,227 64,330,628 64,322,724	7,496 12,672 39,786 1,280 8,526 17,863 7,904 116,385	0.0000 0.0001 0.0002 0.0005 0.0000 0.0000 0.0001 0.0003 0.0001 0.0018	1.0000 0.9999 0.9998 0.9995 1.0000 1.0000 0.9999 0.9997 0.9999	100.00 100.00 99.99 99.97 99.92 99.92 99.92 99.91 99.88 99.87
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	64,206,340 64,194,815 63,332,135 61,109,241 60,540,250 60,419,245 60,377,176 60,270,476 60,259,263 58,702,692	9,921 31,530 116,798 36,307 11,221 11,213 7,066 3,393	0.0002 0.0005 0.0000 0.0019 0.0006 0.0002 0.0000 0.0002	0.9998 0.9995 1.0000 0.9981 0.9994 0.9998 1.0000 0.9998 0.9999	99.69 99.67 99.62 99.62 99.43 99.37 99.35 99.35
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	58,580,083 58,580,083 58,569,728 58,674,661 58,536,238 58,462,185 58,220,259 56,588,141 56,519,117 54,740,137	10,354 22,318 93,753 3,651 16,563	0.0000 0.0002 0.0004 0.0016 0.0000 0.0001 0.0000 0.0003 0.0000 0.0003	1.0000 0.9998 0.9996 0.9984 1.0000 0.9999 1.0000 0.9997 1.0000 0.9997	99.32 99.30 99.26 99.10 99.10 99.10 99.07 99.07
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	52,835,936 48,369,185 38,437,425 38,425,450 31,945,801 31,775,534 19,166,157 18,997,905 13,178,277 12,200,468	1,881 19,915 11,974 34,455 32,929 76,820 63,663 49,331 6,741 26,030	0.0000 0.0004 0.0003 0.0009 0.0010 0.0024 0.0033 0.0026 0.0005	1.0000 0.9996 0.9997 0.9991 0.9990 0.9976 0.9974 0.9995 0.9979	99.04 99.04 98.99 98.96 98.87 98.77 98.53 98.21 97.95

#### ACCOUNT 354 TOWERS AND FIXTURES

PLACEMENT	BAND 1904-2015		EXPER	RIENCE BANI	1904-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	11,709,190 11,454,758 11,150,685 10,173,062 9,818,361 8,568,925 6,115,342 5,534,215 5,426,143 5,254,702	62,402 77,848 82,590 32,909 3,349 77,541 105,126 30,900 75,760	0.0053 0.0068 0.0000 0.0081 0.0034 0.0004 0.0127 0.0190 0.0057 0.0144	0.9947 0.9932 1.0000 0.9919 0.9966 0.9996 0.9873 0.9810 0.9943	97.69 97.17 96.51 96.51 95.73 95.41 95.37 94.16 92.37 91.85
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	5,106,384 5,011,125 4,848,614 4,520,982 4,220,766 3,565,077 3,518,289 3,486,315 2,490,743 2,464,502	35,441 112,564 50,972 47,252 25,546 28,851 14,449 3,186 26,242 6,533	0.0069 0.0225 0.0105 0.0105 0.0061 0.0081 0.0041 0.0009 0.0105 0.0027	0.9931 0.9775 0.9895 0.9895 0.9939 0.9919 0.9959 0.9991 0.9895	90.52 89.89 87.87 86.95 86.04 85.52 84.83 84.48 84.40 83.51
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	2,438,062 2,407,378 2,406,097 2,384,445 2,377,386 1,358,938 1,128,776 764,212 758,811 758,275	30,684 1,281 908 7,059 997,960 230,162 4,182 536 282,246	0.0126 0.0005 0.0004 0.0030 0.4198 0.1694 0.0037 0.0000 0.0007	0.9874 0.9995 0.9996 0.9970 0.5802 0.8306 0.9963 1.0000 0.9993 0.6278	83.29 82.24 82.20 82.17 81.93 47.54 39.34 39.34 39.34
69.5 70.5 71.5 72.5 73.5 74.5	476,029 476,029 426,146 426,146 411,763	49,883 12,995	0.0000 0.1048 0.0000 0.0305 0.0000	1.0000 0.8952 1.0000 0.9695 1.0000	24.68 24.68 22.09 22.09 21.42 21.42

#### ACCOUNT 354 TOWERS AND FIXTURES

PLACEMENT	BAND 1941-2015		EXPER	RIENCE BAN	D 1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	20,867,031 19,966,347 19,104,984 15,992,847 7,932,390 7,871,310 7,267,740 7,340,965 7,352,926 9,132,176	7,496 8,481	0.0000 0.0004 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.9996 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9991	100.00 100.00 99.96 99.96 99.96 99.96 99.96 99.96
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	10,884,639 15,340,759 24,612,306 22,393,774 28,285,341 28,401,156 40,902,600 40,968,610 46,770,521 46,193,076	7,147 116,798	0.0007 0.0000 0.0000 0.0052 0.0000 0.0000 0.0000 0.0000	0.9993 1.0000 1.0000 0.9948 1.0000 1.0000 1.0000 1.0000	99.87 99.80 99.80 99.28 99.28 99.28 99.28 99.28
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	46,557,064 46,749,093 47,037,088 48,226,297 48,453,480 49,709,555 51,946,276 50,860,966 50,796,585 49,158,101	11,920	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0002 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9998 1.0000	99.28 99.28 99.28 99.28 99.28 99.28 99.28 99.26
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	47,342,464 42,937,131 33,089,975 33,515,430 27,332,542 27,957,887 15,364,600 15,213,872 10,468,888 9,496,877	16,158 7,209 34,455 32,929 76,791 63,663 37,495 943 17,827	0.0000 0.0004 0.0002 0.0010 0.0012 0.0027 0.0041 0.0025 0.0001	1.0000 0.9996 0.9998 0.9990 0.9988 0.9973 0.9959 0.9975	99.26 99.26 99.22 99.20 99.10 98.98 98.71 98.30 98.06 98.05

# ACCOUNT 354 TOWERS AND FIXTURES

PLACEMENT	BAND 1941-2015		EXPER	RIENCE BAN	D 1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5	9,037,830 8,789,893 8,512,473 7,611,481 7,256,780 6,029,697 3,589,466 4,465,369 4,373,072	61,639 51,195 82,590 32,909 1,865 11,868 89,432 30,900	0.0068 0.0058 0.0000 0.0109 0.0045 0.0003 0.0033 0.0200 0.0071	0.9932 0.9942 1.0000 0.9891 0.9955 0.9997 0.9967 0.9800 0.9929	97.86 97.20 96.63 96.63 95.58 95.15 95.12 94.80 92.91
48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	4,201,631 4,055,743 3,962,362 3,799,851 3,472,219 3,179,618 3,548,267 3,501,479 3,480,127 2,485,155 2,459,913	73,330 33,563 112,564 50,972 47,252 25,546 28,851 3,827 2,586 25,243 3,145	0.0175 0.0083 0.0284 0.0134 0.0136 0.0080 0.0081 0.0011 0.0007 0.0102 0.0013	0.9825 0.9917 0.9716 0.9866 0.9864 0.9920 0.9919 0.9989 0.9989 0.9988	92.25 90.64 89.89 87.34 86.16 84.99 84.31 83.62 83.53 83.47 82.62
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	2,436,861 2,406,177 2,406,097 2,384,445 2,377,386 1,358,938 1,128,776 764,212 758,811 758,275	30,684 80 908 7,059 997,960 230,162 4,182 536 282,246	0.0126 0.0000 0.0004 0.0030 0.4198 0.1694 0.0037 0.0000 0.0007	0.9874 1.0000 0.9996 0.9970 0.5802 0.8306 0.9963 1.0000 0.9993	82.52 81.48 81.47 81.44 81.20 47.12 39.14 38.99 38.99 38.96
69.5 70.5 71.5 72.5 73.5 74.5	476,029 476,029 426,146 426,146 411,763	49,883 12,995	0.0000 0.1048 0.0000 0.0305 0.0000	1.0000 0.8952 1.0000 0.9695 1.0000	24.46 24.46 21.90 21.90 21.23

ORIGINAL CURVE ■ 1903-2015 EXPERIENCE 1903-2015 PLACEMENTS 1966-2015 EXPERIENCE 1904-2015 PLACEMENTS 100 **IOWA 58-R2** 80 AGE IN YEARS ••• 9 20 90 20 30 80 60 20 PERCENT SURVIVING

KENTUCKY UTILITIES COMPANY ACCOUNT 355 POLES AND FIXTURES ORIGINAL AND SMOOTH SURVIVOR CURVES

# ACCOUNT 355 POLES AND FIXTURES

PLACEMENT	BAND 1903-2015		EXPER	RIENCE BAN	D 1903-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	247,940,051 213,823,303 200,235,944 187,787,520 142,187,974 136,579,669 127,260,378 110,978,798 108,491,241 99,790,724	295,345 460,050 428,771 185,493 443,824 289,053 237,696 373,591 307,660 259,974	0.0012 0.0022 0.0021 0.0010 0.0031 0.0021 0.0019 0.0034 0.0028 0.0026	0.9988 0.9978 0.9979 0.9990 0.9969 0.9979 0.9981 0.9966 0.9972	100.00 99.88 99.67 99.45 99.35 99.04 98.83 98.65 98.32
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	96,459,587 89,511,548 87,576,953 80,783,618 78,860,878 74,781,552 73,205,753 69,517,690 67,046,970 64,123,702	261,445 234,476 357,246 322,205 329,715 456,066 166,768 271,271 275,070 395,155	0.0027 0.0026 0.0041 0.0040 0.0042 0.0061 0.0023 0.0039 0.0041 0.0062	0.9973 0.9974 0.9959 0.9960 0.9958 0.9939 0.9977 0.9961 0.9959	97.78 97.52 97.26 96.87 96.48 96.08 95.49 95.27 94.90
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	60,428,637 57,083,794 55,012,679 53,934,872 51,063,768 49,188,328 47,318,165 44,629,635 41,911,063 40,942,952	278,729 331,794 235,281 251,145 354,612 295,254 300,501 214,058 313,103 296,550	0.0046 0.0058 0.0043 0.0047 0.0069 0.0060 0.0064 0.0048 0.0075	0.9954 0.9942 0.9957 0.9953 0.9931 0.9940 0.9936 0.9952 0.9925	93.93 93.50 92.95 92.56 92.12 91.48 90.94 90.36 89.92 89.25
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	37,037,249 35,138,954 32,554,737 30,866,905 28,998,057 26,537,381 24,730,578 22,984,275 21,138,623 20,117,911	287,564 284,853 217,759 365,468 426,159 470,235 395,439 459,851 361,840 332,508	0.0078 0.0081 0.0067 0.0118 0.0147 0.0177 0.0160 0.0200 0.0171 0.0165	0.9922 0.9919 0.9933 0.9882 0.9853 0.9823 0.9840 0.9800 0.9829 0.9835	88.61 87.92 87.21 86.62 85.60 84.34 82.84 81.52 79.89 78.52

#### ACCOUNT 355 POLES AND FIXTURES

PLACEMENT	BAND 1903-2015		EXPER	RIENCE BAN	D 1903-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	18,161,431 16,983,789 15,749,502 13,044,501 11,746,545 11,016,944 10,050,475 8,218,380 7,857,925 6,942,034	143,393 88,731 164,609 162,854 112,734 127,066 138,242 88,818 107,170 92,686	0.0079 0.0052 0.0105 0.0125 0.0096 0.0115 0.0138 0.0108 0.0136	0.9921 0.9948 0.9895 0.9875 0.9904 0.9885 0.9862 0.9892 0.9864	77.22 76.61 76.21 75.42 74.48 73.76 72.91 71.91 71.13 70.16
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	6,268,022 5,432,174 4,937,886 4,272,387 3,834,148 3,344,583 2,844,919 2,330,655 1,812,605 1,626,462	199,481 109,960 85,595 181,025 89,156 160,934 89,415 119,526 86,172 74,800	0.0318 0.0202 0.0173 0.0424 0.0233 0.0481 0.0314 0.0513 0.0475 0.0460	0.9682 0.9798 0.9827 0.9576 0.9767 0.9519 0.9686 0.9487 0.9525 0.9540	69.22 67.02 65.66 64.53 61.79 60.35 57.45 55.64 52.79
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	1,362,489 1,048,411 956,768 591,716 482,825 316,875 290,668 200,320 149,275 99,975	47,474 61,841 143,189 24,649 14,642 16,667 17,255 7,547 6,292 2,635	0.0348 0.0590 0.1497 0.0417 0.0303 0.0526 0.0594 0.0377 0.0422 0.0264	0.9652 0.9410 0.8503 0.9583 0.9697 0.9474 0.9406 0.9623 0.9578	47.97 46.30 43.57 37.05 35.50 34.43 32.62 30.68 29.52 28.28
69.5 70.5 71.5 72.5 73.5 74.5	95,270 89,043 84,838 75,741 49,680	2,310 3,926 386 2,894 178	0.0242 0.0441 0.0045 0.0382 0.0036	0.9758 0.9559 0.9955 0.9618 0.9964	27.53 26.87 25.68 25.57 24.59 24.50

#### ACCOUNT 355 POLES AND FIXTURES

PLACEMENT	BAND 1904-2015		EXPER	RIENCE BANI	1966-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	235,181,840 202,025,961 188,985,910 177,536,624 132,462,797 127,551,929 118,864,343 103,283,192 101,563,563 93,150,611	287,139 442,569 417,838 165,000 430,616 269,777 220,361 358,153 293,968 245,144	0.0012 0.0022 0.0022 0.0009 0.0033 0.0021 0.0019 0.0035 0.0029 0.0026	0.9988 0.9978 0.9978 0.9991 0.9967 0.9979 0.9981 0.9965 0.9971	100.00 99.88 99.66 99.44 99.35 99.02 98.81 98.63 98.29 98.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	90,432,552 84,123,275 82,382,807 76,730,783 75,180,736 71,442,336 69,986,981 66,523,550 64,276,150 61,714,244	250,352 223,640 346,585 305,461 300,484 437,593 141,221 253,546 221,893 320,468	0.0028 0.0027 0.0042 0.0040 0.0040 0.0061 0.0020 0.0038 0.0035	0.9972 0.9973 0.9958 0.9960 0.9960 0.9939 0.9980 0.9962 0.9965 0.9948	97.75 97.48 97.22 96.81 96.42 96.04 95.45 95.26 94.89
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	58,381,926 55,119,274 53,106,381 52,095,064 49,313,763 47,656,829 45,842,214 43,187,115 40,509,360 39,612,000	234,834 288,926 194,060 216,961 280,267 239,706 267,070 173,241 242,352 252,299	0.0040 0.0052 0.0037 0.0042 0.0057 0.0050 0.0058 0.0040 0.0060	0.9960 0.9948 0.9963 0.9958 0.9943 0.9950 0.9942 0.9960 0.9940	94.07 93.70 93.20 92.86 92.48 91.95 91.49 90.96 90.59
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	35,791,259 34,001,548 31,483,592 29,879,936 28,061,080 25,701,518 24,075,306 22,503,247 20,777,826 19,837,543	199,948 222,531 174,332 315,476 381,471 436,525 266,170 353,465 281,411 318,028	0.0056 0.0065 0.0055 0.0106 0.0136 0.0170 0.0111 0.0157 0.0135 0.0160	0.9944 0.9935 0.9945 0.9894 0.9864 0.9889 0.9889 0.9843 0.9865 0.9840	89.48 88.98 88.39 87.90 86.98 85.79 84.34 83.40 82.09 80.98

#### ACCOUNT 355 POLES AND FIXTURES

PLACEMENT	BAND 1904-2015		EXPER	RIENCE BAN	1966-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	17,895,543 16,727,639 15,494,485 12,794,990 11,498,477 10,771,080 9,832,677 8,000,582 7,640,127 6,724,236	133,655 87,598 159,103 161,411 110,530 99,000 138,242 88,818 107,170 92,686	0.0075 0.0052 0.0103 0.0126 0.0096 0.0092 0.0141 0.0111 0.0140 0.0138	0.9925 0.9948 0.9897 0.9874 0.9904 0.9908 0.9859 0.9889 0.9860 0.9862	79.68 79.09 78.67 77.87 76.88 76.15 75.45 74.38 73.56 72.53
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	6,050,224 5,214,376 4,720,088 4,054,589 3,616,350 3,126,785 2,658,374 2,144,110 1,682,805 1,539,028	199,481 109,960 85,595 181,025 89,156 129,681 89,415 62,781 43,806 59,087	0.0330 0.0211 0.0181 0.0446 0.0247 0.0415 0.0336 0.0293 0.0260 0.0384	0.9670 0.9789 0.9819 0.9554 0.9753 0.9585 0.9664 0.9707 0.9740	71.53 69.17 67.71 66.48 63.51 61.95 59.38 57.38 55.70 54.25
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	1,290,768 988,077 956,768 591,716 482,825 316,875 290,668 200,320 149,275 99,975	36,087 20,334 143,189 24,649 14,642 16,667 17,255 7,547 6,292 2,635	0.0280 0.0206 0.1497 0.0417 0.0303 0.0526 0.0594 0.0377 0.0422 0.0264	0.9720 0.9794 0.8503 0.9583 0.9697 0.9474 0.9406 0.9623 0.9578 0.9736	52.17 50.71 49.67 42.23 40.47 39.25 37.18 34.98 33.66 32.24
69.5 70.5 71.5 72.5 73.5 74.5	95,270 89,043 84,838 75,741 49,680	2,310 3,926 386 2,894 178	0.0242 0.0441 0.0045 0.0382 0.0036	0.9758 0,9559 0.9955 0.9618 0.9964	31.39 30,63 29.28 29.14 28.03 27.93

▲ 1966-2015 EXPERIENCE 1904-2015 PLACEMENTS ORIGINAL CURVE # 1903-2015 PLACEMENTS 100 **IOWA 65-R3** 8 AGE IN YEARS 40 20 30 90 80 70 20 20 РЕВСЕИТ SURVIVING

ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES ORIGINAL AND SMOOTH SURVIVOR CURVES

#### ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT	BAND 1903-2015		EXPER	RIENCE BANI	1903-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	195, 299, 361	103,635	0.0005	0.9995	100.00
0.5	181,865,231	316,027	0.0017	0.9983	99.95
1.5	177,297,930	376,781	0.0021	0.9979	99.77
2.5	172,097,895	172,533	0.0010	0.9990	99.56
3.5	159,517,286	307,081	0.0019	0.9981	99.46
4.5	155,972,955	126,059	0.0008	0.9992	99,27
5.5	149,271,083	235,998	0.0016	0.9984	99.19
6.5	143,091,050	405,587	0.0028	0.9972	99.03
7.5	141,600,083	251,164	0.0018	0.9982	98.75
8.5	138,495,606	312,130	0.0023	0.9977	98.58
9.5	136,535,035	433,669	0.0032	0.9968	98.35
10.5	133,089,821	217,764	0.0016	0.9984	98.04
11.5	131,877,015	400,163	0.0030	0.9970	97.88
12.5	127,073,331	338,861	0.0027	0.9973	97,59
13.5	125,986,732	423,055	0.0034	0.9966	97.32
14.5	122,609,132	148,082	0.0012	0.9988	97.00
15.5	120,665,430	146,430	0.0012	0.9988	96.88
16.5	118,980,000	275,820	0.0023	0.9977	96.76
17.5	117,011,356	283,975	0.0024	0.9976	96.54
18.5	115,609,556	128,402	0.0011	0.9989	96.30
19.5	113,388,989	300,309	0.0026	0.9974	96.20
20.5	110,157,199	151,807	0.0014	0.9986	95.94
21.5	108,751,985	137,673	0.0013	0.9987	95.81
22,5	108,233,834	117,592	0.0011	0.9989	95.69
23.5	106,016,777	182,354	0.0017	0.9983	95.59
24.5	104,948,185	173,182	0.0017	0.9983	95.42
25.5	103,438,857	132,373	0.0013	0.9987	95.26
26.5	102,433,731	183,606	0.0018	0.9982	95.14
27.5	100,448,223	251,181	0.0025	0.9975	94.97
28.5	92,093,356	95,721	0.0010	0.9990	94.73
29.5	86,778,479	202,463	0.0023	0.9977	94.64
30.5	82,867,537	184,274	0.0022	0.9978	94.41
31.5	75,164,240	389,037	0.0052	0.9948	94.20
32.5	73,019,238	153,845	0.0021	0.9979	93.72
33.5	66,790,787	257,100	0.0038	0.9962	93.52
34.5	62,243,879	72,674	0.0012	0.9988	93.16
35.5	50,873,758	192,229	0.0038	0.9962	93.05
36.5	48,589,052	246,216	0.0051	0.9949	92.70
37.5	42,194,855	147,147	0.0035	0.9965	92.23
38.5	40,403,339	225,102	0,0056	0.9944	91.91

#### ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT	BAND 1903-2015		EXPER	RIENCE BAN	D 1903-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	37,553,087	229,284	0.0061	0,9939	91.40
40.5	35,989,641	188,304	0.0052	0.9948	90.84
41.5	34,790,726	103,441	0.0030	0.9970	90.36
42.5	31,394,691	379,172	0.0121	0.9879	90.09
43.5	29,142,184	209,914	0.0072	0.9928	89.01
44.5	27,167,059	221,567	0.0082	0.9918	88.36
45.5	23,674,032	190,500	0.0080	0.9920	87.64
46.5	21,172,301	54,169	0.0026	0.9974	86.94
47.5	20,814,161	203,755	0.0098	0.9902	86.72
48.5	19,680,238	81,914	0.0042	0.9958	85.87
49.5	17,987,501	58,820	0.0033	0.9967	85,51
50.5	16,648,536	144,204	0.0087	0.9913	85.23
51.5	15,500,470	247,689	0.0160	0.9840	84.49
52.5	13,767,754	231, 238	0.0168	0.9832	83.14
53.5	12,914,620	237,537	0.0184	0.9816	81.75
54.5	11,463,509	111,663	0.0097	0.9903	80.24
55.5	10,756,139	102,163	0.0095	0.9905	79.46
56.5	9,856,344	175,138	0.0178	0.9822	78.71
57.5	7,775,407	107,369	0.0138	0.9862	77.31
58.5	7,478,207	75,806	0.0101	0.9899	76.24
59.5	6,440,794	417,248	0.0648	0.9352	75.47
60.5	5,311,207	222,157	0.0418	0.9582	70.58
61.5	4,875,109	104,384	0.0214	0.9786	67.63
62.5	3,597,642	5,368	0.0015	0.9985	66.18
63.5	3,330,302	27,976	0.0084	0.9916	66.08
64.5	2,814,499	163,753	0.0582	0.9418	65.52
65.5	2,559,492	50,145	0.0196	0.9804	61.71
66.5	1,278,126	7,452	0.0058	0.9942	60.50
67.5	1,078,840	6,868	0.0064	0.9936	60.15
68.5	857,697	7,509	0.0088	0.9912	59.77
69.5	829,599	16,092	0.0194	0.9806	59.24
70.5	806,643	5,530	0.0069	0.9931	58.09
71.5	800,891	58,232	0.0727	0.9273	57.70
72.5	726,146	27,549	0.0379	0.9621	53.50
73.5	628,359	3,758	0.0060	0.9940	51.47
74.5					51.16

#### ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT	BAND 1904-2015		EXPER	RIENCE BAN	1966-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	172, 131, 174 160, 180, 143 156, 741, 605 153, 425, 153 141, 659, 473 139, 487, 261 133, 518, 586 128, 231, 916 128, 903, 372 126, 098, 114	100,264 305,640 368,685 159,065 298,898 108,605 226,703 368,246 235,301 302,458	0.0006 0.0019 0.0024 0.0010 0.0021 0.0008 0.0017 0.0029 0.0018 0.0024	0.9994 0.9981 0.9976 0.9990 0.9979 0.9992 0.9983 0.9971 0.9982 0.9976	100.00 99.94 99.75 99.52 99.41 99.20 99.13 98.96 98.67 98.49
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	125,272,275 122,793,259 121,919,825 119,151,461 118,463,763 115,738,631 114,037,208 113,892,622 112,149,073 111,172,641	415,677 211,594 388,363 327,527 414,261 143,565 135,240 247,089 257,899 100,524	0.0033 0.0017 0.0032 0.0027 0.0035 0.0012 0.0012 0.0022 0.0023 0.0009	0.9967 0.9983 0.9968 0.9973 0.9965 0.9988 0.9978 0.9977	98.26 97.93 97.76 97.45 97.18 96.84 96.72 96.61 96.40 96,18
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	109,043,355 105,848,636 104,486,325 103,998,838 102,091,448 102,298,698 100,824,002 99,845,834 97,886,172 89,594,069	290,987 124,526 127,707 106,772 139,653 138,550 105,415 157,760 188,417 74,593	0.0027 0.0012 0.0012 0.0010 0.0014 0.0014 0.0010 0.0016 0.0019 0.0008	0.9973 0.9988 0.9988 0.9990 0.9986 0.9986 0.9990 0.9981 0.9992	96.09 95.83 95.72 95.60 95.51 95.38 95.25 95.15 95.00 94.81
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	84,300,320 80,506,097 72,859,704 70,746,321 64,563,243 60,054,120 48,851,293 46,715,294 40,484,227 39,071,674	85,744 127,370 357,418 108,472 219,315 54,520 179,341 218,375 105,581 136,201	0.0010 0.0016 0.0049 0.0015 0.0034 0.0009 0.0037 0.0047 0.0026 0.0035	0.9990 0.9984 0.9951 0.9985 0.9966 0.9991 0.9963 0.9953 0.9974	94.73 94.64 94.49 94.02 93.88 93.56 93.48 93.13 92.70 92.46

#### ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT	BAND 1904-2015		EXPE	RIENCE BAN	D 1966-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	36,652,097 35,232,213 34,194,086 30,801,172 28,551,770 26,578,324 23,116,122 20,614,391 20,256,610 19,122,687	85,722 106,465 100,320 376,067 208,235 190,742 190,500 53,810 203,755 81,914	0.0023 0.0030 0.0029 0.0122 0.0073 0.0072 0.0082 0.0026 0.0101 0.0043	0.9977 0.9970 0.9971 0.9878 0.9927 0.9928 0.9918 0.9974 0.9899 0.9957	92.13 91.92 91.64 91.37 90.26 89.60 88.96 88.22 87.99
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 *57.5	17,429,950 16,090,985 14,942,919 13,210,203 12,357,069 10,905,958 10,213,053 9,313,258 7,281,631 7,054,319	58,820 144,204 247,689 231,238 237,537 97,198 102,163 125,828 37,481 59,833	0.0034 0.0090 0.0166 0.0175 0.0192 0.0089 0.0100 0.0135 0.0051 0.0085	0.9966 0.9910 0.9834 0.9825 0.9808 0.9911 0.9900 0.9865 0.9949 0.9915	86.73 86.44 85.67 84.25 82.77 81.18 80.46 79.65 78.58 78.17
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	6,032,879 5,256,154 4,875,109 3,597,642 3,330,302 2,814,499 2,559,492 1,278,126 1,078,840 857,697	64,386 222,157 104,384 5,368 27,976 163,753 50,145 7,452 6,868 7,509	0.0107 0.0423 0.0214 0.0015 0.0084 0.0582 0.0196 0.0058 0.0064 0.0088	0.9893 0.9577 0.9786 0.9985 0.9916 0.9418 0.9804 0.9942 0.9936 0.9912	77.51 76.68 73.44 71.87 71.76 71.16 67.02 65.70 65.32 64.91
69.5 70.5 71.5 72.5 73.5 74.5	829,599 806,643 800,891 726,146 628,359	16,092 5,530 58,232 27,549 3,758	0.0194 0.0069 0.0727 0.0379 0.0060	0.9806 0.9931 0.9273 0.9621 0.9940	64.34 63.09 62.66 58.10 55.90 55.56

ORIGINAL CURVE = 1960-2015 EXPERIENCE 1960-2003 PLACEMENTS 00 80 IOWA<sub>50-R4</sub> AGE IN YEARS 9 2 50, 8 8 6 \$ 8 8 50 8 10 PERCENT SURVIVING

KENTUCKY UTILITIES COMPANY
ACCOUNT 357 UNDERGROUND CONDUIT
ORIGINAL AND SMOOTH SURVIVOR CURVES

#### ACCOUNT 357 UNDERGROUND CONDUIT

PLACEMENT	BAND 1960-2003		EXPE	RIENCE BAN	D 1960-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	465,540 465,540 465,540 465,540 465,540 465,540 465,540 465,540		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	465,540 465,540 465,540 452,706 449,255 432,973 432,271 431,821 112,862	16,282	0.0000 0.0000 0.0000 0.0362 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9638 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 96.38 96.38 96.38 96.38
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	112,862 112,862 112,862 112,862 112,862 112,862 112,862 112,862 113,491 113,491		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.38 96.38 96.38 96.38 96.38 96.38 96.38 96.38
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	113,491 113,491 113,216 113,216 113,216 112,089 85,811 85,811 85,811		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.38 96.38 96.38 96.38 96.38 96.38 96.38 96.38

#### ACCOUNT 357 UNDERGROUND CONDUIT

PLACEMENT BAND 1960-2003	EAI	PERIENCE BANI	1960-2015
	RETIREMENTS DURING AGE RETM INTERVAL RATI		PCT SURV BEGIN OF INTERVAL
39.5 85,811 40.5 85,811 41.5 84,628 42.5 17,756 43.5 16,732 44.5 16,732 45.5 16,732 45.5 16,103 47.5 16,103 48.5 16,103 50.5 16,103 51.5 16,103 52.5 16,103	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	96.38 96.38 96.38 96.38 96.38 96.38 96.38 96.38 96.38 96.38

1960-2015 EXPERIENCE 1960-2015 PLACEMENTS 8 ORIGINAL CURVE 80 ORIGINAL AND SMOOTH SURVIVOR CURVES IOWA 40-R3 AGE IN YEARS 8 20 100 è 8 80 70 8 6 20 8 20 РЕВСЕИТ SURVIVING

ACCOUNT 358 UNDERGROUND CONDUCTORS AND DEVICES KENTUCKY UTILITIES COMPANY

#### ACCOUNT 358 UNDERGROUND CONDUCTORS AND DEVICES

PLACEMENT	BAND 1960-2015		EXPER	RIENCE BAN	D 1960-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	1,260,855		0.0000	1.0000	100.00
0.5	1,248,860		0.0000	1.0000	100.00
1.5	1,248,860		0,0000	1,0000	100,00
2.5	1,248,860	241	0.0002	0.9998	100.00
3.5	1,248,718		0.0000	1.0000	99.98
4.5	1,248,718		0.0000	1.0000	99.98
5.5	1,248,718		0.0000	1.0000	99.98
6.5	1,192,896		0.0000	1.0000	99.98
7.5	1,192,896		0.0000	1.0000	99.98
8.5	1,192,896		0.0000	1.0000	99.98
9.5	1,192,896	19,963	0.0167	0.9833	99.98
10.5	1,175,867		0.0000	1.0000	98.31
11.5	1,175,867		0.0000	1.0000	98.31
12.5	1,175,867		0.0000	1.0000	98.31
13.5	1,195,830	40,080	0.0335	0.9665	98.31
14.5	1,135,787		0.0000	1.0000	95.01
15.5	1,135,688		0.0000	1.0000	95.01
16,5	1,135,688		0.0000	1.0000	95.01
17.5	1,135,688		0.0000	1.0000	95.01
18.5	822,665		0.0000	1.0000	95.01
19.5	822,665		0.0000	1.0000	95.01
20.5	822,665		0.0000	1.0000	95.01
21.5	822,665		0.0000	1.0000	95.01
22.5	797,185		0.0000	1.0000	95.01
23.5	700,907		0.0000	1.0000	95.01
24.5	700,907		0.0000	1.0000	95.01
25.5	699,052		0.0000	1.0000	95.01
26.5	604,231		0.0000	1.0000	95.01
27.5	559,025		0.0000	1.0000	95.01
28.5	559,025		0.0000	1.0000	95.01
29.5	559,025		0.0000	1.0000	95.01
30.5	559,025	6,243	0.0112	0.9888	95.01
31.5	550,570		0.0000	1.0000	93.95
32.5	550,570		0.0000	1.0000	93.95
33.5	536,698		0.0000	1.0000	93.95
34.5	536,698		0.0000	1.0000	93.95
35.5	331,835		0.0000	1.0000	93.95
36.5	331,507		0.0000	1.0000	93.95
37.5	331,507		0.0000	1.0000	93.95
38.5	331,507		0.0000	1.0000	93.95

#### ACCOUNT 358 UNDERGROUND CONDUCTORS AND DEVICES

PLACEMENT	BAND 1960-2015		EXPE	RIENCE BAN	D 1960-2015
AGE AT BEGIN OF	EXPOSURES AT BEGINNING OF	RETIREMENTS DURING AGE	RETMT	SURV	PCT SURV BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	331,507 331,507 195,124 116,719 100,843 100,843 13,219 13,219		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	93.95 93.95 93.95 93.95 93.95
49.5 50.5 51.5 52.5 53.5	13,219 13,219 13,219 13,219		0.0000 0.0000 0.0000 0.0000		

ORIGINAL CURVE | 1941-2015 EXPERIENCE 100 **IOWA 70-R4** 80 AGE IN YEARS 8 20 30 20 90 8 20 9 20 **РЕВСЕИТ SURVIVING** 



ORIGINAL AND SMOOTH SURVIVOR CURVES

KENTUCKY UTILITIES COMPANY ACCOUNT 360.1 LAND RIGHTS

# ACCOUNT 360.1 LAND RIGHTS

PLACEMENT	BAND 1941-2012		EXPER	RIENCE BAN	D 1941-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5	1,745,635 1,745,635 1,743,044 1,743,044 1,533,866 1,511,669 1,507,873	700	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 0.9995	100.00 100.00 100.00 100.00 100.00 100.00
6.5 7.5 8.5	1,448,908 1,446,980 1,446,980	1,928 253	0.0013 0.0000 0.0002	0.9987 1.0000 0.9998	99.95 99.82 99.82
9.5 10.5 11.5	1,448,121 1,448,092 1,459,550	29 315	0.0000 0.0002 0.0000	1.0000 0.9998 1.0000	99.80 99.80 99.77
12.5 13.5 14.5 15.5 16.5 17.5 18.5	1,459,437 1,459,119 1,457,099 1,451,387 1,422,852 1,411,766 1,311,096	318 620 262 52 1,881	0.0002 0.0004 0.0002 0.0000 0.0000 0.0000	0.9998 0.9996 0.9998 1.0000 1.0000 0.9986	99.77 99.75 99.71 99.69 99.69 99.69
19.5 20.5 21.5 22.5 23.5	1,165,853 1,110,919 1,087,686 1,048,971 1,043,831	190	0.0002 0.0000 0.0000 0.0000 0.0013	0.9998 1.0000 1.0000 1.0000 0.9987	99.55 99.53 99.53 99.53 99.53
24.5 25.5 26.5 27.5 28.5	1,029,470 990,726 983,376 978,490 962,224	380	0.0004 0.0000 0.0000 0.0000	0.9996 1.0000 1.0000 1.0000	99.40 99.36 99.36 99.36 99.36
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	961,445 927,914 913,192 913,192 852,024 850,003 839,333 807,447 789,627 774,155	52 213	0.0000 0.0001 0.0000 0.0000 0.0002 0.0000 0.0000 0.0000 0.0000	1.0000 0.9999 1.0000 1.0000 0.9998 1.0000 1.0000 1.0000	99.36 99.36 99.36 99.36 99.33 99.33 99.33 99.33

#### ACCOUNT 360.1 LAND RIGHTS

PLACEMENT	BAND 1941-2012		EXPE	RIENCE BAN	D 1941-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	767,950	58	0.0001	0.9999	99.33
40.5	740,555	58	0,0001	0.9999	99.32
41.5	697,032	208	0.0003	0.9997	99.32
42.5	687,854		0.0000	1.0000	99.29
43.5	671,553	1,071	0.0016	0.9984	99.29
44.5	623,974		0.0000	1.0000	99.13
45.5	599,168		0.0000	1.0000	99.13
46.5	557,626		0.0000	1.0000	99.13
47.5	542,276		0.0000	1.0000	99.13
48.5	522,581		0.0000	1.0000	99.13
49.5	517,394		0.0000	1,0000	99.13
50.5	481,831	414	0.0009	0.9991	99.13
51.5	461,020		0.0000	1.0000	99.04
52.5	439,504		0.0000	1.0000	99.04
53.5	428,941		0.0000	1.0000	99.04
54.5	410,835	178	0.0004	0.9996	99.04
55.5	377,030		0.0000	1.0000	99.00
56.5	357,673		0.0000	1.0000	99.00
57.5	387,790	222	0.0006	0.9994	99.00
58.5	367,797		0.0000	1,0000	98.94
59.5	346,164		0.0000	1.0000	98.94
60.5	305,866		0.0000	1,0000	98.94
61.5	281,599		0.0000	1.0000	98.94
62.5	248,366		0.0000	1.0000	98.94
63.5	220,816		0.0000	1.0000	98.94
64.5	202,153		0.0000	1.0000	98.94
65.5	142,249		0.0000	1.0000	98.94
66.5	146,315		0.0000	1.0000	98.94
67.5	505,785		0.0000	1.0000	98.94
68.5	501,351		0.0000	1.0000	98.94
69.5	498,089		0.0000	1.0000	98.94
70.5	495,989		0.0000	1.0000	98.94
71.5	495,139		0.0000	1.0000	98.94
72.5	494,228	79,282	0.1604	0.8396	98.94
73.5	373,773		0.0000	1.0000	83.07
74.5					83.07

▲ 1961-2015 EXPERIENCE 1909-2015 PLACEMENTS ORIGINAL CURVE # 1909-2015 PLACEMENTS 8 IOWA 60-R2. 80 60 AGE IN YEARS 9 20 100 80 70 20 0 8 30 20 РЕВСЕИТ SURVIVING



ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

KENTUCKY UTILITIES COMPANY

ORIGINAL AND SMOOTH SURVIVOR CURVES

# ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1909-2015		EXPER	RIENCE BAN	D 1909-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	11,654,581	455	0.0000	1.0000	100.00
0.5	10,990,159	3,039	0.0003	0.9997	100.00
1.5	9,781,549	9,726	0.0010	0.9990	99.97
2.5	8,978,768	6,358	0.0007	0.9993	99.87
3.5	8,197,141	19,006	0.0023	0.9977	99.80
4.5	7,515,877	2,349	0.0003	0.9997	99.57
5.5	5,764,785	15,635	0.0027	0.9973	99.54
6.5	5, 253, 041	3,697	0.0007	0.9993	99.27
7.5	5,174,438	7,149	0.0014	0.9986	99.20
8.5	4,358,290	32,687	0.0075	0.9925	99.06
9.5	4,187,930	21,560	0.0051	0.9949	98.32
10.5	4,031,592	16,913	0.0042	0.9958	97.81
11.5	3,998,893	20,958	0.0052	0.9948	97.40
12.5	3,765,352	3,360	0.0009	0.9991	96.89
13.5	3,620,811	12,608	0.0035	0.9965	96.80
14.5	3,337,261	17,041	0.0051	0.9949	96.47
15.5	3,253,476	9,735	0.0030	0.9970	95.97
16.5	3,243,742	1,687	0.0005	0.9995	95.69
17.5	3,160,585	4,721	0.0015	0.9985	95.64
18.5	2,992,791	18,497	0.0062	0.9938	95.49
19.5	2,974,294	20,052	0.0067	0.9933	94.90
20.5	2,916,773	2,232	0.0008	0.9992	94.26
21.5	2,355,357	4,536	0.0019	0.9981	94.19
22.5	2,305,520	3,570	0.0015	0.9985	94.01
23.5	2,168,457	26,092	0.0120	0.9880	93.86
24.5	1,910,302	6,257	0.0033	0.9967	92.73
25.5	1,814,524	8,109	0.0045	0.9955	92.43
26.5	1,784,242	9,152	0.0051	0.9949	92.02
27.5	1,765,506	2,077	0.0012	0.9988	91.55
28.5	1,680,899	6,919	0.0041	0.9959	91.44
29.5	1,623,620	7,755	0.0048	0.9952	91.06
30.5	1,607,233	10,515	0.0065	0.9935	90.63
31.5	1,527,940	1,885	0.0012	0.9988	90.03
32.5	1,509,501	13,776	0.0091	0.9909	89.92
33.5	1,393,335	7,519	0.0054	0.9946	89.10
34.5	1,326,175	6,045	0.0046	0.9954	88.62
35.5	1,162,039	14,458	0.0124	0.9876	88.22
36.5	1,051,295	2,415	0.0023	0.9977	87.12
37.5	978,459	3,769	0.0039	0.9961	86.92
38.5	902,265	12,634	0.0140	0.9860	86.58

#### ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

PLACEMENT E	BAND 1909-2015		EXPER	RIENCE BAN	D 1909-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5	866,927 810,868 734,124 669,221 621,328 539,704 522,991 468,868 427,015 394,516	11,277 13,757 8,046 4,901 4,748 1,765 987 3,942 2,953 6,362	0.0170 0.0110 0.0073	0.9870 0.9830 0.9890 0.9927 0.9924 0.9967 0.9981 0.9916 0.9931	85.37 84.26 82.83 81.92 81.32 80.70 80.44 80.29 79.61 79.06
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	367,398 335,937 295,097 253,637 218,548 198,305 180,789 161,149 126,708 111,138	3,586 7,721 1,853 6,432 3,584 1,378 8,270 7,541 3,288 1,042	0.0098 0.0230 0.0063 0.0254 0.0164 0.0069 0.0457 0.0468 0.0260 0.0094	0.9902 0.9770 0.9937 0.9746 0.9836 0.9931 0.9543 0.9532 0.9740 0.9906	77.79 77.03 75.26 74.78 72.89 71.69 71.19 67.94 64.76 63.08
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	92,769 72,144 55,130 55,449 49,341 44,136 31,059 23,798 19,150 14,508	338 814 50 2,130	0.0000 0.0047 0.0000 0.0147 0.0000 0.0011 0.0686 0.0000 0.0000	1.0000 0.9953 1.0000 0.9853 1.0000 0.9989 0.9314 1.0000 1.0000	62.49 62.49 62.19 62.19 61.28 61.21 57.01 57.01
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	2,500 2,444 1,949 1,949 1,949 1,445 1,207 1,207 1,207	495	0.0000 0.2025 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.7975 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	53.78 53.78 42.88 42.88 42.88 42.88 42.88 42.88 42.88

#### ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

PLACEMENT BAND 1909-2015 EXPERIENCE BAND					D 1909-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5	1,207 1,207 1,207	1,207	0.0000 0.0000 1.0000	1.0000	42.88 42.88 42.88

#### ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1909-2015		EXPER	RIENCE BANI	1961-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	11,324,686 10,681,703 9,498,981 8,731,074 7,968,924 7,321,419 5,605,880 5,123,094 5,056,601 4,253,311	455 3,039 9,726 6,358 19,006 2,349 15,635 3,697 7,149 32,687	0.0000 0.0003 0.0010 0.0007 0.0024 0.0003 0.0028 0.0007 0.0014	1.0000 0.9997 0.9990 0.9993 0.9976 0.9997 0.9993 0.9986 0.9923	100.00 100.00 99.97 99.87 99.79 99.55 99.52 99.24 99.17
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	4,092,290 3,954,647 3,932,422 3,703,297 3,564,721 3,294,816 3,211,262 3,201,788 3,118,632 2,951,146	21,560 16,913 20,958 3,360 12,608 17,041 9,735 1,687 4,721 18,497	0.0053 0.0043 0.0053 0.0009 0.0035 0.0052 0.0030 0.0005 0.0015	0.9947 0.9957 0.9947 0.9991 0.9965 0.9948 0.9970 0.9995 0.9985	98.27 97.75 97.34 96.82 96.73 96.39 95.89 95.60 95.55
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	2,937,848 2,880,915 2,320,261 2,270,425 2,136,643 1,878,487 1,783,762 1,754,751 1,736,015 1,654,405	20,052 2,232 4,536 3,570 26,092 6,257 8,109 9,152 2,077 6,919	0.0068 0.0008 0.0020 0.0016 0.0122 0.0033 0.0045 0.0052 0.0012 0.0042	0.9932 0.9992 0.9980 0.9984 0.9878 0.9967 0.9955 0.9948 0.9988	94.81 94.16 94.09 93.90 93.75 92.61 92.30 91.88 91.40 91.29
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	1,598,332 1,581,945 1,508,001 1,489,964 1,379,428 1,316,239 1,152,103 1,041,751 968,915 892,721	7,755 10,515 1,885 13,776 7,519 6,045 14,458 2,415 3,769 12,634	0.0049 0.0066 0.0012 0.0092 0.0055 0.0046 0.0125 0.0023 0.0039 0.0142	0.9951 0.9934 0.9988 0.9908 0.9945 0.9954 0.9875 0.9977 0.9961 0.9858	90.91 90.47 89.87 89.76 88.93 88.44 88.03 86.93 86.73

#### ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1909-2015		EXPE	RIENCE BAN	0 1961-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	857,383 801,324 724,580 659,677 611,784 530,160 513,447 459,324 417,471 384,972	11,277 13,757 8,046 4,901 4,748 1,765 987 3,942 2,953 6,362	0.0132 0.0172 0.0111 0.0074 0.0078 0.0033 0.0019 0.0086 0.0071 0.0165	0.9868 0.9828 0.9889 0.9926 0.9922 0.9967 0.9981 0.9914 0.9929	85.17 84.05 82.61 81.69 81.08 80.45 80.18 80.03 79.34 78.78
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	357,854 326,393 295,097 253,637 218,548 198,305 180,789 161,149 126,708 111,138	3,586 7,721 1,853 6,432 3,584 1,378 8,270 7,541 3,288 1,042	0.0100 0.0237 0.0063 0.0254 0.0164 0.0069 0.0457 0.0468 0.0260 0.0094	0.9900 0.9763 0.9937 0.9746 0.9836 0.9931 0.9543 0.9532 0.9740 0.9906	77.48 76.70 74.89 74.42 72.53 71.34 70.85 67.61 64.44 62.77
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	92,769 72,144 55,130 55,449 49,341 44,136 31,059 23,798 19,150 14,508	338 814 50 2,130	0.0000 0.0047 0.0000 0.0147 0.0000 0.0011 0.0686 0.0000 0.0000	1.0000 0.9953 1.0000 0.9853 1.0000 0.9989 0.9314 1.0000 1.0000	62.18 62.18 61.89 61.89 60.98 60.98 60.91 56.73 56.73
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	2,500 2,444 1,949 1,949 1,949 1,445 1,207 1,207 1,207	495	0.0000 0.2025 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.7975 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	53.51 53.51 42.67 42.67 42.67 42.67 42.67 42.67 42.67

# ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1909-2015		EXPER	RIENCE BAN	D 1961-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5	1,207 1,207 1,207	1,207	0.0000 0.0000 1.0000	1.0000	42.67 42.67 42.67

ORIGINAL CURVE **a** 1904-2015 EXPERIENCE ▲ 1961-2015 EXPERIENCE 1904-2015 PLACEMENTS 100 **IOWA 54-R2** 80 AGE IN YEARS 9 20 100 8 70 8 80 28 PERCENT SURVIVING

KENTUCKY UTILITIES COMPANY ACCOUNT 362 STATION EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES

# ACCOUNT 362 STATION EQUIPMENT

PLACEMENT	BAND 1904-2015		EXPER	RIENCE BAN	D 1904-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	194,907,638 185,233,009 173,714,681 164,017,593 153,884,075 147,209,498 131,654,655 118,109,847 115,845,993 113,120,557	223,972 311,259 247,213 337,750 870,157 481,417 141,813 899,303 427,496 232,312	0.0011 0.0017 0.0014 0.0021 0.0057 0.0033 0.0011 0.0076 0.0037 0.0021	0.9989 0.9983 0.9986 0,9979 0.9943 0.9967 0.9989 0.9924 0.9963 0.9979	100.00 99.89 99.72 99.58 99.37 98.81 98.49 98.38 97.63
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	110,588,816 107,060,699 105,688,078 100,249,150 95,246,245 88,572,211 86,969,271 84,231,853 76,273,553 69,936,409	325,490 507,084 970,728 110,932 288,872 406,668 663,346 407,576 . 622,638 539,074	0.0029 0.0047 0.0092 0.0011 0.0030 0.0046 0.0076 0.0048 0.0082 0.0077	0.9971 0.9953 0.9908 0.9989 0.9970 0.9954 0.9952 0.9952 0.9918	97.07 96.78 96.33 95.44 95.34 95.05 94.61 93.89 93.43 92.67
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	69,391,078 65,288,940 58,954,267 56,802,826 51,518,359 47,705,959 45,841,555 42,972,939 42,481,591 38,604,227	369,512 465,058 448,008 534,391 261,457 367,130 503,062 288,258 663,694 244,887	0.0053 0.0071 0.0076 0.0094 0.0051 0.0077 0.0110 0.0067 0.0156 0.0063	0.9947 0.9929 0.9924 0.9906 0.9949 0.9923 0.9890 0.9933 0.9844 0.9937	91.96 91.47 90.82 90.13 89.28 88.82 88.14 87.17 86.59 85.24
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	36,910,029 36,338,070 33,581,087 32,501,761 30,430,582 28,326,538 25,852,982 25,385,863 23,478,342 21,944,387	230,860 319,384 175,862 238,490 197,629 211,571 147,869 186,942 235,214 266,743	0.0063 0.0088 0.0052 0.0073 0.0065 0.0075 0.0057 0.0074 0.0100 0.0122	0.9937 0.9912 0.9948 0.9927 0.9935 0.9925 0.9943 0.9926 0.9900	84.70 84.17 83.43 82.99 82.38 81.85 81.23 80.77 80.17

# ACCOUNT 362 STATION EQUIPMENT

PLACEMENT I	BAND 1904-2015		EXPER	RIENCE BAN	D 1904-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	20,778,604 19,381,033 17,602,346 15,900,083 14,728,348 13,277,247 12,718,410 11,136,449 10,067,474 9,151,822	379,478 497,607 431,270 241,076 425,707 111,837 131,139 225,816 223,528 199,270		0.9817 0.9743 0.9755 0.9848 0.9711 0.9916 0.9897 0.9797 0.9778	78.41 76.97 75.00 73.16 72.05 69.97 69.38 68.66 67.27 65.78
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	8,151,304 7,262,778 6,434,119 5,532,343 4,706,864 4,161,124 3,743,192 3,478,720 3,107,705 2,809,349	119,995 286,535 184,873 85,218 106,941 97,357 80,423 43,262 125,265 86,889	0.0147 0.0395 0.0287 0.0154 0.0227 0.0234 0.0215 0.0124 0.0403 0.0309	0.9853 0.9605 0.9713 0.9846 0.9773 0.9766 0.9785 0.9876 0.9597	55.58 54.39
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	2,218,111 1,819,592 1,413,816 1,078,195 827,518 742,250 626,254 466,607 309,981 270,311	143,335 42,059 13,069 24,905 35,812 19,459 31,882 19,389 7,491 7,522		0.9354 0.9769 0.9908 0.9769 0.9567 0.9738 0.9491 0.9584 0.9758	37.44
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	242,896 214,625 199,523 191,246 154,245 103,485 75,093 50,396 47,444 39,386	6,175 4,154 4,343 28,572 14,528 7,456 12,336 2,953 5,105		0.9746 0.9806 0.9782 0.8506 0.9058 0.9279 0.8357 0.9414 0.8924 1.0000	35.52 34.61 33.94 33.21 28.25 25.58 23.74 19.84 18.68 16.67

# ACCOUNT 362 STATION EQUIPMENT

# ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1904-2015		EXPER	RIENCE BAN	D 1904-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO		PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 86.5 86.5 87.5	39,386 27,414 25,958 24,135 22,311 19,573 4,018 4,018 4,018 4,018	8,795 1,824 1,824 2,009	0.0000 0.0703 0.0756	0.7767 1.0000 0.9297 0.9244 0.9100 1.0000 1.0000 1.0000	
89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5 98.5	4,018 4,018 4,018 3,951 3,951 3,951 3,951 3,951 3,951	67	0.0000 0.0000 0.0166 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9834 1.0000 1.0000 1.0000 1.0000 1.0000	
99.5 100.5 101.5 102.5	3,951 3,951 3,951 1,146	2,805 1,146	0.0000 0.0000 0.7100 1.0000	1.0000 1.0000 0.2900	9.96 9.96 9.96 2.89

103,5

# ACCOUNT 362 STATION EQUIPMENT

PLACEMENT	BAND 1904-2015		EXPER	RIENCE BANI	1961-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	186,480,503 177,431,328 166,310,469 157,179,703 147,506,658 141,697,099 126,854,184 113,937,439 112,256,318 109,959,643	223,972 311,259 247,213 337,750 870,157 481,417 141,813 899,303 427,496 232,312	0.0012 0.0018 0.0015 0.0021 0.0059 0.0034 0.0011 0.0079 0.0038 0.0021	0.9988 0.9982 0.9985 0.9979 0.9941 0.9966 0.9989 0.9921 0.9962 0.9979	100.00 99.88 99.70 99.56 99.34 98.76 98.42 98.31 97.53 97.16
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	107,568,031 104,298,990 103,263,531 98,093,265 93,239,635 86,674,028 85,111,617 82,428,686 74,477,729 68,174,819	325,490 507,084 970,728 110,932 288,872 406,668 663,346 407,576 622,638 539,074	0.0030 0.0049 0.0094 0.0011 0.0031 0.0047 0.0078 0.0049 0.0084 0.0079	0.9970 0.9951 0.9906 0.9989 0.9969 0.9953 0.9922 0.9951 0.9916	96.96 96.66 96.19 95.29 95.18 94.89 94.44 93.71 93.24
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	67,898,489 63,917,860 57,680,979 55,618,928 50,423,381 46,720,478 44,906,702 42,117,301 41,630,734 37,767,747	369,512 465,058 448,008 534,391 261,457 367,130 503,062 288,258 663,694 244,887	0.0054 0.0073 0.0078 0.0096 0.0052 0.0079 0.0112 0.0068 0.0159 0.0065	0.9946 0.9927 0.9922 0.9904 0.9948 0.9921 0.9888 0.9932 0.9841 0.9935	91.73 91.23 90.57 89.87 89.00 88.54 87.85 86.86 86.27 84.89
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	36,105,232 35,840,236 33,226,610 32,158,539 30,173,035 28,104,661 25,684,784 25,217,665 23,342,404 21,863,466	230,860 319,384 175,862 238,490 197,629 211,571 147,869 186,942 235,214 266,743	0.0064 0.0089 0.0053 0.0074 0.0065 0.0075 0.0058 0.0074 0.0101	0.9936 0.9911 0.9947 0.9926 0.9935 0.9925 0.9942 0.9926 0.9899	84.34 83.80 83.06 82,62 82.00 81.47 80.85 80.39 79.79 78.99

# ACCOUNT 362 STATION EQUIPMENT

PLACEMENT	BAND 1904-2015		EXPER	RIENCE BAN	D 1961-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	20,711,460 19,332,877 17,554,189 15,853,064 14,681,329 13,230,228 12,671,390 11,089,430 10,021,427 9,105,775	379,478 497,607 431,270 241,076 425,707 111,837 131,139 225,816 223,528 199,270		0.9817 0.9743 0.9754 0.9848 0.9710 0.9915 0.9897 0.9796 0.9777	78.02 76.59 74.62 72.79 71.68 69.60 69.02 68.30 66.91 65.42
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	8,105,257 7,216,731 6,392,023 5,490,247 4,664,768 4,119,028 3,719,304 3,478,720 3,107,705 2,809,349	119,995 286,535 184,873 85,218 106,941 97,357 80,423 43,262 125,265 86,889		0.9852 0.9603 0.9711 0.9845 0.9771 0.9764 0.9784 0.9876 0.9597	63.99 63.04 60.54 58.79 57.87 56.55 55.21 54.02 53.34 51.19
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	2,218,111 1,819,592 1,413,816 1,078,195 827,518 742,250 626,254 466,607 309,981 270,311	143,335 42,059 13,069 24,905 35,812 19,459 31,882 19,389 7,491 7,522	0.0646 0.0231 0.0092 0.0231 0.0433 0.0262 0.0509 0.0416 0.0242 0.0278	0.9354 0.9769 0.9908 0.9769 0.9567 0.9738 0.9491 0.9584 0.9758	49.61 46.40 45.33 44.91 43.88 41.98 40.88 38.80 37.18 36.28
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	242,896 214,625 199,523 191,246 154,245 103,485 75,093 50,396 47,444 39,386	6,175 4,154 4,343 28,572 14,528 7,456 12,336 2,953 5,105	0.0254 0.0194 0.0218 0.1494 0.0942 0.0721 0.1643 0.0586 0.1076 0.0000	0.9746 0.9806 0.9782 0.8506 0.9058 0.9279 0.8357 0.9414 0.8924 1.0000	35.27 34.38 33.71 32.98 28.05 25.41 23.58 19.71 18.55 16.55

# ACCOUNT 362 STATION EQUIPMENT

PLACEMENT	BAND 1904-2015		EXPE	RIENCE BAN	D 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	39,386	8,795	0.2233	0.7767	16.55
80.5	27,414		0.0000	1.0000	12.86
81.5	25,958	1,824	0.0703	0.9297	12.86
82.5	24,135	1,824	0.0756	0.9244	11.95
83.5	22,311	2,009	0,0900	0.9100	11.05
84.5	19,573		0.0000	1,0000	10.06
85.5	4,018		0.0000	1.0000	10.06
86.5	4,018		0.0000	1.0000	10.06
87.5	4,018		0.0000	1.0000	10.06
88.5	4,018		0.0000	1,0000	10.06
89.5	4,018		0.0000	1,0000	10.06
90.5	4,018		0.0000	1.0000	10.06
91.5	4,018	67	0.0166	0.9834	10.06
92.5	3,951		0.0000	1.0000	9.89
93.5	3,951		0.0000	1.0000	9.89
94.5	3,951		0.0000	1.0000	9.89
95.5	3,951		0.0000	1.0000	9.89
96.5	3,951		0.0000	1.0000	9.89
97.5	3,951		0.0000	1.0000	9.89
98.5	3,951		0.0000	1.0000	9.89
99.5	3,951		0.0000	1.0000	9.89
100.5	3,951		0.0000	1.0000	9.89
101.5	3,951	2,805	0.7100	0.2900	9.89
102.5 103.5	1,146	1,146	1.0000		2.87

ORIGINAL CURVE 1905-2015 EXPERIENCE 1905-2015 PLACEMENTS 1961-2015 EXPERIENCE 1905-2015 PLACEMENTS 100 IOWA 50-R1. 80 AGE IN YEARS 9 20 100 90 80 70 30 9 20 20 10 PERCENT SURVIVING

KENTUCKY UTILITIES COMPANY ACCOUNT 364 POLES, TOWERS AND FIXTURES ORIGINAL AND SMOOTH SURVIVOR CURVES

# ACCOUNT 364 POLES, TOWERS AND FIXTURES

PLACEMENT :	BAND 1905-2015		EXPER	RIENCE BAN	D 1905-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	389,508,681	1,598,491	0.0041	0.9959	100.00
0.5	375,805,441	2,072,645	0.0055	0.9945	99.59
1.5	352,059,892	1,322,778	0.0038	0.9962	99.04
2.5	335,033,741	1,124,716	0.0034	0.9966	98.67
3.5	309,812,258	1,068,026	0.0034	0.9966	98.34
4.5	293,511,828	1,142,338	0.0039	0.9961	98.00
5.5	277,364,516	1,097,063	0.0040	0.9960	97.62
6.5	243,622,619	1,155,488	0.0047	0.9953	97.23
7.5	219,298,982	1,105,793	0.0050	0.9950	96.77
8.5	214,005,854	1,017,088	0.0048	0.9952	96.28
9.5	206,822,486	924,569	0.0045	0.9955	95.82
10.5	201,086,931	989,464	0.0049	0.9951	95.40
11.5	195,824,502	947,173	0.0048	0.9952	94.93
12.5	184,344,832	932,798	0.0051	0.9949	94.47
13.5	176,344,904	973,771	0.0055	0.9945	93.99
14.5	169,457,563	1,038,512	0.0061	0.9939	93.47
15.5	161,405,975	990,354	0.0061	0.9939	92.90
16.5	153,115,364	939,603	0.0061	0.9939	92.33
17.5	144,825,634	951,356	0.0066	0.9934	91.76
18.5	135,172,034	1,004,049	0.0074	0.9926	91.16
19.5	126,381,845	1,076,490	0.0085	0.9915	90.48
20.5	116,370,857	864,044	0.0074	0.9926	89.71
21.5	107,545,293	851,089	0.0079	0.9921	89.04
22.5	100,271,147	790,376	0.0079	0.9921	88.34
23.5	93,032,778	735,520	0.0079	0.9921	87.64
24.5	87,224,033	840,402	0.0096	0.9904	86.95
25.5	81,316,876	1,008,103	0.0124	0.9876	86.11
26.5	75,283,320	2,003,413	0.0266	0.9734	85.04
27.5	68,643,143	1,545,698	0.0225	0.9775	82.78
28.5	62,600,157	869,298	0.0139	0.9861	80.92
29.5	57,388,499	731,133	0.0127	0.9873	79.79
30.5	53,323,939	718,440	0.0127		
				0.9865	78.78
31.5 32.5	49,646,597 45,195,599	814,422 846,854	0.0164 0.0187	0.9836 0.9813	77.72 76.44
33.5	41,268,416	714,753	0.0187	0.9827	75.01
34.5	37,768,066	654,503	0.0173	0.9827	73.71
35.5	34,654,237	567,254	0.0173	0.9827	72.43
36.5	31,578,086	440,770	0.0144	0.9860	72.43
37.5	29,316,373	783,027	0.0140	0.9733	70.25
38.5	26,793,762	398,803	0.0267	0.9851	68.38
	,,	220,000			

# ACCOUNT 364 POLES, TOWERS AND FIXTURES

PLACEMENT	BAND 1905-2015		EXPE	RIENCE BAN	D 1905-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	24,774,353	455,137	0.0184	0.9816	67.36
40.5	22,933,660	363,196	0.0158	0.9842	66.12
41.5	20,777,296	262,428	0.0126	0.9874	65.07
42.5	18,689,233	251,385	0.0135	0.9865	64.25
43.5	17,234,042	283,951	0.0165	0.9835	63.39
44.5	15,560,701	276,874	0.0178	0.9822	62.34
45.5	14,483,731	201,943	0.0139	0.9861	61.23
46.5	13,145,515	203,952	0.0155	0.9845	60.38
47.5	11,901,379	136,748	0.0115	0.9885	59.44
48.5	10,862,351	155,457	0.0143	0.9857	58.76
49.5	9,781,595	102,427	0.0105	0.9895	57.92
50.5	8,857,984	117,293	0.0132	0.9868	57.31
51.5	7,945,615	104,735	0.0132	0.9868	56.55
52.5	7,153,988	72,185	0.0101	0.9899	55.81
53.5	6,567,551	99,240	0.0151	0.9849	55.25
54.5	5,906,144	64,136	0.0109	0.9891	54.41
55.5	5,712,005	110,492	0.0193	0.9807	53.82
56.5	5,110,010	170,326	0.0333	0.9667	52.78
57.5	4,611,015	268,155	0.0582	0.9418	51.02
58.5	3,853,992	150,625	0.0391	0.9609	48.05
59.5	3,311,993	145,043	0.0438	0.9562	46.17
60.5	2,953,814	100,251	0.0339	0.9661	44.15
61.5	2,771,534	114,092	0.0412	0.9588	42.65
62.5	2,500,475	92,303	0.0369	0.9631	40.90
63.5	1,905,000	59,225	0.0311	0.9689	39.39
64.5	1,398,793	33,715	0.0241	0.9759	38.16
65.5	907,485	28,406	0.0313	0.9687	37.24
66.5	595,041	21,582	0.0363	0.9637	36.08
67.5	453,404	17,090	0.0377	0.9623	34.77
68.5	292,646	28,731	0.0982	0.9018	33.46
69.5	179,106	21,533	0.1202	0.8798	30.17
70.5	124,415		0.1567		26.55
71.5	95,037	32,902	0.3462	0.6538	22.39
72.5	57,038	4,367		0.9234	14.64
73.5	49,886	1,901	0.0381	0.9619	13.52
74.5	8,602		0.0000	1.0000	13.00
75.5	8,602	40	0.0000	1.0000	13.00
76.5	B,602	48	0.0055	0.9945	13.00
77.5	8,554	3,045	0.3560	0.6440	12.93
78.5	5,509		0.0000	1.0000	8.33
79.5	5,509	5,509	1.0000		8.33
80.5					

# ACCOUNT 364 POLES, TOWERS AND FIXTURES

PLACEMENT	BAND 1905-2015		EXPER	RIENCE BAN	D 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	374,861,730	1,598,491	0.0043	0.9957	100.00
0.5	362,225,379	2,072,645	0.0057	0.9943	99.57
1.5	339,426,137	1,322,778	0.0039	0.9961	99.00
2.5	323,515,048	1,124,716	0.0035	0.9965	98.62
3.5	299,245,580	1,068,026	0.0036	0.9964	98.28
4.5	283,865,178	1,142,338	0.0040	0.9960	97. <del>9</del> 2
5.5	268,600,240	1,097,063	0.0041	0.9959	97.53
6.5	235,703,486	1,155,488	0.0049	0.9951	97.13
7.5	212,015,800	1,105,793	0.0052	0.9948	96.66
8.5	207,438,989	1,017,088	0.0049	0.9951	96.15
9.5	200,894,207	924,569	0.0046	0.9954	95.68
10.5	195,929,189	989,464	0.0051	0.9949	95.24
11.5	191,151,914	947,173	0.0050	0.9950	94.76
12.5	180,596,681	932,798	0.0052	0.9948	94.29
13.5	173,463,425	973,771	0.0056	0.9944	93.80
14.5	167,137,571	1,038,512	0.0062	0.9938	93.28
15.5	159,439,600	990,354	0.0062	0.9938	92.70
16.5	151,334,513	939,603	0.0062	0.9938	92.12
17.5	143,199,603	951,356	0.0066	0.9934	91.55
18.5	133,740,683	1,004,049	0.0075	0.9925	90.94
19.5	125,426,825	1,076,490	0.0086	0.9914	90.26
20.5	115,618,145	864,044	0.0075	0.9925	89.48
21.5	107,020,642	851,089	0.0080	0.9920	88.81
22.5	100,003,746	790,376	0.0079	0.9921	88.11
23.5	92,862,180	735,520	0.0079	0.9921	87.41
24.5	87,074,519	840,402	0.0097	0.9903	86.72
25.5	81,167,449	1,008,103	0.0124	0.9876	85.88
26.5	75,133,893	2,003,413	0.0267	0.9733	84.82
27.5	68,493,716	1,545,698	0.0226	0.9774	82.55
28.5	62,459,696	869,298	0.0139	0.9861	80.69
29.5	57,248,038	731,133	0.0128	0.9872	79.57
30.5	53,183,478	718,440	0.0135	0.9865	78.55
31.5	49,506,136	814,422	0.0165	0.9835	77.49
32.5	45,055,138	846,854	0.0188	0.9812	76.22
33.5	41,127,955	714,753	0.0174	0.9826	74.78
34.5	37,627,605	654,503	0.0174	0.9826	73.48
35.5	34,513,776	567,254	0.0164	0.9836	72.21
36.5	31,437,625	440,770	0.0140	0.9860	71.02
37.5	29,175,912	783,027	0.0268	0.9732	70.02
38.5	26,653,301	398,803	0.0150	0.9850	68.14

# ACCOUNT 364 POLES, TOWERS AND FIXTURES

PLACEMENT	BAND 1905-2015		EXPE	RIENCE BAN	D 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	24,633,892	455,137	0.0185	0.9815	67.12
40.5	22,793,199	363,196	0.0159	0.9841	65.88
41.5	20,636,835	262,428	0.0127	0.9873	64.83
42.5	18,548,772	251,385	0.0136	0.9864	64.01
43.5	17,093,581	283,951	0.0166	0.9834	63.14
44.5	15,420,240	276,874	0.0180	0.9820	62.09
45.5	14,343,270	201,943	0.0141	0.9859	60.98
46.5	13,005,054	203,952	0.0157	0.9843	60.12
47.5	11,760,918	136,748	0.0116	0.9884	59.18
48.5	10,721,890	155,457	0.0145	0.9855	58.49
49.5	9,641,134	102,427	0.0106	0.9894	57.64
50.5	8,717,523	117,293	0.0135	0.9865	57.03
51.5	7,805,154	104,735	0.0134	0.9866	56.26
52.5	7,013,527	72,185	0.0103	0.9897	55.51
53.5	6,427,090	99,240	0.0154	0.9846	54.93
54.5	5,765,683	64,136	0.0111	0.9889	54.09
55.5	5,712,005	110,492	0.0193	0.9807	53.49
56.5	5,110,010	170,326	0.0333	0.9667	52.45
57.5	4,611,015	268,155	0.0582	0.9418	50.70
58.5	3,853,992	150,625	0.0391	0.9609	47.75
59.5	3,311,993	145,043	0.0438	0.9562	45.89
60.5	2,953,814	100,251	0.0339	0.9661	43.88
61.5	2,771,534	114,092	0.0412	0.9588	42.39
62.5	2,500,475	92,303	0.0369	0.9631	40.64
63.5	1,905,000	59,225	0.0311	0.9689	39.14
64.5	1,398,793	33,715	0.0241	0.9759	37.93
65.5	907,485	28,406	0.0313	0.9687	37.01
66.5	595,041	21,582	0.0363	0.9637	35.85
67.5	453,404	17,090	0.0377	0.9623	34.55
68.5	292,646	28,731	0.0982	0.9018	33.25
69.5	179,106	21,533	0.1202	0.8798	29.99
70.5	124,415	19,490	0.1567	0.8433	26.38
71.5	95,037	32,902	0.3462	0.6538	22,25
72.5	57,038	4,367	0.0766	0.9234	14.55
73.5	49,886	1,901	0.0381	0.9619	13.43
74.5	8,602		0.0000	1.0000	12.92
75.5	8,602		0.0000	1.0000	12.92
76.5	8,602	48	0.0055	0.9945	12.92
77.5	8,554	3,045	0.3560	0.6440	12.85
78.5	5,509		0.0000	1.0000	8.28
79.5 80.5	5,509	5,509	1.0000		8.28

ORIGINAL CURVE # 1929-2015 EXPERIENCE 1961-2015 EXPERIENCE 1929-2015 PLACEMENTS 00 ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES 8 ORIGINAL AND SMOOTH SURVIVOR CURVES IOWA 47-R1 KENTUCKY UTILITIES COMPANY AGE IN YEARS 6 20 8 8 70 60 40 8 9 20 PERCENT SURVIVING

### ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT	BAND 1929-2015		EXPER	IENCE BAN	D 1929-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	395,973,280	5,030,807	0.0127	0.9873	100.00
0.5	368,808,385	6,217,236	0.0169	0.9831	98.73
1.5	336,151,745	4,492,871	0.0134	0.9866	97.07
2.5	319,284,547	3,877,073	0.0121	0.9879	95.77
3.5	295,389,361	2,606,120	0.0088	0.9912	94.60
4.5	279,684,080	1,777,136	0.0064	0.9936	93.77
5.5	266,409,676	2,105,522	0.0079	0.9921	93.17
6.5	221,958,576	1,713,791	0.0077	0.9923	92.44
7.5	199,439,150	2,430,316	0.0122	0.9878	91.72
8.5	192,636,532	1,280,674	0.0066	0.9934	90.61
9.5	187,262,013	1,190,866	0.0064	0.9936	90.00
10.5	184,010,378	1,357,856	0.0074	0.9926	89.43
11.5	175,975,356	962,962	0.0055	0.9945	88.77
12.5	171,546,791	983,334	0.0057	0.9943	88.29
13.5	164,870,212	991,975	0.0060	0.9940	87.78
14.5	154,697,468	949,764	0.0061	0.9939	87.25
15.5	149,236,106	993,815	0.0067	0.9933	86.72
16.5	142,610,121	884,089	0.0062	0.9938	86.14
17.5	136,689,447	914,204	0.0067	0.9933	85.60
18.5	129,409,640	971,303	0.0075	0.9925	85.03
19.5	122,005,090	921,165	0.0076	0.9924	84.39
20.5	113,741,123	867,890	0.0076	0.9924	83.76
21.5	106,833,491	773,105	0.0072	0.9928	83.12
22.5	101,353,552	754,420	0.0074	0.9926	82.52
23.5	95,494,162	625,297	0.0065	0.9935	81.90
24.5	90,449,653	742,717	0.0082	0.9918	81.37
25.5	84,871,771	703,329	0.0083	0.9917	80.70
26.5	78,521,460	801,680	0.0102	0.9898	80.03
27.5	73,425,503	734,081	0.0100	0.9900	79.21
28.5	68,836,581	1,408,569	0.0205	0.9795	78.42
29.5	64,028,484	1,416,727	0.0221	0.9779	76.82
30.5	60,096,665	847,454	0.0141	0.9859	75.12
31.5	56,568,697	877,142	0.0155	0.9845	74.06
32.5	52,575,793	799,417	0.0152	0.9848	72.91
33.5	48,784,758	593,113	0.0122	0.9878	71.80
34.5	45,422,627	667,707	0.0147	0.9853	70.93
35.5	41,836,251	532,379	0.0127	0.9873	69.88
36.5	38,256,766	481,521	0.0126	0.9874	68.99
37.5	35,148,345	516,235	0.0147	0.9853	68.13
38.5	32,431,377	355,650	0.0110	0.9890	67.13

# ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT	BAND 1929-2015		EXPER	RIENCE BAN	D 1929-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	30,596,068	347,954	0.0114	0.9886	66.39
40.5	28,689,558	487,181	0.0170	0.9830	65.63
41.5	25,808,409	314,265	0.0122	0.9878	64.52
42.5	23,653,934	299,731	0.0127	0.9873	63.73
43.5	21,756,362	302,661	0.0139	0.9861	62.93
44.5	19,450,003	319,031	0.0164	0.9836	62.05
45.5	18,045,097	281,818	0.0156	0.9844	61.03
46.5	16,341,531	240,122	0.0147	0.9853	60.08
47.5	14,737,071	253,027	0.0172	0.9828	59.20
48.5	13,408,698	194,104	0.0145	0.9855	58.18
49.5	12,264,904	190,817	0.0156	0.9844	57.34
50.5	10,931,487	245,305	0.0224	0.9776	56.45
51.5	9,845,568	210,144	0.0213	0.9787	55.18
52.5	8,929,349	164,051	0.0184	0.9816	54.00
53.5	8,276,071	195,229	0.0236	0.9764	53.01
54.5	7,650,293	236,782	0.0310	0.9690	51.76
55.5	7,116,151	230,842	0.0324	0.9676	50.16
56.5	6,523,520	230,435	0.0353	0.9647	48.53
57.5	5,890,807	205,321	0.0349	0.9651	46.82
58.5	5,349,667	227,592	0.0425	0.9575	45.18
59.5	4,726,036	354,649	0.0750	0.9250	43.26
60.5	4,081,551	258,865	0.0634	0.9366	40.02
61.5	3,584,483	300,110	0.0837	0.9163	37.48
62.5	2,980,779	217,637	0.0730	0.9270	34.34
63.5	2,406,271	189,643	0.0788	0.9212	31.83
64.5	1,958,022	197,156	0.1007	0.8993	29.32
65.5	1,430,092	237,666	0.1662	0.8338	26.37
66.5	906,849	75,678	0.0835	0.9165	21.99
67.5	730,383	66,030	0.0904	0.9096	20.15
68.5	556,779	63,911	0.1148	0.8852	18.33
69.5	381,338	107,885	0.2829	0.7171	16.23
70.5	219,592	51,254	0.2334	0.7666	11.64
71.5	148,317	11,242	0.0758	0.9242	8.92
72.5	124,531	24,590	0.1975	0.8025	8.24
73.5	80,737	8,484	0.1051	0.8949	6.62
74.5					5.92

# ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT	BAND 1929-2015		EXPER	RIENCE BAN	D 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	381,184,756	5,030,807	0.0132	0.9868	100.00
0.5	355,083,848	6,217,236	0.0175	0.9825	98.68
1.5	323,254,342	4,492,871	0.0139	0.9861	96.95
2.5	307,377,151	3,877,073	0.0126	0.9874	95.60
3.5	284,327,875	2,606,120	0.0092	0.9908	94.40
4.5	269,546,924	1,777,136	0.0066	0.9934	93.53
5.5	257,202,337	2,105,522	0.0082	0.9918	92.92
6.5	213,595,578	1,713,791	0.0080	0.9920	92.16
7.5	192,079,785	2,430,316	0.0127	0.9873	91.42
8.5	185,974,697	1,280,674	0.0069	0.9931	90.26
9.5	181,266,172	1,190,866	0.0066	0.9934	89.64
10.5	178,691,283	1,357,856	0.0076	0.9924	89.05
11.5	171,332,165	962,962	0.0056	0.9944	88.37
12.5	167,374,874	983,334	0.0059	0.9941	87.88
13.5	161,410,849	991,975	0.0061	0.9939	87.36
14.5	151,812,099	949,764	0.0063	0.9937	86.82
15.5	146,670,832	993,815	0.0068	0.9932	86.28
16.5	140,157,422	884,089	0.0063	0.9937	85.70
17.5	134,341,447	914,204	0.0068	0.9932	85.15
18.5	127,188,522	971,303	0.0076	0.9924	84.58
19.5	120,688,978	921,165	0.0076	0.9924	83.93
20.5	112,611,237	867,890	0.0077	0.9923	83.29
21.5	105,895,718	773,105	0.0073	0.9927	82.65
22.5	100,611,947	754,420	0.0075	0.9925	82.04
23.5	94,889,883	625,297	0.0066	0.9934	81.43
24.5	89,974,252	742,717	0.0083	0.9917	80.89
25.5	84,477,074	703,329	0.0083	0.9917	80.22
26.5	78,181,724	801,680	0.0103	0.9897	79.56
27.5	73,142,931	734,081	0.0100	0.9900	78.74
28.5	68,602,654	1,408,569	0.0205	0.9795	77.95
29.5	63,900,987	1,416,727	0.0222	0.9778	76.35
30.5	60,094,638	847,454	0.0141	0.9859	74.66
31.5	56,568,697	877,142	0.0155	0.9845	73.60
32.5	52,575,793	799,417	0.0152	0.9848	72.46
33.5	48,784,758	593,113	0.0122	0.9878	71.36
34.5	45,422,627	667,707	0.0147	0.9853	70.49
35.5	41,836,251	532,379	0.0127	0.9873	69.46
36.5	38,256,766	481,521	0.0126	0.9874	68.57
37.5	35,148,345	516,235	0.0147	0.9853	67.71
38.5	32,431,377	355,650	0.0110	0.9890	66.72

# ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT	BAND 1929-2015		EXPER	RIENCE BAN	D 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	30,596,068	347,954	0.0114	0.9886	65.98
40.5	28,689,558	487,181	0.0170	0.9830	65.23
41.5	25,808,409	314,265	0.0122	0.9878	64.13
42.5	23,653,934	299,731	0.0127	0.9873	63.35
43.5	21,756,362	302,661	0.0139	0.9861	62.54
44.5	19,450,003	319,031	0.0164	0.9836	61.67
45.5	18,045,097	281,818	0.0156	0.9844	60.66
46.5	16,341,531	240,122	0.0147	0.9853	59.71
47.5	14,737,071	253,027	0.0172	0.9828	58.84
48.5	13,408,698	194,104	0.0145	0.9855	57.83
49.5	12,264,904	190,817	0.0156	0.9844	56.99
50.5	10,931,487	245,305	0.0224	0.9776	56.10
51.5	9,845,568	210,144	0.0213	0.9787	54.84
52.5	8,929,349	164,051	0.0184	0.9816	53.67
53.5	8,276,071	195,229	0.0236	0.9764	52.69
54.5	7,650,293	236,782	0.0310	0.9690	51.44
55.5	7,116,151	230,842	0.0324	0.9676	49.85
56.5	6,523,520	230,435	0.0353	0.9647	48.23
57.5	5,890,807	205,321	0.0349	0.9651	46.53
58.5	5,349,667	227,592	0.0425	0.9575	44.91
59.5	4,726,036	354,649	0.0750	0.9250	43.00
60.5	4,081,551	258,865	0.0634	0.9366	39.77
61.5	3,584,483	300,110	0.0837	0.9163	37.25
62.5	2,980,779	217,637	0.0730	0.9270	34.13
63.5	2,406,271	189,643	0.0788	0.9212	31.64
64.5	1,958,022	197,156	0.1007	0.8993	29.14
65.5	1,430,092	237,666	0.1662	0.8338	26.21
66.5	906,849	75,678	0.0835	0.9165	21.85
67.5	730,383	66,030	0.0904	0.9096	20.03
68.5	556,779	63,911	0.1148	0.8852	18.22
69.5	381,338	107,885	0.2829	0.7171	16.13
70.5	219,592	51,254	0.2334	0.7666	11.57
71.5	148,317	11,242	0.0758	0.9242	8.87
72.5	124,531	24,590	0.1975	0.8025	8.19
73.5	80,737	8,484	0.1051	0.8949	6.58
74.5					5.88

120 ORIGINAL CURVE • 1953-2015 EXPERIENCE 1996-2015 EXPERIENCE 1949-2015 PLACEMENTS 8 80 IOWA 50-R4 AGE IN YEARS 9 20 90 8 5 6 9 20 50 38 10 РЕЯСЕИТ SURVIVING

KENTUCKY UTILITIES COMPANY ACCOUNT 366 UNDERGROUND CONDUIT ORIGINAL AND SMOOTH SURVIVOR CURVES

# ACCOUNT 366 UNDERGROUND CONDUIT

PLACEMENT	BAND 1949-2015		EXPER	RIENCE BAN	D 1953-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	2,237,224	244	0.0001	0.9999	100.00
0.5	2,145,866	132	0.0001	0.9999	99.99
1.5	1,941,657	205	0.0001	0.9999	99.98
2.5	1,941,451	237	0.0001	0.9999	99.97
3.5	1,887,187	2 640	0.0000	1.0000	99.96
4.5	1,825,986	3,648	0.0020	0.9980	99.96
5.5	1,737,248	4,194	0.0024	0.9976	99.76
6.5	1,701,300	50	0.0000	1.0000	99.52
7.5	1,693,612	52	0.0000	1.0000	99.52
8.5	1,693,560	18	0.0000	1.0000	99.52
9.5	1,693,542		0.0000	1.0000	99.52
10.5	1,667,310		0.0000	1.0000	99.52
11.5	1,621,682		0.0000	1.0000	99.52
12.5	1,497,189		0.0000	1.0000	99.52
13.5	1,497,255	440	0.0003	0.9997	99.52
14.5	1,493,973		0.0000	1.0000	99.49
15.5	1,493,988	18,439	0.0123	0.9877	99.49
16.5	1,475,549		0.0000	1.0000	98.26
17.5	1,470,226		0.0000	1.0000	98.26
18.5	1,470,226		0.0000	1.0000	98.26
19.5	1,470,226		0.0000	1.0000	98.26
20.5	1,365,766		0.0000	1.0000	98.26
21.5	1,365,766		0.0000	1.0000	98.26
22.5	1,365,818	330	0.0002	0.9998	98.26
23.5	1,405,343		0.0000	1.0000	98.23
24.5	1,405,343	1,077	0.0008	0.9992	98.23
25.5	1,404,341	805	0.0006	0.9994	98.16
26.5	1,383,789		0.0000	1.0000	98.10
27.5	1,383,789	23,024	0.0166	0.9834	98.10
28.5	1,297,817	2	0.0000	1.0000	96.47
29.5	1,251,336		0.0000	1.0000	96.47
30.5	1,249,327	7,754	0.0062	0.9938	96.47
31.5	1,243,577	•	0.0000	1.0000	95.87
32.5	1,181,720	121,170	0.1025	0.8975	95.87
33.5	996,395	16,411	0.0165	0.9835	86.04
34.5	979,970	•	0.0000	1.0000	84.62
35.5	761,794	993	0.0013	0.9987	84.62
36.5	353,165	1,316	0.0037	0.9963	84.51
37.5	351,849	849	0.0024	0.9976	84.20
38.5	351,000	715	0.0020	0.9980	84.00

#### ACCOUNT 366 UNDERGROUND CONDUIT

### ORIGINAL LIFE TABLE, CONT.

#### PLACEMENT BAND 1949-2015 EXPERIENCE BAND 1953-2015 AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE SURV RETMT BEGIN OF INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVAL 39.5 331,727 0.0005 172 0.9995 83.82 40.5 331,556 828 0.0025 0.9975 83.78 41.5 53,975 0.0064 345 0.9936 83.57 42.5 30,186 2,510 0.0831 0.9169 83.04 43.5 27,676 92 0.0033 0.9967 76.13 44.5 27,584 0.0000 1.0000 75.88 45.5 37,382 0.0000 1.0000 75.88 46.5 37,382 5 0.0001 0.9999 75.88 47.5 36,414 15 0.0004 0.9996 75.87 48.5 33,632 0 0.0000 1.0000 75.84 49.5 31,455 153 0.0049 0.9951 75.84 50.5 31,302 0.0000 1.0000 75.47 51.5 31,302 0.0000 75.47 1.0000 52.5 31,302 15,088 0.4820 0.5180 75.47 53.5 16,214 2,826 0.1743 0.8257 39.09 54.5 13,388 96 0.0072 0.9928 32.28 55.5 13,292 9,027 0.6791 0.3209 32.05 56.5 4,266 0.0000 1.0000 10.29 57.5 4,266 0.0000 1.0000 10.29 58.5 4,266 0.0000 1.0000 10.29 59.5 4,266 3,590 0.8417 10.29 0.1583 60.5 675 675 1.0000 1.63

61.5

# ACCOUNT 366 UNDERGROUND CONDUIT

PLACEMENT E	BAND 1949-2015		EXPER	RIENCE BAN	D 1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5	744,788 776,328 572,120	244 132 205	0.0003 0.0002 0.0004	0.9997 0.9998 0.9996	100.00 99.97 99.95
2.5 3.5 4.5	571,914 517,887 456,686	33	0.0000 0.0000 0.0001	1.0000 1.0000 0.9999	99.91 99.91 99.91
5.5 6.5	371,563 355,707	4,194	0.0113 0.0000	0.9887 1.0000	99.91 98.78
7.5 8.5	348,019 415,455 460,325	52 18	0.0002 0.0000 0.0000	0.9998 1.0000 1.0000	98.78 98.76 98.76
9.5 10.5 11.5	434,093 388,465		0.0000 0.0000	1.0000 1.0000 1.0000	98.76 98.76
12.5 13.5 14.5	325,589 389,809 386,527	440	0.0000 0.0011 0.0000	0.9989 1.0000	98.76 98.76 98.65
15.5 16.5 17.5	604,718 1,016,939 1,011,616	18,439	0.0305 0.0000 0.0000	0.9695 1.0000 1.0000	98.65 95.64 95.64
18.5 19.5	1,011,616		0.0000	1.0000	95.64 95.64
20.5 21.5 22.5	934,383 1,332,254 1,332,306	330	0.0000 0.0000 0.0002	1.0000 1.0000 0.9998	95.64 95.64 95.64
23.5 24.5 25.5	1,371,831 1,371,831 1,372,130	1,077 805	0.0000 0.0008 0.0006	1.0000 0.9992 0.9994	95.62 95.62 95.54
26.5 27.5 28.5	1,351,578 1,352,531 1,269,941	23,024	0.0000 0.0170 0.0000	1.0000 0.9830 1.0000	95.49 95.49 93.86
29.5 30.5	1,225,641 1,224,984	7,754	0.0000 0.0063	1.0000 0.9937	93.86 93.86
31.5 32.5 33.5	1,219,410 1,160,063 974,738	121,170 16,411	0.0000 0.1045 0.0168	1.0000 0.8955 0.9832	93.27 93.27 83.52
34.5 35.5 36.5	958,313 740,137 331,508	993 1,316	0.0000 0.0013 0.0040	1.0000 0.9987 0.9960	82.12 82.12 82.01
37.5 38.5	330,192 329,343	849 715	0.0026	0.9974 0.9978	81.68 81.47

#### ACCOUNT 366 UNDERGROUND CONDUIT

### ORIGINAL LIFE TABLE, CONT.

#### PLACEMENT BAND 1949-2015 EXPERIENCE BAND 1996-2015 AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL AGE INTERVAL INTERVAL INTERVAL RATIO RATIO 39.5 310,223 172 0.0006 0.9994 81.30 0.0027 40.5 310,052 828 0.9973 81.25 41.5 32,471 345 0.0106 0.9894 81.03 42.5 30,186 2,510 0.0831 0.9169 80.17 43.5 27,676 0.0033 0.9967 92 73.51 44.5 27,584 0.0000 1.0000 73.26 45.5 37,382 0.0000 1.0000 73.26 46.5 37,382 5 0.0001 0.9999 73.26 47.5 36,414 0.0004 15 0.9996 73.25 48.5 33,632 0 0.0000 1.0000 73.22 49.5 31,455 153 0.0049 0.9951 73.22 50.5 31,302 0.0000 72.87 1.0000 31,302 51.5 0.0000 1.0000 72.87 52.5 31,302 15,088 0.4820 0.5180 72.87 53.5 16,214 2,826 0.1743 0.8257 37.74 54.5 13,388 0.0072 0.9928 96 31.17 55.5 13,292 9,027 0.6791 0.3209 30.94 56.5 4,266 0.0000 1.0000 9.93 57.5 4,266 0.0000 1.0000 9.93 58.5 4,266 0.0000 1.0000 9.93 59.5 4,266 3,590 0.8417 0.1583 9.93 60.5 675 675 1.0000 1.57

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ORIGINAL CURVE = 1938-2015 EXPERIENCE 1976-2015 EXPERIENCE 1941-2015 PLACEMENTS 100 4 ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES ORIGINAL AND SMOOTH SURVIVOR CURVES 8 **IOWA 48-R2** KENTUCKY UTILITIES COMPANY AGE IN YEARS 4 \$ 100 psessons and p 뭐 8 80 70 9 8 20 30 20 10 РЕВСЕИТ SURVIVING

### ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

PLACEMENT	BAND 1938-2015		EXPER	RIENCE BAN	1938-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	188,974,294	704,258	0.0037	0.9963	100.00
0.5	175,093,122	911,410	0.0052	0.9948	99.63
1.5	154,091,075	693,907	0.0045	0.9955	99.11
2.5	150,041,481	586,186	0.0039	0.9961	98.66
3.5	140,212,531	698,102	0.0050	0.9950	98.28
4.5	132,517,198	364,304	0.0027	0.9973	97.79
5.5	127,417,550	425,322	0.0033	0.9967	97.52
6.5	90,887,181	309,179	0.0034	0.9966	97.19
7.5	73,232,007	249,609	0.0034	0.9966	96.86
8.5	70,595,006	197,789	0.0028	0.9972	96.53
9.5	68,322,247	219,326	0.0032	0.9968	96.26
10.5	64,536,772	192,273	0.0030	0.9970	95.95
11.5	59,158,129	244,411	0.0041	0.9959	95.67
12.5	49,882,066	268,051	0.0054	0.9946	95.27
13.5	44,140,492	168,746	0.0038	0.9962	94.76
14.5	35,673,383	221,507	0.0062	0.9938	94.40
15.5	31,507,262	138,507	0.0044	0.9956	93.81
16.5	27,419,486	134,160	0.0049	0.9951	93.40
17.5	23,817,278	75,856	0.0032	0.9968	92.94
18.5	20,292,334	74,552	0.0037	0.9963	92.65
19.5	16,897,731	72,343	0.0043	0.9957	92.31
20.5	13,421,533	54,415	0.0041	0.9959	91.91
21.5	11,676,974	55,805	0.0048	0.9952	91.54
22.5	10,524,117	40,066	0.0038	0.9962	91.10
23.5	9,441,411	41,631	0.0044	0.9956	90.75
24.5	8,319,283	35,230	0.0042	0.9958	90.35
25.5	7,595,003	29,607	0.0039	0.9961	89. <del>9</del> 7
26.5	6,244,785	25,054	0.0040	0.9960	89.62
27.5	5,232,304	22,283	0.0043	0.9957	89.26
28.5	4,361,471	24,191	0.0055	0.9945	88.88
29.5	3,817,082	19,348	0.0051	0.9949	88.39
30.5	3,511,007	22,234	0.0063	0.9937	87.94
31.5	3,146,918	20,164	0.0064	0.9936	87.38
32.5	2,799,106	17,809	0.0064	0.9936	86.82
33.5	2,512,409	22,459	0.0089	0.9911	86.27
34.5	2,261,586	24,444	0.0108	0.9892	85.50
35.5	1,831,950	20,123	0.0110	0.9890	84.57
36.5	1,471,637	14,995	0.0102	0.9898	83.65
37.5	1,190,705	13,584	0.0114	0.9886	82.79
38.5	995,962	7,072	0.0071	0.9929	81.85

#### ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

#### ORIGINAL LIFE TABLE, CONT.

#### PLACEMENT BAND 1938-2015 EXPERIENCE BAND 1938-2015 AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL AGE INTERVAL INTERVAL RATIO INTERVAL RATIO 39.5 740,362 8,258 0.0112 0.9888 81.27 40.5 501,244 9,280 0.0185 0.9815 80.36 41.5 210,827 78.87 3,163. 0.0150 0.9850 42.5 158,578 4,800 0.0303 0.9697 77.69 43.5 58,476 2,176 0.0372 0.9628 75.34 44.5 44,079 0.0964 4,249 0.9036 72.53 45.5 21,303 740 0.0347 0.9653 65.54 46.5 20,563 966 0.0470 0.9530 63.27 47.5 3,957 1,329 0.3359 0.6641 60.30 48.5 128 0.0000 1.0000 40.04 49.5 128 0.0000 1.0000 40.04 50.5 128 0.0000 1.0000 40.04 51.5 128 0.0000 1.0000 40.04 52.5 128 0.0000 1.0000 40.04 53.5 128 0.0000 1.0000 40.04 54.5 128 0.0000 1.0000 40.04 55.5 4,001 528 0.1320 0.8680 40.04 56.5 3,473 0.0000 1.0000 34.76 57.5 3,473 64 0.0184 0.9816 34.76 58.5 3,409 64 0.0187 0.9813 34.12 59.5 3,345 0.0000 1.0000 33.48 60.5 3,345 0.0000 1.0000 33.48 61.5 3,345 0.0000 1.0000 33.48 62.5 1.0000 3,345 0.0000 33.48 63.5 3,345 0.0000 1.0000 33.48 64.5 3,345 0.0000 1.0000 33.48 65.5

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# ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

PLACEMENT I	BAND 1941-2015		EXPER	LIENCE BAN	D 1976-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	187,814,812	702,882	0.0037	0.9963	100.00
0.5	174,213,661	903,989	0.0052	0.9948	99.63
1.5	153,555,559	688,061	0.0045	0.9955	99.11
2.5	149,679,273	580,967	0.0039	0.9961	98.66
3.5	140,000,253	694,639	0.0050	0.9950	98.28
4.5	132,374,951	362,773	0.0027	0.9973	97.79
5.5	127,324,362	424,901	0.0033	0.9967	97.53
6.5	90,802,950	309,011	0.0034	0.9966	97.20
7.5	73,181,220	249,609	0.0034	0.9966	96.87
8.5	70,551,903	197,789	0.0028	0.9972	96.54
9.5	68,288,911	216,805	0.0032	0.9968	96.27
10.5	64,508,563	192,273	0.0030	0.9970	95.96
11.5	59,131,020	241,250	0.0041	0.9959	95.68
12.5 13.5 14.5 15.5	49,859,132 44,117,558 35,650,449	268,051 168,746 221,507	0.0054 0.0038 0.0062	0.9946 0.9962 0.9938	95.29 94.77 94.41
16.5 17.5 18.5	31,484,328 27,396,552 23,794,344 20,269,400	138,507 134,160 75,856 74,552	0.0044 0.0049 0.0032 0.0037	0.9956 0.9951 0.9968 0.9963	93.83 93.41 92.96 92.66
19.5	16,874,885	72,343	0.0043	0.9957	92.32
20.5	13,402,842	51,329	0.0038	0.9962	91.92
21.5	11,661,373	45,957	0.0039	0.9961	91.57
22.5	10,518,470	40,066	0.0038	0.9962	91.21
23.5	9,435,764	41,631	0.0044	0.9956	90.86
24.5	8,313,636	35,230	0.0042	0.9958	90.46
25.5	7,589,356	29,607	0.0039	0.9961	90.08
26.5 27.5 28.5	6,239,138 5,226,657 4,355,824	25,054 25,054 22,283 24,191	0.0040 0.0043 0.0056	0.9960 0.9957 0.9944	89.73 89.37 88.98
29.5	3,811,435	19,348	0.0051	0.9949	88.49
30.5	3,505,360	19,127	0.0055	0.9945	88.04
31.5	3,144,378	20,164	0.0064	0.9936	87.56
32.5	2,796,566	17,809	0.0064	0.9936	87.00
33.5	2,509,869	22,459	0.0089	0.9911	86.45
34.5	2,259,046	24,196	0.0107	0.9893	85.67
35.5	1,829,658	20,123	0.0110	0.9890	84.75
36.5	1,469,345	12,703	0.0086	0.9914	83.82
37.5	1,190,705	13,584	0.0114	0.9886	83.10
38.5	995,962	7,072	0.0071	0.9929	82.15

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#### KENTUCKY UTILITIES COMPANY

#### ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

### ORIGINAL LIFE TABLE, CONT.

#### PLACEMENT BAND 1941-2015 EXPERIENCE BAND 1976-2015 AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVAL 39.5 740,362 8,258 0.0112 0.9888 81.57 40.5 501,244 9,280 0.0185 0.9815 80.66 41.5 210,827 3,163 0.0150 0.9850 79.16 42.5 158,578 0.0303 4,800 0.9697 77.98 43.5 58,476 2,176 0.0372 0.9628 75.62 44.5 44,079 4,249 0.0964 0.9036 72.80 45.5 21,303 740 0.0347 0.9653 65.78 46.5 20,563 966 0.0470 0.9530 63.50 47.5 3,957 1,329 0.3359 0.6641 60.52 48.5 128 0.0000 1.0000 40.19 49.5 128 0.0000 1.0000 40.19 50.5 128 0.0000 1.0000 40.19 51.5 128 0.0000 1.0000 40.19 52.5 128 0.0000 1.0000 40.19 53.5 128 0.0000 1.0000 40.19 54.5 128 0.0000 1.0000 40.19 55.5 4,001 0.1320 40.19 528 0.8680 56.5 0.0000 3,473 1.0000 34.89 57.5 3,473 64 0.0184 0.9816 34.89 58.5 3,409 64 0.0187 0.9813 34.25 59.5 1.0000 3,345 0.0000 33.61 60.5 3,345 0.0000 1.0000 33.61 61.5 3,345 0.0000 1.0000 33.61 62.5 3,345 0.0000 33.61 1.0000 63.5 3,345 0.0000 33.61 1.0000 64.5 3,345 0.0000 1.0000 33.61

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ORIGINAL CURVE | 1900-2015 EXPERIENCE | 1900-2015 PLACEMENTS 1961-2015 EXPERIENCE 1900-2015 PLACEMENTS 100 80 ORIGINAL AND SMOOTH SURVIVOR CURVES **IOWA 46-R2** AGE IN YEARS 40 20 100 90 80 70 20 10 9 20 40 30 PERCENT SURVIVING



KENTUCKY UTILITIES COMPANY ACCOUNT 368 LINE TRANSFORMERS

# ACCOUNT 368 LINE TRANSFORMERS

PLACEMENT I	BAND 1900-2015		EXPER	RIENCE BAN	D 1900-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	350,498,992	321,395	0.0009	0.9991	100.00
0.5	358,997,061	1,000,314	0.0028	0.9972	99.91
1.5	341,311,860	787,623	0.0023	0.9977	99.63
2.5	335,507,756	1,323,195	0.0039	0.9961	99.40
3.5	326,939,463	1,363,664	0.0042	0.9958	99.01
4.5	311,513,081	1,013,897	0.0033	0.9967	98.60
5.5	308,397,831	1,172,227	0.0038	0.9962	98.27
6.5	290,871,663	723,565	0.0025	0.9975	97.90
7.5	280,800,549	1,248,251	0.0044	0.9956	97.66
8.5	268,208,472	966,092	0.0036	0.9964	97.22
9.5	248,773,844	1,240,293	0.0050	0.9950	96.87
10.5	247,318,914	1,028,785	0.0042	0.9958	96.39
11.5	241,806,927	1,136,089	0.0047	0.9953	95.99
12.5	227,584,748	982,931	0.0043	0.9957	95.54
13.5	221,046,553	955,417	0.0043	0.9957	95.13
14.5	210,124,129	820,481	0.0039	0.9961	94.71
15.5	199,556,805	1,102,505	0.0055	0.9945	94.34
16.5	191,314,201	1,329,254	0.0069	0.9931	93.82
17.5	180,972,843	1,633,033	0.0090	0.9910	93.17
18.5	170,199,074	1,473,466	0.0087	0.9913	92.33
19.5	160,123,859	1,292,671	0.0081	0.9919	91.53
20.5	149,653,264	1,190,516	0.0080	0.9920	90.79
21.5	139,417,061	1,141,204	0.0082	0.9918	90.07
22.5	129,876,435	1,211,092	0.0093	0.9907	89.33
23.5	121,962,657	1,488,267	0.0122	0.9878	88.50
24.5	114,540,193	1,200,572	0.0105	0.9895	87.42
25.5	106,905,420	1,280,486	0.0120	0.9880	86.50
26.5	99,086,272	1,504,500	0.0152	0.9848	85.47
27.5	90,975,305	1,209,843	0.0133	0.9867	84.17
28.5	83,985,443	1,105,779	0.0132	0.9868	83.05
29.5	76,880,525	1,017,983	0.0132	0.9868	81.96
30.5	70,614,425	1,151,839	0.0163	0.9837	80.87
31.5	65,796,063	950,518	0.0144	0.9856	79.55
32.5	59,614,175	1,024,351	0.0172	0.9828	78.40
33.5	53,936,395	1,183,752	0.0219	0.9781	77.06
34.5	50,740,214	1,034,450	0.0204	0.9796	75.36
35.5	46,764,185	1,328,554	0.0284	0.9716	73.83
36.5	41,059,001	890,472	0.0217	0.9783	71.73
37.5	35,869,580	465,839	0.0130	0.9870	70.18
38.5	31,293,503	513,809	0.0164	0.9836	69.26

# ACCOUNT 368 LINE TRANSFORMERS

PLACEMENT	BAND 1900-2015		EXPER	RIENCE BAN	D 1900-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	28,462,544	708,131	0.0249	0.9751	68.13
40.5	26,011,219	678,936	0.0261	0.9739	66.43
41.5	21,567,944	534,062	0.0248	0.9752	64.70
42.5	17,881,181	373,283	0.0209	0.9791	63.10
43.5	15,756,630	434,896	0.0276	0.9724	61.78
44.5	13,769,878	379,874	0.0276	0.9724	60.07
45.5	11,769,258	380,613	0.0323	0.9677	58.42
46.5	10,236,898	451,382	0.0441	0.9559	56.53
47.5	8,997,180	391,159	0.0435	0.9565	54.03
48.5	7,536,169	496,668	0.0659	0.9341	51.69
49.5	6,463,147	361,421	0.0559	0.9441	48.28
50.5	5,456,081	520,685	0.0954	0.9046	45.58
51.5	4,544,935	380,752	0.0838	0.9162	41.23
52.5	3,844,162	231,067	0.0601	0.9399	37.78
53.5	3,050,217	290,263	0.0952	0.9048	35.50
54.5	2,571,527	207,786	0.0808	0.9192	32.13
55.5	2,164,997	191,188	0.0883	0.9117	29.53
56.5	1,816,752	79,496	0.0438	0.9562	26.92
57.5	1,622,355	152,907		0.9058	25.74
58.5	1,397,804	119,367	0.0854	0.9146	23.32
59.5	1,255,595	116,296	0.0926	0.9074	21.33
60.5	1,068,176	167,393	0.1567	0.8433	19.35
61.5	878,402	88,023	0.1002	0.8998	16.32
62.5	617,997	45,550	0.0737	0.9263	14.68
63.5	513,933	22,095	0.0430	0.9570	13.60
64.5	469,258	41,374	0.0882	0.9118	13.02
65.5	404,318	40,635	0.1005	0.8995	11.87
66.5	112,316	22,361	0.1991	0.8009	10.68
67.5	76,837	17,991	0.2341	0.7659	8.55
68.5	50,390	1,175	0.0233	0.9767	6.55
69.5	38,914	1,724	0.0443	0.9557	6.40
70.5	32,916	6,176	0.1876	0.8124	6.11
71.5	24,070	1,918	0.0797	0.9203	4.97
72.5	20,869	1,515	0.0726	0.9274	4.57
73.5	17,920	609	0.0340	0.9660	4.24
74.5	437		0.0000	1.0000	4.09
75.5	437		0.0000	1.0000	4.09
76.5	437		0.0000	1.0000	4.09
77.5	437		0.0000	1.0000	4.09
78.5	437		0.0000	1.0000	4.09

# ACCOUNT 368 LINE TRANSFORMERS

PLACEMENT	BAND 1900-2015		EXPER	RIENCE BAN	D 1900-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	437		0.0000	1.0000	4.09
80.5	437	399	0.9130	0.0870	4.09
81.5	38		0.0000	1.0000	0.36
82.5	38		0.0000	1.0000	0.36
83.5	38		0.0000	1.0000	0.36
84.5	38		0.0000	1.0000	0.36
85.5	38		0.0000	1.0000	0.36
86.5	38		0.0000	1.0000	0.36
87.5	38	38	1.0000		0.36
88.5					

# ACCOUNT 368 LINE TRANSFORMERS

PLACEMENT	BAND 1900-2015		EXPER	RIENCE BAN	D 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	227 106 054	221 205	0 0010		200.00
0.0	337,196,954	321,395	0.0010	0.9990	100.00
0.5	346,846,743	1,000,314	0.0029	0.9971	99.90
1.5	330,287,475	787,623	0.0024	0.9976	99.62
2.5	325,453,162 317,740,538	1,323,195	0.0041 0.0043	0.9959	99.38
3.5 4.5	303,212,619	1,363,664 1,013,897		0.9957	98.97 98.55
5.5	301,036,609	1,013,897	0.0033 0.0039	0.9967 0.9961	98.22
6.5	284,260,898	723,565	0.0035	0.9975	97.84
7.5	274,792,785	1,248,251	0.0025	0.9955	97.59
8.5	262,666,400	966,092	0.0033	0.9963	97.15
0.5		500,052	0.0037	0.5565	91.13
9.5	243,683,756	1,240,293	0.0051	0.9949	96.79
10.5	242,968,043	1,028,785	0.0042	0.9958	96.30
11.5	238,326,189	1,136,089	0.0048	0.9952	95.89
12.5	224,560,072	982,931	0.0044	0.9956	95.43
13.5	218,722,219	955,417	0.0044	0.9956	95.01
14.5	208,140,071	820,481	0.0039	0.9961	94.60
15.5	197,958,318	1,102,505	0.0056	0.9944	94.23
16.5	189,906,075	1,329,254	0.0070	0.9930	93.70
17.5	179,635,770	1,633,033	0.0091	0.9909	93.04
18.5	168,936,307	1,473,466	0.0087	0.9913	92.20
19.5	159,194,892	1,292,671	0.0081	0.9919	91.39
20.5	148,851,368	1,190,516	0.0080	0.9920	90.65
21.5	138,732,137	1,141,204	0.0082	0.9918	89.93
22.5	129,214,927	1,211,092	0.0094	0.9906	89.19
23.5	121,444,765	1,488,267	0.0123	0.9877	88.35
24.5	114,132,555	1,200,572	0.0105	0.9895	87.27
25.5	106,498,544	1,280,486	0.0120	0.9880	86.35
26.5	98,682,048	1,504,500	0.0152	0.9848	85.31
27.5	90,571,819	1,209,843	0.0134	0.9866	84.01
28.5	83,582,347	1,105,779	0.0132	0.9868	82.89
29.5	76,480,080	1,017,983	0.0133	0.9867	81.79
30.5	70,216,291	1,151,839	0.0164	0.9836	80.70
31.5	65,400,790	950,518	0.0145	0.9855	79.38
32.5	59,221,547	1,024,351	0.0173	0.9827	78.23
33.5	53,547,818	1,183,752	0.0221	0.9779	76.87
34.5	50,354,208	1,034,450	0.0205	0.9795	75.17
35.5	46,379,125	1,328,554	0.0286	0.9714	73.63
36.5	40,674,833	890,472	0.0219	0.9781	71.52
37.5	35,485,728	465,839	0.0131	0.9869	69.96
38.5	30,912,632	513,809	0.0166	0.9834	69.04

# ACCOUNT 368 LINE TRANSFORMERS

PLACEMENT	BAND 1900-2015		EXPER	RIENCE BAN	D 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
					45.00
39.5	28,084,118	708,131	0.0252	0.9748	67.89
40.5	25,634,356	678,936	0.0265	0.9735	66.18
41.5	21,195,735	534,062	0.0252	0.9748	64.42
42.5	17,509,533	373,283	0.0213	0.9787	62.80
43.5	15,385,612	434,896	0.0283	0.9717	61.46
44.5	13,399,660	379,874	0.0283	0.9717	59.73
45.5	11,399,122	380,613	0.0334	0.9666	58.03
46.5	9,866,863	451,382	0.0457	0.9543	56.09
47.5	8,628,153	391,159	0.0453	0.9547	53.53
48.5	7,167,407	496,668	0.0693	0.9307	51.10
49.5	6,094,385	361,421	0.0593	0.9407	47.56
50.5	5,087,446	520,685	0.1023	0.8977	44.74
51.5	4,176,300	380,752	0.0912	0.9088	40.16
52.5	3,475,926	231,067	0.0665	0.9335	36.50
53.5	2,681,981	290,263	0.1082	0.8918	34.07
54.5	2,203,291	207,786	0.0943	0.9057	30.39
55.5	2,043,081	191,188	0.0936	0.9064	27.52
56.5	1,816,714	79,496	0.0438	0.9562	24.94
57.5	1,622,317	152,907		0.9057	23.85
58.5	1,397,766	119,367	0.0854	0.9146	21.60
59.5	1,255,557	116,296	0.0926	0.9074	19.76
60.5	1,068,176	167,393	0.1567	0.8433	17.93
61.5	878,402	88,023	0.1002	0.8998	15.12
62.5	617,997	45,550	0.0737	0.9263	13.60
63.5	513,933	22,095	0.0430	0.9570	12.60
64.5	469,258	41,374	0.0882	0.9118	12.06
65.5	404,318	40,635	0.1005	0.8995	11.00
66.5	112,316	22,361	0.1991	0.8009	9.89
67.5	76,837	17,991	0.2341	0.7659	7.92
68.5	50,390	1,175	0.0233	0.9767	6.07
69.5	38,914	1,724	0.0443	0.9557	5.93
70.5	32,916	6,176	0.1876	0.8124	5.66
70.5	24,070	1,918	0.1070	0.8124	4.60
72.5	20,869	1,515	0.0726	0.9203	4.23
73.5	17,920	609	0.0720	0.9274	3.93
73.5 74.5		609	0.0340		3.79
	437			1.0000 1.0000	
75.5	437		0.0000		3.79
76.5	437		0.0000	1.0000	3.79
77.5	437		0.0000	1.0000	3.79
78.5	437		0.0000	1.0000	3.79

# ACCOUNT 368 LINE TRANSFORMERS

# ORIGINAL LIFE TABLE, CONT.

#### PLACEMENT BAND 1900-2015 EXPERIENCE BAND 1961-2015 RETIREMENTS PCT SURV AGE AT EXPOSURES AT BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL INTERVAL AGE INTERVAL INTERVAL RATIO RATIO 79.5 0.0000 1.0000 3.79 80.5 437 399 0.9130 0.0870 3.79 0.0000 81.5 38 1.0000 0.33 82.5 38 0.0000 1.0000 0.33 83.5 38 0.0000 1.0000 0.33 84.5 38 0.0000 1.0000 0.33 0.0000 0.33 85.5 38 1.0000 86.5 38 0.0000 1.0000 0.33 87.5 38 38 1.0000 0.33

88.5

ORIGINAL CURVE **1936-2015** PLACEMENTS 1961-2015 EXPERIENCE 1936-2015 PLACEMENTS 100 **IOWA 48-R1** 88 ORIGINAL AND SMOOTH SURVIVOR CURVES KENTUCKY UTILITIES COMPANY ACCOUNT 369 SERVICES AGE IN YEARS <del>우</del> 20 8 80 70 8 Ŝ 40 8 20 10 PERCENT SURVIVING



# ACCOUNT 369 SERVICES

PLACEMENT	BAND 1936-2015		EXPER	RIENCE BAN	D 1936-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	115,558,931	809,357	0.0070	0.9930	100.00
0.5	114,550,191	1,747,485	0.0153	0.9847	99.30
1.5	112,415,384	1,446,566	0.0129	0.9871	97.78
2.5	108,584,796	651,371	0.0060	0.9940	96.53
3.5	101,389,632	537,506	0.0053	0.9947	95.95
4.5	98,481,542	450,587	0.0046	0.9954	95.44
5.5	94,308,966	452,893	0.0048	0.9952	95.00
6.5	93,826,639	451,481	0.0048	0.9952	94.55
7.5	91,256,319	558,993	0.0061	0.9939	94.09
8.5	90,684,549	539,205	0.0059	0.9941	93.51
9.5	90,118,859	649,474	0.0072	0.9928	92.96
10.5	89,469,385	406,595	0.0045	0.9955	92.29
11.5	88,879,633	666,340	0.0075	0.9925	91.87
12.5	86,975,033	641,954	0.0074	0.9926	91.18
13.5	83,295,791	640,534	0.0077	0.9923	90.51
14.5	79,652,705	633,017	0.0079	0.9921	89.81
15.5	76,255,446	572,414	0.0075	0.9925	89.10
16.5	71,373,790	514,031	0.0072	0.9928	88.43
17.5	65,601,025	456,145	0.0070	0.9930	87.79
18.5	59,942,208	443,449	0.0074	0.9926	87.18
19.5	54,656,847	435,567	0.0080	0.9920	86.54
20.5	49,601,209	400,155	0.0081	0.9919	85.85
21.5	45,385,842	394,382	0.0087	0.9913	85.15
22.5	41,692,440	306,215	0.0073	0.9927	84.41
23.5	38,857,394	332,414	0.0086	0.9914	83.79
24.5	35,941,080	379,074	0.0105	0.9895	83.08
25.5	33,218,977	600,683	0.0181	0.9819	82.20
26.5	30,147,275	811,901	0.0269	0.9731	80.72
27.5	27,071,308	354,581	0.0131	0.9869	78.54
28.5	25,122,110	278,609	0.0111	0.9889	77.51
29.5	22,788,127	277,620	0.0122	0.9878	76.65
30.5	20,507,936	244,878	0.0119	0.9881	75.72
31.5	18,194,774	279,169	0.0153	0.9847	74.81
32.5	15,695,156	220,979	0.0141	0.9859	73.67
33.5	14,127,140	214,646	0.0152	0.9848	72.63
34.5	12,573,728	175,125	0.0139	0.9861	71.53
35.5	11,482,626	180,428	0.0157	0.9843	70.53
36.5	10,053,093	127,746	0.0127	0.9873	69.42
37.5	8,779,279	116,194	0.0132	0.9868	68.54
38.5	7,429,065	101,554	0.0137	0.9863	67.63

# ACCOUNT 369 SERVICES

PLACEMENT	BAND 1936-2015		EXPER	RIENCE BAN	D 1936-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	6,343,498 5,655,938 4,804,047 4,259,075 3,783,785 3,363,214 3,160,071 2,876,641 2,647,319 2,355,411 2,112,809	72,588 89,203 63,060 61,192 53,230 37,657 47,606 47,703 48,556 50,241 21,231	0.0114 0.0158 0.0131 0.0144 0.0141 0.0112 0.0151 0.0166 0.0183 0.0213	0.9886 0.9842 0.9869 0.9856 0.9859 0.9888 0.9849 0.9834 0.9817 0.9787	66.71 65.94 64.90 64.05 63.13 62.24 61.55 60.62 59.61 58.52
50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	1,970,487 1,737,751 1,530,065 1,325,284 1,109,264 1,048,721 893,151 778,641 632,291	47,992 35,429 46,582 44,487 16,932 4,757 14,533 30,919 21,406	0.0244 0.0204 0.0304 0.0336 0.0153 0.0045 0.0163 0.0397 0.0339	0.9756 0.9796 0.9696 0.9664 0.9847 0.9955 0.9837 0.9603	56.70 55.32 54.19 52.54 50.78 50.00 49.77 48.96 47.02
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	517,960 464,356 418,116 348,852 268,436 215,217 179,659 140,383 124,273 119,400	27,449 43,901 51,396 42,296 30,863 10,773 9,744 1,082 4,874 93,745	0.0530 0.0945 0.1229 0.1212 0.1150 0.0501 0.0542 0.0077 0.0392 0.7851	0.9470 0.9055 0.8771 0.8788 0.8850 0.9499 0.9458 0.9923 0.9608 0.2149	45.43 43.02 38.95 34.16 30.02 26.57 25.24 23.87 23.69 22.76 4.89

# ACCOUNT 369 SERVICES

PLACEMENT	BAND 1936-2015		EXPE	RIENCE BANI	0 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	111,050,719	809,357	0.0073	0.9927	100.00
0.5	110,403,777	1,747,485	0.0158	0.9842	99.27
1.5	108,650,037	1,446,566	0.0133	0.9867	97.70
2.5	105,181,627	651,371	0.0062	0.9938	96.40
3.5	98,339,918	537,506	0.0055	0.9945	95.80
4.5	95,750,478	450,587	0.0047	0.9953	95.28
5.5	91,855,111	452,893	0.0049	0.9951	94.83
6.5	91,591,796	451,481	0.0049	0.9951	94.36
7.5	89,105,557	558,993	0.0063	0.9937	93.90
8.5	88,685,220	539,205	0.0061	0.9939	93.31
9.5	88,215,588	649,474	0.0074	0.9926	92.74
10.5	87,691,171	406,595	0.0046	0.9954	92.06
11.5	87,257,617	666,340	0.0076	0.9924	91.63
12.5	85,644,760	641,954	0.0075	0.9925	90.93
13.5	82,278,230	640,534	0.0078	0.9922	90.25
14.5	78,865,906	633,017	0.0080	0.9920	89.55
15.5	75,557,603	572,414	0.0076	0.9924	88.83
16.5	70,721,656	514,031	0.0073	0.9927	88.16
17.5	64,968,281	456,145	0.0070	0.9930	87.52
18.5	59,357,374	443,449	0.0075	0.9925	86.90
19.5	54,321,913	435,567	0.0080	0.9920	86.25
20.5	49,349,793	400,155	0.0081	0.9919	85.56
21.5	45,215,693	394,382	0.0087	0.9913	84.87
22.5	41,602,537	306,215	0.0074	0.9926	84.13
23.5	38,797,014	332,414	0.0086	0.9914	83.51
24.5	35,941,080	379,074	0.0105	0.9895	82.79
25.5	33,218,977	600,683	0.0181	0.9819	81.92
26.5	30,147,275	811,901	0.0269	0.9731	80.44
27.5	27,071,308	354,581	0.0131	0.9869	78.27
28.5	25,122,110	278,609	0.0111	0.9889	77.25
29.5	22,788,127	277,620	0.0122	0.9878	76.39
30.5	20,507,936	244,878	0.0119	0.9881	75.46
31.5	18,194,774	279,169	0.0153	0.9847	74.56
32.5	15,695,156	220,979	0.0141	0.9859	73.41
33.5	14,127,140	214,646	0.0152	0.9848	72.38
34.5	12,573,728	175,125	0.0139	0.9861	71.28
35.5	11,482,626	180,428	0.0157	0.9843	70.29
36.5	10,053,093	127,746	0.0127	0.9873	69.18
37.5	8,779,279	116,194	0.0132	0.9868	68.30
38.5	7,429,065	101,554	0.0137	0.9863	67.40

# ACCOUNT 369 SERVICES

PLACEMENT	BAND 1936-2015		EXPE	RIENCE BAN	D 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	6,343,498	72,588	0.0114	0.9886	66.48
40.5	5,655,938	89,203	0.0158	0.9842	65.72
41.5	4,804,047	63,060	0.0131	0.9869	64.68
42.5	4,259,075	61,192	0.0144	0.9856	63.83
43.5	3,783,785	53,230	0.0141	0.9859	62.91
44.5	3,363,214	37,657	0.0112	0.9888	62.03
45.5	3,160,071	47,606	0.0151	0.9849	61.34
46.5	2,876,641	47,703	0.0166	0.9834	60.41
47.5	2,647,319	48,556	0.0183	0.9817	59.41
48.5	2,355,411	50,241	0.0213	0.9787	58.32
49.5	2,112,809	21,231	0.0100	0.9900	57.08
50.5	1,970,487	47,992	0.0244	0.9756	56.50
51.5	1,737,751	35,429	0.0204	0.9796	55.13
52.5	1,530,065	46,582	0.0304	0.9696	54.00
53.5	1,325,284	44,487	0.0336	0.9664	52.36
54.5	1,109,264	16,932	0.0153	0.9847	50.60
55.5	1,048,721	4,757	0.0045	0.9955	49.83
56.5	893,151	14,533	0.0163	0.9837	49.60
57.5	778,641	30,919	0.0397	0.9603	48.80
58.5	632,291	21,406	0.0339	0.9661	46.86
59.5	517,960	27,449	0.0530	0.9470	45.27
60.5	464,356	43,901	0.0945	0.9055	42.87
61.5	418,116	51,396	0.1229	0.8771	38.82
62.5	348,852	42,296	0.1212	0.8788	34.05
63.5	268,436	30,863	0.1150	0.8850	29.92
64.5	215,217	10,773	0.0501	0.9499	26.48
65.5	179,659	9,744	0.0542	0.9458	25.15
66.5	140,383	1,082	0.0077	0.9923	23.79
67.5	124,273	4,874	0.0392	0.9608	23.61
68.5	119,400	93,745	0.7851	0.2149	22.68
69.5	25,655	25,655	1.0000		4.87
70.5					

ORIGINAL CURVE = 1904-2020 EXPERIENCE 1904-2015 PLACEMENTS 108 ACCOUNTS 370 AND 370.1 METERS AND METERING EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES 80 KENTUCKY UTILITIES AGE IN YEARS IOWA 28-L1 40 20 80 70 9 50 30 8 PERCENT SURVIVING

### KENTUCKY UTILITIES

## ACCOUNTS 370 AND 370.1 METERS AND METERING EQUIPMENT

PLACEMENT	BAND 1904-2015		EXPER	RIENCE BAN	D 1904-2020
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	95,251,899	10,093	0.0001	0.9999	100.00
0.5	96,163,321	625,635	0.0065	0.9935	99.99
1.5	95,561,129	607,515	0.0064	0.9936	99.34
2.5	94,953,615	355,910	0.0037	0.9963	98.71
3.5	94,597,411	306,153	0.0032	0.9968	98.34
4.5	94,345,576	570,368	0.0060	0.9940	98.02
5.5	93,899,933	432,007	0.0046	0.9954	97.43
6.5	93,553,701	5,381,261	0.0575	0.9425	96.98
7.5	87,935,983	2,687,218	0.0306	0.9694	91.40
8.5	84,928,949	1,944,426	0.0229	0.9771	88.61
9.5	82,971,557	2,280,001	0.0275	0.9725	86.58
10.5	80,559,636	493,497	0.0061	0.9939	84.20
11.5	79,215,487	732,095	0.0092	0.9908	83.68
12.5	78,921,877	4,064,777	0.0515	0.9485	82.91
13.5	73,063,371	700,761	0.0096	0.9904	78.64
14.5	72,717,263	1,226,133	0.0169	0.9831	77.89
15.5	71,284,500	2,038,785	0.0286	0.9714	76.57
16.5	69,245,715	2,779,326	0.0401	0.9599	74.38
17.5	66,075,721	2,791,224	0.0422	0.9578	71.40
18.5	63,267,403	2,598,329	0.0411	0.9589	68.38
19.5	60,566,403	2,209,664	0.0365	0.9635	65.57
20.5	58,138,972	2,452,072	0.0422	0.9578	63.18
21.5	55,662,639	2,750,636	0.0494	0.9506	60.52
22.5	52,613,876	2,231,375	0.0424	0.9576	57.53
23.5	49,790,336	3,772,531	0.0758	0.9242	55.09
24.5	46,018,059	1,672,652	0.0363	0.9637	50.91
25.5	44,345,457	2,756,533	0.0622	0.9378	49.06
26.5	41,316,261	2,011,651	0.0487	0.9513	46.01
27.5	39,044,467	1,883,148	0.0482	0.9518	43.77
28.5	36,725,750	1,512,360	0.0412	0.9588	41.66
29.5	35,163,493	1,581,589	0.0450	0.9550	39.94
30.5	33,509,573	1,442,685	0.0431	0.9569	38.15
31.5	31,913,525	1,426,981	0.0447	0.9553	36.51
32.5	30,282,250	1,332,667	0.0440	0.9560	34.87
33.5	28,739,544	1,217,751	0.0424	0.9576	33.34
34.5	27,275,885	1,682,098	0.0617	0.9383	31.93
35.5	25,404,739	1,545,956	0.0609	0.9391	29.96
36.5	23,676,673	1,043,547	0.0441	0.9559	28.13
37.5	22,492,928	1,136,352	0.0505	0.9495	26.89
38.5	21,056,587	1,973,719	0.0937	0.9063	25.54

### KENTUCKY UTILITIES

## ACCOUNTS 370 AND 370.1 METERS AND METERING EQUIPMENT

PLACEMENT	BAND 1904-2015		EXPER	RIENCE BAN	D 1904-2020
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	18,882,012	1,522,739	0.0806	0.9194	23.14
40.5	17,160,000	1,930,312	0.1125	0.8875	21.28
41.5	15,055,022	1,145,509	0.0761	0.9239	18.88
42.5	13,691,252	799,360	0.0584	0.9416	17.45
43.5	12,729,055	1,686,485	0.1325	0.8675	16.43
44.5	11,018,470	942,272	0.0855	0.9145	14.25
45.5	9,981,279	826,367	0.0828	0.9172	13.03
46.5	8,973,733	679,249	0.0757	0.9243	11.95
47.5	8,182,326	519,735	0.0635	0.9365	11.05
48.5	7,611,181	578,891	0.0761	0.9239	10.35
49.5	6,906,355	499,240	0.0723	0.9277	9.56
50.5	6,316,315	413,053	0.0654	0.9346	8.87
51.5	5,795,665	427,031	0.0737	0.9263	8.29
52.5	5,269,340	463,980	0.0881	0.9119	7.68
53.5	4,738,488	408,456	0.0862	0.9138	7.00
54.5	4,249,371	352,997	0.0831	0.9169	6.40
55.5	3,817,821	289,144	0.0757	0.9243	5.87
56.5	3,479,688	286,204	0.0822	0.9178	5.42
57.5	3,137,392	281,078	0.0896	0.9104	4.98
58.5	2,809,249	267,314	0.0952	0.9048	4.53
59.5	2,502,322	316,583	0.1265	0.8735	4.10
60.5	2,149,863	257,054	0.1196	0.8804	3.58
61.5	1,843,310	191,433	0.1039	0.8961	3.15
62.5	1,631,136	178,992	0.1097	0.8903	2.83
63.5	1,428,709	171,786	0.1202	0.8798	2.52
64.5	1,222,715	151,158	0.1236	0.8764	2.21
65.5	1,038,384	206,473	0.1988	0.8012	1.94
66.5	816,655	206,925	0.2534	0.7466	1.55
67.5	599,716	161,275	0.2689	0.7311	1.16
68.5	410,199	51,618	0.1258	0.8742	0.85
69.5	340,885	2,117	0.0062	0.9938	0.74
70.5	319,875	5,204	0.0163	0.9837	0.74
71.5	301,821	9,761	0.0323	0.9677	0.72
72.5	224,260	16,329	0.0728	0.9272	0.70
73.5	145,916	23,761	0.1628	0.8372	0.65
74.5	92,020		0.0000	1.0000	0.54
75.5	71,325	5,492	0.0770	0.9230	0.54
76.5	58,924	4,519	0.0767	0.9233	0.50
77.5	42,015	84	0.0020	0.9980	0.46
78.5	41,869		0.0000	1.0000	0.46

## KENTUCKY UTILITIES

## ACCOUNTS 370 AND 370.1 METERS AND METERING EQUIPMENT

PLACEMENT 1	BAND 1904-2015		EXPER	RIENCE BAN	D 1904-2020
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5	256 256 256 256 256 256 256	256	0.0000 0.0000 0.0000 0.0000 0.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	0.46 0.46 0.46 0.46 0.46 0.46

ORIGINAL CURVE 

2015-2015 EXPERIENCE
2015-2015 PLACEMENTS 32 8 IOWA 15-\$2.5 25 AGE IN YEARS 5 9 5 8 8 70 8 8 Ŕ 9 PERCENT SURVIVING



ORIGINAL AND SMOOTH SURVIVOR CURVES

KENTUCKY UTILITIES COMPANY ACCOUNT 370.2 METERS - AMS

## ACCOUNT 370.2 METERS - AMS

PLACEMENT	BAND 2015-2015		EXPE	RIENCE BAN	D 2015-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	698,893		0.0000	1.0000	100.00

ORIGINAL CURVE = 1938-2015 EXPERIENCE 1938-2014 PLACEMENTS 1961-2015 EXPERIENCE 1938-2014 PLACEMENTS 2 IOWA 28-**0**1 8 ACCOUNT 371 INSTALLATIONS ON CUSTOMERS' PREMISES ORIGINAL AND SMOOTH SURVIVOR CURVES 20 00000 AGE IN YEARS 2 8 **P** 7 ġ 8 2 9 Ś 9 ġ Ŕ 9 РЕВСЕИТ SURVIVING



### ACCOUNT 371 INSTALLATIONS ON CUSTOMERS' PREMISES

PLACEMENT I	BAND 1938-2014		EXPER	RIENCE BAN	D 1938-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
0.0	28,187,405	224,710	0.0080	0.9920	100.00
0.5	27,962,695	1,110,271	0.0397	0.9603	99.20
1.5	26,828,083	774,921	0.0289	0.9711	95.26
2.5	26,053,162	690,773	0.0265	0.9735	92.51
3.5	25,357,184	601,405	0.0237	0.9763	90.06
4.5	24,752,355	626,274	0.0253	0.9747	87.92
5.5	24,126,081	604,337	0.0250	0.9750	85.70
6.5	23,521,744	555,918	0.0236	0.9764	83.55
7.5	22,964,105	504,707	0.0220	0.9780	81.58
8.5	22,452,155	431,796	0.0192	0.9808	79.78
9.5	21,988,347	412,074	0.0187	0.9813	78.25
10.5	21,576,272	333,348	0.0154	0.9846	76.78
11.5	21,242,924	303,686	0.0143	0.9857	75.60
12.5	20,937,596	282,553	0.0135	0.9865	74.52
13.5	20,655,043	251,143	0.0122	0.9878	73.51
14.5	20,309,382	285,521	0.0141	0.9859	72.62
15.5	19,596,039	320,395	0.0163	0.9837	71.60
16.5	17,343,881	360,801	0.0208	0.9792	70.43
17.5	14,991,648	329,025	0.0219	0.9781	68.96
18.5	13,095,385	357,970	0.0273	0.9727	67.45
19.5	11,195,675	289,824	0.0259	0.9741	65.60
20.5	9,228,656	258,778	0.0280	0.9720	63.91
21.5	7,663,540	278,618	0.0364	0.9636	62.11
22.5	6,180,306	137,219	0.0222	0.9778	59.86
23.5	5,264,550	137,444	0.0261	0.9739	58.53
24.5	4,650,371	173,885	0.0374	0.9626	57.00
25.5	3,936,109	201,862	0.0513	0.9487	54.87
26.5	3,172,164	102,525	0.0323	0.9677	52.05
27.5	2,873,705	44,067	0.0153	0.9847	50.37
28.5	2,670,586	29,386	0.0110	0.9890	49.60
29.5	2,299,444	7,996	0.0035	0.9965	49.05
30.5	2,070,777		0.0072	0.9928	48.88
31.5	1,734,412	13,252	0.0076	0.9924	48.53
32.5	1,379,784	13,865	0.0100	0.9900	48.16
33.5	1,036,745	15,003	0.0145	0.9855	47.68
34.5	672,711	2,980	0.0044	0.9956	46.99
35.5	587,552	6,468	0.0110	0.9890	46.78
36.5	419,794	1,216	0.0029	0.9971	46.26
37.5	374,845	6,951	0.0185	0.9815	46.13
38.5	219,039	7,572	0.0346	0.9654	45.27

### ACCOUNT 371 INSTALLATIONS ON CUSTOMERS' PREMISES

PLACEMENT	BAND 1938-2014		EXPER	RIENCE BAN	D 1938-2015
AGE AT BEGIN OF	EXPOSURES AT BEGINNING OF	RETIREMENTS DURING AGE	RETMT	SURV	PCT SURV BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	69,231		0.0000	1.0000	43.71
40.5	67,261	1,979	0.0294	0.9706	43.71
41.5	63,779	2,120	0.0332	0.9668	42.42
42.5	17,666		0.0000	1.0000	41.01
43.5	16,074		0.0000	1.0000	41.01
44.5	10,735		0.0000	1.0000	41.01
45.5	771		0.0000	1.0000	41.01
46.5	771	5	0.0069	0.9931	41.01
47.5	753	589	0.7824	0.2176	40.73
48.5	164	14	0.0828	0.9172	8.86
49.5	150		0.0000	1.0000	8.13
50.5	84		0.0000	1.0000	8.13
51.5					8.13

### ACCOUNT 371 INSTALLATIONS ON CUSTOMERS' PREMISES

### ORIGINAL LIFE TABLE

PLACEMENT	BAND 1938-2014		EXPER	IENCE BAN	D 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	28,178,323	224,710	0.0080	0.9920	100.00
0.5	27,960,790	1,110,271	0.0397	0.9603	99.20
1.5	26,826,178	774,921	0.0289	0.9711	95.26
2.5	26,051,437	690,773	0.0265	0.9735	92.51
3.5	25,355,930	601,405	0.0237	0.9763	90.06
4.5	24,751,145	626,274	0.0253	0.9747	87.92
5.5	24,124,871	604,337	0.0251	0.9749	85.70
6.5	23,520,785	555,918	0.0236	0.9764	83.55
7.5	22,963,509	504,707	0.0220	0.9780	81.58
8.5	22,451,559	431,796	0.0192	0.9808	79.78
9.5	21,987,751	412,074	0.0187	0.9813	78.25
10.5	21,575,676	333,348	0.0155	0.9845	76.78
11.5	21,242,328	303,686	0.0143	0.9857	75.60
12.5	20,937,000	282,553	0.0135	0.9865	74.52
13.5	20,654,447	251,143	0.0122	0.9878	73.51
14.5	20,308,786	285,521	0.0141	0.9859	72.62
15.5	19,595,443	320,395	0.0164	0.9836	71.60
16.5	17,343,285	360,801	0.0208	0.9792	70.42
17.5	14,991,052	329,025	0.0219	0.9781	68.96
18.5	13,094,789	357,970	0.0273	0.9727	67.45
19.5	11,195,079	289,824	0.0259	0.9741	65.60
20.5	9,228,060	258,778	0.0280	0.9720	63.90
21.5	7,662,944	278,618	0.0364	0.9636	62.11
22.5	6,180,306	137,219	0.0222	0.9778	59.85
23.5	5,264,550	137,444	0.0261	0.9739	58.52
24.5	4,650,371	173,885	0.0374	0.9626	57.00
25.5	3,936,109	201,862	0.0513	0.9487	54.87
26.5	3,172,164	102,525	0.0323	0.9677	52.05
27.5	2,873,705	44,067	0.0153	0.9847	50.37
28.5	2,670,586	29,386	0.0110	0.9890	49.60
29.5	2,299,444	7,996	0.0035	0.9965	49.05
30.5	2,070,777	14,857	0.0072	0.9928	48.88
31.5	1,734,412	13,252	0.0076	0.9924	48.53
32.5	1,379,784	13,865	0.0100	0.9900	48.16
33.5	1,036,745	15,003	0.0145	0.9855	47.68
34.5	672,711	2,980	0.0044	0.9956	46.99
35.5	587,552	6,468	0.0110	0.9890	46.78
36.5	419,794	1,216	0.0029	0.9971	46.26
37.5	374,845	6,951	0.0185	0.9815	46.13
38.5	219,039	7,572	0.0346	0.9654	45.27

December 31, 2015

### ACCOUNT 371 INSTALLATIONS ON CUSTOMERS' PREMISES

PLACEMENT	BAND 1938-2014		EXPER	RIENCE BAN	D 1961-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	69,231		0.0000	1.0000	43.71
40.5	67,261	1,979	0.0294	0.9706	43.71
41.5	63,779	2,120	0.0332	0.9668	42.42
42.5	17,666		0.0000	1.0000	41.01
43.5	16,074		0.0000	1.0000	41.01
44.5	10,735		0.0000	1.0000	41.01
45.5	771		0.0000	1.0000	41.01
46.5	771	5	0.0069	0.9931	41.01
47.5	753	589	0.7824	0.2176	40.73
48.5	164	14	0.0828	0.9172	8.86
49.5	150		0.0000	1.0000	8.13
50.5	84		0.0000	1.0000	8.13
51.5					8.13

ORIGINAL CURVE = 1929-2015 EXPERIENCE 1961-2015 EXPERIENCE 1929 2015 PLACEMENTS 8 80 ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS 2 ORIGINAL AND SMOOTH SURVIVOR CURVES IOWA 28-L0.5 KENTUCKY UTILITIES COMPANY 8 AGE IN YEARS 49 8 20 9 80 70 8 20 8 20 10 PERCENT SURVIVING

**Gannett Fleming** 

### ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

PLACEMENT	BAND 1929-2015		EXPER	RIENCE BAN	D 1929-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	130,965,305	1,054,164	0.0080	0.9920	100.00
0.5	125,670,086	1,064,375	0.0085	0.9915	99.20
1.5	108,626,290	760,096	0.0070	0.9930	98.35
2.5	105,856,637	1,001,802	0.0095	0.9905	97.67
3.5	98,497,647	1,546,261	0.0157	0.9843	96.74
4.5	92,268,573	798,425	0.0087	0.9913	95.22
5.5	73,574,270	968,700	0.0132	0.9868	94.40
6.5	64,231,397	958,362	0.0149	0.9851	93.16
7.5	60,461,434	940,538	0.0156	0.9844	91.77
8.5	59,482,257	811,280	0.0136	0.9864	90.34
9.5	58,352,066	686,419	0.0118	0.9882	89.11
10.5	57,269,103	889,456	0.0155	0.9845	88.06
11.5	54,476,437	1,071,726	0.0197	0.9803	86.69
12.5	48,293,173	1,808,759	0.0375	0.9625	84.99
13.5	44,499,112	1,654,434	0.0372	0.9628	81.80
14.5	40,410,063	1,373,060	0.0340	0.9660	78.76
15.5	36,065,346	1,198,938	0.0332	0.9668	76.09
16.5	32,251,965	854,612	0.0265	0.9735	73.56
17.5	30,483,102	883,470	0.0290	0.9710	71.61
18.5	28,311,713	1,372,061	0.0485	0.9515	69.53
19.5	26,006,118	1,175,560	0.0452	0.9548	66.16
20.5	24,230,103	1,429,273	0.0590	0.9410	63.17
21.5	21,272,302	657,092	0.0309	0.9691	59.44
22.5	19,645,907	2,412,924	0.1228	0.8772	57.61
23.5	16,815,960	1,159,312	0.0689	0.9311	50.53
24.5	15,069,055	809,713	0.0537	0.9463	47.05
25.5	13,519,324	561,945	0.0416	0.9584	44.52
26.5	11,834,878	486,910	0.0411	0.9589	42.67
27.5	11,169,792	393,504	0.0352	0.9648	40.92
28.5	10,776,288	552,016	0.0512	0.9488	39.47
29.5	9,599,088	417,359	0.0435	0.9565	37.45
30.5	8,250,882	381,890	0.0463	0.9537	35.82
31.5	6,998,584	515,057	0.0736	0.9264	34.17
32.5	6,288,089	469,108	0.0746	0.9254	31.65
33.5	5,360,047	167,992	0.0313	0.9687	29.29
34.5	4,146,211	83,119	0.0200	0.9800	28.37
35.5	4,001,493	136,956	0.0342	0.9658	27.80
36.5	3,531,343	99,624	0.0282	0.9718	26.85
37.5	3,286,637	108,638	0.0331	0.9669	26.09
38.5	3,052,713	58,474	0.0192	0.9808	25.23

## ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

PLACEMENT	BAND 1929-2015		EXPER	RIENCE BAN	D 1929-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
	_				
39.5	2,905,873	68,493	0.0236	0.9764	24.75
40.5	2,723,471	100,466	0.0369	0.9631	24.16
41.5	2,436,309	53,431	0.0219	0.9781	23.27
42.5	2,271,792	19,112	0.0084	0.9916	22.76
43.5	2,201,726	2,328	0.0011	0.9989	22.57
44.5	2,016,887	3,197	0.0016	0.9984	22.55
45.5	1,987,523	4,794	0.0024	0.9976	22.51
46.5	1,790,541	8,677		0.9952	22.46
47.5	1,633,205	1,871	0.0011	0.9989	22.35
48.5	1,438,098	1,827	0.0013	0.9987	22.32
49.5	1,128,521	2,196	0.0019	0.9981	22.29
50.5	1,065,811	1,103	0.0010	0.9990	22.25
51.5	884,898	1,082	0.0012	0.9988	22.23
52.5	748,110	1,790	0.0024	0.9976	22.20
53.5	658,397	1,304	0.0020	0.9980	22.15
54.5	580,903	1,559	0.0027	0.9973	22.10
55.5	509,468	525	0.0010	0.9990	22.04
56.5	454,596	1,527		0.9966	22.02
57.5	400,263	1,304	0.0033	0.9967	21.95
58.5	359,792	1,636	0.0045	0.9955	21.88
59.5	313,678	1,353	0.0043	0.9957	21.78
60.5	260,867	1,244	0.0048	0.9952	21.68
61.5	226,678	1,066	0.0047	0.9953	21.58
62.5	198,725	729	0.0037	0.9963	21.48
63.5	189,408	1,184	0.0063	0.9937	21.40
64.5	177,522	762	0.0043	0.9957	21.27
65.5	169,944	7,349	0.0432	0.9568	21.17
66.5	153,925	539	0.0035	0.9965	20.26
67.5	138,908	4,913		0.9646	20.19
68.5	125,326	5,267	0.0420	0.9580	19.47
69.5	115,767	56,101	0.4846	0.5154	18.66
70.5	58,897	5,441	0.0924	0.9076	9.61
71.5	52,377	88	0.0017	0.9983	8.73
72.5	52,003	1,289	0.0248	0.9752	8.71
73.5	46,685	2,513	0.0538	0.9462	8.50
74.5	3,073		0.0000	1.0000	8.04
75.5	3,073		0.0000	1.0000	8.04
76.5	3,148		0.0000	1.0000	8.04
77.5	3,148		0.0000	1.0000	8.04
78.5	3,148		0.0000	1.0000	8.04
79.5	3,148	3,148	1.0000		8.04
80.5					

#### ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

PLACEMENT	BAND 1929-2015		EXPER	RIENCE BAN	D 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	128,629,930	1,054,164	0.0082	0.9918	100.00
0.5	123,626,233	1,064,375	0.0086	0.9914	99.18
1.5	106,737,189	760,096	0.0071	0.9929	98.33
2.5	104,229,228	1,001,802	0.0096	0.9904	97.63
3.5	97,117,178	1,546,261	0.0159	0.9841	96.69
4.5	91,095,601	798,425	0.0088	0.9912	95.15
5.5	72,580,207	968,700	0.0133	0.9867	94.31
6.5	63,371,557	958,362	0.0151	0.9849	93.06
7.5	59,667,053	940,538	0.0158	0.9842	91.65
8.5	58,745,819	811,280	0.0138	0.9862	90.20
9.5	57,714,571	686,419	0.0119	0.9881	88.96
10.5	56,690,671	889,456	0.0157	0.9843	87.90
11.5	53,967,562	1,071,726	0.0199	0.9801	86.52
12.5	47,859,379	1,808,759	0.0378	0.9622	84.80
13.5	44,109,841	1,654,434	0.0375	0.9625	81.60
14.5	40,036,040	1,373,060	0.0343	0.9657	78.54
15.5	35,701,884	1,198,938	0.0336	0.9664	75.84
16.5	31,899,714	854,612	0.0268	0.9732	73.30
17.5	30,137,010	883,470	0.0293	0.9707	71.33
18.5	27,974,073	1,372,061	0.0490	0.9510	69.24
19.5	25,796,738	1,175,560	0.0456	0.9544	65.85
20.5	24,049,495	1,429,273	0.0594	0.9406	62.85
21.5	21,123,252	657,092	0.0311	0.9689	59.11
22.5	19,504,288	2,412,924	0.1237	0.8763	57.27
23.5	16,674,341	1,159,312	0.0695	0.9305	50.19
24.5	14,940,742	809,713	0.0542	0.9458	46.70
25.5	13,401,793	561,945	0.0419	0.9581	44.17
26.5	11,726,104	486,910	0.0415	0.9585	42.31
27.5	11,069,694	393,504	0.0355	0.9645	40.56
28.5	10,687,374	552,016	0.0517	0.9483	39.12
29.5	9,534,390	417,359	0.0438	0.9562	37.10
30.5	8,219,185	381,890	0.0465	0.9535	35.47
31.5	6,998,584	515,057	0.0736	0.9264	33.82
32.5	6,288,089	469,108	0.0746	0.9254	31.33
33.5	5,360,047	167,992	0.0313	0.9687	29.00
34.5	4,146,211	83,119	0.0200	0.9800	28.09
35.5	4,001,493	136,956	0.0342	0.9658	27.52
36.5	3,531,343	99,624	0.0282	0.9718	26.58
37.5	3,286,637	108,638	0.0331	0.9669	25.83
38.5	3,052,713	58,474	0.0192	0.9808	24.98

#### ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

PLACEMENT	BAND 1929-2015		EXPER	RIENCE BAN	D 1961-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	2,905,873	68,493	0.0236	0.9764	24.50
40.5	2,723,471	100,466	0.0369	0.9631	23.92
41.5	2,436,309	53,431	0.0219	0.9781	23.04
42.5	2,271,792	19,112	0.0084	0.9916	22.54
43.5	2,201,726	2,328	0.0011	0.9989	22.35
44.5	2,016,887	3,197	0.0016	0.9984	22.32
45.5	1,987,523	4,794	0.0024	0.9976	22.29
46.5	1,790,541	8,677	0.0048	0.9952	22.23
47.5	1,633,205	1,871	0.0011	0.9989	22.12
48.5	1,438,098	1,827	0.0013	0.9987	22.10
49.5	1,128,521	2,196	0.0019	0.9981	22.07
50.5	1,065,811	1,103	0.0010	0.9990	22.03
51.5	884,898	1,082	0.0012	0.9988	22.01
52.5	748,110	1,790	0.0024	0.9976	21.98
53.5	658,397	1,304	0.0020	0.9980	21.93
54.5	580,903	1,559	0.0027	0.9973	21.88
55.5	509,468	525	0.0010	0.9990	21.82
56.5	454,596	1,527		0.9966	21.80
57.5	400,263	1,304	0.0033	0.9967	21.73
58.5	359,792	1,636	0.0045	0.9955	21.66
59.5	313,678	1,353	0.0043	0.9957	21.56
60.5	260,867	1,244	0.0048	0.9952	21.47
61.5	226,678	1,066	0.0047	0.9953	21.36
62.5	198,725	729	0.0037	0.9963	21.26
63.5	189,408	1,184	0.0063	0.9937	21.19
64.5	177,522	762	0.0043	0.9957	21.05
65.5	169,944	7,349	0.0432	0.9568	20.96
66.5	153,925	539	0.0035	0.9965	20.06
67.5	138,908	4,913		0.9646	19.99
68.5	125,326	5,267	0.0420	0.9580	19.28
69.5	115,767	56,101	0.4846	0.5154	18.47
70.5	58,897	5,441		0.9076	9.52
71.5	52,377	88	0.0017	0.9983	8.64
72.5	52,003	1,289	0.0248	0.9752	8.62
73.5	46,685	2,513	0.0538	0.9462	8.41
74.5	3,073		0.0000	1.0000	7.96
75.5	3,073		0.0000	1.0000	7.96
76.5	3,148		0.0000	1.0000	7.96
77.5	3,148		0.0000	1.0000	7.96
78.5	3,148		0.0000	1.0000	7.96
79.5	3,148	3,148	1.0000		7.96
80.5					

ORIGINAL CURVE | 1900-2015 EXPERIENCE 1951-2015 EXPERIENCE 1900-2015 PLACEMENTS 001 ACCOUNT 390.1 STRUCTURES AND IMPROVEMENTS - TO OWNED PROPERTY ORIGINAL AND SMOOTH SURVIVOR CURVES 80 IOWA 50-50 KENTUCKY UTILITIES COMPANY AGE IN YEARS 40 20 200 1001 80 8 70 20 40 9 09 30 2 PERCENT SURVIVING

### ACCOUNT 390.1 STRUCTURES AND IMPROVEMENTS - TO OWNED PROPERTY

PLACEMENT	BAND 1900-2015		EXPER	RIENCE BAN	D 1900-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	66,614,979		0.0000	1.0000	100.00
0.5	62,040,839	31,753	0.0005	0.9995	100.00
1.5	61,336,871	215,889	0.0035	0.9965	99.95
2.5	59,046,510	106,532	0.0018	0.9982	99.60
3.5	52,616,696	337,419	0.0064	0.9936	99.42
4.5	49,384,679	41,021	0.0008	0.9992	98.78
5.5	47,254,289	110,863	0.0023	0.9977	98.70
6.5	42,510,223	452,464	0.0106	0.9894	98.47
7.5	37,188,385	264,274	0.0071	0.9929	97.42
8.5	36,026,219	76,197	0.0021	0.9979	96.73
9.5	35,322,118	204,653	0.0058	0.9942	96.52
10.5	33,929,590	78,828	0.0023	0.9977	95.96
11.5	33,530,149	404,627	0.0121	0.9879	95.74
12.5	31,387,078	237,601	0.0076	0.9924	94.58
13.5	30,983,592	309,274	0.0100	0.9900	93.87
14.5	29,613,254	688,708	0.0233	0.9767	92.93
15.5	28,477,674	343,760	0.0121	0.9879	90.77
16.5	27,698,984	535,195	0.0193	0.9807	89.67
17.5	27,019,915	150,464	0.0056	0.9944	87.94
18.5	26,688,295	144,535	0.0054	0.9946	87.45
19.5	25,615,872	92,044	0.0036	0.9964	86.98
20.5	22,198,247	1,000,717	0.0451	0.9549	86.67
21.5	20,386,462	87,615	0.0043	0.9957	82.76
22.5	20,232,745	312,034	0.0154	0.9846	82.40
23.5	19,158,871	75,449	0.0039	0.9961	81.13
24.5	18,810,313	214,782	0.0114	0.9886	80.81
25.5	17,889,205	228,720	0.0128	0.9872	79.89
26.5	11,455,525	125,858	0.0110	0.9890	78.87
27.5	10,665,783	66,166	0.0062	0.9938	78.00
28.5	10,599,010	387,107	0.0365	0.9635	77.52
29.5	9,493,020	47,959	0.0051	0.9949	74.69
30.5	8,126,433	164,246	0.0202	0.9798	74.31
31.5	7,760,983	247,279	0.0319	0.9681	72.81
32.5	6,887,538	175,156	0.0254	0.9746	70.49
33.5	6,468,264	246,316	0.0381	0.9619	68.70
34.5	4,974,886	166,541	0.0335	0.9665	66.08
35.5	4,635,557	134,080	0.0289	0.9711	63.87
36.5	4,402,018	77,195	0.0175	0.9825	62.02
37.5	4,324,824	99,281	0.0230	0.9770	60.93
38.5	4,126,043	69,280	0.0168	0.9832	59.53

## ACCOUNT 390.1 STRUCTURES AND IMPROVEMENTS - TO OWNED PROPERTY

AGE AT BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL 39.5	PLACEMENT H	BAND 1900-2015		EXPER	RIENCE BAN	D 1900-2015
BEGIN OF INTERVAL   AGE INTERVAL   INTERVAL   RATIO   RATIO   RATIO   INTERVAL	AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
INTERVAL   AGE   INTERVAL   INTERVAL   RATIO   RATIO   INTERVAL		= = =		RETMT	SURV	
39.5						
40.5       3,939,788       49,513       0.0126       0.9874       58.38         41.5       3,857,918       9,715       0.0025       0.9975       57.64         42.5       3,827,678       149,853       0.0391       0.9609       57.50         43.5       3,295,933       31,223       0.0095       0.9905       55.25         44.5       3,110,723       42,941       0.0138       0.9862       54.72         45.5       2,134,640       11,879       0.0056       0.9944       53.97         46.5       1,944,841       86,811       0.0446       0.9554       53.67         47.5       1,851,185       706       0.0004       0.9996       51.27         48.5       1,820,109       145,322       0.0798       0.9202       51.25         49.5       1,363,493       2,995       0.0022       0.9978       47.16         50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,237,071       18,601       0.0150       0.9850       46.51         52.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885						
41.5       3,857,918       9,715       0.0025       0.9975       57.64         42.5       3,827,678       149,853       0.0391       0.9609       57.50         43.5       3,295,933       31,223       0.0095       0.9905       55.25         44.5       3,110,723       42,941       0.0138       0.9862       54.72         45.5       2,134,640       11,879       0.0056       0.9944       53.97         46.5       1,944,841       86,811       0.0446       0.9554       53.67         47.5       1,851,185       706       0.0004       0.9996       51.27         48.5       1,820,109       145,322       0.0798       0.9202       51.25         49.5       1,363,493       2,995       0.0022       0.9978       47.16         50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,257,472       172       0.0001       0.9999       46.51         52.5       1,237,071       18,601       0.0150       0.9850       46.50         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888				0.0027	0.9973	
42.5       3,827,678       149,853       0.0391       0.9609       57.50         43.5       3,295,933       31,223       0.0095       0.9905       55.25         44.5       3,110,723       42,941       0.0138       0.9862       54.72         45.5       2,134,640       11,879       0.0056       0.9944       53.97         46.5       1,944,841       86,811       0.0446       0.9554       53.67         47.5       1,851,185       706       0.0004       0.9996       51.27         48.5       1,820,109       145,322       0.0798       0.9202       51.25         49.5       1,363,493       2,995       0.0022       0.9978       47.16         50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,252,472       172       0.0001       0.9999       46.51         52.5       1,237,071       18,601       0.0150       0.9850       46.50         53.5       857,366       12,203       0.0142       0.9858       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       <				0.0126	0.9874	
43.5       3,295,933       31,223       0.0095       0.9905       55.25         44.5       3,110,723       42,941       0.0138       0.9862       54.72         45.5       2,134,640       11,879       0.0056       0.9944       53.97         46.5       1,944,841       86,811       0.0446       0.9554       53.67         47.5       1,851,185       706       0.0004       0.9996       51.27         48.5       1,820,109       145,322       0.0798       0.9202       51.25         49.5       1,363,493       2,995       0.0022       0.9978       47.16         50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,252,472       172       0.0001       0.9999       46.51         52.5       1,237,071       18,601       0.0150       0.9850       46.50         53.5       857,366       12,203       0.0142       0.9858       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.181       0.881       9.45.00         56.5       701,175       6,885       0				0.0025	0.9975	
44.5       3,110,723       42,941       0.0138       0.9862       54.72         45.5       2,134,640       11,879       0.0056       0.9944       53.97         46.5       1,944,841       86,811       0.0446       0.9554       53.67         47.5       1,851,185       706       0.0004       0.9996       51.27         48.5       1,820,109       145,322       0.0798       0.9202       51.25         49.5       1,363,493       2,995       0.0022       0.9978       47.16         50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,252,472       172       0.0001       0.9999       46.51         52.5       1,237,071       18,601       0.0150       0.9858       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       257,763       250       0.0010 <td>42.5</td> <td>3,827,678</td> <td>149,853</td> <td></td> <td>0.9609</td> <td>57.50</td>	42.5	3,827,678	149,853		0.9609	57.50
45.5       2,134,640       11,879       0.0056       0.9944       53.97         46.5       1,944,841       86,811       0.0446       0.9554       53.67         47.5       1,851,185       706       0.0004       0.9996       51.27         48.5       1,820,109       145,322       0.0798       0.9202       51.25         49.5       1,363,493       2,995       0.0022       0.9978       47.16         50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,252,472       172       0.0001       0.9999       46.51         52.5       1,237,071       18,601       0.0150       0.9858       45.80         54.5       801,264       2,715       0.034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9990       39.28         60.5       257,513       8,510       0.0330		• •	•	0.0095	0.9905	55.25
46.5       1,944,841       86,811       0.0446       0.9554       53.67         47.5       1,851,185       706       0.0004       0.9996       51.27         48.5       1,820,109       145,322       0.0798       0.9202       51.25         49.5       1,363,493       2,995       0.0022       0.9978       47.16         50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,252,472       172       0.0001       0.9999       46.51         52.5       1,237,071       18,601       0.0150       0.9850       46.50         53.5       857,366       12,203       0.0142       0.9858       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       526,938       0.0001       0.9999       39.28         60.5       257,763       250       0.001       0.9999	44.5				0.9862	54.72
47.5       1,851,185       706       0.0004       0.9996       51.27         48.5       1,820,109       145,322       0.0798       0.9202       51.25         49.5       1,363,493       2,995       0.0022       0.9978       47.16         50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,252,472       172       0.0001       0.9999       46.51         52.5       1,237,071       18,601       0.0150       0.9850       46.50         53.5       857,366       12,203       0.0142       0.9858       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.28         60.5       257,763       250       0.0010       0.9999       39.28         61.5       257,513       8,510       0.0330 <t< td=""><td></td><td></td><td></td><td></td><td>0.9944</td><td>53.97</td></t<>					0.9944	53.97
48.5       1,820,109       145,322       0.0798       0.9202       51.25         49.5       1,363,493       2,995       0.0022       0.9978       47.16         50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,252,472       172       0.0001       0.9999       46.51         52.5       1,237,071       18,601       0.0150       0.9850       46.50         53.5       857,366       12,203       0.0142       0.9988       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.28         60.5       257,763       250       0.0000       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       <		- · · · · · · · · · · · · · · · · · · ·	86,811	0.0446	0.9554	
49.5       1,363,493       2,995       0.0022       0.9978       47.16         50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,252,472       172       0.0001       0.9999       46.51         52.5       1,237,071       18,601       0.0150       0.9850       46.50         53.5       857,366       12,203       0.0142       0.9858       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.29         59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510				0.0004	0.9996	
50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,252,472       172       0.0001       0.9999       46.51         52.5       1,237,071       18,601       0.0150       0.9850       46.50         53.5       857,366       12,203       0.0142       0.9858       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.29         59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       3	48.5	1,820,109	145,322	0.0798	0.9202	51.25
50.5       1,267,243       14,771       0.0117       0.9883       47.06         51.5       1,252,472       172       0.0001       0.9999       46.51         52.5       1,237,071       18,601       0.0150       0.9850       46.50         53.5       857,366       12,203       0.0142       0.9858       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.29         59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       3	49.5	1.363.493	2.995	0.0022	0 9978	47.16
51.5       1,252,472       172       0.0001       0.99999       46.51         52.5       1,237,071       18,601       0.0150       0.9850       46.50         53.5       857,366       12,203       0.0142       0.9858       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.29         59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9999       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.						
52.5       1,237,071       18,601       0.0150       0.9850       46.50         53.5       857,366       12,203       0.0142       0.9858       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.29         59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.945       0.9055       33.1		* *				
53.5       857,366       12,203       0.0142       0.9858       45.80         54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.29         59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06<						
54.5       801,264       2,715       0.0034       0.9966       45.15         55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.29         59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
55.5       795,063       93,888       0.1181       0.8819       45.00         56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.29         59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25<		,				
56.5       701,175       6,885       0.0098       0.9902       39.68         57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.29         59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       123,291       0.8446       0.1554       22.81						
57.5       536,388       117       0.0002       0.9998       39.29         58.5       536,257       55       0.0001       0.9999       39.29         59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       123,291       0.8446       0.1554       22.81         70.5       145,978       123,291       0.8446       0.1554       22.						
58.5       536,257       55       0.0001       0.9999       39.29         59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       123,291       0.8446       0.1554       22.81         70.5       145,978       123,291       0.8446       0.1554       22.81         71.5       22,687       0.0000       1.0000       3.55						
59.5       266,938       0.0000       1.0000       39.28         60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       0.0000       1.0000       22.81         70.5       145,978       123,291       0.8446       0.1554       22.81         71.5       22,687       0.0000       1.0000       3.55         72.5       22,687       0.0000       1.0000       3.55         73.5       22,126<						
60.5       257,763       250       0.0010       0.9990       39.28         61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       123,291       0.8446       0.1554       22.81         71.5       22,687       0.0000       1.0000       3.55         72.5       22,687       0.0000       1.0000       3.55         73.5       22,126       1,200       0.0542       0.9458       3.55		•				
61.5       257,513       8,510       0.0330       0.9670       39.24         62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       123,291       0.8446       0.1554       22.81         70.5       145,978       123,291       0.8446       0.1554       22.81         71.5       22,687       0.0000       1.0000       3.55         72.5       22,687       0.0000       1.0000       3.55         73.5       22,126       1,200       0.0542       0.9458       3.55		· · · · · · · · · · · · · · · · · · ·	0.50			
62.5       248,196       12,154       0.0490       0.9510       37.95         63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       0.0000       1.0000       22.81         70.5       145,978       123,291       0.8446       0.1554       22.81         71.5       22,687       0.0000       1.0000       3.55         72.5       22,687       0.0000       1.0000       3.55         73.5       22,126       1,200       0.0542       0.9458       3.55						
63.5       233,898       15,436       0.0660       0.9340       36.09         64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       0.0000       1.0000       22.81         70.5       145,978       123,291       0.8446       0.1554       22.81         71.5       22,687       0.0000       1.0000       3.55         72.5       22,687       0.0000       1.0000       3.55         73.5       22,126       1,200       0.0542       0.9458       3.55		•	•			
64.5       218,462       3,341       0.0153       0.9847       33.71         65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       0.0000       1.0000       22.81         70.5       145,978       123,291       0.8446       0.1554       22.81         71.5       22,687       0.0000       1.0000       3.55         72.5       22,687       0.0000       1.0000       3.55         73.5       22,126       1,200       0.0542       0.9458       3.55	· <del>-</del>	•	•			
65.5       212,648       20,092       0.0945       0.9055       33.19         66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       0.0000       1.0000       22.81         70.5       145,978       123,291       0.8446       0.1554       22.81         71.5       22,687       0.0000       1.0000       3.55         72.5       22,687       0.0000       1.0000       3.55         73.5       22,126       1,200       0.0542       0.9458       3.55			·			
66.5       192,328       6,717       0.0349       0.9651       30.06         67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       0.0000       1.0000       22.81         70.5       145,978       123,291       0.8446       0.1554       22.81         71.5       22,687       0.0000       1.0000       3.55         72.5       22,687       0.0000       1.0000       3.55         73.5       22,126       1,200       0.0542       0.9458       3.55			,			
67.5       185,612       4,831       0.0260       0.9740       29.01         68.5       180,781       34,803       0.1925       0.8075       28.25         69.5       145,978       0.0000       1.0000       22.81         70.5       145,978       123,291       0.8446       0.1554       22.81         71.5       22,687       0.0000       1.0000       3.55         72.5       22,687       0.0000       1.0000       3.55         73.5       22,126       1,200       0.0542       0.9458       3.55						
68.5     180,781     34,803     0.1925     0.8075     28.25       69.5     145,978     0.0000     1.0000     22.81       70.5     145,978     123,291     0.8446     0.1554     22.81       71.5     22,687     0.0000     1.0000     3.55       72.5     22,687     0.0000     1.0000     3.55       73.5     22,126     1,200     0.0542     0.9458     3.55						
69.5     145,978     0.0000     1.0000     22.81       70.5     145,978     123,291     0.8446     0.1554     22.81       71.5     22,687     0.0000     1.0000     3.55       72.5     22,687     0.0000     1.0000     3.55       73.5     22,126     1,200     0.0542     0.9458     3.55					=	
70.5     145,978     123,291     0.8446     0.1554     22.81       71.5     22,687     0.0000     1.0000     3.55       72.5     22,687     0.0000     1.0000     3.55       73.5     22,126     1,200     0.0542     0.9458     3.55	68.5	180,781	34,803	0.1925	0.8075	28.25
71.5     22,687     0.0000     1.0000     3.55       72.5     22,687     0.0000     1.0000     3.55       73.5     22,126     1,200     0.0542     0.9458     3.55	69.5	145,978		0.0000	1.0000	22.81
72.5     22,687     0.0000     1.0000     3.55       73.5     22,126     1,200     0.0542     0.9458     3.55	70.5	145,978	123,291	0.8446	0.1554	22.81
72.5     22,687     0.0000     1.0000     3.55       73.5     22,126     1,200     0.0542     0.9458     3.55	71.5	22,687		0.0000	1.0000	3.55
73.5 22,126 1,200 0.0542 0.9458 3.55	72.5			0.0000	1.0000	3.55
	73.5		1,200	0.0542	0.9458	
	74.5					3.35

#### ACCOUNT 390.1 STRUCTURES AND IMPROVEMENTS - TO OWNED PROPERTY

PLACEMENT	BAND 1900-2015		EXPER	RIENCE BAN	D 1951-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	66,132,525		0.0000	1.0000	100.00
0.5	61,568,457	31,753	0.0005	0.9995	100.00
1.5	60,869,788	215,889	0.0035	0.9965	99.95
2.5	58,579,628	106,532	0.0018	0.9982	99.59
3.5	52,155,122	337,419	0.0065	0.9935	99.41
4.5	48,928,792	41,021	0.0008	0.9992	98.77
5.5	46,798,402	110,863	0.0024	0.9976	98.69
6.5	42,054,336	452,464	0.0108	0.9892	98.45
7.5	36,732,498	264,274	0.0072	0.9928	97.39
8.5	35,571,360	76,197	0.0021	0.9979	96.69
9.5	34,927,816	204,653	0.0059	0.9941	96.49
10.5	33,535,288	78,828	0.0024	0.9976	95.92
11.5	33,135,847	404,627	0.0122	0.9878	95.70
12.5	30,992,776	237,601	0.0077	0.9923	94.53
13.5	30,589,290	309,274	0.0101	0.9899	93.80
14.5	29,220,611	661,208	0.0226	0.9774	92.85
15.5	28,114,531	343,760	0.0122	0.9878	90.75
16.5	27,355,922	535,195	0.0196	0.9804	89.64
17.5	26,676,853	150,464	0.0056	0.9944	87.89
18.5	26,345,233	144,535	0.0055	0.9945	87.39
19.5	25,272,810	92,044	0.0036	0.9964	86.91
20.5	21,875,823	1,000,717	0.0457	0.9543	86.60
21.5	20,064,488	87,615	0.0044	0.9956	82.64
22.5	19,910,771	311,634	0.0157	0.9843	82.28
23.5	18,844,059	75,449	0.0040	0.9960	80.99
24.5	18,505,663	214,782	0.0116	0.9884	80.66
25.5	17,607,870	225,520	0.0128	0.9872	79.73
26.5	11,177,390	121,653	0.0109	0.9891	78.71
27.5	10,391,853	66,166	0.0064	0.9936	77.85
28.5	10,337,363	385,657	0.0373	0.9627	77.35
29.5	9,232,823	47,959	0.0052	0.9948	74.47
30.5	7,880,884	164,246	0.0208	0.9792	74.08
31.5	7,515,434	243,407	0.0324	0.9676	72.54
32.5	6,645,861	175,156	0.0264	0.9736	70.19
33.5	6,226,587	246,316	0.0396	0.9604	68.34
34.5	4,733,209	166,541	0.0352	0.9648	65.63
35.5	4,393,880	132,780	0.0302	0.9698	63.32
36.5	4,171,101	77,195	0.0185	0.9815	61.41
37.5	4,095,957	99,281	0.0242	0.9758	60.27
38.5	4,032,694	67,022	0.0166	0.9834	58.81

## ACCOUNT 390.1 STRUCTURES AND IMPROVEMENTS - TO OWNED PROPERTY ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2015

EXPERIENCE BAND 1951-2015

FINCEMENT	BAND 1900-2013		EAPE	CIENCE DAM	D 1331-5013
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	3,965,673	10,887	0.0027	0.9973	57.84
40.5	3,850,509	40,687	0.0106	0.9894	57.68
41.5	3,777,465	9,715	0.0026	0.9974	57.07
42.5	3,747,225	142,407	0.0380	0.9620	56.92
43.5	3,237,023	31,223	0.0096	0.9904	54.76
44.5	3,051,813	42,941	0.0141	0.9859	54.23
45.5	2,075,730	11,879	0.0057	0.9943	53.47
46.5	1,885,931	86,811	0.0460	0.9540	53.16
47.5	1,792,275	706	0.0004	0.9996	50.71
48.5	1,761,199	145,322	0.0825	0.9175	50.69
49.5	1,304,583	2,995	0.0023	0.9977	46.51
50.5	1,267,243	14,771	0.0117	0.9883	46.40
51.5	1,252,472	172	0.0001	0.9999	45.86
52.5	1,237,071	18,601	0.0150	0.9850	45.86
53.5	857,366	12,203	0.0142	0.9858	45.17
54.5	801,264	2,715	0.0034	0.9966	44.52
55.5	795,063	93,888	0.1181	0.8819	44.37
56.5	701,175	6,885	0.0098	0.9902	39.13
57.5	536,388	117	0.0002	0.9998	38.75
58.5	536,257	55	0.0001	0.9999	38.74
59.5	266,938		0.0000	1.0000	38.74
60.5	257,763	250	0.0010	0.9990	38.74
61.5	257,513	8,510	0.0330	0.9670	38.70
62.5	248,196	12,154	0.0490	0.9510	37.42
63.5	233,898	15,436	0.0660	0.9340	35.59
64.5	218,462	3,341	0.0153	0.9847	33.24
65.5	212,648	20,092	0.0945	0.9055	32.73
66.5	192,328	6,717	0.0349	0.9651	29.64
67.5	185,612	4,831	0.0260	0.9740	28.60
68.5	180,781	34,803	0.1925	0.8075	27.86
69.5	145,978		0.0000	1.0000	22.50
70.5	145,978	123,291	0.8446	0.1554	22.50
71.5	22,687		0.0000	1.0000	3.50
72.5	22,687		0.0000	1.0000	3.50
73.5	22,126	1,200	0.0542	0.9458	3.50
74.5					3.31

9 ORIGINAL CURVE # 1951-2015 EXPERIENCE 1951-2002 PLACEMENTS 90 ACCOUNT 390,2 STRUCTURES AND IMPROVEMENTS - TO LEASED PROPERTY 80 20 ORIGINAL AND SMOOTH SURVIVOR CURVES IOWA 3\$-R1.5 KENTUCKY UTILITIES COMPANY 9 AGE IN YEARS 40 39 20 0 님 100 8 ĝ 70 40 ė 9 9 ŝ 20 РЕВСЕИТ SURVIVING

### ACCOUNT 390.2 STRUCTURES AND IMPROVEMENTS - TO LEASED PROPERTY

PLACEMENT E	BAND 1951-2002		EXPER	RIENCE BAN	D 1951-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	767,520		0.0000	1.0000	100.00
0.5	767,520		0.0000	1.0000	100.00
1.5	767,520		0.0000	1.0000	100.00
2.5	767,520		0.0000	1.0000	100.00
3.5	767,520	70,369	0.0917	0.9083	100.00
4.5	697,151		0.0000	1.0000	90.83
5.5	697,151		0.0000	1.0000	90.83
6.5	697,151		0.0000	1.0000	90.83
7.5	697,151	4,307	0.0062	0.9938	90.83
8.5	692,844	5,163	0.0075	0.9925	90.27
9.5	687,682	4,256	0.0062	0.9938	89.60
10.5	683,425	1,125	0.0016	0.9984	89.04
11.5	682,300	2,788	0.0041	0.9959	88.90
12.5	679,512	64,948	0.0956	0.9044	88.53
13.5	614,564	2,010	0.0033	0.9967	80.07
14.5	612,555	4,922	0.0080	0.9920	79.81
15.5	493,885	2,649	0.0054	0.9946	79.17
16.5	488,488	7,220	0.0148	0.9852	78.74
17.5	464,996		0.0000	1.0000	77.58
18.5	464,996	3,315	0.0071	0.9929	77.58
19.5	421,441		0.0000	1.0000	77.03
20.5	417,556		0.0000	1.0000	77.03
21.5	355,005	9,822	0.0277	0.9723	77.03
22.5	342,550		0.0000	1.0000	74.90
23.5	341,511	783	0.0023	0.9977	74.90
24.5	297,950		0.0000	1.0000	74.72
25.5	297,950	3,718	0.0125	0.9875	74.72
26.5	172,512	329	0.0019	0.9981	73.79
27.5	167,749	5,642	0.0336	0.9664	73.65
28.5	158,205	347	0.0022	0.9978	71.17
29.5	153,637		0.0000	1.0000	71.02
30.5	142,966	3,635	0.0254	0.9746	71.02
31.5	137,412		0.0000	1.0000	69.21
32.5	118,954		0.0000	1.0000	69.21
33.5	114,603	2,045	0.0178	0.9822	69.21
34.5	60,899	5,723	0.0940	0.9060	67.98
35.5	54,339		0.0000	1.0000	61.59
36.5	49,298	15,116	0.3066	0.6934	61.59
37.5	30,257	2,506	0.0828	0.9172	42.70
38.5	27,604	4,062	0.1472	0.8528	39.17

# ACCOUNT 390.2 STRUCTURES AND IMPROVEMENTS - TO LEASED PROPERTY ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1951-2002

EXPERIENCE BAND 1951-2015

			2112 21		D 1731 2013
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	23,542		0.0000	1.0000	33.40
40.5	23,542		0.0000	1.0000	33.40
41.5	23,355		0.0000	1.0000	33.40
42.5	23,224	2,997	0.1291	0.8709	33.40
43.5	20,227	7,941	0.3926	0.6074	29.09
44.5	11,122	65	0.0059	0.9941	17.67
45.5	10,650	90	0.0085	0.9915	17.57
46.5	10,560		0.0000	1.0000	17.42
47.5	10,560	683	0.0647	0.9353	17.42
48.5	9,411		0.0000	1.0000	16.29
49.5	8,788		0.0000	1.0000	16.29
50.5	8,788		0.0000	1.0000	16.29
51.5	8,788		0.0000	1.0000	16.29
52.5	8,389		0.0000	1.0000	16.29
53.5	1,183		0.0000	1.0000	16.29
54.5	1,183	285	0.2411	0.7589	16.29
55.5	173		0.0000	1.0000	12.36
56.5	173		0.0000	1.0000	12.36
57.5	173		0.0000	1.0000	12.36
58.5	173		0.0000	1.0000	12.36
59.5	173		0.0000	1.0000	12.36
60.5	173		0.0000	1.0000	12.36
61.5					12.36

9 ORIGINAL CURVE # 1978-2015 PLACEMENTS 1996-2015 EXPERIENCE 1996-2015 PLACEMENTS 20 ACCOUNT 392 TRANSPORTATION EQUIPMENT - CARS AND LIGHT TRUCKS 9 ORIGINAL AND SMOOTH SURVIVOR CURVES **IOWA 14-52** KENTUCKY UTILITIES COMPANY AGE IN YEARS 20 10 100 8 80 20 30 09 20 20 9 PERCENT SURVIVING

## ACCOUNT 392 TRANSPORTATION EQUIPMENT - CARS AND LIGHT TRUCKS

AGE AT BEGIN OF BEGINNING OF INTERVAL BEGIN OF INTERVAL BEGIN OF INTERVAL BEGIN OF INTERVAL BEGIN OF INTERVAL BEGIN OF INTERVAL BEGIN OF INTERVAL BEGIN OF INTERVAL BEGIN OF INTERVAL BEGIN OF INTERVAL BEGIN OF INTERVAL BEGIN OF INTERVAL BEGIN OF INTERVAL 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	PLACEMENT	BAND 1978-2015		EXPER	IENCE BAN	D 1978-2015
BEGIN OF INTERVAL   AGE INTERVAL   INTERVAL   RATIO   RATIO   RATIO   INTERVAL	AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
INTERVAL   AGE INTERVAL   INTERVAL   RATIO   RATIO   INTERVAL		BEGINNING OF	DURING AGE	RETMT	SURV	
0.5       30,739,803       0.0000       1.0000       100.00         1.5       30,466,806       2,876       0.0001       0.9999       100.00         2.5       29,388,685       25,833       0.0009       0.9991       99.99         3.5       29,267,054       6,933       0.0002       0.9998       99.90         4.5       29,006,719       340,729       0.0117       0.9883       99.88         5.5       28,573,062       733,614       0.0257       0.9743       98.71         6.5       27,770,147       1,108,472       0.0399       0.9601       96.17         7.5       26,601,600       1,070,803       0.0403       0.9597       92.33         8.5       25,469,582       926,658       0.0364       0.9636       88.62         9.5       24,521,438       1,474,267       0.0601       0.9399       85.39         10.5       23,021,512       2,114,539       0.0919       0.9081       80.26         11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,		AGE INTERVAL				
0.5       30,739,803       0.0000       1.0000       100.00         1.5       30,466,806       2,876       0.0001       0.9999       100.00         2.5       29,388,685       25,833       0.0009       0.9991       99.99         3.5       29,267,054       6,933       0.0002       0.9998       99.90         4.5       29,006,719       340,729       0.0117       0.9883       99.88         5.5       28,573,062       733,614       0.0257       0.9743       98.71         6.5       27,770,147       1,108,472       0.0399       0.9601       96.17         7.5       26,601,600       1,070,803       0.0403       0.9597       92.33         8.5       25,469,582       926,658       0.0364       0.9636       88.62         9.5       24,521,438       1,474,267       0.0601       0.9399       85.39         10.5       23,021,512       2,114,539       0.0919       0.9081       80.26         11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,	0.0	30 822 643		0 0000	1 0000	100.00
1.5       30,466,806       2,876       0.0001       0.9999       100.00         2.5       29,388,685       25,833       0.0009       0.9998       99.99         3.5       29,267,054       6,933       0.0002       0.9988       99.99         4.5       29,006,719       340,729       0.0117       0.9883       99.88         5.5       28,573,062       733,614       0.0257       0.9743       98.71         6.5       27,770,147       1,108,472       0.0399       0.9601       96.17         7.5       26,601,600       1,070,803       0.0403       0.9597       92.33         8.5       25,469,582       926,658       0.0364       0.9636       88.62         9.5       24,521,438       1,474,267       0.0601       0.9399       85.39         10.5       23,021,512       2,114,539       0.0919       0.9081       80.26         11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,						
2.5       29,388,685       25,833       0.0009       0.9991       99.99         3.5       29,267,054       6,933       0.0002       0.9988       99.90         4.5       29,006,719       340,729       0.0117       0.9883       99.88         5.5       28,573,062       733,614       0.0257       0.9743       98.71         6.5       27,770,147       1,108,472       0.0399       0.9601       96.17         7.5       26,601,600       1,070,803       0.0403       0.9597       92.33         8.5       25,469,582       926,658       0.0364       0.9636       88.62         9.5       24,521,438       1,474,267       0.0601       0.9399       85.39         10.5       23,021,512       2,114,539       0.0919       0.9081       80.26         11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,		·	2.876			
3.5       29,267,054       6,933       0.0002       0.9998       99.90         4.5       29,006,719       340,729       0.0117       0.9883       99.88         5.5       28,573,062       733,614       0.0257       0.9743       98.71         6.5       27,770,147       1,108,472       0.0399       0.9601       96.17         7.5       26,601,600       1,070,803       0.0403       0.9597       92.33         8.5       25,469,582       926,658       0.0364       0.9636       88.62         9.5       24,521,438       1,474,267       0.0601       0.9399       85.39         10.5       23,021,512       2,114,539       0.0919       0.9081       80.26         11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
4.5       29,006,719       340,729       0.0117       0.9883       99.88         5.5       28,573,062       733,614       0.0257       0.9743       98.71         6.5       27,770,147       1,108,472       0.0399       0.9601       96.17         7.5       26,601,600       1,070,803       0.0403       0.9597       92.33         8.5       25,469,582       926,658       0.0364       0.9636       88.62         9.5       24,521,438       1,474,267       0.0601       0.9399       85.39         10.5       23,021,512       2,114,539       0.0919       0.9081       80.26         11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5						
5.5       28,573,062       733,614       0.0257       0.9743       98.71         6.5       27,770,147       1,108,472       0.0399       0.9601       96.17         7.5       26,601,600       1,070,803       0.0403       0.9597       92.33         8.5       25,469,582       926,658       0.0364       0.9636       88.62         9.5       24,521,438       1,474,267       0.0601       0.9399       85.39         10.5       23,021,512       2,114,539       0.0919       0.9081       80.26         11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5			•			
6.5						
7.5       26,601,600       1,070,803       0.0403       0.9597       92.33         8.5       25,469,582       926,658       0.0364       0.9636       88.62         9.5       24,521,438       1,474,267       0.0601       0.9399       85.39         10.5       23,021,512       2,114,539       0.0919       0.9081       80.26         11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5			•			
8.5       25,469,582       926,658       0.0364       0.9636       88.62         9.5       24,521,438       1,474,267       0.0601       0.9399       85.39         10.5       23,021,512       2,114,539       0.0919       0.9081       80.26         11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5			· ·			
10.5       23,021,512       2,114,539       0.0919       0.9081       80.26         11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5						
10.5       23,021,512       2,114,539       0.0919       0.9081       80.26         11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5	9.5	24 . 521 . 438	1.474.267	0.0601	0.9399	85.39
11.5       20,810,895       3,009,692       0.1446       0.8554       72.89         12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5       2,933,449       709,372       0.2418       0.7582       11.88         24.5			• •			
12.5       17,801,203       583,051       0.0328       0.9672       62.35         13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5       2,933,449       709,372       0.2418       0.7582       11.88         24.5       2,196,061       1,232,435       0.5612       0.4388       9.01         25.5 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>						
13.5       17,126,736       1,891,601       0.1104       0.8896       60.30         14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5       2,933,449       709,372       0.2418       0.7582       11.88         24.5       2,196,061       1,232,435       0.5612       0.4388       9.01         25.5       921,228       548,896       0.5958       0.4042       3.95         26.5       37						
14.5       15,235,134       1,497,042       0.0983       0.9017       53.64         15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5       2,933,449       709,372       0.2418       0.7582       11.88         24.5       2,196,061       1,232,435       0.5612       0.4388       9.01         25.5       921,228       548,896       0.5958       0.4042       3.95         26.5       372,332       126,155       0.3388       0.6612       1.60         27.5       246,176<	-	• •	•			
15.5       12,966,941       1,231,262       0.0950       0.9050       48.37         16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5       2,933,449       709,372       0.2418       0.7582       11.88         24.5       2,196,061       1,232,435       0.5612       0.4388       9.01         25.5       921,228       548,896       0.5958       0.4042       3.95         26.5       372,332       126,155       0.3388       0.6612       1.60         27.5       246,176       0.0000       1.0000       1.06         28.5       162,982       95,604						
16.5       11,401,073       452,950       0.0397       0.9603       43.78         17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5       2,933,449       709,372       0.2418       0.7582       11.88         24.5       2,196,061       1,232,435       0.5612       0.4388       9.01         25.5       921,228       548,896       0.5958       0.4042       3.95         26.5       372,332       126,155       0.3388       0.6612       1.60         27.5       246,176       0.0000       1.0000       1.06         28.5       216,375       0.0000       1.0000       0.44         31.5       67,378       0.0000       1.0000						
17.5       10,948,123       1,770,944       0.1618       0.8382       42.04         18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5       2,933,449       709,372       0.2418       0.7582       11.88         24.5       2,196,061       1,232,435       0.5612       0.4388       9.01         25.5       921,228       548,896       0.5958       0.4042       3.95         26.5       372,332       126,155       0.3388       0.6612       1.60         27.5       246,176       0.0000       1.0000       1.06         28.5       216,375       0.0000       1.0000       0.44         31.5       67,378       0.0000       1.0000       0.44         32.5       67,378       0.0000       1.0000       0.44						
18.5       9,085,155       1,475,614       0.1624       0.8376       35.24         19.5       7,492,277       1,509,704       0.2015       0.7985       29.52         20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5       2,933,449       709,372       0.2418       0.7582       11.88         24.5       2,196,061       1,232,435       0.5612       0.4388       9.01         25.5       921,228       548,896       0.5958       0.4042       3.95         26.5       372,332       126,155       0.3388       0.6612       1.60         27.5       246,176       0.0000       1.0000       1.06         28.5       216,375       0.0000       1.0000       0.44         30.5       67,378       0.0000       1.0000       0.44         31.5       67,378       0.0000       1.0000       0.44         32.5       67,378       0.0000       1.0000       0.44         33.5 <td< td=""><td></td><td></td><td>· ·</td><td></td><td></td><td></td></td<>			· ·			
20.5       5,903,282       700,557       0.1187       0.8813       23.57         21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5       2,933,449       709,372       0.2418       0.7582       11.88         24.5       2,196,061       1,232,435       0.5612       0.4388       9.01         25.5       921,228       548,896       0.5958       0.4042       3.95         26.5       372,332       126,155       0.3388       0.6612       1.60         27.5       246,176       0.0000       1.0000       1.06         28.5       216,375       0.0000       1.0000       1.06         29.5       162,982       95,604       0.5866       0.4134       1.06         30.5       67,378       0.0000       1.0000       0.44         31.5       67,378       0.0000       1.0000       0.44         32.5       67,378       0.0000       1.0000       0.44         33.5       67,378       67,378       0.0000       1.0000       0.44         34.5       67,378						
21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5       2,933,449       709,372       0.2418       0.7582       11.88         24.5       2,196,061       1,232,435       0.5612       0.4388       9.01         25.5       921,228       548,896       0.5958       0.4042       3.95         26.5       372,332       126,155       0.3388       0.6612       1.60         27.5       246,176       0.0000       1.0000       1.06         28.5       216,375       0.0000       1.0000       1.06         29.5       162,982       95,604       0.5866       0.4134       1.06         30.5       67,378       0.0000       1.0000       0.44         31.5       67,378       0.0000       1.0000       0.44         33.5       67,378       0.0000       1.0000       0.44         34.5       67,378       67,378       1.0000       0.44	19.5	7,492,277	1,509,704	0.2015	0.7985	29.52
21.5       5,202,725       1,250,351       0.2403       0.7597       20.77         22.5       3,952,373       975,819       0.2469       0.7531       15.78         23.5       2,933,449       709,372       0.2418       0.7582       11.88         24.5       2,196,061       1,232,435       0.5612       0.4388       9.01         25.5       921,228       548,896       0.5958       0.4042       3.95         26.5       372,332       126,155       0.3388       0.6612       1.60         27.5       246,176       0.0000       1.0000       1.06         28.5       216,375       0.0000       1.0000       1.06         29.5       162,982       95,604       0.5866       0.4134       1.06         30.5       67,378       0.0000       1.0000       0.44         31.5       67,378       0.0000       1.0000       0.44         33.5       67,378       0.0000       1.0000       0.44         34.5       67,378       67,378       1.0000       0.44	20.5			0.1187	0.8813	23.57
22.5     3,952,373     975,819     0.2469     0.7531     15.78       23.5     2,933,449     709,372     0.2418     0.7582     11.88       24.5     2,196,061     1,232,435     0.5612     0.4388     9.01       25.5     921,228     548,896     0.5958     0.4042     3.95       26.5     372,332     126,155     0.3388     0.6612     1.60       27.5     246,176     0.0000     1.0000     1.06       28.5     216,375     0.0000     1.0000     1.06       29.5     162,982     95,604     0.5866     0.4134     1.06       30.5     67,378     0.0000     1.0000     0.44       31.5     67,378     0.0000     1.0000     0.44       33.5     67,378     0.0000     1.0000     0.44       34.5     67,378     67,378     1.0000     0.44		5,202,725	1,250,351	0.2403	0.7597	20.77
24.5       2,196,061       1,232,435       0.5612       0.4388       9.01         25.5       921,228       548,896       0.5958       0.4042       3.95         26.5       372,332       126,155       0.3388       0.6612       1.60         27.5       246,176       0.0000       1.0000       1.06         28.5       216,375       0.0000       1.0000       1.06         29.5       162,982       95,604       0.5866       0.4134       1.06         30.5       67,378       0.0000       1.0000       0.44         31.5       67,378       0.0000       1.0000       0.44         33.5       67,378       0.0000       1.0000       0.44         34.5       67,378       67,378       1.0000       0.44	22.5		975,819	0.2469	0.7531	15.78
25.5     921,228     548,896     0.5958     0.4042     3.95       26.5     372,332     126,155     0.3388     0.6612     1.60       27.5     246,176     0.0000     1.0000     1.06       28.5     216,375     0.0000     1.0000     1.06       29.5     162,982     95,604     0.5866     0.4134     1.06       30.5     67,378     0.0000     1.0000     0.44       31.5     67,378     0.0000     1.0000     0.44       33.5     67,378     0.0000     1.0000     0.44       34.5     67,378     67,378     1.0000     0.44	23.5	2,933,449	709,372	0.2418	0.7582	11.88
26.5     372,332     126,155     0.3388     0.6612     1.60       27.5     246,176     0.0000     1.0000     1.06       28.5     216,375     0.0000     1.0000     1.06       29.5     162,982     95,604     0.5866     0.4134     1.06       30.5     67,378     0.0000     1.0000     0.44       31.5     67,378     0.0000     1.0000     0.44       32.5     67,378     0.0000     1.0000     0.44       33.5     67,378     0.0000     1.0000     0.44       34.5     67,378     1.0000     0.44	24.5	2,196,061	1,232,435	0.5612	0.4388	9.01
27.5     246,176     0.0000     1.000     1.06       28.5     216,375     0.0000     1.0000     1.06       29.5     162,982     95,604     0.5866     0.4134     1.06       30.5     67,378     0.0000     1.0000     0.44       31.5     67,378     0.0000     1.0000     0.44       32.5     67,378     0.0000     1.0000     0.44       33.5     67,378     0.0000     1.0000     0.44       34.5     67,378     1.0000     0.44	25.5	921,228	548,896	0.5958	0.4042	3.95
28.5     216,375     0.0000     1.0000     1.06       29.5     162,982     95,604     0.5866     0.4134     1.06       30.5     67,378     0.0000     1.0000     0.44       31.5     67,378     0.0000     1.0000     0.44       32.5     67,378     0.0000     1.0000     0.44       33.5     67,378     0.0000     1.0000     0.44       34.5     67,378     1.0000     0.44	26.5	372,332	126,155	0.3388	0.6612	1.60
29.5     162,982     95,604     0.5866     0.4134     1.06       30.5     67,378     0.0000     1.0000     0.44       31.5     67,378     0.0000     1.0000     0.44       32.5     67,378     0.0000     1.0000     0.44       33.5     67,378     0.0000     1.0000     0.44       34.5     67,378     1.0000     0.44	27.5	246,176		0.0000	1.0000	1.06
30.5     67,378     0.0000     1.0000     0.44       31.5     67,378     0.0000     1.0000     0.44       32.5     67,378     0.0000     1.0000     0.44       33.5     67,378     0.0000     1.0000     0.44       34.5     67,378     67,378     1.0000     0.44	28.5	216,375		0.0000	1.0000	1.06
31.5     67,378     0.0000     1.0000     0.44       32.5     67,378     0.0000     1.0000     0.44       33.5     67,378     0.0000     1.0000     0.44       34.5     67,378     67,378     1.0000     0.44	29.5	162,982	95,604	0.5866	0.4134	1.06
32.5     67,378     0.0000     1.0000     0.44       33.5     67,378     0.0000     1.0000     0.44       34.5     67,378     67,378     1.0000     0.44		67,378		0.0000	1.0000	0.44
32.5     67,378     0.0000     1.0000     0.44       33.5     67,378     0.0000     1.0000     0.44       34.5     67,378     67,378     1.0000     0.44	31.5	67,378		0.0000	1.0000	0.44
33.5     67,378     0.0000     1.0000     0.44       34.5     67,378     67,378     1.0000     0.44		67,378		0.0000	1.0000	0.44
	33.5	67,378			1.0000	0.44
	34.5	67,378	67,378	1.0000		0.44
	35.5					

## ACCOUNT 392 TRANSPORTATION EQUIPMENT - CARS AND LIGHT TRUCKS

PLACEMENT	BAND 1996-2015		EXPER	RIENCE BAN	D 1996-2015
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5	16,642,352 16,559,512 16,286,515 15,208,394 15,086,763 14,826,428 14,392,771 13,647,085 13,279,663	2,876 25,833 6,933 340,729 676,385 307,347 371,249	0.0000 0.0000 0.0002 0.0017 0.0005 0.0230 0.0470 0.0225 0.0280	1.0000 1.0000 0.9998 0.9983 0.9995 0.9770 0.9530 0.9775	100.00 100.00 100.00 99.98 99.81 99.77 97.47 92.89 90.80
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	12,847,198  12,617,583  11,566,396  9,631,587  7,957,587  7,637,372  6,375,308  4,337,747  3,107,612  3,088,862  1,509,079	208,130 1,025,529 1,838,731 1,674,000 228,798 1,262,063 1,266,410 895,529 18,750 1,487,760 1,391,816	0.0162 0.0813 0.1590 0.1738 0.0288 0.1652 0.1986 0.2065 0.0060 0.4817 0.9223	0.9838 0.9187 0.8410 0.8262 0.9712 0.8348 0.8014 0.7935 0.9940 0.5183 0.0777	88.26 86.83 79.78 67.09 55.43 53.84 44.94 36.01 28.58 28.41 14.72
19.5					1.14

9 2013-2015 EXPERIENCE 1986-2015 PLACEMENTS 않 ACCOUNT 392.1 TRANSPORTATION EQUIPMENT - HEAVY TRUCKS AND OTHER ORIGINAL CURVE 40 ORIGINAL AND SMOOTH SURVIVOR CURVES IOWA 16-L2.5 KENTUCKY UTILITIES COMPANY AGE IN YEARS 20 유 100 6 70 50 30 20 10 PERCENT SURVIVING

## ACCOUNT 392.1 TRANSPORTATION EQUIPMENT - HEAVY TRUCKS AND OTHER

BAND 1986-2015		EXPER	RIENCE BAN	D 2013-2015
EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
1,735,223		0.0000	1.0000	100.00
1,687,582		0.0000	1.0000	100.00 100.00
910,894		0.0000		100.00
910,894		0.0000		
	EXPOSURES AT BEGINNING OF AGE INTERVAL 1,735,223 1,687,582 910,894	EXPOSURES AT RETIREMENTS BEGINNING OF DURING AGE AGE INTERVAL  1,735,223 1,687,582  910,894	EXPOSURES AT RETIREMENTS BEGINNING OF DURING AGE RETMT AGE INTERVAL INTERVAL RATIO  1,735,223 0.0000  1,687,582 0.0000  910,894 0.0000	EXPOSURES AT RETIREMENTS BEGINNING OF DURING AGE RETMT SURV AGE INTERVAL INTERVAL RATIO RATIO  1,735,223 0.0000 1.0000  1,687,582 0.0000 1.0000  910,894 0.0000

40 ORIGINAL CURVE = 1969-2015 EXPERIENCE 1969-2015 PLACEMENTS ▲ 1996-2015 EXPERIENCE 1969-2015 PLACEMENTS 35 8 IOWA 16-AGE IN YEARS 5 9 1001 70 8 80 50 30 РЕВСЕИТ SURVIVING



ACCOUNT 396 POWER OPERATED EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES

KENTUCKY UTILITIES COMPANY

## ACCOUNT 396 POWER OPERATED EQUIPMENT

PLACEMENT	BAND 1969-2015		EXPER	RIENCE BAN	D 1969-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	2,563,075		0.0000	1.0000	100.00
0.5	2,530,881		0.0000	1.0000	100.00
1.5	2,008,140		0.0000	1.0000	100.00
2.5	1,704,541		0.0000	1.0000	100.00
3.5	1,467,719		0.0000	1.0000	100.00
4.5	1,267,250		0.0000	1.0000	100.00
5.5	565,589		0.0000	1.0000	100.00
6.5	433,217		0.0000	1.0000	100.00
7.5	433,217		0.0000	1.0000	100.00
8.5	433,217		0.0000	1.0000	100.00
9.5	433,217	367	0.0008	0.9992	100.00
10.5	421,542		0.0000	1.0000	99.92
11.5	324,965		0.0000	1.0000	99.92
12.5	300,142		0.0000	1.0000	99.92
13.5	300,142		0.0000	1.0000	99.92
14.5	300,142	50,041	0.1667	0.8333	99.92
15.5	229,270	87,816	0.3830	0.6170	83.26
16.5	137,748	75,378	0.5472	0.4528	51.37
17.5	62,370		0.0000	1.0000	23.26
18.5	56,272	41,283	0.7336	0.2664	23.26
19.5	14,989	14,025	0.9357	0.0643	6.20
20.5	964		0.0000	1.0000	0.40
21.5	964		0.0000	1.0000	0.40
22.5	964		0.0000	1.0000	0.40
23.5	964		0.0000	1.0000	0.40
24.5	964		0.0000	1.0000	0.40
25.5	964		0.0000	1.0000	0.40
26.5	964		0.0000	1.0000	0.40
27.5	964	964	1.0000		0.40
28.5					

## ACCOUNT 396 POWER OPERATED EQUIPMENT

PLACEMENT	BAND 1969-2015		EXPER	RIENCE BAN	D 1996-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	2,296,201		0.0000	1.0000	100.00
0.5	2,319,798		0.0000	1.0000	100.00
1.5	1,845,865		0.0000	1.0000	100.00
2.5	1,542,266		0.0000	1.0000	100.00
3.5	1,305,444		0.0000	1.0000	100.00
4.5	1,104,975		0.0000	1.0000	100.00
5.5	433,274		0.0000	1.0000	100.00
6.5	323,871		0.0000	1.0000	100.00
7.5	323,871		0.0000	1.0000	100.00
8.5	333,385		0.0000	1.0000	100.00
9.5	333,385		0.0000	1.0000	100.00
10.5	346,147		0.0000	1.0000	100.00
11.5	249,570		0.0000	1.0000	100.00
12.5	224,747		0.0000	1.0000	100.00
13.5	224,747		0.0000	1.0000	100.00
14.5	224,747	50,041	0.2227	0.7773	100.00
15.5	153,875	85,749	0.5573	0.4427	77.73
16.5	64,420	58,322	0.9053	0.0947	34.42
17.5	47,381		0.0000	1.0000	3.26
18.5	47,556	41,283	0.8681	0.1319	3.26
19.5	6,273	6,273	1.0000		0.43
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5	964		0.0000		
27.5	964	964	1.0000		
28.5					

8 ORIGINAL CURVE # 1905-2015 EXPERIENCE 1951-2015 EXPERIENCE 1905-2015 PLACEMENTS 22 ACCOUNT 397 COMMUNICATION EQUIPMENT - MICROWAVE, FIBER AND OTHER 9 ORIGINAL AND SMOOTH SURVIVOR CURVES **IOWA 18-L3** KENTUCKY UTILITIES COMPANY AGE IN YEARS 0 G b) 20 0 9 80 70 9 ġ 8 20 РЕВСЕИТ SURVIVING

## ACCOUNT 397 COMMUNICATION EQUIPMENT - MICROWAVE, FIBER AND OTHER

PLACEMENT	BAND 1905-2015		EXPER	RIENCE BANI	1905-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	45,396,377	1,797	0.0000	1.0000	100.00
0.5	36,987,400	16,528	0.0004	0.9996	100.00
1.5	34,644,809	25,605	0.0007	0.9993	99.95
2.5	30,106,902	26,582	0.0009	0.9991	99.88
3.5	27,772,755	9,383	0.0003	0.9997	99.79
4.5	26,813,425	10,627	0.0004	0.9996	99.76
5.5	23,189,187	39,715	0.0017	0.9983	99.72
6.5	21,992,588	23,343	0.0011	0.9989	99.55
7.5	19,115,905	578,485	0.0303	0.9697	99.44
8.5	17,449,792	199,578	0.0114	0.9886	96.43
9.5	14,965,138	346,592	0.0232	0.9768	95.33
10.5	14,084,462	89,924	0.0064	0.9936	93.12
11.5	12,990,173	202,710	0.0156	0.9844	92.53
12.5	5,849,062	57,417	0.0098	0.9902	91.08
13.5	4,919,080	129,076	0.0262	0.9738	90.19
14.5	4,605,743	108,317	0.0235	0.9765	87.82
15.5	4,448,132	373,184	0.0839	0.9161	85.76
16.5	4,074,948	200,634	0.0492	0.9508	78.56
17.5	3,874,314	1,159,026	0.2992	0.7008	74.69
18.5	2,715,287	1,292,371	0.4760	0.5240	52.35
19.5	1,422,916	621,736	0.4369	0.5631	27.43
20.5	801,180	81,827	0.1021	0.8979	15.45
21.5	719,353	19,075	0.0265	0.9735	13.87
22.5	700,278	44,521	0.0636	0.9364	13.50
23.5	655,757	176,882	0.2697	0.7303	12.64
24.5	478,875	55,517	0.1159	0.8841	9.23
25.5	423,358	237,490	0.5610	0.4390	8.16
26.5	185,868	472	0.0025	0.9975	3.58
27.5	185,396	46,253	0.2495	0.7505	3.57
28.5	139,143	1,408	0.0101	0.9899	2.68
29.5	137,735	181	0.0013	0.9987	2.66
30.5	137,554	34,663	0.2520	0.7480	2.65
31.5	102,891	19,481	0.1893	0.8107	1.98
32.5	83,410	1,103	0.0132	0.9868	1.61
33.5	82,307	732	0.0089	0.9911	1.59
34.5	81,575		0.0000	1.0000	1.57
35.5	81,575	537	0.0066	0.9934	1.57
36.5	81,038	30	0.0004	0.9996	1.56
37.5	81,008	2 6 5 5	0.0000	1.0000	1.56
38.5	81,008	7,865	0.0971	0.9029	1.56

## ACCOUNT 397 COMMUNICATION EQUIPMENT - MICROWAVE, FIBER AND OTHER ORIGINAL LIFE TABLE, CONT.

#### PLACEMENT BAND 1905-2015 EXPERIENCE BAND 1905-2015 AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVAL 39.5 73,143 9,956 0.1361 0.8639 1.41 40.5 63,187 0.0345 2,180 0.9655 1.22 41.5 61,007 198 0.0032 0.9968 1.18 42.5 60,809 0.0000 1.0000 1.17 43.5 60,809 51,098 0.8403 0.1597 1.17 44.5 9,711 3,301 0.3399 0.6601 0.19 45.5 6,410 0.0000 1.0000 0.12 46.5 6,410 0.0000 1.0000 0.12 47.5 6,410 0.0000 1.0000 0.12 48.5 6,410 0.0000 1.0000 0.12 49.5 6,410 0.0000 1.0000 0.12 50.5 6,410 0.0000 1.0000 0.12 51.5 6,410 0.0000 1.0000 0.12 52.5 6,410 0.0000 1.0000 0.12 53.5 6,410 0.0000 1.0000 0.12 54.5 6,410 6,410 1,0000 0.12

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## ACCOUNT 397 COMMUNICATION EQUIPMENT - MICROWAVE, FIBER AND OTHER

PLACEMENT	BAND 1905-2015		EXPER	RIENCE BAN	1951-2015
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	45,211,203	833	0.0000	1.0000	100.00
0.5	36,846,796	15,044	0.0004	0.9996	100.00
1.5	34,534,221	24,030	0.0007	0.9993	99.96
2.5	30,009,739	19,740	0.0007	0.9993	99.89
3.5	27,684,430	9,383	0.0003	0.9997	99.82
4.5	26,725,561	10,123	0.0004	0.9996	99.79
5.5	23,101,827	39,715	0.0017	0.9983	99.75
6.5	21,905,228	23,343	0.0011	0.9989	99.58
7.5	19,028,545	578,485	0.0304	0.9696	99.47
8.5	17,362,516	199,578	0.0115	0.9885	96.45
9.5	14,877,862	346,447	0.0233	0.9767	95.34
10.5	13,997,450	57,289	0.0041	0.9959	93.12
11.5	12,935,796	196,420	0.0152	0.9848	92.74
12.5	5,842,652	57,417	0.0098	0.9902	91.33
13.5	4,912,670	129,076	0.0263	0.9737	90.43
14.5	4,599,333	108,317	0.0236	0.9764	88.06
15.5	4,441,722	373,184	0.0840	0.9160	85.98
16.5	4,068,538	200,634	0.0493	0.9507	78.76
17.5	3,867,904	1,159,026	0.2997	0.7003	74.88
18.5	2,708,877	1,292,371	0.4771	0.5229	52.44
19.5	1,416,506	621,736	0.4389	0.5611	27.42
20.5	794,770	81,827	0.1030	0.8970	15.39
21.5	712,943	19,075	0.0268	0.9732	13.80
22.5	693,868	44,521	0.0642	0.9358	13.43
23.5	649,347	176,882	0.2724	0.7276	12.57
24.5	472,465	55,517	0.1175	0.8825	9.15
25.5	416,948	237,490	0.5696	0.4304	8.07
26.5	179,458	472	0.0026	0.9974	3.47
27.5	178,986	46,253	0.2584	0.7416	3.46
28.5	132,733	1,408	0.0106	0.9894	2.57
29.5	131,325	181	0.0014	0.9986	2.54
30.5	131,144	34,663	0.2643	0.7357	2.54
31.5	96,481	19,481	0.2019	0.7981	1.87
32.5	77,000	1,103	0.0143	0.9857	1.49
33.5	75,897	732	0.0096	0.9904	1.47
34.5	75,165		0.0000	1.0000	1.46
35.5	75,165	537	0.0071	0.9929	1.46
36.5	74,628	30	0.0004	0.9996	1.44
37.5	74,598		0.0000	1.0000	1.44
38.5	74,598	7,865	0.1054	0.8946	1.44

## ACCOUNT 397 COMMUNICATION EQUIPMENT - MICROWAVE, FIBER AND OTHER ORIGINAL LIFE TABLE, CONT.

EXPERIENCE BAND 1951-2015 PLACEMENT BAND 1905-2015 AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVAL 39.5 66,733 9,956 0.1492 0.850B 1.29 40.5 56,777 2,180 0.0384 0.9616 1.10 41.5 54,597 198 0.0036 0.9964 1.06 42.5 54,399 0.0000 1.0000 1.05 43.5 54,399 51,098 0.9393 0.0607 1.05 44.5 3,301 3,301 1.0000 0.06 45.5 6.410 0.0000 1,0000 46.5 6,410 0.0000 47.5 6,410 0.0000 48.5 6,410 0.0000 0.0000 49.5 6,410 50.5 6,410 0.0000 51.5 6,410 0.0000 52.5 6,410 0.0000 53.5 6,410 0.0000 6,410 1.0000 54.5 6,410

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**PART VIII. NET SALVAGE STATISTICS** 

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	ABLE 2. CALCINATION
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	TABLE 2. CALCIN ATOM OF WEIGHTED NET BAI VAMP PERCENT FOR GENERATION PLANT AS DE DECEMBER 3

				Te product Retiremen		5	terim Retirements		Total		Estimated
		Account	Retirements (5)	Net Salvage (%)	Net Salvage (S)	Retirements (\$)	Net Balvage (%)	Net Balvage (\$)	Met Selvage (\$)	Total Retirements	Not Salvage (%)
	STEAM P	STEAM PRODUCTION PLANT	74	Ŷ.	(c) kd y) also)		Ē		( ) i • ( • ) • ( • )	(4)-(7)-(4)	(a)(a)(a)(i)
		BROWN GEWERATING STATION STRUCTURES AND MPROVEMENTS BOLLER PLART EQUERIENT	73,168,776 519,910,157	ତ୍ତ	(3,050,439)	2,037,731	88	811,118 815,814,823	4,269,758 \$1,865,818	75,200,507	<u>6</u> 6
	315	TURBOGENERATOR UNITS ACCESSORY ELECTRIC EQUIPMENT	59,151,117	ତ ହ	(2,170,318)	8,389,4D0 1,485,824	<u>ee</u>	224,374	3,796,496	67,540,517 44,902,164	<u>6</u> 6
		MISCELLANEOUS POWER PLANT EQUIPMENT TOTAL BROWN GENERATING STATION	6,310,938 603,057,104	। इ	(43.132.855)	75,021,416	©	31,958	347,505	6,950,108 978,678,519	(8) (6)
	31.9	GHENT GENERATING STATION STRUCTURES AND BAPROVEMENTS	117,515,090	(5)	(6,876,754)	7,120,409	9	2,138,123	9,012,877	144,635,498	€
	312	BONER PLANT EQUENCENT TI IBRANCENERATOR LIMITS	2,118,211,987	ବ ୧	(106,911,599)	253,402,944	(52)	63,350,736	170,262,335	2,191,634,931	:66
_	312	ACCESSORY ELECTRIC EQUINENT	117,410,505	îô	(5,870,990)	8,847,820	3 E	1,477,173	7,348,153	127,267,418	33
	ž 5	NASCELLANEOUS POWER PLANT EQUPMENT TOTAL GMENT GENERATING STATION	15,020,778	<u>(S</u>	(127,208,334)	3.178,086	e.	70,637,024	197,845,358	17,199,873	e e
	31.5	GREEV RIVER GENERATING STATION STRUCTURES AND MARROVENENTS	8,667,845	9	(568,785)		9		868,785	8,967,845	(10)
	314	BONLER PLANT EQUIPMENT TURBOGENERATOR UNITS	2,624,701	€€	(242,470)	• •	£		282,470	2,624,701	66
_	312	ACCESSORY ELECTRIC EQUIPMENT	848,150	£	(84,615)	i <b>i</b>	<u>.</u>		84,815	646,150	ê
_	2	MACLELANCOUS FOREN FLONI ELOGIMENT TOTAL GREEN RIVER GENERATING STATION	12,364,577		(1,236,458)		6		1,236,458	12.364,577	(01)
	# HE	PRINEVILLE GENERATING STATION STRUCTURES AND MAPROVEMENTS ROW OR PO ANT FOR BOLLENI	37,240 27,0 ABA	66	(57.0)	4 1	56	4 -	3,724	37.240 2744.448	91
		TURBOGENERATOR UNITS	,	£	9	•	ie:			1	Ė
	316	ALCESSORY ELECTRIC EQUIPMENT MASCELLANGOUS POWER PLANT EQUIPMENT TO TAL PWEVILLE GENERATING STATION	27.175	5 5	0 0	.	<u>6</u> 8		27,371	37.1.708	<u>2</u> 28
	311	SYSTEM LAB STRUCTURES AND MAPROVEMENTS	1.047.781	۰	a	55.175	ĝ	16.553	16.553	1,102,956	6
		BOTER PLANT EQUIPMENT TURBOGENERATOR UNITS			80		200		, ,		:66
	318	ACCESSORY ELECTRIC EQUIPMENT MESCELLANEOUS POWER PLANT EQUIPMENT TOTAL SYSTEM LAB	2,834,145	00		299,989	(3)	14,998	14,868	3234,114	333
	STEAM P	STEAM PRODUCTION PLANT (CONT.)									
_	M. IK	TYRONE GENERATING STATION STRUCTURES AND IMPROVEMENTS	2.276,358	(6)	(327,636)	•	(DE)		227,636	2.276,358	(j)
_		BOALER PLANT EQUIPMENT	702,556	(O.)	(70.250)	,	(22)	•	70.250	702,556	(00)
	315	ACCESSORY ELECTRIC EQUIPMENT	24,679	5 5	(2,468)	. ,	6 SE		2,468	24,879	ÊÊ
	316	MISCELLANGOUS POWER PLANT EQUIPMENT	20033	(10)	(8,603)		9		8,603	86,033	(10)
	2	CONTRACTOR OF STATES AND STATES A	ל הפני מצי		(rog'par)			•	200,000	EZB'ARK'S	fa.
	Æ	TRIMBLE COUNTY  STRUCTURES AND IMPROVEMENTS	91,880,685	€ !	(7,350,455)	13,772,116	(30)	4,131,835	11,482,090	105,552,501	(3)
_	2 2	BUILER PLANT EQUIPMENT TI IZROGENEDATOR UNITE	403,063,218	€ €	(32,245,057)	206,502 714	(c) (c)	51,625,678	83,870,736 T 628,805	609,365,931 Re-ent nin	ê ê
		ACCESSORY ELECTRIC EQUIPMENT	36,593,894	<b>(e)</b>	(2.927,511)	11,978,182	(15)	1726,727	4,724,239	48,572,070	3.5
	5. 5	MESCELLANEOUS POWER PLANT EQUIPMENT TOTAL TRANSLE COUNTY	590,869,790	 ë	(48,268,563)	2,127,308	ê	108,345	108,817.711	8.389.510 862.087,328	£ £
-	TOTAL SI	TOTAL STEAM PRODUCTION PLANT	4,057,201,405		(221,203,563)	655,544,744		149,532,117	370,735,600	4,7 (2,368,149	

Kentucky lituties company Table 2. Calculation of weighted net salvace percent for generation plant as of december 31, 2018

	Esthrated Nat Salvage (%) (10)*(8)(9)	666666	999999	2232552	666668	999 <b>999</b>	6666666
	Total Retiranants (9th(2)+(5)	27,603 21,685,646 14,056,866 1,321,689 310,847 244,509 36,45,290	12,003,771 14,524,778 19,530,527 31,658,020 20,057,727 4,342,306 2,306,020,428	46,895,474 134,950,019 66,873,337 11,340,200 21,089 411,414,014	291,452 472,117 2,692,113 910,293 104,991 4,366,956	2,136,302 (,991,091 18,591,871 18,540,871 2,499,831 12,712,027	21,745,929 7,700,048 1,070,177 16,527,129 23,547 240,037,733 240,037,733 240,037,733
į	Total Net Sevage (8) (8)*(4)*(7)	13,443 707,749 250,842 250,842 9,384 9,384 1,838 1,838 9,852,820	539, 662 748,238 14,143,665 1,696,194 177,539 17,636,897	4 878 801 14 688 445 12,728 817 14,187,382 3,290,851 1,518 48,484,898	28,634 48,048 288,214 81,638 6,438	78.177 82.275 1.20.665 232.069 110.33 15.602 1.607,621	981,078 385,303 12,671,910 1022,742 1204,584 4,109 18,349,725 18,349,725 431,184,839
DECEMBER 31, 2018	Met Balvage [\$] [7]m{\$}x[6]	6,459 509,263 114,847 7,962 608,561	109,305 6,417,479 182,400 159,733 6,878,073	1,784,418 7,843,542 1,844,433 554,825 12,031,085	1 164 30,311 3,853 3,8429	11 958 64,064 23,412 18,079 708,417	54,422 6,478,678 160,983 5,693,770 5,695,772 178,648,648 178,648,648
	Mei Salvage (5) (4)	(5) (25) (25) (3)	o 55 5 5 o	a (5) (5) (6) (6)	0 (S) (S) (O) (O) (O) (O)	9 (S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	o (2) (3) (6) (6) (6) (6)
TON DEMENDING	Retirements (5)	128,187 2,037,053 489,287 139,284 158,284 158,284 158,284 3,219,415	1,274,581 2,187,292 42,783,192 1824,882 1,587,332 754,782 50,582,139	11,304,895 15,680,316 52,318,844 18,444,830 5,540,248 9,403	5,109 23,283 303,144 303,144 30,531 10,631	181,890 229,192 180,187 120,112 224,182 82,182 82,182 82,182 82,182 82,182 82,182 82,182 82,182 83,1	2,124,392 1,084,450 43,179,506 827,703 1,089,529 15,543 48,145,484 228,799,641
	Net Salvage (\$) (4)=(2)x(3)	(652 PHC) (652 PSC) (1652 )) (1653 )) (1653 )) (1654 PSC) (1664 PSC) (1665 D)	(516,075,11)	(4 655 801) (12,804,028) (4,804,028) (4,802,334) (12,342,898) (2,540,228) (3,443,803)	(28,034) (44,043) (237,043) (77,073) (8,436)	(71, 77) (10, 21, 77) (10, 21, 21, 72) (20, 23, 73) (12, 602, 203)	[850, 1967] [136, 2047] [176, 627] [176, 627] [176, 627] [176, 627] [176, 627] [176, 627] [176, 627]
The second secon	Territual Retrements Not Salvage (%) (3)	888888	ତ ଉପ ଉପ ବ	666666	66666 55555	£ £ £ £ £ £	ହେବ୍ତହତ 
	Retinements (8)	988.416 118.642.53 13.569.509 13.8444 15.7108 15.642.647 35.425.675	10,728,190 12,737,484 154,519,738 22,523,928 18,602,395 3,527,224 229,523,524	25,580,778 89,261,761 37,558,343 84,945,378 20,740,207 11,982 284,108,178	286.343 448.833 2.239.022 778.732 84,360	1,854,413 1,717,012 1,717,	19.021,567 6.617,616 12.566,425 72.01,636 750,692,780 739,682,132 4,633,081,413
	Account	HYDRAULC PRODUCTION PLANT  DX DAM  131 STRUCTURES AND APPROVEMENTS  132 STRUCTURES AND APPROVEMENTS  133 STRUCTURES AND APPROVEMENTS  134 WATER WHEELS, THRUNES AND GENERATORS  135 MACCESSORY ELECTRIC EQUIPMENT  138 MACCESSORY ELECTRIC EQUIPMENT  139 MACCESSORY ELECTRIC EQUIPMENT  139 MACCESSORY ELECTRIC EQUIPMENT  130 MACCESSORY ELECTRIC EQUIPMENT  1507AL HYDRAULC PRODUCTION PLANT	OTHER PRODUCTION FLANT BROWN CTS 341 STRUCTURES AND MARROVEMENTS 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES 343 FRIME, MOORERS, 344 GENERATORS 345 ACCESSORIE LECTRIC EQUIPMENT 346 MASCELLANDONS POWER PLANT EQUIPMENT FORL BROWN CTS	CAWE RUN CC3  141 STRUCTURES AND MARROVEMENTS  142 FUEL HOLDERS, PRODUCERS AND ACCESSORIES  144 CENERATORS  145 ACCESSORY ELECTRIC EQUIPMENT  146 MISCELLANEOUS POWER PLANT EQUIPMENT  107AL CAVIE RUN CC5	HARFLING CTS  341 STRUCTURES AND MAPROVEHENTS  342 FUEL HOUDERS, PRODUCERS AND ACCESSORIES  344 GENERATORS  345 ACCESSORIE LECTRIC EQUIPMENT  346 MASCELLANEOUS POWER PLANT EQUIPMENT  FOTAL MAEFLANG CTS	PADDY'S RUN CTS  JUL STRUCTUBES AND APROVENENTS  JAZ FUEL HOLDERS, PRODUCERS AND ACCESSORIES  JAA CENERALORES,  ACCESSORY ELECTRIC EQUIPMENT  ACCESSORY ELECTRIC EQUIPMENT  TOTAL PADDY'S RUN CTS	TRIMBLE COUNTY CTS  342 FRUCEL HOLDERS, PRODUCERS AND ACCESSORIES  343 FRIAGE MOYERS.  344 GENERALORIS  345 ACCESSORY ELECTRIC EQUIPMENT  346 MISCELLANEOUS POWER PLANT EQUIPMENT  TOTAL TRIMBLE COUNTY CTS  TOTAL GTHER PRODUCTION PLANT  ORAND TOTAL.

#### ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
		11100111					
1988	6,045		0		0		0
1989	2,547		0		0		0
1990	54,378		0		0		0
1991							
1992							
1993							
1994					_		_
1995	86,278	10,005	12	2,930	3	7,074-	8-
1996	2,936	609	21	3,210	109	2,601	89
1997	103,244	8,046	В		0	8,046-	8-
1998	32,510	16,167	50		0	16,167-	50-
1999	5,858-	1,967-			0	1,967	34-
2000	11,626		0		0		0
2001	144,193	33,335	23		0	33,335-	23-
2002	370,024	20,477	6	241,345	65	220,868	60
2003					_	4.5.200	
2004	228,612	46,180	20		0	46,180-	20-
2005							2.5
2006	137,959	47,675	35		0	47,675-	35-
2007	2,213,101	777,334	35		0	777,334-	35-
2008	89,209	20,700	23		0	20,700-	23-
2009	145,695	45,964	32	87,350	60	41,386	28
2010	88,392	12,254	14		0	12,254-	14-
2011	681,753	435,245	64		0	435,245-	64-
2012	243,522	153,934	63	2,596	1	151,338-	62-
2013	290,864	98,691	34	276	0	98,416-	34-
2014	674,281	1,428,648	212	38,924-	6 -		218-
2015	1,711,254	156,217	9	30,000	2	126,217-	7 -
TOTAL	7,312,567	3,309,514	45	328,783	4	2,980,731-	41-
THREE-YEA	R MOVING AVERAGES						
88-90	20,990		0		0		0
89-91	18,975		0		0		0
90-92	18,126		0		0		0
91-93							
92-94							
93-95	28,759	3,335	12	977	3	2,358-	8-
94-96	29,738	3,538	12	2,047	7	1,491-	5+
95-97	64,153	6,220	10	2,047	3	4,173-	7 -
96-98	46,230	8,274	18	1,070	2	7,204-	16-

# ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YE	AR MOVING AVERAGES						
97-99	43,299	7,415	17		0	7,415-	17-
98-00	12,759	4,733	37		0	4,733-	37-
99-01	49,987	10,456	21		0	10,456-	21-
00-02	175,281	17,937	10	80,448	46	62,511	36
01-03	171,406	17,937	10	80,448	47	62,511	36
02-04	199,545	22,219	11	80,448	40	58,229	29
03-05	76,204	15,393	20		0	15,393-	20-
04-06	122,191	31,285	26		0	31,285-	26-
05-07	783,687	275,003	35		0	275,003-	35-
06-08	813,423	281,903	35		0	281,903-	35-
07-09	816,002	281,333	34	29,117	4	252,216-	31-
08-10	107,766	26,306	24	29,117	27	2,811	3
09-11	305,280	164,488	54	29,117	10	135,371-	44-
10-12	337,889	200,478	59	865	0	199,613-	59-
11-13	405,380	229,290	57	957	0	228,333-	56-
12-14	402,889	560,424	139	12,018-	3 -	572,442-	142-
13-15	892,133	561,185	63	2,883-	0	564,068-	63-
FIVE-YEA	R AVERAGE						
11-15	720,335	454,547	63	1,211-	0	455,758-	63-



# ACCOUNT 312 BOILER PLANT EQUIPMENT

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	TRUOMA	PCT	AMOUNT	PCT
1988	5,472,744	33,162-	1-	85,506	2	118,668	2
1989	140,477		0		0		0
1990	139,953		0		0		0
1991							
1992	3,381,168	126,229	4	2,358	0	123,871-	4 -
1993	73,171	586,475	802	202,990-	277-	789,466-	
1994	3,105,560	1,235,481	40	5,496	0	1,229,984-	40-
1995	2,831,089	887,355	31	88,317	3	799,038-	28-
1996	2,448,557	1,372,067	56	1,245,733	51	126,335-	5 -
1997	3,497,148	736,637	21	6,713	0	729,924-	21-
1998	614,620	826,172	134	14,906-	2-	841,078-	137-
1999	855,983	776,825	91	5,197	1	771,628-	90-
2000	4,074,449		0	20,250	0	20,250	0
2001	2,773,207	973,763	35	350	0	973,413-	35-
2002	1,580,022	47,752	3	842,803	53	795,051	50
2003	3,081,492	1,016,856	33		0	1,016,856-	33-
2004	2,629,000	1,220,722	46		0	1,220,722-	46-
2005	2,723,301	1,455,836	53	3,066	0	1,452,769-	53-
2006	8,467,051	5,300,625	63	17,365	0	5,283,260-	62-
2007	5,552,705	1,817,773	33	176,926	3	1,640,847-	30-
2008	1,602,275	654,037	41		0	654,037-	41-
2009	4,750,276	2,120,465	45	20,000	0	2,100,465-	44-
2010	8,267,108	974,238	12	10,802	0	963,435-	12-
2011	7,436,356	1,421,560	19	342,587	5	1,078,973-	15-
2012	23,431,274	5,029,476	21	172,783	1	4,856,693-	21-
2013	5,299,416	4,590,997	87	323,182	6	4,267,815-	81-
2014	12,989,896	2,451,690	19	186,603	1	2,265,087-	17-
2015	18,285,838	1,902,123	10	260,531	1	1,641,592-	9-
TOTAL	135,504,135	37,491,993	28	3,598,673	3	33,893,320-	25-
THREE-YE	CAR MOVING AVERA	GES					
88-90	1,917,725	11,054-	1-	28,502	1	39,556	2
89-91	93,477		0		0		0
90-92	1,173,707	42,076	4	786	0	41,290-	4 -
91-93	1,151,446	237,568	21	66,877-	6-	304,446-	26-
92-94	2,186,633	649,395	30	65,045-	3 -	714,440-	33-
93-95	2,003,273	903,104	45	36,392-	2 -	939,496-	47-
94-96	2,795,069	1,164,968	42	446,515	16	718,452-	26-
95 <b>-</b> 97	2,925,598	998,687	34	446,921	15	551,766-	19-
96-98	2,186,775	978,292	45	412,513	19	565,779-	26-

# ACCOUNT 312 BOILER PLANT EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YE	AR MOVING AVERAGES						
97-99	1,655,917	779,878	47	999-	0	780,877-	47-
98-00	1,848,351	534,332	29	3,514	0	530,819-	29-
99-01	2,567,880	583,529	23	8,599	0	574,930-	22-
00-02	2,809,226	340,505	12	287,801	10	52,704-	2-
01-03	2,478,240	679,457	27	281,051	11	398,406-	16-
02-04	2,430,171	761,777	31	280,934	12	480,842-	20-
03-05	2,811,264	1,231,138	44	1,022	0	1,230,116-	44-
04-06	4,606,451	2,659,061	58	6,811	0	2,652,250-	58-
05-07	5,581,019	2,858,078	51	65,786	1	2,792,292-	50-
06-08	5,207,344	2,590,812	50	64,764	1	2,526,048-	49-
07-09	3,968,419	1,530,758	39	65,642	2	1,465,117-	37-
08-10	4,873,220	1,249,580	26	10,267	0	1,239,312-	25-
09-11	6,817,913	1,505,421	22	124,463	2	1,380,958-	20-
10-12	13,044,913	2,475,091	19	175,391	1	2,299,700-	18-
11-13	12,055,682	3,680,678	31	279,518	2	3,401,160-	28-
12-14	13,906,862	4,024,055	29	227,523	2	3,796,532-	27-
13-15	12,191,717	2,981,604	24	256,772	2	2,724,832-	22-
FIVE-YEA	R AVERAGE						
11-15	13,488,556	3,079,169	23	257,137	2	2,822,032-	21-

#### ACCOUNT 314 TURBOGENERATOR UNITS

	DEG:# 1.D	COST OF		GROSS		NET	
TO D	REGULAR	REMOVAL	рош	SALVAGE	ъсш	SALVAGE	ъсш
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1994	1,285,265	314,381	24		0	314,381-	24-
1995	1,942,977	374,438	19	110,477	6	263,960-	14 -
1996	1,313,231	452,454	34	2,403,674	183	1,951,220	149
1997	3,603,445	466,687	13		0	466,687-	13-
1998	210,345	173,846	83		0	173,846-	83-
1999	152,655	85,180	56		0	85,180-	56-
2000	32,604		0		0		0
2001	100,327	27,123	27		0	27,123-	27-
2002	405,528	42,556	10	314,790	78	272,234	67
2003	3,275,422	878,306	27	61,336	2	816,969-	25-
2004	1,624,795	449,310	28		0	449,310-	28-
2005	771,200	302,941	39		0	302,941-	39-
2006	3,934,128	1,012,073	26		0	1,012,073-	26-
2007	832,436	139,427	17	582,620	70	443,192	53
2008	3,477,445	544,686	16		0	544,686-	16-
2009	4,484,265	1,068,154	24	167,816	4	900,337-	20-
2010	133,532	18,175	14		0	18,175-	14-
2011	1,816,683	534,507	29	920,288	51	385,780	21
2012	957,971	536,939	56		0	536,939-	56-
2013	3,284,484	330,529	10		0	330,529-	10-
2014	1,010,285	223,264	22		0	223,264-	22-
2015	4,274,069	850,763	20		0	850,763-	20-
TOTAL	38,923,092	8,825,737	23	4,561,001	12	4,264,736-	11-
THREE-YE	AR MOVING AVERAG	ES					
94-96	1,513,824	380,424	25	838,051	55	457,626	30
95-97	2,286,551	431,193	19	838,051	37	406,858	18
96-98	1,709,007	364,329	21	801,225	47	436,896	26
97-99	1,322,148	241,904	18		0	241,904-	18-
98-00	131,868	86,342	65		0	86,342-	65-
99-01	95,195	37,434	39		0	37,434-	39-
00-02	179,486	23,226	13	104,930	58	81,704	46
01-03	1,260,426	315,995	25	125,376	10	190,619-	15-
02-04	1,768,582	456,724	26	125,376	7	331,348-	19-
03-05	1,890,472	543,519	29	20,446	1	523,073-	28-
04-06	2,110,041	588,108	28		0	588,108-	28-
05-07	1,845,921	484,814	26	194,207	11	290,607-	16-
06-08	2,748,003	565,395	21	194,207	7	371,189-	14-
07-09	2,931,382	584,089	20	250,145	9	333,944-	11-
08-10	2,698,414	543,672	20	55,939	2	487,733-	18-

#### ACCOUNT 314 TURBOGENERATOR UNITS

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		net Salvage	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	TMUOMA	PCT
THREE-YE	AR MOVING AVERAGE	ES					
09-11	2,144,827	540,279	25	362,701	17	177,578-	8-
10-12	969,395	363,207	37	306,762	32	56,445-	6-
11-13	2,019,713	467,325	23	306,762	15	160,563-	8 -
12-14	1,750,913	363,577	21		0	363,577-	21-
13-15	2,856,280	468,185	16		0	468,185-	16-
FIVE-YEA	R AVERAGE						
11-15	2,268,698	495,200	22	184,058	8	311,143-	14-



# ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1991	6,329		0		0		0
1992	0,022		_		_		
1993	37,232	74,358	200	396,748-		471,106-	
1994	9,852	977	10		0	977-	10-
1995	145,075	11,330	8	7,322	5	4,008-	3 -
1996	76,925	10,741	14	124,975	162	114,234	149
1997	38,297	2,010	5		0	2,010-	5 -
1998							
1999							
2000							
2001	16,118	6,569	41		0	6,569-	41-
2002	434		0	64,999		64,999	
2003	836		0		0		0
2004	28,226	7,603	27		0	7,603-	27-
2005							
2006	108,356	11,238	10		0	11,238-	10-
2007	195,095	71,257	37		0	71,257-	37-
2008	975		0		0		0
2009	69,407	58,030	84		0	58,030-	84-
2010	33,428	2,689	8	9,196	28	6,507	19
2011	909,711	308,869	34	119,912	13	188,957-	21-
2012	151,980	93,390	61	618	0	92,772-	61-
2013	363,097	239,415	66	2,808	1	236,607-	65-
2014	50,933	3,296	6	2,842	6	454-	1-
2015	30,263	7,973	26		0	7,973-	26-
TOTAL	2,272,568	909,745	40	64,076-	3-	973,821-	43-
THREE-Y	EAR MOVING AVERAG	ĖS					
91-93	14,520	24,786	171	132,249-	911-	157,035-	
92-94	15,695	25,112	160	132,249-	843-	157,361-	
93-95	64,053	28,888	45	129,809-	203-	158,697-	248-
94-96	77,284	7,682	10	44,099	57	36,416	47
95-97	86,766	8,027	9	44,099	51	36,072	42
96-98	38,407	4,250	11	41,658	108	37,408	97
97-99	12,766	670	5		0	670-	5-
98-00							
99-01	5,373	2,190	41		0	2,190-	41-
00-02	5,517	2,190	40	21,666	393	19,477	353
01-03	5,796	2,190	38	21,666	374	19,477	336
02-04	9,832	2,534	26	21,666	220	19,132	195

# ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	TRUOMA	PCT
THREE-YEA	R MOVING AVERAGES						
03-05	9,687	2,534	26		0	2,534-	26-
04-06	45,527	6,280	14		0	6,280-	14-
05-07	101,150	27,498	27		0	27,498-	27-
06-08	101,475	27,498	27		0	27,498-	27-
07-09	88,492	43,096	49		0	43,096-	49-
08-10	34,603	20,240	58	3,065	9	17,174-	50-
09-11	337,515	123,196	37	43,036	13	80,160-	24-
10-12	365,039	134,983	37	43,242	12	91,741-	25-
11-13	474,929	213,891	45	41,113	9	172,779-	36-
12-14	188,670	112,034	59	2,089	1	109,944-	58-
13-15	148,098	83,562	56	1,883	1	81,678-	55-
FIVE-YEAR	AVERAGE						
11-15	301,197	130,589	43	25,236	8	105,353-	35-

# ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

	REGULAR	COST OF		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	REMOVAL AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1988			0	100	1	100	1
	7,815 20,616			4,480	22	4,480	22
1989 1990	4,249,398		0	164,118	4	164,118	4
1991	4,249,398		0	104,110	0	104,110	0
1992	55,521	958	2		0	958-	2-
1993	11,206	383	3	37,633	336	37,251	332
1994	24,722	42	0	37,033	1	295	1
1995	52,493	70	0	6,472	12	6,402	12
1996	50,369	120	0	7,529	15	7,409	15
1997	244,396	219	0	3,617	1	3,397	1
1998	65,320	374	1	12,212-		12,586-	19-
1999	111,838	432	0	5,234	5	4,802	4
2000	472		0	·	0	·	0
2001	25,187		0		0		0
2002	56,542-		0	23,399	41-	23,399	41-
2003	·			·			
2004	186,564	10,310	6		0	10,310-	6-
2005							
2006	122,613	3,804	3	567	0	3,237-	3 -
2007	196,052	737	0		0	737-	0
2008	15,404		0		0		0
2009	39,354	1,153	3		0	1,153-	3 ~
2010	20,830	3,603	17		0	3,603-	17-
2011	365,962	8,495	2		0	8,495-	2-
2012	149,327	7,193	5		0	7,193-	5 -
2013	10,638	4,091	38		0	4,091-	38-
2014	191,506		0		0		0
2015	81,385	261,730	322		0	261,730-	322-
TOTAL	6,247,374	303,715	5	241,274	4	62,441-	1-
THREE-YE	AR MOVING AVERAGE	s					
88-90	1,425,943		0	56,233	4	56,233	4
89-91	1,424,981		0	56,199	4	56,199	4
90-92	1,436,616	319	0	54,706	4	54,387	4
91-93	23,885	447	2	12,544	53	12,098	51
92-94	30,483	461	2	12,657	42	12,196	40
93-95	29,474	165	1	14,814	50	14,649	50
94-96	42,528	77	0	4,779	11	4,702	11
95-97	115,753	137	0	5,872	5	5,736	5
96-98	120,028	238	0	356-	0	593-	0

#### ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YE	AR MOVING AVERAGES						
97-99	140,518	342	0	1,121-	1-	1,462-	1-
98-00	59,210	269	0	2,326-	4 -	2,595-	4 -
99-01	45,832	144	0	1,745	4	1,601	3
00-02	10,294-		0	7,800	76-	7,800	76-
01-03	10,452-		0	7,800	75-	7,800	75-
02-04	43,341	3,437	8	7,800	18	4,363	10
03-05	62,188	3,437	6		0	3,437-	6-
04-06	103,059	4,705	5	189	0	4,516-	4 -
05-07	106,222	1,514	1	189	0	1,325-	1-
06-08	111,356	1,514	1	189	0	1,325-	1-
07-09	83,603	630	1		0	630-	1-
08-10	25,196	1,585	6		0	1,585-	6-
09-11	142,049	4,417	3		0	4,417-	3
10-12	178,706	6,430	4		0	6,430-	4 -
11-13	175,309	6,593	4		0	6,593-	4 -
12-14	117,157	3,762	3		0	3,762-	3 -
13-15	94,509	88,607	94		0	88,607-	94-
FIVE-YEA	R AVERAGE						
	<del>-</del>	56 300	2.5			5 C 3 C C	3.6
11-15	159,764	56,302	35		0	56,302-	35-

# ACCOUNT 331 STRUCTURES AND IMPROVEMENTS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1990	242	4,092			0	4,092-	
1991							
1992							
1993							
1994	5,131		Đ		G		0
1995	112		٥		0		0
1996	19,338		0	23	0	23	0
1997							
1998							
1999							
2000							
2001							
2002							
2003							
2004							
2005	67,902		0		٥		o
2006	,						
2007							
2008							
2009							
2010							
2011							
2012	36,439	91	Θ		O	91-	0
2013	4-7	<i>-</i>	-		-		•
2014							
2015	4,488	10,357	231		c	10,357-	231-
2013	1,100	10,00				10,00	
TOTAL	133,652	14,540	11	23	0	14,517-	11-
THREE-YE	EAR MOVING AVERAGE	ES					
90-92	81	1,364			0	1,364-	
91-93							
92-94	1,710		0		0		0
93-95	1,748		0		0		0
94-96	8,194		0	8	0	8	0
95-97	6,483		0	8	0	8	0
96-98	6,446		0	8	0	8	0
97-99							
98-00							
99-01							
00-02							

#### ACCOUNT 331 STRUCTURES AND IMPROVEMENTS

	REGULAR	COST OF REMOVAL		GROSS SALVAGE	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT	PCT
THREE-YEA	R MOVING AVERAGES					
01-03						
02-04						
03-05	22,634		0	0		0
04-06	22,634		0	0		0
05-07	22,634		0	0		0
06-08						
07-09						
08-10						
09-11						
10-12	12,146	30	0	0	30-	0
11-13	12,146	30	0	0	30-	0
12-14	12,146	30	0	0	30-	0
13-15	1,496	3,452	231	0	3,452-	231-
FIVE-YEAR	AVERAGE					
11-15	8,185	2,090	26	0	2,090-	26+

# ACCOUNT 332 RESERVOIRS, DAMS AND WATERWAYS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1996	25,343		0	30	0	30	0
1997							
1998							
1999							
2000							
2001							
2002							
2003							
2004							
2005	292,979		0		٥		0
2006							
2007	2,023		0		D		0
2008	44,162	156,375	354		Đ	156,375-	354-
2009							
2010							
2011	15,191	29,260			0	29,260-	
2012	36,070	1,776	5		Û	1,776-	5 -
2013		157,387				157,387-	
2014	13,239	277	2		0	277-	2-
2015							
TOTAL	429,006	345,076	80	30	a	345,046-	80-
THREE-YEA	R MOVING AVERAGE	ss					
96-98	8,448		0	10	0	10	Ó
97-99							
98-00							
99-01							
00-02							
01-03							
02-04							
03-05	97,660		0		0		0
04-06	97,660		0		0		0
05-07	98,334		0		0		0
06-08	15,395	52,125	339		0	52,125-	339-
07-09	15,395	52,125	339		0	52,125-	
08-10	14,720	52,125	354		0	52,125-	
09-11	5,064	9,753	193		0	9,753-	
10-12	17,087	10,345	61		0	10,345-	61-
11-13	17,087	62,808	368		0	62,808-	368-

# ACCOUNT 332 RESERVOIRS, DAMS AND WATERWAYS

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT P	CT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAGES						
12-14	16,436	53,147	323		0	53,147-	323-
13-15	4,413	52,555			0	52,555-	
FIVE-YEA	R AVERAGE						
11-15	12,900	37,740	293		C	37,740-	293-

# ACCOUNT 333 WATER WHEELS, TURBINES AND GENERATORS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1000	1 100		•				0
1992	1,109		0		0		0
1993							
1994							
1995	2 063			3	0	3	0
1996	2,963		0	3	0	3	0
1997	1,420		3		Ü		U
1998							
1999 2000							
2000							
2001							
2002							
2003							
2005	114,085		0		0		0
2005	114,005		U		Ü		J
2007	43,039	47,822	111		O	47,822-	111-
2008	3,022	6,931			0	6,931-	
2009	3,022	0,551	223		-	0,331	
2010	41,413	315,415	762		0	315,415-	762-
2011	11,113	313,113	, 02			0.0,	. 42
2012	5,134	5,904	115		0	5,904-	115-
2013	156,959	277,242			0	277,242-	
2014	130,333	2,2.2			•	2.1,212	
2015		286,175			0	286,175-	
2020		200,210			_	200,200	
TOTAL	369,145	939,490	255	3	0	939,486-	255-
THREE-YE	CAR MOVING AVERAG	SES					
92-94	370		0		0		0
93-95							
94-96	988		0	1	0	1	0
95-97	1,461		0	1	0	1	0
96-98	1,461		0	1	0	1	0
97-99	473		0		0		0
98-00							
99-01							
00-02							
01-03							
02-04							
03-05	38,028		0		0		0
04-06	38,028		0		0		0

# ACCOUNT 333 WATER WHEELS, TURBINES AND GENERATORS

	REGULAR	COST OF REMOVAL		GROSS SALVAGE	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAGES					
05-07	52,375	15,941	30	0	15,941-	30-
06-08	15,354	18,251	119	0	18,251-	119-
07-09	15,354	18,251	119	0	18,251-	119-
08-10	14,812	107,449	725	0	107,449-	725-
09-11	13,804	105,138	762	0	105,138-	762-
10-12	15,516	107,106	690	0	107,106-	690-
11-13	54,031	94,382	175	0	94,382-	175-
12-14	54,031	94,382	175	0	94,382-	175-
13-15	52,320	187,805	359	0	187,805-	359-
FIVE-YEA	R AVERAGE					
11-15	32,419	113,864	351	0	113,864-	351-



# ACCOUNT 334 ACCESSORY ELECTRIC EQUIPMENT

	REGULAR	COST OF REMOVAL		GROSS SALVAGE	NET SALVAGE	
¥EAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PC	T AMOUNT	PCT
1989	3,316		0	(	)	0
1990						
1991						
1992						
1993						
1994						
1995						
1996						
1997						
1998						
1999						
2000						
2001						
2002						
2003						
2004						
2005	264,486		Ð	- (	)	0
2006						
2007						
2008						
2009						
2010	15	27	181	Ţ	27-	181-
2011						
2012						
2013						
2014	6,812		G	t	)	0
2015						
TOTAL	274,629	27	0	,	27-	9
THREE-YE	EAR MOVING AVERAGES					
89-91	1,105		0	(	)	0
90-92						
91-93						
92-94						
93-95						
94-96						
95-97						
96-98						
97-99						
98-00						

# ACCOUNT 334 ACCESSORY ELECTRIC EQUIPMENT

		COST OF		GROSS	NET
	REGULAR	REMOVAL		SALVAGE	SALVAGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT PCT
THREE-YE	AR MOVING AVERAGE	S			
99-01					
00-02					
01~03					
02-04					
03-05	88,162		0	0	0
04-06	88,162		0	0	0
05-07	88,162		0	0	0
06-08					
07-09					
08-10	5 5	9	181	0	9- 181-
09-11	5	9	181	0	9- 181-
10-12	5	9	181	0	9- 181-
11-13					
12-14	2,271		0	0	0
13-15	2,271		0	0	0
FIVE-YEA	R AVERAGE				
11-15	1,362		0	0	0

#### ACCOUNT 335 MISCELLANEOUS POWER PLANT EQUIPMENT

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	TRUOMA	PCT
1990	63		0		0		0
1991							
1992	1,347		0		0		0
1993							
1994							
1995							
1996	10,618		0	12	D	12	0
1997							
1998							
1999							
2000							
2001							
2002							
2003							
2004							
2005	68,239		0		0		C
2006							
2007							
2008							
2009							
2010	92,639	6,475	7		0	6,475-	7-
2011					_		
2012	9,409	3,286	35		0	3,286-	35-
2013							
2014							_
2015	5,963		G		0		0
TOTAL	188,279	9,761	5	12	0	9,748-	5-
THREE-YE	EAR MOVING AVERAGES						
90-92	470		0		0		0
91-93	449		0		0		0
92-94	449		0		0		0
93-95							
94 - 96	3,539		0	4	0	4	0
95-97	3,539		0	4	0	4	0
96-98	3,539		0	4	0	4	0
97-99							
98-00							
99-01							
00-02							

#### ACCOUNT 335 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT PCT	net Salvage Amount Pct	•
THREE-YEA	AR MOVING AVERAGES					
01-03						
02-04						
03-05	22,746		0	0	0	)
04-06	22,746		0	0	0	)
05-07	22,746		0	0	0	Ì
06-08						
07-09						
08-10	30,880	2,158	7	0	2,158- 7	7 –
09-11	30,880	2,158	7	0	2,158- 7	7 –
10-12	34,016	3,254	10	0	3,254- 10	)
11-13	3,136	1,095	35	0	1,095- 35	<u>;</u> –
12-14	3,136	1,095	35	0	1,095- 35	<u> </u>
13-15	1,988		0	0	0	)
FIVE-YEAR	R AVERAGE					
11-15	3,075	657	21	0	657- 21	

# ACCOUNT 336 ROADS, RAILROADS AND BRIDGES

# SUMMARY OF BOOK SALVAGE

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2005	1,170		0		0		0
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
TOTAL	1,170		Q		o		0
THREE-YEA	R MOVING AVERAGE	ES					
05-07	390		0		0		3
06-08							
07-09							
08-10							
09-11							
10-12							
11-13							
12-14							
13-15							

FIVE-YEAR AVERAGE

11-15

# ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

	DECLE VD	COST OF		GROSS	NET	
YEAR	REGULAR RETIREMENTS	REMOVAL AMOUNT	PCT	SALVAGE AMOUNT PCT	SALVAGE AMOUNT	PCT
2004	81,569	2,060	3	0	2,060-	3-
2005	·	•			•	
2006	11,267	715	6	0	715-	6-
2007	142	8,913		0		
2008					·	
2009	30,262		0	0		0
2010	310,361		0	0		0
2011	144,830	1,252	1	0	1,252-	1-
2012						
2013	94,168		0	0		0
2014						
2015						
TOTAL	672,599	12,940	2	0	12,940-	2-
THREE-YE	AR MOVING AVERAG	ES				
04-06	30,945	925	3	0	925-	3-
05-07	3,803	3,209	84	0	3,209-	84-
06-08	3,803	3,209	84	0	3,209-	84-
07-09	10,135	2,971	29	0	2,971-	29-
08-10	113,541		0	0		0
09-11	161,818	417	0	0	417-	0
10-12	151,730	417	0	0	417-	0
11-13	79,666	417	1	0	417-	1-
12-14	31,389		0	0		0
13-15	31,389		0	0		0
FTVF-VFA	R AVERAGE					
11-15	47,800	250	1	Q	250-	1-

# ACCOUNT 343 PRIME MOVERS

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2004	222,656		0		0		0
2005							
2006	7,517,883	458,920	6		0	458,920-	6-
2007	1,998,860	229,019	11		0	229,019-	11-
2008	2,244,288	55,421	2		0	55,421-	2-
2009	3,401,722	241,383	7		0	241,383-	7 -
2010	991,871	25,976	3		0	25,976-	3 -
2011	1,769,658	491,147	28		0	491,147-	28-
2012	5,640,488	935,687	17		0	935,687-	17-
2013	4,398,256	395,942	9		0	395,942-	9 -
2014	2,400,559	382,493	16	11,529	0	370,964~	15-
2015	2,454,814		0		0		0
TOTAL	33,041,057	3,215,989	10	11,529	0	3,204,460-	10-
THREE-YE	AR MOVING AVERAGE	ES					
04-06	2,580,180	152,973	6		0	152,973-	6-
05-07	3,172,248	229,313	7		0	229,313-	7-
06-08	3,920,344	247,787	6		0	247,787-	6-
07-09	2,548,290	175,274	7		0	175,274-	7 -
08-10	2,212,627	107,594	5		0	107,594-	5 -
09-11	2,054,417	252,836	12		0	252,836-	12-
10-12	2,800,673	484,270	17		0	484,270-	17-
11-13	3,936,134	607,592	15		0	607,592-	15-
12-14	4,146,434	571,374	14	3,843	0	567,531-	14-
13-15	3,084,543	259,478	8	3,843	0	255,635-	8-
prup_ver	AR AVERAGE						
11-15	3,332,755	441,054	13	2,306	0	438,748-	13-

# ACCOUNT 344 GENERATORS

		COST OF		GROSS	NET	
	REGULAR	REMOVAL		SALVAGE	SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT	PCT
2011	40,984	5,855	14	0	5,855-	14-
2012						
2013	617,458		0	0		0
2014	229,568	76,942	34	0	76,942-	34-
2015						
TOTAL	888,010	82,796	9	0	82,796-	9-
THREE-YE	AR MOVING AVERAGE	ES				
11-13	219,480	1,952	1	0	1,952-	1-
12-14	282,342	25,647	9	0	25,647-	9 -
13-15	282,342	25,647	9	٥	25,647-	9-
FIVE-YEA	r AVERAGE					
11-15	177,602	16,559	9	0	16,559-	9-

# ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT	PCT
2007	25,576	513	2	0	513-	2-
2008						
2009						
2010						
2011	121,306		0	0		0
2012	275,993	61,180	22	0	61,180-	22-
2013	547,609		0	0		0
2014						
2015	21,022	7,259	35	0	7,259-	35-
TOTAL	991,506	68,951	7	0	68,951-	7-
THREE-YE	AR MOVING AVERAG	ES				
07-09	8,525	171	2	0	171-	2-
08-10	•					
09-11	40,435		0	0		0
10-12	132,433	20,393	15	0	20,393-	15-
11-13	314,969	20,393	6	0	20,393-	6-
12-14	274,534	20,393	7	0	20,393-	7-
13-15	189,544	2,420	1	0	2,420-	1-
FIVE-YEAR	R AVERAGE					
11-15	193,186	13,688	7	G	13,688-	7-

# ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1999	182,339		0	166,006	91	166,006	91
2000				•		•	
2001							
2002							
2003							
2004							
2005							
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014	44	1,518			O	1,518-	
2015							
TOTAL	182,383	1,519	1	166,006	91	164,488	90
THREE-YE	AR MOVING AVERAGE	es Es					
99-01	60,780		D	55,335	91	55,335	91
00-02				·		•	
01-03							
02-04							
03-05							
04-06							
05-07							
06-08							
07-09							
08-10							
09-11							
10-12							
11-13							
12-14	15	506			0	506-	
13-15	15	506			0	506-	
FIVE-YEAL	R AVERAGE						
11-15	9	304			0	304-	

#### ACCOUNT 350.1 LAND RIGHTS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1964	1,333		0	1,082	81	1,082	81
1965	•			•			
1966							
1967							
1968							
1969							
1970							
1971							
1972							
1973							
1974							
1975	32,928	8,138	25	2,053	6	6,085-	18-
1976							
1977	4,315	87	2		0	87 -	2-
1978							
1979	756		0		0		0
1980							
1981							
1982							
1983							
1984							
1985							
1986							
1987							
1988							
1989			_				
1990	643		0		0		0
1991							
1992							
1993							
1994 1995	1		37		15		22-
1996	361	136	38	57	16	80-	22-
1997	301	130	30	3,			
1998	361-	545	- 151	165-	46	380	105-
1999	361	160	44	24	7	136-	38-
2000	301	200			•		
2001							
2002							
2003							
2004							
2005	361		0		0		0

#### ACCOUNT 350.1 LAND RIGHTS

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		net Salvage	
YEAR	RETIREMENTS	TRUOMA	PCT	AMOUNT	PCT	TRUOMA	PCT
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
TOTAL	40,698	7,976	20	3,051	7	4,926-	12 -
	AR MOVING AVERAGES						
64-66	444		0	361	81	361	81
65-67							
66-68							
67-69							
68-70							
69-71							
70-72 71-73							
72-74							
73-75	10,976	2,713	25	684	6	2,028-	18-
74-76	10,976	2,713	25	684	6	2,028-	18-
75-77	12,414	2,742	22	684	6	2,057-	17-
76-78	1,438	29	2		0	29-	2-
77-79	1,690	29	2		0	29-	2-
78-80	252		0		0		0
79-81	252		0		0		0
80-82							
81-83							
82-84							
83-85							
84-86							
85-87							
86-88							
87-89							
88-90	214		0		0		0
89-91	214		0		0		0
90-92	214		0		0		0

#### ACCOUNT 350.1 LAND RIGHTS

#### SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YE	EAR MOVING AVERAGES	}					
91-93							
92-94							
93-95			37		15		22-
94-96	121	46	38	19	16	27-	22-
95-97	121	46	38	19	16	27-	22-
96-98		136-		36-		100	
97-99		128-	•	47-		81	
98-00		128-		47-		81	
99-01	120	53	44	8	7	45-	38-
00-02							
01-03							
02-04							
03-05	120		0		0		0
04-06	120		0		0		0
05-07	120		0		0		ū
06-08							
07-09							
08-10							
09-11							
10-12							
11-13							
12-14							
13-15							

FIVE-YEAR AVERAGE

11-15

#### ACCOUNTS 352.1 AND 352.2 STRUCTURES AND IMPROVEMENTS

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1985	2,967	6,845	231	356	12	6,489-	219-
1986	123		0		0		0
1987	2,832	1,256	44	50	2	1,206-	43-
1988	2,848	236	8		0	236-	8 -
1989	4,278	1,477	35		0	1,477-	35-
1990	2,315	1,371	59	271	12	1,100-	48-
1991	1,153	3,350	291	53	5	3,297-	286-
1992	3,413	1,479	43		0	1,479-	43-
1993	5,528	14,439	261	1,419	26	13,020-	236-
1994	4,241	4,195	99	621	15	3,574-	84-
1995	4,270	5,441	127	258	6	5,183-	121-
1996	6,059	7,979	132	1,370	23	6,609-	109-
1997	4,361	7,984	183	723	17	7,261-	167-
1998	8,608	45,273	526	5,606	65	39,667-	461-
1999							
2000	2,748		0		0		0
2001							
2002							
2003	21,752	1,335	6		0	1,335-	6 -
2004	3,829	3,227	84		0	3,227-	84-
2005	2,062		0		0		0
2006	8,109	9,147	113		0	9,147-	113-
2007	26,842	37,817	141	23,068	86	14,749-	55-
2008							
2009	13,054	17,460	134		0	17,460-	134-
2010	9,690	29,543	305	13,768	142	15,775-	163-
2011	13,660	13,393	98		0	13,393-	98-
2012	37,304	66,001	177	2,186	6	63,815-	171-
2013	97,596	120,282	123		0	120,282-	123-
2014	10,694	27,238	255	151	1	27,087-	253 -
2015	95,707	39,122	41	36	0	39,086-	41-
TOTAL	396,043	465,890	118	49,935	13	415,956-	105-
THREE-YE	AR MOVING AVERAGES						
85-87	1,974	2,700	137	135	7	2,565-	130-
86-88	1,934	497	26	17	1	481-	25-
87-89	3,319	990	30	17	1	973-	29-
88-90	3,147	1,028	33	90	3	938-	30-
89-91	2,582	2,066	80	108	4	1,958-	76-
90-92	2,294	2,067	90	108	5	1,959-	85-
-	•	•					

# ACCOUNTS 352.1 AND 352.2 STRUCTURES AND IMPROVEMENTS

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAGES	5					
91-93	3,365	6,423	191	491	15	5,932-	176-
92-94	4,394	6,704	153	680	15	6,024-	137-
93-95	4,680	8,025	171	766	16	7,259-	155-
94-96	4,857	5,871	121	749	15	5,122-	105-
95-97	4,897	7,135	146	783	16	6,351-	130-
96-98	6,343	20,412	322	2,566	40	17,846-	281-
97-99	4,323	17,752	411	2,110	49	15,643-	362-
98-00	3,785	15,091	399	1,869	49	13,222-	349-
99-01	916		0		0		0
00-02	916		0		0		0
01-03	7,251	445	6		0	445-	6-
02-04	8,527	1,521	18		0	1,521-	18-
03-05	9,215	1,521	17		0	1,521-	17-
04-06	4,667	4,125	88		0	4,125-	88-
05-07	12,338	15,655	127	7,689	62	7,965-	65-
06-08	11,651	15,655	134	7,689	66	7,965-	68-
07-09	13,299	18,426	139	7,689	58	10,736-	81-
08-10	7,581	15,668	207	4,589	61	11,078-	
09-11	12,135	20,132	166	4,589	38	15,543-	
10-12	20,218	36,312	180	5,318	26	30,994-	
11-13	49,520	66,559	134	729	1	65,830-	
12-14	48,531	71,174	147	779	2	70,395-	
13-15	67,999	62,214	91	62	0	62,152-	91-
		•				•	
FIVE-YEA	R AVERAGE						
11-15	50,992	53,207	104	475	1	52,733-	103-

# ACCOUNTS 353.1 AND 353.2 STATION EQUPMENT

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1985	217,959	29,125	13	17,298	8	11,827-	5-
1986	83,514	28,837	35	120,284	144	91,447	109
1987	315,181	15,504	5	346,746	110	331,242	105
1988	668,214	21,296	3	196,822	29	175,526	26
1989	140,453	21,794	16	111,417	79	89,623	64
1990	1,671,727	44,364	3	731,144	44	686,780	41
1991	49,508	9,920	20	17,271	35	7,351	15
1992	39,261	14,796	38	32,616	83	17,820	45
1993	185,130	30,467	16	265,110	143	234,643	127
1994	64,717	4,747	7	122,450	189	117,703	182
1995	1,376,276	47,725	3	320,057	23	272,332	20
1996	161,182	19,087	12	132,188	82	113,101	70
1997	505,444	39,052	8	235,697	47	196,645	39
1998	290,736	69,366	24	340,255	117	270,889	93
1999	68,667	3,876	6	9,033	13	5,157	8
2000	596,660	8,120	1		0	8,120-	1 -
2001	1,974,611	1,727	0	40,000	2	38,273	2
2002	12,798	7,990	62		0	7,990-	62-
2003	352,645	45,907	13		0	45,907-	13-
2004	282,008	142,156	50	889	0	141,267-	50-
2005	59,445		0		0		0
2006	1,911,180	368,976	19	6,978	0	361,998-	19-
2007	521,200	125,767	24	44,862	9	80,906-	16-
2008	26,835	10,665	40		0	10,665-	40-
2009	2,457,817	436,836	18	431,251	18	5,585-	0
2010	1,196,572	104,491	9	76,951	6	27,539-	2-
2011	1,372,060	261,192	19	13,589	1	247,603-	18-
2012	2,919,690	436,379	15	157,573	5	278,806-	10-
2013	2,160,302	812,612	38	67,868	3	744,744-	34-
2014	2,592,072	922,884	36	28,706	1	894,178-	34-
2015	1,108,576	1,362,504	123	30,694	3	1,331,810-	120-
TOTAL	25,382,440	5,448,162	21	3,897,748	15	1,550,413-	6-
THREE-YE	AR MOVING AVERAGE	ES					
85-87	205,551	24,489	12	161,443	79	136,954	67
86-88	355,636	21,879	6	221,284	62	199,405	56
87-89	374,616	19,531	5	218,328	58	198,797	53
88-90	826,798	29,151	4	346,461	42	317,310	38
89-91	620,563	25,359	4	286,611	46	261,251	42
90-92	586,832	23,027	4	260,344	44	237,317	40
	- • -	•		-		·	

# ACCOUNTS 353.1 AND 353.2 STATION EQUPMENT

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAGE	s					
91-93	91,300	18,394	20	104,999	115	86,605	95
92-94	96,369	16,670	17	140,059	145	123,389	128
93-95	542,041	27,646	5	235,872	44	208,226	38
94-96	534,058	23,853	4	191,565	36	167,712	31
95-97	680,967	35,288	5	229,314	34	194,026	28
96-98	319,121	42,502	13	236,047	74	193,545	61
97-99	288,282	37,432	13	194,995	68	157,564	55
98-00	318,688	27,121	9	116,430	37	89,309	28
99-01	879,979	4,574	1	16,344	2	11,770	1
00-02	861,356	5,946	1	13,333	2	7,388	1
01-03	780,018	18,541	2	13,333	2	5,208-	1+
02-04	215,817	65,351	30	296	0	65,055-	30-
03-05	231,366	62,688	27	296	0	62,391-	27-
04-06	750,878	170,377	23	2,622	0	167,755-	22-
05-07	830,609	164,914	20	17,280	2	147,635-	18-
06-08	819,738	168,469	21	17,280	2	151,190-	18-
07-09	1,001,951	191,089	19	158,704	16	32,385-	3 -
08-10	1,227,075	183,997	15	169,401	14	14,597-	1-
09-11	1,675,483	267,506	16	173,930	10	93,576-	6-
10-12	1,829,441	267,354	15	82,704	5	184,649-	10-
11-13	2,150,684	503,394	23	79,676	4	423,718-	20-
12-14	2,557,354	723,958	28	84,716	3	639,243-	25-
13-15	1,953,650	1,032,666	53	42,423	2	990,244-	51-
FIVE-YEA	R AVERAGE						
11-15	2,030,540	759,114	37	59,686	3	699,428-	34 -

# ACCOUNT 354 TOWERS AND FIXTURES

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1985	7,239	10,771	149	604	8	10,167-	140-
1986	18,776	6,598	35	14,112	75	7,514	40
1987							
1988	27,311	18-	. 0		0	18	0
1989							
1990	66,666	53,275	80	46,938	70	6,337-	10-
1991	47,110	22,658	48	25,939	55	3,281	7
1992							
1993							
1994							
1995				_	_		
1996	51,557	64,498		41,965	81	22,533-	44-
1997	114,123	198,493	174	104,608	92	93,885-	82-
1998							
1999	18,830	27,553	146	7,518	40	20,034-	106-
2000							
2001	20.000	** ***			_		
2002	20,206	54,410		150 160	0	54,410-	269-
2003	12,755	42.002	0	159,168		159,168	
2004	11,796	47,227	400		0	47,227-	400-
2005	256 476	103 150	4.0	4.1	^	102 100	4.0
2006	256,476	103,150	40	41	0	103,109-	40-
2007 2008	28,613	90,682 48	317	218,219	763	127,537 48-	446
2009	45,221	16,491	36	1,935	4	14,556-	32-
2010	388,638	189,784	49	4,928	1	184,855-	48-
2011	81,908		106	4,320	ō	86,871-	
2012	360,272	514,996		21,840	6	493,156-	
2013	1,080,968	1,109,764		59,332	5	1,050,432-	97-
2014	291,750	246,878	85	99,520	34	147,358-	51-
2015	62,173		418	729	1	259,323-	
	32,2.3			•	_		
TOTAL	2,992,387	3,104,180	104	807,397	27	2,296,783-	77-
THREE-YE	AR MOVING AVERAG	ES					
85-87	8,672	5,790	67	4,905	57	884-	10-
86-88	15,362	2,193		4,704	31	2,511	16
87-89	9,104	6-	- 0		0	6	0
88-90	31,326	17,752	57	15,646	50	2,106-	7 +
89-91	37,925	25,311	67	24,292	64	1,019-	3 -
90-92	37,925	25,311	67	24,292	64	1,019-	3 -

## ACCOUNT 354 TOWERS AND FIXTURES

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	TRUOMA	PCT
THREE-YE	AR MOVING AVERAGES	5					
91-93	15,703	7,553	48	8,646	55	1,094	7
92-94							
93-95							
94 - 96	17,186	21,499	125	13,988	81	7,511-	44-
95-97	55,227	87,664	159	48,858	88	38,806~	70-
96-98	55,227	87,664	159	48,858	88	38,806-	70-
97-99	44,318	75,348	170	37,375	84	37,973-	86-
98-00	6,277	9,184	146	2,506	40	6,678-	106-
99-01	6,277	9,184	146	2,506	40	6,678-	106-
00-02	6,735	18,137	269		0	18,137-	269~
01-03	10,987	18,137	165	53,056	483	34,919	318
02-04	14,919	33,879	227	53,056	356	19,177	129
03-05	8,184	15,742	192	53,056	648	37,314	456
04-06	89,424	50,126	56	14	0	50,112-	56-
05-07	95,030	64,611	68	72,753	77	8,143	9
06-08	95,030	64,627	68	72,753	77	8,127	9
07-09	24,611	35,740	145	73,385	298	37,644	153
08-10	144,619	68,774	48	2,288	2	66,487-	46-
09-11	171,922	97,715	57	2,288	1	95,427-	56-
10-12	276,939	263,883	95	8,923	3	254,961-	92-
11-13	507,716	570,544	112	27,057	5	543,486-	107-
12-14	577,664	623,879	108	60,231	10	563,649-	98-
13-15	478,297	538,898	113	53,194	11	485,704-	102-
FIVE-YEA	R AVERAGE						
11-15	375,414	443,712	118	36,284	10	407,428-	109-

## ACCOUNT 355 POLES AND FIXTURES

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1985	295,387	195,597	66	146,667	50	48,930~	17-
1986	195,216	162,611	83	102,112	52	60,499-	31-
1987	457,818	338,082	74	104,724	23	233,358-	51-
1988	604,760	70,631	12	272,807	45	202,176	33
1989	208,004	153,267	74	131,771	63	21,496-	10-
1990	384,788	293,719	76	365,995	95	72,276	19
1991	188,629	166,567	88	217,915	116	51,348	27
1992	211,558	216,832	102	381,455	180	164,623	78
1993	143,338	275,680	192	462,936	323	187,256	131
1994	236,308	172,096	73	871,569	369	699,472	296
1995	242,108	227,169	94	318,893	132	91,724	38
1996	387,362	375,594	97	465,253	120	89,659	23
1997	220,947	297,851	135	349,489	158	51,637	23
1998	130,720	506,238	387	458,655	351	47,583-	36-
1999	357,287	405,200	113	160,679	45	244,521-	68-
2000	48,954		0		0		0
2001	289,828	186,232	64	25,729	9	160,503-	55-
2002	39,323	58,921	150	290,866	740	231,945	590
2003	311,868	120,822	39	1,185,250	380	1,064,428	341
2004	46,585	71,959	154	2,674	6	69,284-	149-
2005	4,313		0		0		0
2006	610,837	1,231,228	202	895,583	147	335,645-	55-
2007	204,555	523,135	256	781,934	382	258,799	127
2008	59,888	253,612	423	42,100	70	211,511-	353-
2009	845,834	1,815,589	215	364,814	43	1,450,775-	172-
2010	710,498	3,424,297	482	22,008	3	3,402,289-	479-
2011	743,968	1,668,302	224	2,715	0	1,665,587-	224-
2012	480,870	2,009,042	418	132,638	28	1,876,404-	390-
2013	395,319	2,171,048	549	99,088	25	2,071,960-	524-
2014	826,504	2,472,240	299	133,167	16	2,339,073-	283-
2015	727,209	4,204,804	578	197,615	27	4,007,189-	551-
TOTAL	10,610,584	24,068,365	227	8,987,101	85	15,081,264-	142-
THREE - VE	AR MOVING AVERA	:ES					
			72	117 024	37	114 262	36-
85-87	316,140	232,097	73 45	117,834 159,881	38	114,262- 30,560-	7-
86-88	419,265	190,441	45			17,559-	
87-89	423,527	187,327	44	169,767	40	•	4-
88-90	399,184	172,539	43	256,858	64	84,319	21
89-91	260,474	204,518	79	238,560	92	34,043	13
90-92	261,658	225,706	86	321,788	123	96,082	37

### ACCOUNT 355 POLES AND FIXTURES

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YE	AR MOVING AVERAGES						
91-93	181,175	219,693	121	354,102	195	134,409	74
92-94	197,068	221,536	112	571,987	290	350,450	178
93-95	207,251	224,982	109	551,132	266	326,150	157
94-96	288,593	258,286	89	551,905	191	293,618	102
95-97	283,472	300,205	106	377,878	133	77,673	27
96-98	246,343	393,228	160	424,466	172	31,238	13
97-99	236,318	403,097	171	322,941	137	80,156-	34-
98-00	178,987	303,813	170	206,445	115	97,368-	54-
99-01	232,023	197,144	85	62,136	27	135,008-	58-
00-02	126,035	81,718	65	105,532	84	23,814	19
01-03	213,673	121,992	57	500,615	234	378,623	177
02-04	132,592	83,901	63	492,930	372	409,030	308
03-05	120,922	64,260	53	395,975	327	331,715	274
04-06	220,578	434,396	197	299,419	136	134,976-	61-
05-07	273,235	584,788	214	559,172	205	25,615-	9 -
06-08	291,760	669,325	229	573,206	196	96,119-	33-
07-09	370,092	864,112	233	396,283	107	467,829-	126-
08-10	538,740	1,831,166	340	142,974	27	1,688,192-	313-
09-11	766,767	2,302,729	300	129,846	17	2,172,884-	283-
10-12	645,112	2,367,214	367	52,454	8	2,314,760-	359-
11-13	540,053	1,949,464	361	78,147	14	1,871,317-	347-
12-14	567,565	2,217,443	391	121,631	21	2,095,812-	369-
13-15	649,677	2,949,364	454	143,290	22	2,806,074-	432-
FIVE-YEA	AR AVERAGE						
11-15	634,774	2,505,087	395	113,045	18	2,392,042-	377-

## ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

	550T 15	COST OF		GROSS		NET	
YEAR	REGULAR RETIREMENTS	REMOVAL AMOUNT	PCT	SALVAGE AMOUNT	PCT	SALVAGE AMOUNT	PCT
	RETTREMENTS				FÇI	ANOONI	FCI
1985	271,431	241,007	89	201,672	74	39,335-	14-
1986	168,572	103,081	61	150,527	89	47,446	28
1987	376,013	268,761	71	123,282	33	145,479-	39-
1988	449,663	34,559	8	234,465	52	199,906	44
1989	109,255	28,945	26	181,512	166	152,567	140
1990	445,041	215,298	48	526,486	118	311,188	70
1991	93,074	44,036	47	96,445	104	52,409	56
1992	115,355	88,985	77	420,968	365	331,983	288
1993	22,522	43,594	194	80,485	357	36,891	164
1994	170,373	124,874	73	675,392	396	550,517	323
1995	175,759	165,973	94	249,965	142	83,992	48
1996	416,487	406,426	98	596,824	143	190,398	46
1997	107,536	145,896	136	191,640	178	45,744	43
1998	35,818	139,602	390	149,683	418	10,081	28
1999	190,072	216,945	114	114,138	60	102,807-	54 -
2000	8,372	79,307	947		0	79,307-	947-
2001	199,729	234,533	117	2,842	1	231,691-	116-
2002	32,589	88,020	270	7,007	22	81,013-	249-
2003	233,243	95,840	41	564,651	242	468,810	201
2004	13,462	8,686	65	4,983	37	3,703-	28-
2005	4,980		0		0		0
2006	904,174	1,169,323	129	1,363,880	151	194,558	22
2007	149,381	310,608	208	446,642	299	136,035	91
2008	150,704	237,948	158	182,686	121	55,262-	37-
2009	217,390	643,606	296	124,720	57	518,886-	239-
2010	461,935	1,867,543	404	4,470	1	1,863,073-	403-
2011	521,733	927,086	178	15,570	3	911,516-	175-
2012	469,532	1,473,465	314	255,069	54	1,218,395-	259-
2013	439,996	1,311,511	298	106,523	24	1,204,988-	274-
2014	713,072	1,697,159	238	216,778	30	1,480,382-	208-
2015	445,350	1,925,212	432	29,041	7	1,896,171-	426-
TOTAL	8,112,612	14,337,829	177	7,318,347	90	7,019,482-	87-
THREE-YE	AR MOVING AVERAG	GES					
85-87	272,005	204,283	75	158,494	58	45,789-	17-
86-88	331,416	135,467	41	169,425	51	33,958	10
87-89	311,644	110,755	36	179,753	58	68,998	22
88-90	334,653	92,934	28	314,154	94	221,220	66
89-91	215,790	96,093	45	268,148	124	172,055	80
90-92	217,823	116,106	53	347,966	160	231,860	106
30-32	211,023	110,100	در	347,300	-00	251,000	-00

### ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YE	EAR MOVING AVERAGES	5					
91-93	76,984	58,872	76	199,299	259	140,428	182
92-94	102,750	85,818	84	392,282	382	306,464	298
93-95	122,885	111,480	91	335,281	273	223,800	182
94-96	254,206	232,424	91	507,394	200	274,969	108
95-97	233,261	239,432	103	346,143	148	106,712	46
96-98	186,614	230,641	124	312,716	168	82,074	44
97-99	111,142	167,481	151	151,820	137	15,661-	14-
98-00	78,087	145,285	186	87,940	113	57,344-	73-
99-01	132,724	176,928	133	38,993	29	137,935-	104-
00-02	80,230	133,953	167	3,283	4	130,670-	163-
01-03	155,187	139,464	90	191,500	123	52,036	34
02-04	93,098	64,182	69	192,214	206	128,031	138
03-05	83,895	34,842	42	189,878	226	155,036	185
04-06	307,539	392,670	128	456,288	148	63,618	21
05-07	352,845	493,310	140	603,508	171	110,197	31
06-08	401,419	572,626	143	664,403	166	91,777	23
07-09	172,491	397,387	230	251,349	146	146,038-	85-
08-10	276,676	916,366	331	103,959	38	812,407-	294-
09-11	400,353	1,146,078	286	48,254	12	1,097,825-	274-
10-12	484,400	1,422,698	294	91,703	19	1,330,995-	275-
11-13	477,087	1,237,354	259	125,721	26	1,111,633-	233-
12-14	540,867	1,494,045	276	192,790	36	1,301,255-	241-
13-15	532,806	1,644,627	309	117,447	22	1,527,180-	287-
FIVE-YE	AR AVERAGE						
11-15	517,937	1,466,886	283	124,596	24	1,342,290-	259-

## ACCOUNT 358 UNDERGROUND CONDUCTORS AND DEVICES

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2009		22				22-	
2010							
2011	6,243		0		0		0
2012	241	826	343	822	342	4 -	2-
2013							
2014							
2015							
TOTAL	6,484	848	13	822	13	26-	C:
THREE-YE	AR MOVING AVERAGE	ES					
09-11	2,081	7	0		0	7-	G
10-12	2,161	275	13	274	13	1-	G
11-13	2,161	275	13	274	13	1-	C
12-14	80	275	343	274	342	1-	2 ~
13-15							
FIVE-YEA	R AVERAGE						
11-15	1,297	165	13	164	13	1-	¢

### ACCOUNT 360.1 LAND RIGHTS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
		ANOUNT		72100111		12.00111	
1986	52		0		0		0
1987	10,422		0	5,211	50	5,211	50
1988	1,881	544	29	45	2	499-	27-
1989							
1990							
1991							
1992							
1993							
1994							
1995		2.55		430	2.0	147	7
1996	2,058	265	13	412	20	147	,
1997							
1998	222	3.0	14	44	20	14	6
1999 2000	222	30	14	***	24	+7	T <del>P</del>
2000							
2001							
2002							
2003							
2004							
2006	1,484		0		Đ		0
2007	*, **-		•		_		_
2008							
2009							
2010							
2011							
2012							
2013							
2014	79,282	57,433	72	553	1	56,880-	72-
2015							
TOTAL	95,401	58,272	61	6,265	7	52,006-	55-
THREE-Y	EAR MOVING AVERAG	ES					
86-88	4,118	181	4	1,752	43	1,571	38
87-89	4,101	181	4	1,752	43	1,571	38
88-90	627	181	29	15	2	166-	27-
89-91							
90-92							
91-93							
92-94							

## ACCOUNT 360.1 LAND RIGHTS

		REMOVAL		SALVAGE		SALVAGE	
YEAR	REGULAR RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
				72100111		12100112	
THREE-YEA	R MOVING AVERAGES						
93-95							
94-96	686	88	13	137	20	49	7
95-97	686	88	13	137	20	49	7
96-98	686	88	13	137	20	49	7
97-99	74	10	14	15	20	5	6
98-00	74	10	14	15	20	5	6
99-01	74	10	14	15	20	5	6
00-02							
01-03							
02-04							
03-05							
04-06	495		0		0		Ð
05-07	495		0		0		D
06-08	495		0		0		Đ
07-09							
08-10							
09-11							
10-12							
11-13							
12-14	26,427	19,144	72	184	1	18,960-	72-
13-15	26,427	19,144	72	184	1	18,960-	72-
erie veac	NEDNO						
FIVE-YEAR	AVERAGE						
11-15	15,856	11,487	72	111	1	11,376-	72-

### ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	TMUOMA	PCT
1985	423	23	5	46	11	23	5
1986	4,608	3,803	83	1,688	37	2,115-	46-
1987	11,848	1,210	10	2,266	19	1,056	9
1988	18,270	3,928	21	213	1	3,715-	20-
1989	98	74	76	164	167	90	92
1990	893	1,874	210	495	55	1,379-	154-
1991	11,463	2,254	20	2,874	25	620	5
1992	4,137	1,709	41	177	4	1,532-	37-
1993	9,409	2,996	32	2,177	23	818-	9-
1994	16,575	3,034	18	1,647	10	1,387-	8 -
1995	9,036	2,140	24	2,142	24	2	0
1996	47,792	7,547	16	4,367	9	3,180-	7 -
1997	21,041	4,138	20	2,482	12	1,656-	8 -
1998	9,106	2,361	26	1,112	12	1,249-	14-
1999	3,132	526	17	286	9	240-	8 -
2000							
2001	13,950		0		0		0
2002	1,055	826	78		0	826-	78-
2003	1,926	2,358	122		0	2,358-	122-
2004							
2005							
2006	9,005	2,862	32	94	1	2,768-	
2007	31,227	36,063	115		0	36,063-	115-
2008							
2009	25,171	10,934	43	1,337	5	9,597-	38-
2010	35,328	37,886			0	37,886-	
2011	13,807	10,031	73		0	10,031-	73-
2012	32,431	4,168	13	2,708	8	1,460-	5 -
2013	19,270	36,108	187	_	0	36,108-	
2014	25,639	43,254	169	1,312	5	41,942-	
2015	25,894	66,358	256	1,938	7	64,420-	249-
TOTAL	402,537	288,465	72	29,527	7	258,938-	64-
THREE-YE	AR MOVING AVERAGES	}					
85-87	5,626	1,679	30	1,333	24	345-	6-
86-88	11,575	2,980	26	1,389	12	1,591-	14-
87-89	10,072	1,737	17	881	9	856-	9-
88-90	6,420	1,959	31	291	5	1,668-	26-
89-91	4,151	1,401	34	1,178	28	223-	5-
90-92	5,498	1,946	35	1,182	22	764-	14-

## ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAGE	S					
91-93	8,336	2,320	28	1,743	21	577-	7 -
92-94	10,040	2,580	26	1,334	13	1,246-	12-
93-95	11,673	2,723	23	1,989	17	734-	6-
94-96	24,468	4,240	17	2,719	11	1,522-	6-
95-97	25,956	4,608	18	2,997	12	1,611-	6-
96-98	25,980	4,682	18	2,654	10	2,028-	8 -
97-99	11,093	2,342	21	1,293	12	1,048-	9-
98-00	4,079	962	24	466	11	496-	12-
99-01	5,694	176	3	95	2	-08	1-
00-02	5,002	275	6		0	275-	6-
01-03	5,644	1,061	19		0	1,061-	19-
02-04	994	1,061	107		0	1,061-	107-
03-05	642	786	122		0	786-	122-
04-06	3,002	954	32	31	1	923-	31-
05-07	13,411	12,975	97	31	0	12,943-	97-
06-08	13,411	12,975	97	31	0	12,943-	97-
07-09	18,799	15,666	83	446	2	15,220-	81-
08-10	20,167	16,274	81	446	2	15,828-	78-
09-11	24,769	19,617	79	446	2	19,171-	77-
10-12	27,189	17,362	64	903	3	16,459-	61-
11-13	21,836	16,769	77	903	4	15,866-	73-
12-14	25,780	27,843	108	1,340	5	26,503-	103-
13-15	23,601	48,573	206	1,083	5	47,490-	201-
FIVE-YEA	R AVERAGE						
11 15	22 400	31 004	127	1 200		30 700	122
11-15	23,409	31,984	тз/	1,192	5	30,792-	132-

## ACCOUNT 362 STATION EQUIPMENT

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1985	326,963	14,394	4	253,406	78	239,012	73
1986	190,339	33,002	17	43,534	23	10,532	6
1987	285,835	21,026	7	226,075	79	205,049	72
1988	451,776	30,717	7	106,637	24	75,920	17
1989	195,083	51,602	26	143,701	74	92,099	47
1990	208,500	48,826	23	200,606	96	151,780	73
1991	165,021	39,479	24	158,813	96	119,334	72
1992	80,345	31,926	40	124,745	155	92,819	116
1993	174,354	26,006	15	127,062	73	101,056	58
1994	720,385	61,787	9	276,392	38	214,604	30
1995	167,475	18,582	11	118,334	71	99,752	60
1996	914,724	67,670	7	285,521	31	217,851	24
1997	574,447	52,925	9	203,910	35	150,985	26
1998	613,457	74,504	12	401,160	65	326,656	53
1999	179,181	14,111	8	98,260	55	84,149	47
2000	20,330		0		0		0
2001	413,104	27,584	7	22,168	5	5,416-	1-
2002	493,067	12,926	3	2,776	1	10,150-	2-
2003	73,469	25,875	35		0	25,875-	35-
2004	11,401	8,058	71	29	0	8,029-	70-
2005							
2006	2,595,376	480,902	19	23,460	1	457,442-	18-
2007	633,947	299,309	47	17,780	3	281,529-	44-
2008	216	5,161			0	5,161-	
2009	738,688	446,808	60	59,823	8	386,986-	52-
2010	1,061,285	451,472	43	109,882	10	341,590-	32-
2011	416,824	353,766	85	29,444	7	324,322-	78-
2012	1,222,893	396,819	32	7,120-	1-	403,940-	33-
2013	534,979	475,208	89	7,149	1	468,058-	87-
2014	1,962,532	544,490	28	212,081	11	332,409-	17-
2015	968,407	726,083	75	14,238	1	711,845-	74-
TOTAL	16,394,402	4,841,018	30	3,259,866	20	1,581,152-	10-
THREE-YE	AR MOVING AVERAG	ES					
85-87	267,712	22,807	9	174,338	65	151,531	57
86-88	309,317	28,248	9	125,415	41	97,167	31
87-89	310,898	34,448	11	158,804	51	124,356	40
88-90	285,120	43,715	15	150,315	53	106,600	37
89-91	189,535	46,636	25	167,707	88	121,071	64
90-92	151,289	40,077	26	161,388	107	121,311	80
J - J =	,	-0,0,,		,		,	

## ACCOUNT 362 STATION EQUIPMENT

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAGES	5					
91-93	139,907	32,470	23	136,873	98	104,403	75
92-94	325,028	39,906	12	176,066	54	136,160	42
93-95	354,071	35,458	10	173,929	49	138,471	39
94-96	600,861	49,346	8	226,749	38	177,403	30
95-97	552,215	46,392	8	202,588	37	156,196	28
96-98	700,876	65,033	9	296,864	42	231,831	33
97-99	455,695	47,180	10	234,443	51	187,263	41
98-00	270,989	29,538	11	166,473	61	136,935	51
99-01	204,205	13,898	7	40,143	20	26,244	13
00-02	308,834	13,503	4	8,315	3	5,189-	2-
01-03	326,547	22,128	7	8,315	3	13,814-	4 -
02-04	192,646	15,620	8	935	0	14,685-	8 -
03-05	28,290	11,311	40	10	0	11,302-	40-
04-06	868,926	162,987	19	7,830	1	155,157-	18-
05-07	1,076,441	260,070	24	13,747	1	246,323-	23-
06-08	1,076,513	261,791	24	13,747	1	248,044-	23-
07-09	457,617	250,426	55	25,868	6	224,559-	49-
08-10	600,063	301,147	50	56,568	9	244,579-	41-
09-11	738,932	417,349	56	66,383	9	350,966-	47-
10-12	900,334	400,686	45	44,069	5	356,617-	40-
11-13	724,898	408,598	56	9,824	1	398,773-	55-
12-14	1,240,135	472,172	38	70,703	6	401,469-	32-
13-15	1,155,306	581,927	50	77,823	7	504,104-	44-
FIVE-YEA	AR AVERAGE						
11-15	1,021,127	499,273	49	51,158	5	448,115-	44-
11-13	1,021,127	477,213	41.37	31,138	ə	440,113	***

# ACCOUNT 364 POLES, TOWERS AND FIXTURES

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	TRUOMA	PCT	AMOUNT	PCT	AMOUNT	PCT
1985	571,087	368,139	64	268,186	47	99,953-	18-
1986	842,348	477,159	57	271,225	32	205,934-	24-
1987	755,330	593,598	79	355,786	47	237,812-	31-
1988	1,037,016	523,401	50	1,331,862	128	808,461	78
1989	809,610	629,908	78	590,272	73	39,636-	5-
1990	864,023	659,027	76	666,369	77	7,342	1
1991	1,982,061	697,964	35	1,241,255	63	543,291	27
1992	2,130,301	853,897	40	1,326,304	62	472,407	22
1993	1,330,114	948,478	71	1,254,101	94	305,622	23
1994	2,598,859	1,065,670	41	1,386,769	53	321,099	12
1995	1,412,233	749,106	53	1,261,396	89	512,290	36
1996	2,241,833	792,888	35	934,128	42	141,240	6
1997	922,869	406,495	44	415,810	45	9,315	1
1998	859,407	498,999	58	849,017	99	350,017	41
1999	841,648	316,891	38	712,528	85	395,637	47
2000	809,592	113,168	14	48,841	6	64,327-	8 -
2001	662,394	193,208	29	114,706	17	78,502-	12-
2002	376,388	193,663	51	29,079	8	164,584-	44-
2003	329,129	136,497	41	264,195	80	127,698	39
2004	196,141	137,862	70	11,911	6	125,950-	64-
2005							
2006	79,289	771,184	973	510,113	643	261,071-	329-
2007	408,115	194,785	48	385,146	94	190,361	47
2008	17,166	26,923	157	17,301	101	9,623-	56-
2009	3,809,600	4,769,624	125	1,250,008	33	3,519,616-	92-
2010	1,336,949	1,207,408	90	65,701	5	1,141,707-	85-
2011	1,864,234	1,017,425	55	23,519	1	993,906-	53-
2012	1,500,523	1,748,460	117	892,930	60	855,530-	57-
2013	737,118	1,389,763	189	152,419	21	1,237,344-	168-
2014	1,464,802	1,425,337	97	170,082	12	1,255,254-	86-
2015	2,800,557	1,513,627	54	189,064	7	1,324,563-	47-
TOTAL	35,590,738	24,420,555	69	16,990,023	48	7,430,532-	21-
munne ve	IND MOUTHS AVERAGE	NEG.					
	AR MOVING AVERAG						
85-87	722,922	479,632	66	298,399	41	181,233-	25-
86-88	878,231	531,386	61	652,958	74	121,572	14
87-89	867,319	582,302	67	759,307	88	177,004	20
88-90	903,550	604,112	67	862,834	95	258,722	29
89-91	1,218,565	662,300	54	832,632	68	170,332	14
90-92	1,658,795	736,963	44	1,077,976	65	341,013	21

## ACCOUNT 364 POLES, TOWERS AND FIXTURES

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
	AR MOVING AVERAGES	}					
91-93	1,814,159	833,446	46	1,273,887	70	440,440	24
92-94	2,019,758	956,015	47	1,322,391	65	366,376	18
93-95	1,780,402	921,085	52	1,300,755	73	379,670	21
94-96	2,084,308	869,221	42	1,194,098	57	324,876	16
95-97	1,525,645	649,497	43	870,445	57	220,948	14
96-98	1,341,370	566,128	42	732,985	55	166,858	12
97-99	874,641	407,462	47	659,118	75	251,656	29
98-00	836,882	309,686	37	536,795	64	227,109	27
99-01	771,211	207,755	27	292,025	38	84,269	11
00-02	616,125	166,680	27	64,209	10	102,471-	17-
01-03	455,970	174,456	38	135,993	30	38,462-	8-
02-04	300,553	156,007	52	101,729	34	54,279-	18-
03-05	175,090	91,453	52	92,036	53	583	0
04-06	91,810	303,015	330	174,008	190	129,007-	141-
05-07	162,468	321,990	198	298,420	184	23,570-	15-
06-08	168,190	330,964	197	304,187	181	26,778-	16-
07-09	1,411,627	1,663,777	118	550,818	39	1,112,959-	79-
08-10	1,721,239	2,001,319	116	444,336	26	1,556,982-	90-
09-11	2,336,928	2,331,486	100	446,409	19	1,885,076-	81-
10-12	1,567,236	1,324,431	85	327,383	21	997,048-	64-
11-13	1,367,292	1,385,216	101	356,289	26	1,028,927-	75-
12-14	1,234,148	1,521,187	123	405,144	33	1,116,043-	90~
13-15	1,667,492	1,442,909	87	170,522	10	1,272,387-	76-
FIVE-YEA	AR AVERAGE						
11-15	1,673,447	1,418,922	85	285,603	17	1,133,320-	68-

## ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	TMUOMA	PCT	AMOUNT	PCT
1985	413,733	392,771	95	262,597	63	130,174-	31-
1986	494,268	452,618	92	283,662	57	168,956-	34-
1987	707,438	435,605	62	291,495	41	144,110-	20-
1988	767,896	395,093	51	352,124	46	42,969-	6-
1989	679,291	511,936	75	518,384	76	6,448	1
1990	736,941	513,438	70	645,276	88	131,838	18
1991	615,033	451,911	73	377,964	61	73,947-	12-
1992	773,048	518,555	67	484,213	63	34,342-	4 -
1993	850,626	735,221	86	770,844	91	35,623	4
1994	1,025,932	509,917	50	521,842	51	11,925	1
1995	1,017,289	654,067	64	875,736	86	221,669	22
1996	978,357	419,418	43	390,395	40	29,023-	3 -
1997	921,889	492,192	53	400,132	43	92,060-	10-
1998	821,160	577,922	70	766,506	93	188,583	23
1999	778,038	355,076	46	620,992	80	265,917	34
2000	964,245	134,146	14	62,850	7	71,296-	7-
2001	632,267	158,791	25	135,282	21	23,509-	4 -
2002	203,570	146,866	72	26,890	13	119,976-	59-
2003	502,806	181,025	36	131,181	26	49,844-	10-
2004	178,244	157,989	89	10,128	6	147,861-	83-
2005							
2006	202,377	793,547	392	241,098	119	552,450-	273-
2007	394,066	415,343	105	282,715	72	132,628-	34-
2008	43,383	37,306	86	35,818	83	1,487-	3 -
2009	8,638,379	5,936,781	69	238,016	3	5,698,764-	66-
2010	5,225,221	1,814,136	35	148,626	3	1,665,510-	32-
2011	8,443,841	2,031,559	24	274,437	3	1,757,122-	21-
2012	6,030,513	2,071,726	34	353,248	6	1,718,478-	28-
2013	2,189,402	1,005,166	46	116,052	5	889,114-	41-
2014	4,504,386	2,544,851	56	316,958	7	2,227,893-	49-
2015	7,282,614	3,439,581	47	358,943	5	3,080,637-	42-
TOTAL	57,016,253	28,284,551	50	10,294,404	18	17,990,147-	32-
TUDEE-VE	AR MOVING AVERAG	GES					
				000 050		140 040	
85-87	538,480	426,998	79	279,251	52	147,747-	27 -
86-88	656,534	427,772	65	309,094	47	118,678-	18-
87-89	718,208	447,545	62	387,334	54	60,210-	8 -
88-90	728,043	473,489	65	505,261	69	31,772	4
89-91	677,088	492,428	73	513,875	76	21,446	3
90-92	708,341	494,635	70	502,484	71	7,850	1

## ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
	AR MOVING AVERAGE			1110000			
91-93	746,236	568,562	76	544,340	73	24,222-	3 -
92-94	883,202	587,898	67	592,299	67	4,402	0
93-95	964,616	633,068	66	722,807	75	89,739	9
94-96	1,007,193	527,800	52	595,991	59	68,190	7
95-97	972,512	521,892	54	555,421	57	33,529	3
96-98	907,135	496,511	55	519,011	57	22,500	2
97-99	840,362	475,063	57	595,877	71	120,813	14
98-00	854,481	355,715	42	483,449	57	127,735	15
99-01	791,517	216,004	27	273,041	34	57,037	7
00-02	600,027	146,601	24	75,007	13	71,594-	12-
01-03	446,214	162,227	36	97,784	22	64,443-	14-
02-04	294,873	161,960	55	56,066	19	105,894-	36-
03-05	227,017	113,005	50	47,103	21	65,902-	29-
04-06	126,874	317,179	250	83,742	66	233,437-	184-
05-07	198,814	402,964	203	174,604	88	228,359-	115-
06-08	213,275	415,399	195	186,544	87	228,855-	107-
07-09	3,025,276	2,129,810	70	185,517	6	1,944,293-	64-
08-10	4,635,661	2,596,074	56	140,820	3	2,455,254-	53-
09-11	7,435,814	3,260,825	44	220,360	3	3,040,465-	41-
10-12	6,566,525	1,972,474	30	258,770	4	1,713,703-	26-
11-13	5,554,585	1,702,817	31	247,912	4	1,454,905-	26-
12-14	4,241,434	1,873,914	44	262,086	6	1,611,828-	38-
13-15	4,658,801	2,329,866	50	263,984	6	2,065,881-	44-
FIVE-YEA	R AVERAGE						
11-15	5,690,151	2,218,576	39	283,928	5	1,934,649-	34-

## ACCOUNT 366 UNDERGROUND CONDUIT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1986	3,615	630	17	201	6	429-	12-
1987							
1988							
1989	237		Ò	125	53	125	53
1990							
1991							
1992							
1993							
1994							
1995							
1996							
1997	15	2	12	1	5	1-	7-
1998							
1999							
2000							
2001							
2002							
2003							
2004							
2005			_		_		_
2006	20,097		0	1,145	6	1,145	6
2007 2008	182,261		0	13,509	7	13,509	7
2009	25	25,952		3	12	25,949-	
2010	4,746	755	16	3	0	753-	16-
2011	18,439	, , , ,	0	3	0	, 55-	0
2012	4,440	58	1		0	58-	1-
2013	3,602	923-		64	2	987	27
2014	0,000				_		
2015							
TOTAL	237,476	26,475	11	15,051	6	11,424-	5-
THREE-YE	AR MOVING AVERAGE	SS .					
86-88	1,205	210	17	67	6	143-	12-
87-89	79		0	42	53	42	53
88-90	79		0	42	53	42	53
89-91	79		0	42	53	42	53
90-92							
91-93							
92 - 94							

# ACCOUNT 366 UNDERGROUND CONDUIT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEA	R MOVING AVERAGES						
93-95							
94-96							
95-97	5	1	12		5		7-
96-98	5	1	12		5		7 -
97-99	5	1	12		5		7 -
98-00							
99-01							
00-02							
01-03							
02-04							
03-05							
04-06	6,699		0	382	6	382	6
05-07	67,453		0	4,885	7	4,885	7
06-08	67,453		0	4,885	7	4,885	7
07-09	60,762	8,651	14	4,504	7	4,146-	7-
08-10	1,590	8,902	560	2	0	8,901-	560-
09-11	7,737	8,902	115	2	0	8,901~	115-
10-12	9,208	271	3	1	0	270-	3 -
11-13	8,827	288-	3 -	21	0	309	4
12-14	2,681	288-	11-	21	1	309	12
13-15	1,201	308-	26-	21	2	329	27
erue veac	NUTRACE						
FIVE-YEAR	AVERAGE						
11-15	5,296	173-	3 -	13	Ō	186	4



## ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	TRUOMA	PCT	THUOMA	PCT
1985	28,973	3,253	11	29,679	102	26,426	91
1986	46,524	7,827	17	26,225	56	18,398	40
1987	89,465	10,081	11	66,889	75	56,808	63
1988	87,088	11,885	14	54,664	63	42,779	49
1989	62,027	18,853	30	80,711	130	61,858	100
1990	51,317	9,267	18	82,574	161	73,307	143
1991	121,385	7,354	6	69,824	58	62,470	51
1992	3,940	8,736	222	28,643	727	19,907	505
1993	108,923	29,103	27	136,594	125	107,491	99
1994	119,096	18,299	15	92,676	78	74,377	62
1995	177,737	35,326	20	204,300	115	168,974	95
1996	286,239	37,933	13	165,394	58	127,460	45
1997	212,450	35,064	17	123,922	58	88,858	42
1998	217,910	47,409	22	343,168	157	295,758	136
1999	279,756	39,468	14	385,527	138	346,059	124
2000	254,398	10,987	4	27,478	11	16,491	6
2001	138,621	70,691	51	56,790	41	13,901-	10-
2002	46,298	10,315	22	3,543	8	6,772-	15-
2003	123,660	6,262	5	21,592	17	15,330	12
2004	11,540	10,367	90	2,621	23	7,746-	67-
2005							
2006	1,400	4,581	327	261	19	4,320-	308-
2007	27,192	26,509	97	59,661	219	33,153	122
2008							
2009	862,862	274,005	32	50,367	6	223,638-	26-
2010	998,897	56,448	6	8,891	1	47,557-	5 -
2011	618,591	103,273	17	7,491	1	95,782-	15-
2012	728,592	109,362	15	63,223	9	46,139-	6-
2013	223,563	91,273	41	15,731	7	75,542-	34-
2014	442,318	259,520	59	11,122	3	248,398-	56-
2015	956,280	245,500	26	20,181	2	225,319-	24-
TOTAL	7,327,043	1,598,952	22	2,239,743	31	640,791	9
THREE-YE	AR MOVING AVERAG	ES					
85-87	54,987	7,054	13	40,931	74	33,877	62
86-88	74,359	9,931	13	49,259	66	39,328	53
87-89	79,527	13,606	17	67,421	85	53,815	68
88-90	66,811	13,335	20	72,650	109	59,315	89
89-91	78,243	11,825	15	77,703	99	65,878	84
90-92	58,881	8,452	14	60,347	102	51,895	88



## ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	EAR MOVING AVERAGE	S					
91-93	78,083	15,064	19	78,354	100	63,289	81
92-94	77,320	18,713	24	85,971	111	67,258	87
93-95	135,252	27,576	20	144,523	107	116,947	86
94-96	194,357	30,520	16	154,123	79	123,604	64
95-97	225,475	36,108	16	164,539	73	128,431	57
96-98	238,866	40,135	17	210,828	88	170,692	71
97-99	236,705	40,647	17	284,206	120	243,559	103
98-00	250,688	32,621	13	252,058	101	219,436	88
99-01	224,258	40,382	18	156,598	70	116,216	52
00-02	146,439	30,664	21	29,270	20	1,394-	1-
01-03	102,860	29,089	28	27,308	27	1,781-	2-
02-04	60,499	8,982	15	9,252	15	270	0
03-05	45,067	5,543	12	8,071	18	2,528	6
04~06	4,313	4,983	116	961	22	4,022-	93-
05~07	9,531	10,363	109	19,974	210	9,611	101
06-08	9,531	10,363	109	19,974	210	9,611	101
07-09	296,685	100,171	34	36,676	12	63,495-	21-
08-10	620,587	110,151	18	19,753	3	90,398-	15-
09-11	826,784	144,575	17	22,250	3	122,326-	15-
10-12	782,027	89,694	11	26,535	3	63,159-	8 -
11-13	523,582	101,303	19	28,815	6	72,488-	14-
12-14	464,824	153,385	33	30,025	6	123,360-	27-
13-15	540,720	198,764	37	15,678	3	183,086-	34-
FIVE-YEA	AR AVERAGE						
11-15	593,869	161,786	27	23,550	4	138,236-	23-

## ACCOUNT 368 LINE TRANSFORMERS

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1985	896,089	142,332	16	202,653	23	60,321	7
1986	1,749,115	974,420	56	270,163	15	704,257-	40-
1987	1,032,838	145,410	14	207,368	20	61,958	6
1988	2,062,556	76,847	4	177,457	9	100,610	5
1989	1,044,857	174,951	17	353,577	34	178,626	17
1990	1,002,515	187,079	19	284,271	28	97,192	10
1991	1,195,341	149,553	13	195,164	16	45,611	4
1992	691,546	142,294	21	213,355	31	71,061	10
1993	847,976	273,889	32	232,189	27	41,699-	5-
1994	584,476	108,557	19	83,928	14	24,629-	4 -
1995	765,824	184,000	24	203,554	27	19,554	3
1996	730,803	117,074	16	85,567	12	31,507-	4 -
1997	2,704,437	539,566	20	361,050	13	178,516-	7-
1998	464,646	122,201	26	113,171	24	9,031-	2-
1999	594,542	101,394	17	121,273	20	19,878	3
2000	383,014	103,589	27	26,189	7	77,400-	20-
2001	2,559,948	336,354	13	49,931	2	286,423-	11-
2002	690,258	413,253	60	50,820	7	362,433-	53-
2003	1,188,190	400,085	34	131,144	11	268,941-	23-
2004	1,915,906	490,112	26	38,709	2	451,403-	24-
2005							
2006	4,636,662	2,000,079	43	159,999	3	1,840,080-	40-
2007	1,693,660	817,278-	48-	440,655	26	1,257,934	74
2008	140,396	106,888	76	628,504	448	521,616	372
2009	2,340,047	1,602,572	68	214,542	9	1,388,031-	59-
2010	1,705,286	158,133	9	273,222	16	115,089	7
2011	378,999	111,609	29	224,389	59	112,780	30
2012	783,535	202,345	26	189,145	24	13,200-	2-
2013	2,243,745	161,481	7	250,395	11	88,914	4
2014	2,496,285	153,095	6	309,187	12	156,092	6
2015	2,254,659	225,375	10	272,629	12	47,255	2
TOTAL	41,778,150	9,087,260	22	6,364,201	15	2,723,059-	7-
THREE-YE	AR MOVING AVERAG	ES					
85-87	1,226,014	420,721	34	226,728	18	193,993-	16-
86-88	1,614,836	398,892	25	218,329	14	180,563-	11-
	1,380,084	132,403	10	246,134	18	113,731	8
87-89 88-90	1,360,084	146,292	11	271,768	20	125,476	9
88-90 89-91	1,080,904	170,528	16	271,768	26	107,143	10
90-92	963,134	159,642	17	230,930	24	71,288	7
30-32	203,134	133,042	Τ,	230,930	27	12,200	ŕ

## ACCOUNT 368 LINE TRANSFORMERS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YE	EAR MOVING AVERAGES	S					
91-93	911,621	188,579	21	213,569	23	24,991	3
92-94	707,999	174,913	25	176,491	25	1,578	0
93-95	732,759	188,815	26	173,224	24	15,592-	2-
94-96	693,701	136,544	20	124,350	18	12,194-	2-
95-97	1,400,355	280,213	20	216,724	15	63,490-	5-
96-98	1,299,962	259,614	20	186,596	14	73,018-	6-
97-99	1,254,542	254,387	20	198,498	16	55,889-	4 -
98-00	480,734	109,062	23	86,877	18	22,184-	5-
99-01	1,179,168	180,446	15	65,798	6	114,648-	10-
00-02	1,211,073	284,399	23	42,313	3	242,085-	20-
01-03	1,479,465	383,231	26	77,298	5	305,932-	21-
02-04	1,264,785	434,483	34	73,558	6	360,926-	29-
03-05	1,034,699	296,732	29	56,618	5	240,115-	23-
04-06	2,184,189	830,064	38	66,236	3	763,828-	35-
05-07	2,110,107	394,267	19	200,218	9	194,049-	9-
06-08	2,156,906	429,896	20	409,720	19	20,177-	1-
07-09	1,391,368	297,394	21	427,900	31	130,506	9
08-10	1,395,243	622,531	45	372,089	27	250,442-	18-
09-11	1,474,777	624,105	42	237,384	16	386,721-	26-
10-12	955,940	157,362	16	228,919	24	71,557	7
11-13	1,135,426	158,478	14	221,310	19	62,831	6
12-14	1,841,188	172,307	9	249,576	14	77,269	4
13-15	2,331,563	179,984	8	277,404	12	97,420	4
FTVF_VE	AR AVERAGE						
11-15	1,631,445	170,781	10	249,149	15	78,368	5

#### ACCOUNT 369 SERVICES

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1985	307,193	189,913	62	52,981	17	136,932-	45-
1986	400,742	259,211	65	54,836	14	204,375-	51-
1987	383,791	138,457	36	52,331	14	86,126-	22-
1988	377,190	119,253	32	52,865	14	66,388-	18-
1989	439,585	158,123	36	70,735	16	87,388-	20-
1990	462,827	202,367	44	70,229	15	132,138-	29-
1991	425,223	210,200	49	58,854	14	151,346-	36-
1992	345,933	222,067	64	58,636	17	163,431-	47-
1993	1,401	1,094	78	397	28	697-	50-
1994	975,551	438,028	45	135,236	14	302,792-	31-
1995	489,073	284,068	58	137,226	28	146,842-	30-
1996	565,520	219,012	39	66,566	12	152,447-	27-
1997	579,700	279,596	48	81,412	14	198,184-	34-
1998	512,410	325,785	64	109,713	21	216,071-	42-
1999	400,211	164,999	41	69,808	17	95,190-	24-
2000	313,831	108,245	34	21,133	7	87,112-	28-
2001	114,753	41,683	36	7,264	6	34,419-	30-
2002	62,090	54,657	88	134,178	216	79,521	128
2003	52,167	15,176	29	6,526	13	8,650-	17-
2004	21,842	14,912	68	1,964	9	12,948-	59-
2005							
2006							
2007	3,215	251	8	65	2	186-	6-
2008							
2009	41,595	1,153,408		12,203	29	1,141,205-	
2010	5,881,960	285,012	5	1,168	0	283,845-	5-
2011	91,365	340,845	373	3,210	4	337,635-	370-
2012	1,694,178	200,452	12	12,559	1	187,893-	11-
2013	975,270	214,518	22	11,215	1	203,303-	21-
2014	206,533	27,138	13	8,991	4	18,147-	9 -
2015	117,895	16,274	14	2,051	2	14,222-	12-
TOTAL	16,243,044	5,684,743	35	1,294,352	8	4,390,392-	27-
THREE-VE	AR MOVING AVERAC	GES					
			E 4	בי ייי	3 5	149 470	20
85-87	363,909	195,860	54	53,383	15	142,478-	39-
86-88	387,241	172,307	44	53,344	14	118,963-	31-
87-89	400,189	138,611	35	58,644	15	79,967-	20-
88-90	426,534	159,914	37	64,610	15	95,305-	22-
89-91	442,545	190,230	43	66,606	15	123,624~	28-
90-92	411,328	211,545	51	62,573	15	148,972-	36-

## ACCOUNT 369 SERVICES

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAGE						
91-93	257,519	144,454	56	39,296	15	105,158-	41-
92-94	440,962	220,396	50	64,756	15	155,640-	35-
93-95	488,675	241,063	49	90,953	19	150,110-	31-
94-96	676,715	313,703	46	113,009	17	200,694-	30-
95-97	544,764	260,892	48	95,068	17	165,824-	30-
96-98	552,543	274,798	50	85,897	16	188,901-	34-
97-99	497,440	256,793	52	86,978	17	169,815-	34-
98-00	408,817	199,676	49	66,885	16	132,791-	32-
99-01	276,265	104,976	38	32,735	12	72,240-	26-
00-02	163,558	68,195	42	54,192	33	14,003-	9-
01-03	76,337	37,172	49	49,323	65	12,151	16
02-04	45,366	28,248	62	47,556	105	19,308	43
03-05	24,670	10,029	41	2,830	11	7,199-	29-
04-06	7,281	4,971	68	655	9	4,316-	59-
05-07	1,072	84	8	22	2	62-	6-
06-08	1,072	84	8	22	2	62-	6-
07-09	14,937	384,553		4,089	27	380,464-	
08-10	1,974,518	479,473	24	4,457	0	475,017-	24-
09-11	2,004,974	593,088	30	5,527	0	587,562-	29-
10-12	2,555,834	275,436	11	5,645	0	269,791-	11-
11-13	920,271	251,938	27	8,995	1	242,944-	26-
12-14	958,660	147,369	15	10,922	1	136,448-	14-
13-15	433,232	85,977	20	7,419	2	78,557-	18-
FIVE-YEA	R AVERAGE						
11-15	617,048	159,845	26	7,605	1	152,240-	25-



## ACCOUNTS 370 AND 370.1 METERS AND METERING EQUIPMENT

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1985	209,213	130	0	6,420	3	6,290	3
1986	140,217		0	2,058	1	2,058	1
1987	392,164	113	0	1,512	0	1,399	0
1988	373,675	4,471	1	6,570	2	2,099	1
1989	501,612	2,529	1	1,798	0	731-	0
1990	712,412	5,649	1	3,537	0	2,112-	0
1991	495,375	534	0	1,026	0	492	0
1992	148,022	3,236	2	4,585	3	1,349	1
1993	592,779	8,980	2	27,548	5	18,567	3
1994	671,459	5,850	1	14,339	2	8,489	1
1995	456,529	5,145	1	21,370	5	16,225	4
1996	860,313	6,464	1	16,201	2	9,736	1
1997	889,096	8,320	1	20,771	2	12,451	1
1998	1,012,984	12,496	1	30,227	3	17,731	2
1999	1,258,952	10,070	1	29,595	2	19,524	2
2000	591,264	7,962	1		0	7,962-	1-
2001							
2002	8,955		0		0		0
2003	1,466,018	1,532	0		0	1,532-	0
2004							
2005							
2006	2,446,024	15,362	1		0	15,362-	1-
2007	574,434	25,769	4		0	25,769~	4 -
2008							
2009	1,162,310		0		0		0
2010	166,706		0		0		0
2011	83,939		0	49,178	59	49,178	59
2012	79,881		0		0		0
2013	119,314		0	664	1	664	1
2014	335,909		0		0		0
2015	354,193		0		0		0
LATOT	16,103,749	124,612	1	237,399	1	112,787	1
THREE-YE	AR MOVING AVERAGES						
85-87	247,198	81	0	3,330	1	3,249	1
86-88	302,019	1,528	1	3,380	1	1,852	1
87-89	422,484	2,371	1	3,293	1	922	0
88-90	529,233	4,216	1	3,968	1	248-	0
89-91	569,800	2,904	1	2,120	0	784-	0
90-92	451,936	3,140	1	3,049	1	90-	0

# ACCOUNTS 370 AND 370.1 METERS AND METERING EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YE	AR MOVING AVERAGE						
91-93	412,059	4,250	1	11,053	3	6,803	2
92-94	470,753	6,022	1	15,491	3	9,469	2
93-95	573,589	6,658	1	21,086	4	14,427	3
94-96	662,767	5,820	1	17,303	3	11,484	2
95-97	735,313	6,643	1	19,447	3	12,804	2
96-98	920,798	9,093	1	22,400	2	13,306	1
97-99	1,053,677	10,295	1	26,864	3	16,569	2
98-00	954,400	10,176	1	19,941	2	9,765	1
99-01	616,739	6,011	1	9,865	2	3,854	1
00-02	200,073	2,654	1		0	2,654-	1-
01-03	491,658	511	0		0	511-	0
02-04	491,658	511	0		0	511-	0
03-05	488,673	511	0		0	511-	0
04-06	815,341	5,121	1		0	5,121-	1-
05-07	1,006,819	13,710	1		0	13,710-	1-
06-08	1,006,819	13,710	1		0	13,710-	1-
07-09	578,915	8,590	1		0	8,590-	1-
08-10	443,005		0		0		0
09-11	470,985		0	16,393	3	16,393	3
10-12	110,175		0	16,393	15	16,393	15
11-13	94,378		0	16,614	18	16,614	18
12-14	178,368		0	221	0	221	0
13-15	269,805		0	221	0	221	0
FIVE-XEA	AR AVERAGE						
11-15	194,647		0	9,968	5	9,968	5

### ACCOUNT 371 INSTALLATIONS ON CUSTOMERS' PREMISES

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1985	236,086	149,431	63	48,912	21	100,519-	43-
1986	268,717	169,600	63	47,872	18	121,728-	45-
1987	229,847	20,932	9	37,801	16	16,869	7
1988	262,863	21,093	8	46,382	18	25,289	10
1989	309,615	29,910	10	67,084	22	37,174	12
1990	320,943	35,677	11	70,948	22	35,271	11
1991	348,824	42,030	12	65,504	19	23,474	7
1992	428,381	51,052	12	68,692	16	17,640	4
1993	548,448	236,332	43	157,987	29	78,345-	14-
1994	546,944	135,529	25	71,922	13	63,606-	12-
1995	590,648	189,328	32	171,669	29	17,659-	3 -
1996	631,349	134,936	21	73,506	12	61,430-	10-
1997	614,604	163,591	27	89,127	15	74,464-	12-
1998	637,825	223,795	35	115,861	18	107,934-	17-
1999	555,683	126,431	23	79,191	14	47,241-	9-
2000	120,854	24,817	21	45,756	38	20,939	17
2001	75,007	16,851	22	12,686	17	4,165-	6-
2002	34,007	11,367	33	8,472	25	2,895-	9-
2003	3,141		0	401	13	401	13
2004	1,028		0		0		0
2005							
2006	256	245	96	4	2	241-	94 -
2007	830	17,280-		17,807		35,087	
2008							
2009	279	4,085			0	4,085-	
2010	254	83-	32-		0	83	32
2011	10,673	2,462	23	7	0	2,455-	23-
2012	14,820	283	2	1,743	12	1,459	10
2013	7,821	18,358	235	61	1	18,297-	234-
2014	119,566	154,346	129	27,765	23	126,580-	106-
2015	1,086,462	156,255	14	1,241	0	155,015-	14-
TOTAL	8,005,775	2,101,375	26	1,328,401	17	772,974-	10-
THREE-YE	AR MOVING AVERAG	ES					
85-87	244,883	113,321	46	44,862	18	68,459-	28-
86-88	253,809	70,542	28	44,018	17	26,523-	10-
87-89	267,442	23,978	9	50,422	19	26,444	10
88-90	297,807	28,893	10	61,471	21	32,578	11
89-91	326,461	35,872	11	67,845	21	31,973	10
90-92	366,049	42,920	12	68,381	19	25,462	7

# ACCOUNT 371 INSTALLATIONS ON CUSTOMERS' PREMISES

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YE	EAR MOVING AVERAGES	5					
91-93	441,884	109,805	25	97,394	22	12,410-	3 -
92-94	507,924	140,971	28	99,534	20	41,437-	8 -
93-95	562,013	187,063	33	133,859	24	53,204-	9-
94-96	589,647	153,264	26	105,699	18	47,565-	8-
95-97	612,200	162,618	27	111,434	18	51,184-	8 -
96-98	627,926	174,107	28	92,831	15	81,276-	13-
97-99	602,704	171,273	28	94,726	16	76,546-	13-
98-00	438,121	125,015	29	80,269	18	44,745-	10-
99-01	250,515	56,033	22	45,878	18	10,156-	4 -
00-02	76,623	17,678	23	22,305	29	4,626	6
01-03	37,385	9,406	25	7,186	19	2,220-	6-
02-04	12,725	3,789	30	2,958	23	831-	7-
03-05	1,390		0	134	10	134	10
04-06	428	82	19	1	0	80-	19-
05-07	362	5,678-		5,937		11,615	
06-08	362	5,678-	-	5,937		11,615	
07-09	370	4,398-		5,936		10,334	
08-10	178	1,334	750		0	1,334-	750-
09-11	3,735	2,155	58	2	0	2,153-	58-
10-12	8,582	888	10	583	7	304-	4 -
11-13	11,105	7,034	63	604	5	6,431-	58-
12-14	47,402	57,662	122	9,857	21	47,806-	101-
13-15	404,616	109,653	27	9,689	2	99,964-	25-
FTVE-VED	AR AVERAGE						
	_						
11-15	247,868	66,341	27	6,163	2	60,177-	24-

### ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1985	301,872	73,434	24	141,384	47	67,950	23
1986	230,790	92,991	40	124,198	54	31,207	14
1987	514,814	44,409	9	281,087	55	236,678	46
1988	728,697	40,164	6	135,394	19	95,230	13
1989	253,608	45,668	18	134,394	53	88,726	35
1990	426,617	74,312	17	208,248	49	133,936	31
1991	361,654	147,907	41	180,973	50	33,066	9
1992	313,108	154,828	49	154,959	49	131	0
1993	362,396	117,366	32	225,012	62	107,646	30
1994	505,530	94,148	19	169,862	34	75,715	15
1995	421,566	101,560	24	251,618	60	150,058	36
1996	636,371	102,221	16	171,240	27	69,019	11
1997	368,090	73,636	20	110,539	30	36,902	10
1998	273,337	72,081	26	161,791	59	89,710	33
1999	787,797	134,715	17	394,541	50	259,826	33
2000	879,354	93,243	11	110,211	13	16,968	2
2001	384,843	48,268	13	53,491	14	5,223	1
2002	192,809	72,178	37	86,644	45	14,466	8
2003	358,374	43,857	12	39,134	11	4,723-	1-
2004	354,402	25,212	7	2,169	1	23,044-	7 -
2005							
2006	2,919	8,259	283	9,396	322	1,137	39
2007	53,834	23,822	44	23,901	44	79	0
2008	2,020	4,550	225		0	4,550-	225-
2009	2,961,736	924,237	31	63,773	2	860,464-	29-
2010	5,076,325	771,519	15	56,227	1	715,293-	14-
2011	3,616,160	317,382	9	34,858	1	282,524-	8 -
2012	1,256,913	318,471	25	27,069	2	291,403-	23-
2013	499,273	242,327	49	32,970	7	209,357-	42-
2014	3,286,294	573,971	17	80,421	2	493,550-	15-
2015	5,887,022	308,320	5	503,663	9	195,343	3
TOTAL	31,298,524	5,145,058	16	3,969,167	13	1,175,892-	4 -
THREE-YEA	AR MOVING AVERAG	ES					
85-87	349,159	70,278	20	182,223	52	111,945	32
86-88	491,434	59,188	12	180,226	37	121,038	25
87-89	499,040	43,414	9	183,625	37	140,211	28
88-90	469,641	53,381	11	159,345	34	105,964	23
89-91	347,293	89,296	26	174,538	50	85,243	25
90-92	367,126	125,682	34	181,393	49	55,711	15

## ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

		COST OF		GROSS		NET	
	REGULAR	REMOVAL		SALVAGE		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	TNUOMA	PCT
THREE-YE	AR MOVING AVERAGE	s					
91-93	345,719	140,034	41	186,981	54	46,948	14
92-94	393,678	122,114	31	183,278	47	61,164	16
93-95	429,831	104,358	24	215,497	50	111,139	26
94-96	521,156	99,310	19	197,574	38	98,264	19
95-97	475,342	92,473	19	177,799	37	85,326	18
96-98	425,933	82,646	19	147,857	35	65,211	15
97-99	476,408	93,477	20	222,290	47	128,813	27
98-00	646,829	100,013	15	222,181	34	122,168	19
99-01	683,998	92,075	13	186,081	27	94,006	14
00-02	485,669	71,230	15	83,449	17	12,219	3
01-03	312,009	54,767	18	59,756	19	4,989	2
02-04	301,862	47,082	16	42,649	14	4,433-	1-
03-05	237,592	23,023	10	13,767	6	9,255-	4 -
04-06	119,107	11,157	9	3,855	3	7,302-	6-
05-07	18,918	10,694	57	11,099	59	405	2
06-08	19,591	12,210	62	11,099	57	1,111-	6-
07-09	1,005,863	317,537	32	29,225	3	288,312-	29-
08-10	2,680,027	566,769	21	40,000	1	526,769-	20-
09-11	3,884,740	671,046	17	51,619	1	619,427-	16-
10-12	3,316,466	469,124	14	39,384	1	429,740-	13-
11-13	1,790,782	292,727	16	31,632	2	261,095-	15-
12-14	1,680,826	378,256	23	46,820	3	331,437-	20-
13-15	3,224,196	374,873	12	205,685	6	169,188-	5-
FIVE-YEA	R AVERAGE						
11-15	2,909,132	352,094	12	135,796	5	216,298-	7 -

### ACCOUNT 390.1 STRUCTURES AND IMPROVEMENTS - TO OWNED PROPERTY

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1967	38,784	1,077	3	577	1	500-	1-
1968	30,701	2,011	_	3,,	_	500-	_
1969							
1970	280	130	46	10	4	120-	43-
1971			- •		-	110	15
1972							
1973							
1974							
1975	7,364	611	8	3,444	47	2,833	38
1976	.,	<b>*</b>		-,		_,	
1977	3,394	68	2		0	68-	2-
1978	-,						_
1979	28,369	1,846	7		0	1,846-	7-
1980	12,474	4,674	37		0	4,674-	37-
1981	12,016	5,463	45	1,794	15	3,669-	31-
1982	5,437	2,000	37	-,	0	2,000-	37-
1983	•	,			_	-,	
1984							
1985	2,780		0	6,736	242	6,736	242
1986	101,770	7,729	8	187,548	184	179,819	177
1987	98,206	344	0	48,102	49	47,758	49
1988	193,975	49	0	59,551	31	59,502	31
1989	12,034		0		0		0
1990	6,272	1,870	30		0	1,870-	30-
1991	11,957	219	2		0	219-	2 -
1992	4,992	2,074	42		0	2,074-	42-
1993	6,108	7,896	129	26,358	432	18,461	302
1994	149,918	2,535	2	129,705	87	127,170	85
1995	30,624	273	1	103,389	338	103,116	337
1996	702,394	6,017	1	228,834	33	222,817	32
1997	41,337	2,761	7	221,568	536	218,807	529
1998	266,661	41,788	16	333,645-	125-	375,433-	141-
1999	181,729	10,208	6	162,584-	89-	172,792-	95-
2000	32,457		0		0		0
2001	764,412	2,680,595	351	2,640,441	345	40,154-	5 -
2002							
2003	298,177	98,193	33		0	98,193-	33 ~
2004	109,166	51,759	47		0	51,759-	47-
2005							
2006	336,638	95,142	28		0	95,142-	28-
2007	2,736,942	46,921	2	3,000	0	43,921-	2 -
2008	172	30,318			0	30,318-	

## ACCOUNT 390.1 STRUCTURES AND IMPROVEMENTS - TO OWNED PROPERTY

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2009	311,229	79,642	26	259	0	79,383-	26-
2010	233,055	76,583	33	233	0	76,583-	33-
2011	159,687	70,870	44		0	70,870-	44-
2012	145,121	75,792	52		0	75,792-	52-
2013	515,679	122,037	24		0	122,037-	24-
2014	288,622	201,356	70		0	201,356-	70-
2015	953,087	62,232	7	54,752	6	7,479-	1-
	320,007	02,20-		••,		.,	_
TOTAL	8,803,318	3,791,073	43	3,219,839	37	571,234-	6-
THREE-YE	EAR MOVING AVERAG	ES					
67-69	12,928	359	3	192	1	167-	1-
68-70	93	43	46	3	4	40-	43-
69-71	93	43	46	3	4	40-	43-
70-72	93	43	46	3	4	40-	43-
71-73							
72-74							
73-75	2,455	204	8	1,148	47	944	38
74-76	2,455	204	8	1,148	47	944	38
75-77	3,586	226	6	1,148	32	922	26
76-78	1,131	23	2		0	23-	2-
77-79	10,588	638	6		0	638-	6-
78-80	13,614	2,173	16		0	2,173-	16-
79-81	17,620	3,994	23	598	3	3,396-	19-
80-82	9,976	4,046	41	598	6	3,448-	35-
81-83	5,818	2,488	43	598	10	1,890-	32-
82-84	1,812	667	37		0	667-	37-
83-85	927		0	2,245	242	2,245	242
84-86	34,850	2,576	7	64,761	186	62,185	178
85-87	67,585	2,691	4	80,795	120	78,104	116
86-88	131,317	2,707	2	98,400	75	95,693	73
87~89	101,405	131	0	35,884	35	35,753	35
88-90	70,760	640	1	19,850	28	19,211	27
89-91	10,088	696	7		0	696-	7-
90-92	7,740	1,388	18		0	1,388-	18-
91-93	7,686	3,396	44	8,786	114	5,389	70
92-94	53,673	4,168	8	52,021	97	47,853	89
93-95	62,217	3,568	6	86,484	139	82,916	133
94 - 96	294,312	2,942	1	153,976	52	151,035	51
95-97	258,118	3,017	1	184,597	72	181,580	70
96-98	336,797	16,856	5	38,919	12	22,063	7

### ACCOUNT 390.1 STRUCTURES AND IMPROVEMENTS - TO OWNED PROPERTY

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL	PCT	GROSS SALVAGE	DCT	NET SALVAGE	DCT
IEAR	KEIIKEMENIS	AMOUNT	PCI	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAGES	3					
97-99	163,242	18,252	11	91,554-	56-	109,806-	67-
98-00	160,282	17,332	11	165,410-	103-	182,742-	114-
99-01	326,199	896,934	275	825,952	253	70,982-	22-
00-02	265,623	893,532	336	880,147	331	13,385-	5-
01-03	354,196	926,263	262	880,147	248	46,116-	13-
02-04	135,781	49,984	37		0	49,984-	37-
03-05	135,781	49,984	37		0	49,984-	37-
04-06	148,601	48,967	33		0	48,967-	33-
05-07	1,024,527	47,354	5	1,000	0	46,354-	5 -
06-08	1,024,584	57,460	6	1,000	0	56,460-	6-
07-09	1,016,114	52,294	5	1,086	0	51,207-	5-
08-10	181,485	62,181	34	86	0	62,095-	34-
09-11	234,657	75,698	32	86	0	75,612-	32-
10-12	179,288	74,415	42		0	74,415-	42-
11-13	273,496	89,566	33		0	89,566-	33-
12-14	316,474	133,062	42		0	133,062-	42-
13-15	585,796	128,542	22	18,251	3	110,291-	19-
FIVE-YEA	R AVERAGE						
11-15	412,439	106,457	26	10,950	3	95,507-	23-

## ACCOUNT 390.2 STRUCTURES AND IMPROVEMENTS - TO LEASED PROPERTY

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT	PCT
2001	2,662		0	0		0
2002						
2003	8,779		0	0		0
2004						
2005						
2006	224,106	22,970	10	0	22,970-	10-
2007						
2008						
2009						
2010						
2011						
2012						
2013			_			
2014	3,315		0	0		0
2015						
TOTAL	238,862	22,970	10	0	22,970-	10-
THREE-YEA	R MOVING AVERAGI	ES				
01-03	3,814		0	0		0
02-04	2,926		0	0		0
03-05	2,926		0	0		0
04-06	74,702	7,657	10	0	7,657-	10-
05-07	74,702	7,657	10	0	7,657-	10-
06-08	74,702	7,657	10	0	7,657-	10-
07-09						
08-10						
09-11						
10-12						
11-13						
12-14	1,105		0	0		0
13-15	1,105		0	0		0
FIVE-YEAR	AVERAGE					
11-15	663		Ō	c		0

## ACCOUNT 392 TRANSPORTATION EQUIPMENT - CARS AND LIGHT TRUCKS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE	PCT
		AMOUNT		AMOUNT		AMOUNT	PCI
2000	17,872		0		0		0
2001	939,069		0		0		0
2002	3,936,032	75,837	2	112,442	3	36,605	1
2003							
2004	10,528		0		0		0
2005							
2006							
2007	4,934,986		0		0		0
2008							
2009	312,452		0		0		0
2010	111,742		0		0		0
2011	3,997,638		0		0		0
2012	112,422		0		0		0
2013							
2014	1,497,957		0		0		0
2015	11,062,452		0		0		0
TOTAL	26,933,150	75,837	0	112,442	0	36,605	0
THREE-Y	EAR MOVING AVERAG	ES				•	
00-02	1,630,991	25,279	2	37,481	2	12,202	1
01-03	1,625,034	25,279	2	37,481	2	12,202	1
02-04	1,315,520	25,279	2	37,481	3	12,202	1
03-05	3,509		0		0		0
04-06	3,509		0		0		0
05-07	1,644,995		0		0		0
06-08	1,644,995		0		0		0
07-09	1,749,146		0		0		0
08-10	141,398		0		0		0
09-11	1,473,944		0		0		0
10-12	1,407,267		0		0		0
11-13	1,370,020		0		0		0
12-14	536,793		0		0		0
13-15	4,186,803		0		0		0
FIVE-YE	AR AVERAGE						
11-15	3,334,094		Đ		0		٥



### ACCOUNT 396 POWER OPERATED EQUIPMENT

### SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PÇT	NET SALVAGE AMOUNT PCT
1989	7,752	O	0	0
1990	1,132	Ū	ů	Ü
1991				
1992				
1993				
1994	19,123	0	0	0
1995	•		_	_
1996				
1997	48,520	0	0	O
1998				
1999				
2000	24,071	0	0	0
2001				
2002				
2003				
2004	32,483	0	0	0
2005				
2006	29,959	0	0	C
2007				
2008				
2009				
2010				
2011	107,600	0	0	0
2012				
2013				
2014				
2015				
TOTAL	269,509	0	0	O
THREE-YE	AR MOVING AVERAG	ES		
89-91	2,584	0	0	0
90-92				
91-93				
92-94	6,374	0	0	0
93 - 95	6,374	0	0	0
94-96	6,374	0	0	0
95-97	16,173	0	0	0
96-98	16,173	0	0	0
97-99	16,173	0	0	0
98-00	8,024	0	0	0

#### ACCOUNT 396 POWER OPERATED EQUIPMENT

### SUMMARY OF BOOK SALVAGE

	REGULAR	COST OF		GROSS SALVAGI	?	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVERAGES	3					
99-01	8,024		0		0		0
00-02	8,024		0		0		0
01-03							
02-04	10,828		0		0		0
03-05	10,828		0		0		0
04-06	20,814		0		0		0
05-07	9,986		0		0		0
06-08	9,986		0		0		0
07-09							
08-10							
09-11	35,867		0		0		0
10-12	35,867		0		0		Q
11-13	35,867		0		0		0
12-14							
13-15							
FIVE-YEA	R AVERAGE						
11-15	21,520		0		Ō		0

# PART IX. DETAILED DEPRECIATION CALCULATIONS

### ACCOUNT 302 FRANCHISES AND CONSENTS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE 20-S AGE PERCENT	_				
1991	1,588.57	1,589	1,589			
1992	792.28	792	792			
1993	6,183.50	6,184	6,184			
1995	30,302.58	30,303	30,303			
1996	10,457.30	10,196	9,006	1,451	0.50	1,451
1997	1,725.32	1,596	1,410	315	1.50	210
1998	2,055.48	1,799	1,589	466	2.50	186
1999	711.08	587	519	192	3.50	55
2002	585.80	395	349	237	6.50	36
2003	1,516.92	948	837	680	7.50	91
	55,918.83	54,389	52,578	3,341		2,029

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 1.6 3.63

#### ACCOUNT 303 MISCELLANEOUS INTANGIBLE PLANT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE 5-SQ ALVAGE PERCENT					
2010 2011 2012 2013 2014 2015	180,984.56 5,389,063.29 7,676,028.89 7,139,348.90 12,768,962.93 18,055,043.39	180,985 4,850,157 5,373,220 3,569,674 3,830,689 1,805,504	180,985 4,395,288 4,869,296 3,234,895 3,471,430 1,636,176	993,775 2,806,733 3,904,454 9,297,533 16,418,867	0.50 1.50 2.50 3.50 4.50	993,775 1,871,155 1,561,782 2,656,438 3,648,637
	51,209,431.96	19,610,229	17,788,070	33,421,362		10,731,787

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 3.1 20.96

### ACCOUNT 303.1 CCS SOFTWARE

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2019				
2009	36,405,085.42	23,663,306	24,057,058	12,348,027	3.50	3,528,008
2010	979,128.50	598,355	608,312	370,816	3.50	105,947
2011	2,499,552.85	1,405,998	1,429,393	1,070,160	3.50	305,760
2013	1,161,727.76	484,057	492,112	669,616	3.50	191,319
	41,045,494.53	26,151,716	26,586,875	14,458,620		4,131,034
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	3.5	10.06

#### ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBAB	E COUNTY UNIT 2 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 100- EAR 6-2066				
1990	34,905,872.19	13,426,219	16,449,823	22,993,813	46.74	491,951
1997	449,904.13	137,739	168,758	339,634	47.55	7,143
2002	24,848.68	5,970	7,314	20,765		432
2003	61,493.38	13,900	17,030	52,457		1,090
2008	53,301.70	7,841	9,607	50,624		1,044
2011	59,176,473.13	5,504,022	6,743,536	60,125,879	48.72	1,234,111
2012	377,820.80	27,815	34,079	392,859	48.79	8,052
2013	79,448.45	4,255	5,213	84,564	48.85	1,731
2014	158,517.38	5,193	6,362	172,762	48.91	3,532
2015	246,069.29	2,756	3,377	274,682	48.97	5,609
	95,533,749.13	19,135,710	23,445,099	84,508,038		1,754,695
INTERI PROBAB	E COUNTY UNIT 2 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 100- EAR 6-2066				
1990	5,493,644.11	2,113,079	3,076,062	3,131,756	46.74	67,004
2012	62,807.35	4,624	6,731	64,241	48.79	1,317
	5,556,451.46	2,117,703	3,082,793	3,195,997		68,321
INTERI PROBAB	LABORATORY M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2040				
1989	724,776.82	379,035	594,527	137,498	23.85	5,765
1990	58,100.00	29,824	46,780	11,901		499
1994	6,176.00	2,905	4,557	1,681	23.96	70
1997	16,663.00	7,214	11,315	5,514	24.02	230
2011	19,253.00	3,007	4,717	14,729	24.22	608
2012	255,306.75	32,140	50,412	207,447	24.23	8,562
2014	8,935.37	519	814	8,211	24.25	339
2015	13,745.45	280	439	13,444	24.26	554
	1,102,956.39	454,924	713,561	400,425		16,627

#### ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROWN I	ו אודיי					
BROWN I		E TOWN 100	D2 E			
	M SURVIVOR CURV LE RETIREMENT Y					
			•			
NEI SA	LVAGE PERCENT	-6				
1948	11,983.27	11,381	12,702			
1956	2,427,156.54	2,275,629	2,572,786			
1958	382.11	357	405			
1965	283.00	260	300			
1979	14,516.00	12,727	15,387			
1982	91,160.00	78,723	96,630			
1983	1,965.00	1,688	2,083			
1984	5,212.00	4,450	5,525			
1985	1,849.00	1,569	1,960			
1987	43,137.68	36,103	45,726			
1988	45,243.11	37,583	47,958			
1989	64,194.00	52,904	68,046			
1990	658.09	538	698			
1991	23,174.40	18,764	24,565			
1994	666,989.00	522,918	707,008			
1995	352,899.61	273,257	374,074			
1996	94,854.89	72,464	100,546			
1997	72,522.04	54,585	76,873			
1998	11,065.00	8,190	11,729			
2004	108,817.17	69,684	115,346			
2005	71,616.67	44,216	73,813	2,100	7.47	281
2006	35,830.85	21,170	35,341	2,640	7.48	353
2007	85,296.44	47,907	79,975	10,439	7.48	1,396
2008	436,431.15	230,689	385,108	77,509	7.48	10,362
2014	8,914.20	1,578	2,634	6,815	7.48	911
2015	13,918.24	924	1,543	13,211	7.48	1,766
	4,690,069.46	3,880,258	4,858,759	112,715		15,069
BROWN	UNIT 2					
INTERI	M SURVIVOR CURV	E IOWA 100-	R2.5			
	LE RETIREMENT Y		9			
NET SA	LVAGE PERCENT	- 6				
1963	1,268,530.68	1,064,352	1,344,643			
1965	11,653.00	9,702	12,352			
1966	10,986.00	9,107	11,645			
1967	2,142.72	1,769	2,271			
1979	24,545.95	18,916	26,019			
1980	400.00	306	424			

#### ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
BROWN	מידותון כ					
	M SURVIVOR CURV	E TOWA 100-	R2 5			
	LE RETIREMENT Y					
	LVAGE PERCENT					
MD1 OIL	Direction .	9				
1983	1,964.15	1,465	2,082			
1992	96,409.90	64,663	102,194			
1997	19,477.46	11,897	19,702	944	13.37	71
2004	43,200.52	21,010	34,793	10,999	13.40	821
2005	5,793.58	2,678	4,435	1,706	13.41	127
2007	565,018.59	230,566	381,823	217,096	13.42	16,177
2009	21,690.24	7,456	12,347	10,644	13.42	793
2012	133,555.40	29,068	48,137	93,431	13.43	6,957
2015	91,828.24	3,492	5,783	91,555	13.44	6,812
	,		-,	,		
	2,297,196.43	1,476,447	2,008,651	426,377		31,758
BROWN	INTT 3					
	M SURVIVOR CURV	E. TOWA 100-	R2.5			
	LE RETIREMENT Y					
	LVAGE PERCENT		•			
1120 2		-				
1967	1,440.97	1,085	1,373	154	18.66	8
1968	93.83	70	89	11	18.69	1
1971	7,455,327.76	5,471,003	6,924,672	977,976	18.77	52,103
1972	56,652.66	41,289	52,260	7,792	18.79	415
1973	11,995.55	8,681	10,988	1,728	18.81	92
1974	2,999.00	2,154	2,726	453	18.84	24
1975	15,098.31	10,758	13,616	2,388	18.86	127
1977	1,211,596.00	849,058	1,074,656	209,635	18.90	11,092
1979	8,850.03	6,090	7,708	1,673	18.94	88
1980	275,262.00	187,575	237,414	54,363	18.96	2,867
1983	3,928.40	2,592	3,281	883	19.02	46
1984	146,459.90	95,483	120,853	34,394	19.04	1,806
1985	58,036.00	37,375	47,306	14,212	19.05	746
1986	44,536.07	28,303	35,823	11,385	19.07	597
1987	251,180.26	157,469	199,309	66,942	19.08	3,508
1988	56,900.74	35,151	44,491	15,824	19.10	828
1989	477,066.00	290,221	367,334	138,356	19.11	7,240
1990	48,018.29	28,725	36,357	14,542	19.13	760
1991	68,381.00	40,205	50,888	21,596	19.14	1,128
1992	756,531.00	436,438	552,401	249,521	19.16	13,023
1993	84,689.00	47,900	60,627	29,143	19.17	1,520
1995	22,964.00	12,428	15,730	8,612	19.19	449
1997	215,113.23	110,558	139,934	88,086	19.22	4,583
	, == : = <del>=</del>			,		, = 3 -

### ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBAB	M SURVIVOR CURVI LE RETIREMENT Y	EAR 6-2035				
NET SA	LVAGE PERCENT	-6				
1998	127,955.64	63,880	80,853	54,780	19.23	2,849
2001	83,885.45	37,766	47,801	41,118	19.26	2,135
2003	193,441.22	79,809	101,015	104,033	19.27	5,399
2004	122,280.23	47,923	60,656	68,961	19.2B	3,577
2005	95,151.19	35,175	44,521	56,339	19.29	2,921
2007	8,016,945.98	2,569,614	3,252,371	5,245,591	19.31	271,652
2009	200,931.69	53,062	67,161	145,827	19.32	7,548
2010	423,902.15	98,544	124,728	324,609	19.33	16,793
2011	43,327.16	8,575	10,853	35,073	19.34	1,813
2012	602,913.83	96,982	122,751	516,338	19.34	26,698
2013	504,143.53	60,493	76,566	457,826	19.35	23,660
2014	966,396.11	72,751	92,081	932,299	19.36	48,156
2015	57,124.43	1,525	1,930	58,622	19.36	3,028
	22,711,518.61	11,126,710	14,083,124	9,991,086		519,280
DDOWN :	INITER 1 2 NATE	2 CCDTTODOO				
	UNITS 1, 2 AND 1		D2 E			
	M SURVIVOR CURV LE RETIREMENT Y					
	LVAGE PERCENT					
NEI DA	DVAGE FERCENT	-0				
1994	38,344.63	21,229	34,099	6,546	19.1B	341
2013	45,322,523.30	5,438,340	8,735,322	39,306,552	19.35	2,031,346
2015	146,854.51	3,920	6,296	149,369	19.36	7,715
	45,507,722.44	5,463,489	8,775,718	39,462,468		2,039,402
CHENT	UNIT 1 SCRUBBER					
	M SURVIVOR CURV	E. TOWA 100-	R2.5			
	LE RETIREMENT Y					
	LVAGE PERCENT					
1997	8,362,584.36	4,455,550	7,312,037	1,635,929	18.25	89,640
2007	34,607.76	11,618	19,066	17,964	18.33	980
	8,397,192.12	4,467,168	7,331,103	1,653,893		90,620
	8.397.192.12	4,467,168	7,331,103	1,653,893		90,620

#### ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

YEAR (1) GHENT	ORIGINAL COST (2) UNIT 1	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBA	IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2034				
1974	14,792,573.62	10,900,464	15,828,054			
1979	287,003.73	202,915	307,094			
1980	27,171.00	19,035	28,825	248	18.02	14
1981	10,791.00	7,484	11,333	213	18.04	12
1985	107,260.53	71,146	107,736	7,032	18.10	389
1987	218,325.45	141,095	213,660	19,948	18.13	1,100
1988	97,360.62	62,041	93,949	10,227	18.14	564
1992	29,300.00	17,476	26,464	4,887	18.19	269
1994	74,968.00	42,941	65,026	15,190	18.22	834
1995	60,912.73	34,121	51,669	13,507	18.23	741
1996	393,716.22 33,704.37	215,323	326,064	95,213	18.24	5,220
1997 2003	143,388.86	17,958	27,194	8,870	18.25	486 3,283
2005	240,490.70	61,642 <b>9</b> 2,781	93,344 140,498	60,082 116,827	18.30 18.32	3,283 6,377
2003	240,430.70	80,783	122,330	135,153	18.33	7,373
2009	333,988.93	92,662	140,318	217,050	18.34	11,835
2010	643,507.32	157,224	238,084	450,469	18.35	24,549
2011	670,518.89	140,033	212,052	505,403	18.35	27,542
2013	237,388.65	30,105	45,588	208,418	18.37	11,346
2015	862,032.52	23,954	36,274	886,101	18.38	48,210
	19,505,041.37	12,411,183	18,115,555	2,754,839		150,144
	UNIT 2					
	IM SURVIVOR CURV					
	BLE RETIREMENT Y		t .			
NEI S.	ALVAGE PERCENT	- /				
1977	14,862,896.44	10,695,923	13,639,097	2,264,202	17.97	125,999
1979	227,477.00	160,829	205,084	38,316	18.01	2,127
1980	88,059.38	61,690	78,665	15,558	18.02	863
1981	10,786.00	7,481	9,540	2,001	18.04	111
1986	385,657.47	252,540	322,031	90,623	18.12	5,001
1988	13,292.75	8,471	10,802	3,421	18.14	189
1989	11,294.78	7,087	9,037	3,048	18.16	168
1991	1,929.73	1,172	1,494	570	18.18	31
1995	27,739.56	15,539	19,815	9,866	18.23	541
1997	13,603.48	7,248	9,242	5,313	18.25	291
1998	67,159.90	34,794	44,368	27,493	18.26	1,506

### ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

INTER:	ORIGINAL COST (2) UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2034		FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
2002	222 824 88	26 225	122 703	116 900	10 20	6 202
2003	223,834.88	96,225	122,703	116,800	18.30	6,383
2013	194,635.03	24,683	31,475	176,785	18.37	9,624
2015	130,289.29	3,620	4,616	134,793	18.38	7,334
	16,258,655.69	11,377,302	14,507,970	2,888,792		160,168
GHENT	UNIT 3					
	IM SURVIVOR CURV	E IOWA 100-	R2.5			
	BLE RETIREMENT Y					
	ALVAGE PERCENT					
1981	34,380,542.39	22,573,717	27,719,915	9,067,266	20.86	434,672
1982	1,235,435.00	802,019	984,858	337,058	20.88	16,143
1983	511.16	328	403	144	20.90	7
1987	2,248,542.00	1,366,045	1,677,466	728,474	20.98	34,722
1995	9,779.16	5,087	6,247	4,217	21.12	200
1996	195,780.51	99,237	121,860	87,625	21.13	4,147
2001	263,336.76	113,027	138,794	142,976	21.20	6,744
2002	234,131.24	96,237	118,176	132,344	21.21	6,240
2004	2,640,221.52	980,768	1,204,357	1,620,680	21.23	76,339
2005	105,410.84	36,857	45,259	67,530	21.24	3,179
2010	643,443.60	139,707	171,556	516,928	21.29	24,280
2011	109,662.90	20,202	24,808	92,532	21.30	4,344
2014	8,999,804.63	625,070	767,569	8,862,222	21.32	415,676
	51,066,601.71	26,858,301	32,981,268	21,659,996		1,026,693
CUENT	UNIT 4					
	IM SURVIVOR CURV	TOWN 100-	.D2 E			
	BLE RETIREMENT Y		_			
	ALVAGE PERCENT		,			
NEI DA	AUVAGE PERCENT	- /				
1984	15,550,093.93	9,669,523	10,099,433	6,539,168	21.86	299,139
1985	931,420.00	571,382	596,786	399,834	21.88	18,274
1986	734,905.00	444,460	464,221	322,128	21.90	14,709
1987	15,869.00	9,455	9,875	7,104	21.92	324
1988	8,118.00	4,758	4,970	3,717	21.95	169
1989	20,054.00	11,558	12,072	9,386	21.97	427
1990	23,192.76	13,131	13,715	11,101	21.99	505
	,	,	, . ==	,		

#### ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)	
INTER PROBA	'UNIT 4 IM SURVIVOR CURV BLE RETIREMENT Y BLVAGE PERCENT	EAR 6-2038					
1991	16,217.00	9,013	9,414	7,938	22.00	361	
1992	24,302.00	13,236	13,824	12,179	22.02	553	
1993	42,417.00	22,605	23,610	21,776	22.04	988	
1994	11,882.00	6,188	6,463	6,251	22,06	283	
1995	28,654.54	14,564	15,212	15,449	22.07	700	
1996	80,570.00	39,875	41,648	44,562	22.09	2,017	
1997	1,942,669.00	934,481	976,028	1,102,628	22.10	49,893	
2001	618,493.64	258,342	269,828	391,960	22.16	17,688	
2002	186,501.00	74,580	77,896	121,660	22.17	5,488	
2003	189,255.91	72,029	75,231	127,272	22.19	5,736	
2004	276,923.25	99,832	104,271	192,037	22.20	8,650	
2005	181,861.63	61,693	64,436	130,156	22.21	5,860	
2007	7,212,117.43	2,108,970	2,202,735	5,514,230	22.23	248,054	
2010	581,597.75	121,854	127,272	495,038	22.26	22,239	
2011	447,887.14	79,664	83,206	396,033	22,27	17,783	
2012	265,809.06	38,134	39,829	244,586	22.28	10,978	
2013	1,076,247.83	114,882	119,990	1,031,595	22.29	46,281	
2014	2,643,686.56	176,061	183,889	2,644,856	22.30	118,603	
2015	137,615.33	3,164	3,305	143,944	22.31	6,452	
	33,248,360.76	14,973,434	15,639,157	19,936,589		902,154	
INTER PROBA	GHENT UNIT 2 SCRUBBER INTERIM SURVIVOR CURVE IOWA 100-R2.5 PROBABLE RETIREMENT YEAR 6-2034 NET SALVAGE PERCENT7						
1994	15,817,337.72	9,060,051	13,742,096	3,182,455	18.22	174,668	
	15,817,337.72	9,060,051	13,742,096	3,182,455		174,668	
	321,692,853.29	122,802,680	159,284,854	190,173,670		6,949,599	
	COMPOSITE REMAIN	NING LIFE AND	ANNUAL ACCRUAL	RATE, PERCEN	r 27.4	2.16	

#### ACCOUNT 311.1 STRUCTURES AND IMPROVEMENTS - ASH PONDS

### CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	ACCRUED	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)					
INTERIN PROBABI	TRIMBLE COUNTY UNIT 2 ASH POND INTERIM SURVIVOR CURVE IOWA 100-S4 PROBABLE RETIREMENT YEAR 6-2066 NET SALVAGE PERCENT 0								
1990	4,562,600.30	1,543,893	2,148,119	2,414,481	49.86	48,425			
	4,562,600.30	1,543,893	2,148,119	2,414,481		48,425			
INTERIN PROBABI	GHENT UNIT 1 SCRUBBER ASH POND INTERIM SURVIVOR CURVE IOWA 100-S4 PROBABLE RETIREMENT YEAR 6-2034 NET SALVAGE PERCENT 0								
1997	39,480.55	19,740	34,420	5,061	18.50	274			
	39,480.55	19,740	34,420	5,061		274			
INTERIN PROBABI	GHENT UNIT 1 ASH POND INTERIM SURVIVOR CURVE IOWA 100-S4 PROBABLE RETIREMENT YEAR 6-2034 NET SALVAGE PERCENT 0								
1987	322,828.55	195,757	304,586	18,243	18.50	986			
	322,828.55	195,757	304,586	18,243		986			
	4,924,909.40	1,759,390	2,487,125	2,437,785		49,685			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 49.1 1.01

### ACCOUNT 311.2 STRUCTURES AND IMPROVEMENTS - RETIRED PLANT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
TYRONE	UNIT 3					
	M SURVIVOR CURV					
	LE RETIREMENT Y LVAGE PERCENT		5			
		10				
1947	572,836.03	630,120	630,120			
1948	291,289.73	320,419	320,419			
1949	3,757.35	4,133	4,133			
1951	449.85	4 9 5	495			
1953	284,320.41	312,752	312,752			
1954	19,256.64	21,182	21,182			
1955	1,152.61	1,268	1,268			
1966	18.41	20	20			
1970	15,244.21	16,769	16,769			
1973	0.48	1	1			
1978	45,723.00	50,295	50,295			
1994	7,063.50	7,770	7,770			
2003	8,480.22	9,328	9,328			
2006	48,571.39	53,429	53,429			
2007	111,599.81	122,760	122,760			
2009	67,097.35	73,807	73,807			
2013	6,150.84	6,766	6,766			
2015	209,964.73	230,961	230,961			
	1,692,976.56	1,862,275	1,862,274			
TVDONE	UNITS 1 AND 2					
	I SURVIVOR CURV	P TOWN 100-	ם כ			
	E RETIREMENT Y					
	VAGE PERCENT		3			
1947	464,339.65	510,774	510,774			
2000	36,257.09	39,883	39,883			
2001	78,101.58	85,912	85,912			
2004	4,683.12	5,151	5,152			

583,381.44 641,720

641,720

#### ACCOUNT 311.2 STRUCTURES AND IMPROVEMENTS - RETIRED PLANT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM PROBABI	RIVER UNIT 3 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 12-201				
1954	1,532,919.98	1,686,212	1,686,212			
1955	34,040.75	37,445	37,445			
1977	454,212.76	499,634	499,634			
1978	2,303.00	2,533	2,533			
1982	372,934.13	410,228	410,228			
1985	19,443.60	21,388	21,388			
1997	26,427.69	29,070	29,070			
2011	107,003.10	117,703	117,704			
	2,549,285.01	2,804,213	2,804,214			

GREEN RIVER UNIT 4
INTERIM SURVIVOR CURVE.. IOWA 100-R2.5
PROBABLE RETIREMENT YEAR.. 12-2015
NET SALVAGE PERCENT.. -10

1959	2,136,379.91	2,350,018	2,350,018
1960	9,468.10	10,415	10,415
1980	37,188.01	40,907	40,907
1982	1,306.83	1,438	1,438
1985	14,804.60	16,285	16,285
1986	78,079.36	85,887	85,887
1987	8,740.03	9,614	9,614
1988	18,125.00	19,938	19,938
1990	0.35		0
1991	152,430.19	167,673	167,673
1992	453.00	498	498
1994	0.20		0
1995	238.43	262	262
1996	128,584.00	141,442	141,442
1997	98,050.96	107,856	107,856
2000	125,696.00	138,266	138,266
2003	37,909.52	41,700	41,700
2004	14,553.86	16,009	16,009
2005	170,827.36	187,910	187,910
2007	116,707.42	128,378	128,378
2009	164,177.61	180,595	180,595
2010	24.08	26	26

#### ACCOUNT 311.2 STRUCTURES AND IMPROVEMENTS - RETIRED PLANT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBAE	RIVER UNIT 4 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 12-201				
2011	270,769.12	297,846	297,846			
2012	231,931.02	255,124	255,124			
2013	743,577.10	817,935	817,935			
	4,560,022.06	5,016,022	5,016,024			
GREEN	RIVER UNITS 1 A	ND 2				
	M SURVIVOR CURV					
	LE RETIREMENT Y		.5			
NET SA	LVAGE PERCENT	-10				
1950	981,876.86	1,080,065	1,080,065			
1951	43,895.11	48,285				
1954	12,435.28	13,679	13,679			
1960	11,239.00		•			
1961	219.00	241	241			
1965	6,953.70	7,649	7,649			
1970	0.08		0			
1973	5,098.15	5,608	5,608			
1974	28.00	31	31			
1975	394,531.08	433,984	433,984			
1978	34,073.00	37,480				
1997	68,189.00	75,008	75,008			
	1,558,538.26	1,714,393	1,714,392			
PINEVI	LLE UNIT 3					
INTER	M SURVIVOR CURV	E IOWA 100-	R2.5			
PROBA	LE RETIREMENT Y	EAR 12-201	.5			
NET SA	LVAGE PERCENT	-10				
2013	37,239.96	40,964	40,964			
	37,239.96	40,964	40,964			
	10,981,443.29	12,079,587	12,079,588			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00



### ACCOUNT 312 BOILER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBA	LE COUNTY UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 65-R EAR 6-2066				
1990	30,527,801.72	12,621,204	19,605,736	14,890,680	38.20	389,808
1999	46,214.59	13,637	21,184	31,039	41.62	746
2002	235,262.87	<b>5</b> 9,055	91,736	174,111	42.58	4,089
2003	251,881.90	59,322	92,151	192,476	42.88	4,489
2004	103,726.28	22,786	35,396	81,815	43.18	1,895
2008	11,126.98	1,689	2,624	9,950	44.26	225
	478,940,169.04	45,818,194	71,173,827	470,028,564	44.98	10,449,724
2012 2013	4,494,782.01 836,833.81	339,640 45,948	527,596 71,375	4,551,508 874,247	45.21 45.43	100,675 19,244
2013	11,469,287.24	383,106	595,116	12,365,179	45.43	270,929
2014	5,016,490.04	57,537	89,378	5,579,256	45.84	121,712
2013	3,010,130.01	3,133,	0,7,2,0	3,313,230	15.01	, /
	531,933,576.48	59,422,118	92,306,117	508,778,824		11,363,536
INTER:	LE COUNTY UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 65-R EAR 6-2066				
1990	11,005,849.25	4,550,182	8,098,474	4,338,135	38.20	113,564
2003	51,829.65	12,207	21,726	36,841	42.88	859
2005	27,031.69	5,498	9,785	20,760	43.46	478
2007	131,148.15	22,243	39,588	108,609	44.00	2,468
2011	60,117,074.96	5,7 <b>5</b> 1,148	10,235,969	57,696,325	44.98	1,282,711
2012	1,218,956.00	92,108	163,935	1,213,485	45.21	26,841
2013	131,025.54	7,194	12,804	135,255	45.43	2,977
2014	338,774.33	11,316	20,140	362,675	45.64	7,946
	73,021,689.57	10,451,896	18,602,423	63,912,086		1,437,844
INTER	UNIT 1 IM SURVIVOR CURV BLE RETIREMENT Y					
	ALVAGE PERCENT					
1950	38,574.00	36,294	34,124	6,764	6.64	1,019
1956	3,432,925.22	3,198,339	3,007,149	631,751	6.82	92,632
1957	198,794.49	184,862	173,811	36,911		5,388
1959	13,000.91	12,044	11,324	2,457	6.90	356

### ACCOUNT 312 BOILER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BROWN	UNIT 1					
	M SURVIVOR CURV	E IOWA 65-R	12			
	BLE RETIREMENT Y					
	ALVAGE PERCENT					
1965	11,524.63	10,534	9,904	2,312	7.04	328
1966	34.45	31	29	7	7.06	1
1968	1,948.40	1,767	1,661	404	7.09	57
1973	1,590,515.65	1,420,680	1,335,755	350,192	7.17	48,841
1974	18,694.00	16,637	15,642	4,173	7.19	580
1975	441,330.00	391,365	367,970	99,840	7.20	13,867
1977	7,170.50	6,308	5,931	1,670	7.23	231
1978	1,881.00	1,648	1,549	444	7.24	61
1983	80,244.00	68,580	64,480	20,578	7.29	2,823
1984	4,372.00 27,185.00	3,715	3,493	1,141	7.30	156
1985 1987	70,883.58	22,955	21,583	7,233	7.31	989
1988	311,788.04	59,064 257,856	55,533 242,442	19,603	7.32	2,678
1989	12,314.44	10,103	9,499	88,053 3,554	7.33 7.34	12,013 484
1990	16,976.00	13,812	12,986	5,008	7.34	682
1991	11,405,119.81	9,194,130	8,644,525	3,444,902	7.35	468,694
1992	299,803.87	239,278	224,974	92,818	7.36	12,611
1994	809,175.97	631,801	594,033	263,693	7.37	35,779
1995	5,085.27	3,921	3,687	1,704	7.38	231
1996	597,835.99	454,862	427,671	206,035	7.38	27,918
1997	269,896.00	202,291	190,198	95,891	7.39	12,976
1999	6,580.00	4,765	4,480	2,495	7.40	337
2001	1,316,699.00	914,226	859,576	536,125	7.41	72,352
2002	13,656.00	9,253	8,700	5,775	7.41	779
2003	217,931.20	143,629	135,043	95,964	7.41	12,951
2004	1,845,220.71	1,177,335	1,106,957	848,977	7.42	114,417
2005	556,841.17	342,535	322,059	268,193	7.42	36,145
2006	40,236.58	23,698	22,281	20,369	7.43	2,741
2007	421,857.31	236,351	222,222	224,946	7.43	30,275
2008	2,917,291.73	1,538,836	1,446,848	1,645,481	7.43	221,464
2009	1,903,167.53	931,313	875,641	1,141,716	7.44	153,456
2010	2,427,890.91	1,083,496	1,018,727	1,554,837	7.44	208,983
2011	180,640.37	71,462	67,190	124,289	7.44	16,706
2012	3,112,190.42	1,045,098	982,624	2,316,297	7.44	311,330
2013 2014	518,642.40 64,953.85	136,467	128,309	421,452	7.45	56,571 7,802
2014	5,005,327.01	11,411 333,672	10,729 313,726	58,122 4,991,921	7.45 7.45	670,057
2013	J,003,321.01	333,072	313,720	- , J J L , J Z L	,.45	0,0,037
	40,216,199.41	24,446,424	22,985,071	19,644,100		2,657,761

#### ACCOUNT 312 BOILER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBA	UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2029				
1963	5,017,723.03	4,195,406	3,515,321	1,803,466	11.79	152,966
1964	83,935.36	69,886	58,557	30,414	11.86	2,564
1965	2,757.93	2,287	1,916	1,007	11.92	84
1966	425.52	351	294	157	11.99	13
1975	2,622,355.35	2,064,842	1,730,126	1,049,571	12.46	84,235
1976	35,297.56	27,621	23,144	14,272	12.50	1,142
1977	1,845.00	1,434	1,202	754	12.54	60
1978	16,079.65	12,414	10,402	6,643	12.58	528
1980	82,061.00	62,415	52,297	34,687	12.66	2,740
1985	3,930.00	2,861	2,397	1,769	12.82	138
1988	117,057.24	82,473	69,104	54,977	12.90	4,262
1989	38,963.27	27,110	22,715	18,586	12.93	1,437
1990	28,392.45	19,502	16,341	13,755	12.95	1,062
1991	382,847.00	259,253	217,227	188,590	12.98	14,529
1992	195,307.00	130,306	109,183	97,842	13.00	7,526
1993	6,201,184.08	4,072,263	3,412,139	3,161,116	13.02	242,789
1994	58,066.75	37,484	31,408	30,143	13.04	2,312
1995	314,560.32	199,320	167,010	166,424	13.06	12,743
1996	64,792.38	40,233	33,711	34,969	13.08	2,673
1998	380.00	225	189	214	13.12	16
1999	1,985,695.00	1,148,231	962,100	1,142,737	13.13	87,033
2002	30,185.00	15,869	13,297	18,700	13.18	1,419
2003	419,887.86	212,397	177,967	267,114	13.19	20,251
2004	3,336,963.09	1,614,299	1,352,617	2,184,564	13.21	165,372
2005	115,467.62	53,130	44,517	77,878	13.22	5,891
2007	319,765.64	129,869	108,817	230,135	13.25	17,369
2008	38,247.48	14,369	12,040	28,503	13.26	2,150
2009	5,684,731.37	1,943,988	1,628,863	4,396,952	13.27	331,345
2010	1,991,547.56	607,030	508,629	1,602,411	13.28	120,663
2011	636,571.01	167,544	140,385	534,381	13.29	40,209
2012	6,650,986.04	1,442,087	1,208,321	5,841,724	13.30	439,227
2013	595,614.98	98,150	82,240	549,112	13.31	41,256
2014	1,500,354.55	158,067	132,444	1,457,932	13.32	109,454
2015	2,879,014.14	108,215	90,673	2,961,082	13.33	222,137
	41,452,992.23	19,020,931	15,937,592	28,002,580		2,137,595

#### ACCOUNT 312 BOILER PLANT EQUIPMENT

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
BROWN	UNIT 3					
	IM SURVIVOR CURV	E. IOWA 65~R	.2			
	BLE RETIREMENT Y					
NET S	ALVAGE PERCENT	-6				
1971	23,810,289.08	17,502,172	17,550,961	7,687,945	16.78	458,161
1972	227,473.81	165,940	166,403	74,720	16.89	4,424
1973	121,887.17	88,246	88,492	40,708	16.99	2,396
1974	23,028.00	16,539	16,585	7,825	17.09	458
1975	413.00	294	295	143	17,18	8
1976	8,346,832.00	5,894,476	5,910,908	2,936,734	17.28	169,950
1977	300,180.00	210,095	210,681	107,510	17.37	6,189
1980	328,422.00	223,372	223,995	124,133	17.61	7,049
1981	831.05	559	561	320	17.69	18
1982	1,751,913.00	1,166,325	1,169,576	687,452	17.76	38,708
1983	208,501.00	137,175	137,557	83,454	17.84	4,678
1984	583,948.05	379,729	380,788	238,197	17.90	13,307
1985	116,941.74	75,077	75,286	48,672	17.97	2,709
1986	6,308.00	3,997	4,008	2,678	18.03	149
1987	1,331,048.28	831,619	833,937	576, <del>9</del> 74	18.09	31,895
1988	825,544.36	508,183	509,600	365,477	18.15	20,136
1990	642,103.72	382,732	383,799	296,831	18.26	16,256
1991	23,220.54	13,600	13,638	10,976	18.31	599
1992	12,776,750.40	7,344,020	7,364,492	6,178,863	18.36	336,539
1993	2,346,857.63	1,322,022	1,325,707	1,161,962	18.41	63,116
1994	3,077,923.00	1,697,041	1,701,772	1,560,827	18.46	84,552
1995	750,300.20	404,316	405,443	389,875	18.50	21,074
1997	4,676,406.78	2,392,987	2,399,658	2,557,333	18.59	137,565
1998	68,370.00	34,005	34,100	38,372	18.62	2,061
1999	401,832.00	193,676	194,216	231,726	18.66	12,418
2000	127,001.94	59,137	59,302	75,320	18.70	4,028
2001	251,033.71	112,601	112,915	153,181	18.73	8,178
2002	95,234.56	40,949	41,063	59,885	18.77	3,190
2003	391,655.38	160,839	161,287	253,867	18.80	13,504
2004	86,283.64	33,649	33,743	57,718	18.83	3,065
2005	3,019,751.72	1,111,301	1,114,399	2,086,538	18.86	110,633
2006	3,135,165.45	1,079,632	1,082,642	2,240,634	18.89	118,615
2007	8,078,544.98	2,578,140	2,585,327	5,977,931	18.92	315,958
2008	1,093,013.42	319,448	320,338	838,256	18.94	44,259
2009	245,739.33	64,631	64,811	195,673	18.97	10,315
2010	1,209,243.62	280,099	280,880	1,000,918	18.99	52,708
2011	3,445,815.41	678,610	680,502	2,972,063	19.02	156,260
	126,967,027.11	20,341,184	20,397,887	114,187,161	19.04	5,997,225

### ACCOUNT 312 BOILER PLANT EQUIPMENT

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	UNIT 3 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2035				
2013	27,923,468.83	3,334,609	3,343,905	26,254,972	19.06	1,377,491
2014	2,079,275.62	156,663	157,100	2,046,932	19.08	107,282
2015	94,144,235.91	2,495,820	2,502,777	97,290,113	19.10	5,093,723
	335,039,815.44	73,835,509	74,041,334	281,100,870		14,850,849
INTER PROBA	UNITS 1, 2 AND IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 65-F EAR 6-2035				
1994	5,159,404.89	2,844,684	4,831,796	637,173	18.46	34,516
2010	32,323,114.73	7,487,042	12,717,006	21,545,496	18.99	1,134,571
2012	254,234.17	40,730	69,181	200,307	19.04	10,520
2013	295,455,751.48	35,283,208	59,929,777	253,253,320	19.06	13,287,163
2014	815,518.70	61,445	104,367	760,083	19.08	39,837
2015	551,915.65	14,632	24,853	560,178	19.10	29,329
	334,559,939.62	45,731,741	77,676,980	276,956,556		14,535,936
INTER PROBA	UNIT 1 SCRUBBER IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 65-F EAR 6-2034	_			
1997	, ,	11,384,464	17,193,704	5,771,809	17.69	326,275
2010	12,043.79	2,929	4,424	8,463	18.05	469
2011	759,148.82	157,893	238,462	573,827	18.07	31,756
	115,925,898.17	19,576,105	29,565,358	94,475,353	18.09	5,222,518
2013	•	19,258	29,085	133,687	18.11	7,382
2014	•	5,408	8,168	64,391	18.13	3,552
2015	452,417.04	12,727	19,221	464,865	18.15	25,612
	138,832,539.39	31,158,784	47,058,422	101,492,395		5,617,564



### ACCOUNT 312 BOILER PLANT EQUIPMENT

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CHENT	UNIT 1					
	IM SURVIVOR CURV	/E IOWA 65-R	12			
	BLE RETIREMENT X					
NET S	ALVAGE PERCENT	-7				
1958	50,033.00	40,658	45,170	8,366	14.49	577
1974	49,030,601.98	36,090,171	40,095,044	12,367,700	16.35	756,434
1979	153,844.00	108,503	120,543	44,070	16.75	2,631
1980 1981	485,218.64 6,294.00	338,944	376,556	142,628	16.82 16.89	8,480
1982	40,874.00	4,352 27,963	4,835 31,066	1,900 12,669	16.96	112 747
1983	0.16	21,503	0	12,003	10.90	/11/
1984	705.60	472	524	231	17.08	14
1985	3,913.34	2,586	2,873	1,314	17.14	77
1986	20,989.71	13,691	15,210	7,249	17.20	421
1987	190,485.08	122,601	136,206	67,613	17.25	3,920
1989	84,769.00	52,982	58,861	31,841	17.35	1,835
1990	63,912.00	39,307	43,669	24,717	17.40	1,421
1991	310,440.00	187,660	208,484	123,686	17.45	7,088
1992	354,903.01	210,702	234,083	145,663	17.49	8,328
1993	90,815.89	52,893	58,762	38,411	17.53	2,191
1994	610,532.00	348,251	386,896	266,373	17.57	15,161
1995	8,510,654.34	4,747,531	5,274,358	3,832,043	17.61	217,606
1996	780,407.52	424,950	472,106	362,930	17.65	20,563
1998	134,109.00	69,190	76,868	66,629	17.72	3,760
1999	149,045.50	74,552	82,825	76,654	17.76	4,316
2000	37,620.04	18,199	20,219	20,035	17.79	1,126
2001	4,796,617.93	2,236,281	2,484,438	2,647,943	17.82	148,594
2002	3,272,250.00	1,464,877	1,627,432	1,873,875	17.85	104,979
2003	1,558,877.17	666,866	740,867	927,131	17.88	51,853
2004	53,736,563.83	21,852,737	24,277,703	33,220,420	17.91	1,854,853
2005	6,533,312.05	2,510,969	2,789,608	4,201,036	17.93	234,302
2006	2,661,176.28	958,255	1,064,591	1,782,867	17.96	99,269
2007	1,359,443.47	454,462	504,893	949,712	17.98	52,820
2008	993,616.17	304,247	338,009	725,160	18.01	40,264
2009	3,419,068.72 4,229,579.47	943,941 1,028,726	1,048,689 1,142,882	2,609,715 3,382,768	18.03 18.05	144,743 187,411
2010 2011	5,070,156.45	1,054,525	1,171,544	4,253,523	18.07	235,391
2011	30,045,027.82	5,073,626	5,636,639	26,511,541	18.09	1,465,536
2012	1,558,285.23	197,266	219,156	1,448,209	18.11	79,967
2014	2,380,884.08	189,869	210,938	2,336,607	18.13	128,881
	164,542,264.61	4,628,623	5,142,254	170,917,969	18.15	9,416,968
		-,,				-,,
	347,267,291.09	86,541,428	96,144,803	275,431,198		15,302,639

### ACCOUNT 312 BOILER PLANT EQUIPMENT

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CHENT	UNIT 2					
	IM SURVIVOR CURV	T TOWA 65-P	2			
	BLE RETIREMENT Y					
	ALVAGE PERCENT					
1101 0	im viou tuncunt	,				
1977	58,730,215.55	42,176,587	44,740,983	18,100,348	16.60	1,090,382
1978	378,364.00	269,302	285,676	119,174	16.68	7,145
1979	182,288.33	128,564	136,381	58,668	16.75	3,503
1980	41,332.94	28,873	30,629	13,598	16.82	808
1981	6,292.00	4,351	4,616	2,117	16.B9	125
1982	74,950.00	51,276	54,394	25,803	16.96	1,521
1986	625,102.42	407,750	432,542	236,318	17.20	13,739
1987	303,212.93	195,156	207,022	117,416	17.25	6,807
1988	440,286.00	279,385	296,372	174,734	17.30	10,100
1989	22,395.85	13,998	14,849	9,114	17.35	525
1990	3,078.00	1,893	2,008	1,285	17.40	74
1991	159,055.00	96,148	101,994	68,195	17.45	3,908
1992	8,980.53	5,332	5,656	3,953	17.49	226
1994	624,766.08	356,371	378,039	290,461	17.57	16,532
1995	192,226.00	107,230	113,750	91,932	17.61	5,220
1996	1,317,733.68	717,536	761,163	648,812	17.65	36,760
1997	1,696,598.00	899,910	954,626	860,734	17.69	48,657
1998	31,096.00	16,043	17,018	16,254	17.72	917
1999	1,074,948.00	537,681	570,373	579,822	17.76	32,648
2000	18,464.61	8,932	9,475	10,282	17.79	578
2001	406,215.00	189,386	200,901	233,749	17.82	13,117
2002	5,238,048.00	2,344,899	2,487,472	3,117,239	17.85	174,635
2003	281,282.34	120,329	127,645	173,327	17.88	9,694
2004	48,776.05	19,835	21,041	31,149	17.91	1,739
2005	2,911,587.84	1,119,020	1,187,058	1,928,341	17.93	107,548
2006	388,451.69	139,876	148,381	267,263	17.96	14,881
2007	384,330.33	128,482	136,294	274,940	17.98	15,291
2008	179,568.29	54,984	58,327	133,811	18.01	7,430
2009	322,044.12	88,910	94,316	250,271	18.03	13,881
2010	5,168,023.27	1,256,975	1,333,401	4,196,384	18.05	232,487
2011	696,400.85	144,842	153,649	591,500	18.07	32,734
2012	30,284,534.59	5,114,071	5,425,014	26,979,438	18.09	1,491,401
2013	23,210,479.70	2,938,254	3,116,904	21,718,309	18.11	1,199,244
2014	1,722,539.01	137,367	145,719	1,697,398	18.13	93,624
2015	132,392,306.05	3,724,235	3,950,674	137,709,094	18.15	7,587,278
	260 E6E 073 05	63 822 723	67 704 350	220 721 222		12 275 150
	269,565,973.05	63,823,783	67,704,359	220,731,232		12,275,159



### ACCOUNT 312 BOILER PLANT EQUIPMENT

ORIGINAL CALCULATED ALLOC. BOOK FUTURE BOOK REM. YEAR COST ACCRUED RESERVE ACCRUALS LIFE (1) (2) (3) (4) (5) (6)	ACCRUAL (7)
GHENT UNIT 3	
INTERIM SURVIVOR CURVE IOWA 65-R2	
PROBABLE RETIREMENT YEAR 6-2037	
NET SALVAGE PERCENT7	
1981 130,249,859.69 85,517,200 99,842,747 39,524,603 19.25	2,053,226
1982 4,323,370.79 2,805,349 3,275,291 1,350,715 19.34	69,840
1983 175,918.00 112,745 131,632 56,601 19.43	2,913
1984 9,724,031.69 6,153,452 7,184,257 3,220,457 19.51	165,067
1985 13,041.58 8,142 9,506 4,449 19.59	227
1986 5,003.81 3,080 3,596 1,758 19.67	89
1987 1,523,545.00 924,026 1,078,816 551,377 19.74	27,932
1989 51,742.00 30,371 35,459 19,905 19.89	1,001
1990 148,350.00 85,582 99,918 58,816 19.95	2,948
1994 194,871.00 103,501 120,839 87,673 20.20	4,340
1995 694,601.50 360,166 420,500 322,724 20.25	15,937
1996 328,272.00 165,903 193,694 157,557 20.30	7,761
1997 1,620,817.00 796,396 929,806 804,469 20.35	39,532
1998 206,918.25 98,635 115,158 106,245 20.40	5,208
1999 5,607,517.20 2,586,019 3,019,220 2,980,823 20.45	145,762
2000 72,921.99 32,429 37,861 40,165 20.50	1,959
2002 602,894.00 247,014 288,393 356,704 20.58	17,333
2003 855,281.04 333,984 389,932 525,219 20.62	25,471
2004 71,793,078.90 26,563,102 31,012,861 45,805,733 20.66	2,217,122
2005 3,708,105.24 1,291,517 1,507,867 2,459,805 20.70	118,831
2006 1,083,127.40 352,470 411,515 747,432 20.73	36,056
2007 170,859.09 51,385 59,993 122,826 20.77	5,914
2008 34,203.02 9,391 10,964 25,633 20.80	1,232
2009 5,797,862.51 1,430,018 1,669,570 4,534,143 20.83	217,674
2010 3,722,211.44 805,674 940,638 3,042,129 20.86	145,836
2011 2,923,273.40 538,062 628,196 2,499,706 20.89	119,660
2012 5,638,318.74 839,130 979,698 5,053,303 20.92 2013 5,171,161.32 570,854 666,481 4,866,661 20.95	241,554
	232,299
	7,804,657 176,068
2015 3,548,130.68 84,852 99,066 3,697,434 21.00	170,7008
425,512,609.68 144,350,608 168,531,725 286,766,767	13,903,449
GHENT UNIT 4	
INTERIM SURVIVOR CURVE IOWA 65-R2	
PROBABLE RETIREMENT YEAR 6-2038	
NET SALVAGE PERCENT7	
1984 124,057,452.69 77,152,000 71,546,986 61,194,489 20.29	3,015,993
1984 124,057,452.69 77,152,000 71,546,986 61,194,489 20.29 1986 209,125.43 126,371 117,190 106,574 20.47	5,206
1500 205,125.45 120,574 117,150 100,574 20,47	3,200



### ACCOUNT 312 BOILER PLANT EQUIPMENT

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
GHENT	UNIT 4					
	IM SURVIVOR CURV		₹2			
	BLE RETIREMENT )		3			
NET S	ALVAGE PERCENT	7				
1987	110,311.00	65,656	60,886	57,147	20.55	2,781
1989	864,078.80	497,351	461,219	463,345	20.71	22,373
1990	204,757.59	115,761	107,351	111,740	20.78	5,377
1991	11,877.00	6,588	6,109	6,599	20.85	316
1992	91,017.00	49,462	45,869	51,520	20.92	2,463
1994	107,547.90	55,879	51,819	63,257	21.05	3,005
1995	1,910,485.07	968,347	897,998	1,146,221	21,11	54,298
1996	704,727.26	347,764	322,499	431,559	21.17	20,385
1998	7,924.00	3,684	3,416	5,062	21.28	238
1999	1,429,371.01	642,696	596,005	933,422	21.33	43,761
2000	42,052.00	18,229	16,905	28,091	21.38	1,314
2001	373,444.57	155,483	144,187	255,398	21.43	11,918
2002	813,279.13	323,979	300,442	569,766	21.48	26,525
2003	2,839,191.12	1,077,616	999,328	2,038,606	21,52	94,731
2004	53,556,449.82	19,236,850	17,839,312 1,349,372	39,466,089	21.57	1,829,675
2005 2006	4,307,400.14 125,813.69	1,455,082 39,654	36,773	3,259,546 97,847	21.61 21.65	150,835 4,519
2007	728,088.85	211,825	196,436	582,619	21.69	26,861
2008	413,440.17	109,790	101,814	340,567	21.72	15,680
2009	8,639,729.77	2,055,055	1,905,757	7,338,754	21.76	337,259
2010	3,571,815.82	745,450	691,294	3,130,549	21.79	143,669
2011	6,389,527.31	1,132,036	1,049,795	5,786,999	21.82	265,215
2012	50,751,342.00	7,253,377	6,726,427	47,577,509	21.86	2,176,464
2013	12,001,376.53	1,273,617	1,181,090	11,660,383	21.89	532,681
2014	460,019,589.15	30,552,155	28,332,572	463,888,388	21.91	21,172,450
2015	1,383,225.41	32,339	29,990	1,450,062	21.94	66,092
	735,664,440.23	145,704,096	135,118,842	652,042,109		30,032,084
GHENT	UNIT 2 SCRUBBE	R				
INTER	IM SURVIVOR CURV	VE IOWA 65-1	R2			
PROBA	BLE RETIREMENT ?	YEAR 6-2034	4			
NET S.	ALVAGE PERCENT.	7				
1004	EE 702 101 3E	21 010 512	EC 170 C15	3 500 330	17 57	199,677
1994	55,782,191.35 57,800.67	31,818,513 26,948	56,178,615 47,579	3,508,330 14,267	17.57 17.82	801
2001	491,092.43	219,846	388,159	137,310	17.82	7,692
2002	244,482.98	104,586	184,657	76,940	17.88	4,303
2003	556,738.99	226,406	399,741	195,969	17.91	10,942
2004	550,750.55	220,400	3331122	100,000		10,512

#### ACCOUNT 312 BOILER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	UNIT 2 SCRUBBER IM SURVIVOR CURVE BLE RETIREMENT YE ALVAGE PERCENT	EAR 6-2034	2			
2006	13,411.72	4,829	8,526	5,824	17.96	324
2012	8,815,298.69	1,488,617	2,628,295	6,804,075	18.09	376,124
2013	297,276.90	37,633	66,445	251,642	18.11	13,895
	66,258,293.73	33,927,378	59,902,017	10,994,357		613,758
	3 SCRUBBER		_			
	IM SURVIVOR CURVE		2			
	BLE RETIREMENT YE ALVAGE PERCENT					
2007	110,351,445.96	33,187,635	30,565,215	87,510,832	20.77	4,213,328
2011	6,848,600.71	1,260,563	1,160,956	6,167,047	20.89	295,215
2012	249,577.51	37,144	34,209	232,839	20.92	11,130
2013	222,658.95	24,580	22,638	215,607	20.95	10,292
2014	567,246.36	39,240	36,139	570,814	20.98	27,208
2015	221,002.85	5,285	4,867	231,606	21.00	11,029
	118,460,532.34	34,554,447	31,824,024	94,928,746		4,568,202
INTER	4 SCRUBBER IM SURVIVOR CURVI BLE RETIREMENT YI		2			
NET S	ALVAGE PERCENT	-7				
2011	243,442.48	43,131	92,184	168,299	21.82	7,713
2012	252,238,345.08	36,049,879	77,049,557	192,845,472	21.86	8,821,842
2013	784,199.26	83,221	177,869	661,225	21.89	30,207
2014	435,675.38	28,935	61,843	404,330	21.91	18,454
	253,701,662.20	36,205,166	77,381,453	194,079,326		8,878,216
	3,711,487,554.46	809,174,309	985,215,162	3,014,861,146		138,174,592
	COMPOSITE REMAIN:	ING LIFE AND	ANNUAL ACCRUA	L RATE, PERCENT	21.	8 3.72

#### ACCOUNT 312.1 BOILER PLANT EQUIPMENT - ASH PONDS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIN PROBABI	E COUNTY UNIT 2 1 SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E IOWA 100- EAR 6-2066				
2011	4,610,665.23	377,291	676,102	3,934,563	50.49	77,928
	4,610,665.23	377,291	676,102	3,934,563		77,928
INTERIN PROBABI	UNIT 3 ASH PONI 1 SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E IOWA 100- EAR 12-201				
2005	170,126.36	170,126	170,126			
2007	172,621.19		172,621			
2008	8,648.65	•	8,649			
2009	224,059.52	224,060	224,060			
	575,455.72	575,456	575,456			
INTERIN PROBABI	RIVER UNIT 3 ASI 4 SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E IOWA 100- EAR 12-201				
1978	931,932.13	931,932	931,932			
1985	296.57		297			
1997	5,030.40	5,030	5,030			
2004	49,756.95					
2005	26,461.24	26,461	26,461			
2007	72,732.11		72,732			
2009	246,680.85	246,681	246,681			
2010	130,846.99					
2011	334,280.60	334,281	334,281			
2012	33,823.14	33,823	33,823			
	1,831,840.98	1,831,841	1,831,841			



### ACCOUNT 312.1 BOILER PLANT EQUIPMENT - ASH PONDS

	ORIGINAL		ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED		ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	LLE UNIT 3 ASH					
	M SURVIVOR CURV					
	LE RETIREMENT Y LVAGE PERCENT		.5			
NEI SA	WVAGE FERCENI	U				
1977	50,117.00	50,117	50,117			
1978	41,148.89	41,149	41,149			
	91,265.89	91,266	91,266			
	UNIT 1 ASH POND		<b></b>			
	M SURVIVOR CURV LE RETIREMENT Y					
	LVAGE PERCENT					
1993	9,299,115.00	6,974,336	7,598,416	1,700,699	7.50	226,760
	9,299,115.00	6,974,336	7,598,416	1,700,699		226,760
	UNIT 2 ASH POND		64			
	M SURVIVOR CURV BLE RETIREMENT Y					
	LVAGE PERCENT		,			
		-				
1994	3,909,061.67	2,401,297	3,256,464	652,598	13.50	48,341
	3,909,061.67	2,401,297	3,256,464	652,598		48,341
	UNIT 3 ASH POND		m.a.			
	M SURVIVOR CURV LE RETIREMENT Y					
	LVAGE PERCENT					
		-				
2008	19,802,080.26	5,500,622	6,026,115	13,775,965	19.50	706,460
	19,802,080.26	5,500,622	6,026,115	13,775,965		706,460

#### ACCOUNT 312.1 BOILER PLANT EQUIPMENT - ASH PONDS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	COST	CALCULATED ACCRUED (3)		FUTURE BOOK ACCRUALS (5)		
INTERI PROBAE	UNIT 1 ASH POND M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT.	E IOWA 100- EAR 6-2034	_			
1974	1,777,792.39	1,230,463	1,464,285	313,507	18.46	16,983
	1,777,792.39	1,230,463	1,464,285	313,507		16,983
INTERI PROBAE NET SA	UNIT 4 ASH POND M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT 16,544,368.68 16,148,295.19	E IOWA 100- EAR 6-2038 0 8,084,240	7,960,266	•		381,516 478,669
	32,692,663.87	13,546,239	13,338,503	19,354,161		860,185
INTERI PROBAE	UNIT 2 SCRUBBER M SURVIVOR CURV LE RETIREMENT Y LLVAGE PERCENT	E IOWA 100- EAR 6-2034				
1994	1,901,133.18	1,021,859	1,901,133			
	1,901,133.18	1,021,859	1,901,133			
	76,491,074.19	33,550,670	36,759,581	39,731,493		1,936,657

2.53

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.5

#### ACCOUNT 312.2 BOILER PLANT EQUIPMENT - RETIRED PLANT

	ORIGINAL COST (2)	ACCRUED	RESERVE	FUTURE BOOK ACCRUALS (5)	LIFE	ACCRUAL
PROBABL	UNIT 3 SURVIVOR CURVE E RETIREMENT YE VAGE PERCENT	EAR 12-201				
2009	80,855.84		•			
2011	10,306.64	11,337	11,338			
	91,162.48	100,278	100,279			
INTERIM PROBABL	UNITS 1 AND 2 SURVIVOR CURVE E RETIREMENT YE VAGE PERCENT	EAR 12-201				
	32,257.44					
1974	3,680.00	4,048	4,048			
	35,937.44	39,531	39,531			
INTERIM PROBABL	IVER UNIT 3 SURVIVOR CURVE E RETIREMENT YE VAGE PERCENT	EAR 12-201				
	10,061.86					
2013	31,239.04	34,363	34,363			
	41,300.90	45,431	45,431			
INTERIM PROBABL	IVER UNIT 4 SURVIVOR CURVE E RETIREMENT YE VAGE PERCENT	EAR 12-201				
1965	0.10		0			
1975	6,388.26	7,027	7,027			
1977	1,272.00 4,376.00	1,399	1,399			
1979 1980	2,331.62	4,814 2,565	4,814 2,565			
1981	5,272.42	5,800	5,800			
1985	692.53	762	762			
1988	83,465.37	91,812	91,812			
2001	18,275.84	20,103	20,103			

### ACCOUNT 312.2 BOILER PLANT EQUIPMENT - RETIRED PLANT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM PROBABLE	VER UNIT 4 SURVIVOR CURV RETIREMENT Y VAGE PERCENT	EAR 12-201				
2005	76,387.85	84,027	84,027			
2007	795.41	875	875			
2012	333,641.83	367,006	367,006			
2013	66,416.30	73,058	73,058			
	599,315.53	659,248	659,247			
GREEN RI	VER UNITS 1 A	ND 2				
INTERIM	SURVIVOR CURV	E IOWA 65-R	.2			
	RETIREMENT Y		.5			
NET SALV	AGE PERCENT	-10				
1074	27 465 06	20 212	20 212			
1974 1975	27,465.06 32,966.94	30,212 36,264	30,212 36,264			
1977	91,811.76	100,993	100,993			
1911	91,011.70	100,993	100,333			
	152,243.76	167,469	167,468			
PINEVILI	E UNIT 3					
INTERIM	SURVIVOR CURV	E IOWA 65-R	.2			
	RETIREMENT Y		.5			
NET SALV	AGE PERCENT	-10				
1951	5,844.00	6,428	6,428			
1963	7,129.00	7,842	7,842			
1970	1,082.00	1,190	1,190			
1975	8,772.00	9,649	9,649			
1976	20.00	22	22			
1978	2,577.11	2,835	2,835			
1979	8,108.00	8,919	8,919			
1988	1,821.00	2,003	2,003			
1995	31,090.00	34,199	34,199			
1997	6,678.00	7,346	7,346			
	•	• - •	• -			

### ACCOUNT 312.2 BOILER PLANT EQUIPMENT - RETIRED PLANT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM PROBABL	LE UNIT 3 I SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 12-201				
2000	10,484.00	11,532	11,532			
2002 2011	51,958.50 9,638.92	57,154	57,154			
2011	9,030.92	10,603	10,603			
	145,202.53	159,722	159,723			
	1,065,162.64	1,171,679	1,171,679			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

#### ACCOUNT 314 TURBOGENERATOR UNITS

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
TRIMBI INTER: PROBAL	LE COUNTY UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 60-R EAR 6-2066	2			, ,
1990	10,495,573.59	4,496,007	7,247,571	4,612,427	35.64	129,417
2008	10,044,788.71	1,552,991	2,503,424	8,847,187	43.09	205,319
2011	66,353,243.45	6,435,462	10,373,976	64,605,189	43.99	1,468,634
2012	35,891.34	2,758	4,446	36,111	44.27	816
2014	2,395,609.34	81,455	131,306	2,575,733	44.80	57,494
2015	581,903.51	6,793	10,950	646,601	45.05	14,353
	89,907,009.94	12,575,466	20,271,673	81,323,248		1,876,033
	UNIT 1					
	IM SURVIVOR CURV					
	BLE RETIREMENT Y ALVAGE PERCENT		l .			
	will brown.	J				
1956	3,283,253.45	3,057,851	2,671,921	808,327	6.60	122,474
1959	14,882.13	13,780	12,041	3,734	6.71	556
1968	5,774.91	5,233	4,573	1,549	6.98	222
1985	11,462.31	9,675	8,454	3,696	7.26	509
1996	32,671.87	24,844	21,708	12,924	7.36	1,756
1997	17,942.90	13,442	11,745	7,274	7.37	987
2001	103,385.99	71,781	62,722	46,868	7.39	6,342
2004	163,261.40	104,077	90,942	82,116	7.41	11,082
2009	467,034.49	228,513	199,673	295,384	7.43	39,756
2010	0.03	600 446	0	1 400 100		100 004
2012	1,851,245.33	620,446 20,531	542,140	1,420,180	7.44	190,884
2013 2014	77,712.20 262,052.93	46,036	17,940	64,435	7.44	8,661
2014	2,050,071.73	134,101	40,226 117,176	237,550 2,055,900	7.45 7.45	31,886 275,960
2013	2,030,071.73	134,101	117,170	2,033,300	7.43	273,360
	8,340,751.67	4,350,310	3,801,260	5,039,937		691,075
BROWN	UNIT 2					
	IM SURVIVOR CURV	E IOWA 60-R	12			
	BLE RETIREMENT Y					
	ALVAGE PERCENT					
1963	4,017,807.85	3,368,601	4,069,971	188,906	11.28	16,747
1965	26,462.00	21,990	26,568	1,481	11.46	129
1985	8,768.76	6,383	7,712	1,583	12.67	125



#### ACCOUNT 314 TURBOGENERATOR UNITS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER:	UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2029				
1990	23,666.17	16,252	19,636	5,450	12.84	424
1994	1,497,407.00	966,446	1,167,668	419,584	12.95	32,400
1995	574,163.49	363,659	439,376	169,238	12.98	13,038
1996	32,822.53	20,383	24,627	10,165	13.00	782
1997	33,091.00	20,096	24,280	10,796	13.03	829
2002	1,508,264.00	792,633	957,665	641,094	13.13	48,827
2003	409,883.72	207,124	250,249	184,228	13.15	14,010
2004	1,221,923.10	591,173	714,260	580,979	13.16	44,147
2005	146,394.62	67,361	81,386	73,792	13.18	5,599
2006	632,295.16	274,568	331,735	338,498	13.20	25,644
2007	2,547.40	1,035	1,250	1,450	13.21	110
2009	927,175.48	316,876	382,852	599,954	13.24	45,314
2010	840,714.12	255,985	309,283	581,874	13.25	43,915
2011	13,859.99	3,640	4,398	10,294	13.27	776
2012	364,931.03	79,033	95,488	291,339	13.28	21,938
2013	35,612.96	5,856	7,075	30,674	13.29	2,308
2014	1,106,284.24	116,715	141,016	1,031,645	13.30	77,567
2015	317,590.08	11,954	14,443	322,203	13.31	24,208
	13,741,664.70	7,507,763	9,070,939	5,495,226		418,837
BROWN	UNIT 3					
	M SURVIVOR CURV	E IOWA 60-R	.2			
PROBA	BLE RETIREMENT Y	EAR 6-2035				
NET S	ALVAGE PERCENT	-6				
1971	6,690,425.21	4,947,559	6,258,369	833,481	16.04	51,963
1972	12,875.38	9,448	11,951	1,697	16.18	105
1973	2,376.00	1,729	2,187	331	16.32	20
1984	13,467.21	8,778	11,104	3,172	17.53	181
1993	6,448.62	3,638	4,602	2,234	18.19	123
1994	191,259.00	105,574	133,545	69,190	18.25	3,791
1995	421,519.00	227,359	287,596	159,214	18.31	8,695
1997	10,429,790.49	5,344,819	6,760,880	4,294,698	18.41	233,281
1998	297,088.00	147,864	187,039	127,874	18.46	6,927
1999	68,653.00	33,108	41,880	30,893	18.51	1,669
2003	120,057.33	49,344	62,417	64,844	18.68	3,471
2004	72,895.42	28,451	35,989	41,280	18.72	2,205
2005	4,204,448.97	1,547,595	1,957,616	2,499,100	18.76	133,214
2006	1,419,771.42	489,051	618,621	886,337	18.80	47,146

### ACCOUNT 314 TURBOGENERATOR UNITS

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBA	UNIT 3 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2035				
2008	781,074.49	228,288	288,771	539,168	18.86	28,588
2009	810,823.83	213,416	269,959	589,515	18.89	31,208
2011	407,184.46	80,432	101,742	329,874	18.95	17,408
2012	16,784,850.43	2,689,430	3,401,970	14,389,972	18.98	758,165
2013	60,585.16	7,225	9,139	55,081	19.01	2,897
2014	1,314,686.65	98,665	124,805	1,268,762	19.03	66,672
2015	1,347,820.36	35,089	44,386	1,384,304	19.06	72,629
	45,458,100.43	16,296,862	20,614,566	27,571,020		1,470,358
INTER:	UNIT 1 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2034				
1974	13,820,013.46	10,214,702	11,887,398	2,900,016	15.78	183,778
1975	38,921.00	28,528	33,200	8,446	15.78	531
1976	156.00	113	132	35	16.01	2
1979	21,978.00	15,541	18,086	5,431	16.32	333
1980	3,163,50	2,216	2,579	806	16.41	49
1985	156,856.25	103,829	120,831	47,005	16.83	2,793
1989	252,974.07	158,271	184,188	86,494	17.11	5,055
1992	58,228.11	34,597	40,262	22,042	17.29	1,275
1994	1,803,234.05	1,029,425	1,197,997	731,463	17.39	42,062
1995	13,200.94	7,369	8,576	5,549	17.44	318
1996	32,637.46	17,784	20,696	14,226	17.49	813
2001	424,030.20	197,878	230,281	223,431	17.70	12,623
2002	162,462.00	72,758	84,672	89,162	17.74	5,026
2003	1,132,828.50	484,766	564,148	647,978	17.78	36,444
2004	1,385,035.03	563,615	655,909	826,078	17.81	46,383
2006	1,501,464.76	540,690	629,230	977,337	17.88	54,661
2008	11,574,683.26	3,543,447	4,123,700	8,261,211	17.94	460,491
2009	426,823.12	117,902	137,209	319,492	17.96	17,789
2011	3,073,590.83	638,345	742,876	2,545,866	18.02	141,280
2012	58,830.81	9,933	11,560	51,389	18.04	2,849
2013	355,249.66	44,915	52,270	327,847	18.06	18,153
2014	23,384.79	1,857	2,161	22,861	18.09	1,264
2015	2,428,504.79	67,093	78,080	2,520,420	18.11	139,173
	38,748,250.59	17,895,574	20,826,042	20,634,586		1,173,145

### ACCOUNT 314 TURBOGENERATOR UNITS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER:	UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2034				
1977	17,497,877.92	12,605,826	14,022,022	4,700,708	16.12	291,607
1978	4,313,274.00	3,079,310	3,425,254	1,189,950	16.22	73,363
1979	20,087.00	14,204	15,800	5,693	16.32	349
1980	2,264.00	1,586	1,764	658	16.41	40
1981	899.00	623	693	269	16.50	16
1985	128,384.83	84,982	94,529	42,843	16.83	2,546
1993	11,440.84	6,667	7,416	4,826	17.34	278
1996	2,506,918.63	1,366,041	1,519,508	1,162,895	17.49	66,489
1997	29,881.11	15,858	17,640	14,333	17.54	817
1998	64,136.87	33,101	36,820	31,807	17.58	1,809
1999	678,802.78	339,576	377,726	348,593	17.63	19,773
2002	137,999.16	61,803	68,746	78,913	17.74	4,448
2004	951,927.36	387,369	430,888	587,674	17.81	32,997
2005	458,645.99	176,214	196,011	294,741	17.85	16,512
2006	172,946.00	62,279	69,276	115,777	17.88	6,475
2009	2,195,130.77	606,364	674,486	1,674,304	17.96	93,224
2011	241,196.39	50,093	55,721	202,359	18.02	11,230
2012	902,565.37	152,395	169,516	796,229	18.04	44,137
2013	1,341,650.30	169,626	188,683	1,246,883	18.06	69,041
2014	115,704.20	9,187	10,219	113,584	18.09	6,279
2015	54,523.20	1,506	1,675	56,665	18.11	3,129
	31,826,255.72	19,224,610	21,384,390	12,669,704		744,559
INTER: PROBA	UNIT 3 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2037				
1981	23,966,739.13	15,805,420	19,182,251	6,462,160	18.70	345,570
1982	480,015.00	312,736	379,552	134,064	18.82	7,123
1983	29,912.17	19,251	23,364	8,642	18.93	457
1984	7,192,035.00	4,568,035	5,543,997	2,151,481	19.04	112,998
1985	156,856.24	98,253	119,245	48,591	19.15	2,537
1987	44,239.03	26,904	32,652	14,684	19.35	759
1995	2,196,292.70	1,140,565	1,384,247	965,786	20.01	48,265
1996	2,264.00	1,146	1,391	1,032	20.07	51
1999	60,118.00	27,759	33,690	30,637	20.26	1,512
		-	•	•		

### ACCOUNT 314 TURBOGENERATOR UNITS

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
GHENT	UNIT 3					
	IM SURVIVOR CURV	E IOWA 60-R	.2			
	BLE RETIREMENT Y					
	ALVAGE PERCENT					
2003	555,078.69	216,946	263,297	330,638	20.47	16,152
2004	943,602.66	349,633	424,332	585,323	20.52	28,525
2005	619,008.50	215,783	261,885	400,454	20.57	19,468
2006	365,407.85	119,024	144,454	246,533	20.61	11,962
2007	1,228,187.47	369,463	448,399	865,762	20.66	41,905
2009	1,824,052.27	449,739	545,826	1,405,910	20.74	67,787
2011	1,402,218.14	257,929	313,036	1,187,338	20.81	57,056
2012	1,314,528.73	195,791	237,622	1,168,924	20.84	56,090
2013	530,602.17	58,750	71,302	496,442	20.88	23,776
2014	156,580.41	10,865	13,186	154,355	20.91	7,382
	43,067,738.16	24,243,992	29,423,726	16,658,754		849,375
GHENT	UNIT 4					
INTER	IM SURVIVOR CURV	E IOWA 60-R	2			
PROBAI	BLE RETIREMENT Y	EAR 6-2038				
NET SA	ALVAGE PERCENT	- 7				
1984	41,557,409.01	25,949,718	28,492,170	15,974,257	19.78	807,596
1985	236,810.00	145,811	160,097	93,290	19.89	4,690
1986	51,406.00	31,176	34,231	20,774	20.01	1,038
1987	65,193.00	38,939	42,754	27,002	20.11	1,343
1989	118,897.45	68,640	75,365	51,855	20.32	2,552
1991	21,490.58	11,947	13,118	9,877	20.51	482
1993	194,113.31	103,448	113,583	94,118	20.68	4,551
1994	321,113.00	167,209	183,591	159,999	20.76	7,707
1996	33,858.00	16,744	18,385	17,844	20.91	853
2000	676.00	293	322	402	21.18	19
2003	3,747,103.58	1,422,856	1,562,262	2,447,139	21.36	114,566
2004	106,038.93	38,137	41,874	71,588	21.41	3,344
2005	951,102.73	321,933	353,475	664,205	21.46	30,951
2006	1,380,479.45	435,734	478,426	998,687	21.51	46,429
2007	391,047.02	113,961	125,126	293,294	21.56	13,604
2008	399,683.45	106,244	116,653	311,008	21.60	14,399
2009	1,462,218.47	348,305	382,431	1,182,143	21.65	54,602
2011	9,957.80	1,763	1,936	8,719	21.73	401
2012	3,951,908.24	565,356	620,747	3,607,794	21.77	165,723

### ACCOUNT 314 TURBOGENERATOR UNITS

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
GHENT	UNIT 4					
INTER	RIM SURVIVOR CURV	E IOWA 60-R	.2			
. PROBA	ABLE RETIREMENT Y	EAR 6-2038				
NET S	SALVAGE PERCENT	- 7				
2013	766,472.18	81,299	89,264	730,861	21.81	33,510
2014	2,164,941.54	144,225	158,356	2,158,132	21.84	98,816
2015	25,437.69	596	654	26,564	21.67	1,215
	57,957,357.43	30,114,334	33,064,819	28,949,553		1,408,391
	329,047,128.64	132,208,911	158,457,415	198,342,028		8,631,773
	COMPOSITE REMAIN	NING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	23.0	2.62



## ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBABI	E COUNTY UNIT 2 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2066				
1990	9,229,511.61	3,885,558	4,210,141	6,219,207	40.89	152,096
2008	28,344.56	4,347	4,710	27,319	47.00	581
2011	35,974,616.47	3,459,834	3,748,854	36,902,462	47.62	774,936
2012	1,088,194.59	83,002	89,936	1,139,724	47.80	23,844
2013	159,449.60	8,822	9,559	170,619	47.98	3,556
2014	447,854.18	15,192	16,461	489,614	48.14	10,171
2015	228,635.93	2,594	2,811	255,548	48.30	5,291
	47,156,606.94	7,459,349	8,082,472	45,204,494		970,475
INTERI	E COUNTY UNIT 2 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 70-R EAR 6-2066				
1990	1,415,469.10	595,902	751,018	848,462	40.89	20,750
	1,415,469.10	595,902	751,018	848,462		20,750
PROBABI	UNIT 1 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2023				
1956	965,068.08	906,722	1,012,485	10,487	6.88	1,524
1958	96,451.16	90,254	100,782		6.95	210
1963	780.00	722	806		7.09	3
1965	63,901.00	58,841	65,704	2,031		284
1968	2,135.00	1,950	2,177	86		12
1979	58,759.52	51,583	57,600	4,685	7.34	638
1989	1,850.00	1,527	1,705	256	7.41	35
1992	1,344.04	1,079	1,205	220	7.43	30
1995	1,428,056.08	1,107,603	1,236,798	276,942	7.44	37,223
2001	68,330.19	47,691	53,254	19,176	7.47	2,567
2006	767,016.47	454,033	506,993	306,044	7.48	40,915
2009	166,049.72	81,702	91,232	84,781	7.48	11,334
2010	19,084.61	8,547	9,544	10,686	7.49	1,427
2011	53,830.80	21,356	23,847	33,214	7.49	4,434

## ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
BROWN I	וואדד ו					
	M SURVIVOR CURV	E IOWA 70-R	3			
	LE RETIREMENT Y					
	LVAGE PERCENT					
2012	19,084.61	6,430	7,180	13,050	7.49	1,742
2014	79,740.42	14,103	15,748	68,777	7,49	9,183
2015	433,058.83	28,727	32,078	426,965	7.49	57,005
	4,224,540.53	2,882,870	3,219,138	1,258,875		168,566
BROWN	INIT 2					
	M SURVIVOR CURV	E IOWA 70-R	.3			
	LE RETIREMENT Y					
	LVAGE PERCENT					
1948	384.00	344	407			
1963	817,849.45	692,730	825,250	41,671	12.04	3,461
1965	1,103.00	926	1,103	66	12.20	5
1966	397.00	332	396	25	12,27	2
1970	793.56	650	774	67	12.52	5
1984	38,251.57	28,407	33,841	6,705	13.06	513
1994	185,597.00	120,908	144,038	52,695	13.27	3,971
1995	12,605.00	8,058	9,600	3,762	13.29	283
1997	36,014.00	22,073	26,296	11,879	13.32	892
1998	14,507.07	8,683	10,344	5,033	13.33	378
2005	30,977.05	14,372	17,121	15,714	13.40	1,173
2010	105,240.55	32,268	38,441	73,114	13.44	5,440
2011	34,981.18	9,265	11,037	26,043	13.45	1,936
2012	1,109,729.78	242,344	288,705	887,609		65,993
2014	20,568.37	2,173	2,589	19,214	13.46	1,427
	2,408,998.58	1,183,533	1,409,941	1,143,597		85,479
BROWN	UNIT 3					
INTERI	M SURVIVOR CURV	E IOWA 70-F	13			
PROBAB	LE RETIREMENT Y	EAR 6-2035	<b>,</b>			
NET SA	LVAGE PERCENT	<del>-</del> 6				
1972	4,207,199.70	3,115,454	4,459,632			
1973	69,444.66	51,032	73,611			
1974	17,025.00	12,406	18,047			
1984	4,045.00	2,665	4,288			
1985	798.00	519	846			



## ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBAB	M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2035				
1988	8,408.74	5,242	8,645	268	18.69	14
1989	8,164.40	5,010	8,263	392	18.74	21
1990	9,591.76	5,788	9,546	622	18.79	33
1991	5,344.58	3,168	5,225	441	18.83	23
1997	778,846.00	403,253	665,054	160,523	19.05	8,426
2003	45,349.90	18,814	31,028	17,042	19.22	887
2004	18,213.04	7,175	11,833	7,473	19.24	388
2005	6,057.20	2,251	3,712	2,708	19.26	141
2007	1,652,556.67	532,520	878,244	873,466	19.30	45,257
2010	208,220.77	48,663	80,256	140,458	19.34	7,263
2011	163,301.43	32,470	53,550	119,549	19.36	6,175
2012	1,510,611.21	243,870	402,196	1,199,052	19.37	61,903
2013	14,410.13	1,739	2,868	12,407	19.38	640
2014	100,287.63	7,633	12,589	93,716	19.39	4,833
2015	131,881.19	3,513	5,794	134,000	19.40	6,907
	8,959,757.01	4,503,185	6,735,226	2,762,116		142,911
INTERI PROBAB	UNITS 1, 2 AND M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 70-R EAR 6-2035				
2013	29,308,888.08	3,537,026	5,739,630	25,327,791	19.38	1,306,904
	29,308,888.08	3,537,026	5,739,630	25,327,791		1,306,904
INTERI PROBAB	UNIT 1 SCRUBBER M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 70-R EAR 6-2034				
1007	2 016 704 27	1 617 002	2 601 002	726 067	18.11	40.000
1997	3,016,784.27	1,617,982	2,501,892 1,888	726,067		40,092
2011	5,833.85	1,221	*	4,354	18.38	237
2012	9,121,453.85	1,553,004	2,401,417	7,358,539	18.39	400,138
	12,144,071.97	3,172,207	4,905,197	8,088,960		440,467

## ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

INTER	ORIGINAL COST (2) UNIT 1 IM SURVIVOR CURV BLE RETIREMENT Y			FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	ALVAGE PERCENT					
1974	6,397,687.82	4,775,713	6,515,087	330,439	16.89	19,564
1978	869,693.72	627,485	856,023	74,549	17.21	4,332
1994	911,155.00	525,500	716,894	258,042	18.02	14,320
1995	70.00	39	53	22	18.05	1
1996	15,852.00	8,727	11,905	5,056	18.08	280
2000	14,398.00	7,036	9,599	5,807	18.19	319
2004	33,927.95	13,941	19,018	17,284	18.27	946
2005	160,601.93	62,293	84,981	86,863	18.29	4,749
2007	53,989.17	18,220	24,856	32,912	18.32	1,797
2009	84,877.13	23,647	32,260	58,559	18.35	3,191
2011	268,831.65	56,270	76,764	210,886	18.38	11,474
2012	178,069.98	30,318	41,360	149,175	18.39	8,112
2013	43,107.20	5,498	7,500	38,624	18.40	2,099
2014	33,762.45	2,705	3,690	32,436	18.41	1,762
2015	2,659,970.72	73,744	100,602	2,745,566	18.42	149,054
	11,725,994.72	6,231,136	8,500,593	4,046,221		222,000
GHENT	UNIT 2					
	IM SURVIVOR CURV	TOWA 70-P	3			
	BLE RETIREMENT Y					
	ALVAGE PERCENT					
1977	9,885,751.20	7,195,834	8,891,124	1,686,629	17.14	98,403
1984	2,106,460.46	1,427,087	1,763,299	490,614	17.59	27,892
1989	42,801.92	27,078	33,457	12,341	17.83	692
1996	44,978.99	24,762	30,596	17,532	18.08	970
1997	152,868.92	81,988	101,304	62,266	18.11	3,438
2007	95,312.10	32,166	39,744	62,240	18.32	3,397
2009	292,925.23	81,611	100,838	212,592	18.35	11,585
2010	60,449.95	14,847	18,345	46,337	18.36	2,524
2011	1,111,858.00	232,727	287,556	902,132	18.38	49,082
2012	34,908.72	5,944	7,344	30,008	18.39	1,632
2013	66,340.84	8,461	10,454	60,530	18.40	3,290
2014	81,708.97	6,546	8,088	79,340	18.41	4,310
2015	326,067.39	9,040	11,170	337,722	18.42	18,335
	14,302,432.69	9,148,091	11,303,320	4,000,283		225,550

## ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CHENT	UNIT 3					
	M SURVIVOR CURV	ne T∩W3 7∩_P	3			
	BLE RETIREMENT Y					
	ALVAGE PERCENT					
HEI OF	TOTAL PERCENT	- /				
1976	639,635.42	449,212	553,032	131,378	19.44	6,758
1981	25,051,490.27	16,684,831	20,540,969	6,264,126	19.95	313,991
1982	687,842.97	452,768	557,410	178,582	20.03	8,916
1984	95,821.00	61,497	75,710	26,819	20.19	1,328
1987	68,793.51	42,277	52,048	21,561	20.41	1,056
1988	18,279.36	11,058	13,614	5,945	20.47	290
2000	4,296,425.13	1,933,342	2,380,169	2,217,006	21.04	105,371
2007	51,757.15	15,740	19,378	36,002	21.23	1,696
2012	72,766.46	10,921	13,445	64,415	21.33	3,020
2013	10,609.78	1,186	1,460	9,892	21.34	464
2014	2,462,458.14	171,817	211,527	2,423,303	21.36	113,451
2015	32,239.52	789	971	33,525	21.37	1,569
	33,488,118.71	19,835,438	24,419,733	11,412,554		557,910
GHENT	UNIT 4					
	IM SURVIVOR CURV		.3			
	BLE RETIREMENT Y		1			
NET SA	ALVAGE PERCENT	-7				
1984	21,606,547.09	13,629,578	16,312,398	6,806,607	21.04	323,508
1985	48,287.00	30,038	35,951	15,716	21.12	744
1988	20,564.21	12,206	14,609	7,395	21.35	346
1991	5,683.09	3,195	3,824	2,257	21.54	105
1993	155,202.00	83,604	100,060	66,006	21.66	3,047
1994	24,278.82	12,776	15,291	10,688	21.71	492
2000	2,476,120.09	1,085,665	1,299,365	1,350,083	21.98	61,423
2003	42,697.44	16,388	19,614	26,072	22.08	1,181
2011	27,699.80	4,951	5,926	23,713	22.29	1,064
2013	13,232.05	1,421	1,701	12,458	22.32	558
2014	2,829,163.88	189,291	226,551	2,800,655	22.34	125,365
2015	216,083.55	5,059	6,055	225,155	22.35	10,074
	27,465,559.02	15,074,172	18,041,343	11,346,805		527,907



## ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

YEAR		CALCULATED ACCRUED (3)		FUTURE BOOK ACCRUALS (5)	LIFE	ACCRUAL			
INTER PROBA	UNIT 2 SCRUBBER IM SURVIVOR CURVI BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 70-R EAR 6-2034							
2011	5,833.85	1,221	1,381	4,862	18.38	265			
2012	-	151,635	171,445	781,515		42,497			
2013	54,747.62	6,983	7,895	50,685	18.40	2,755			
	951,198.87	159,839	180,721	837,062		45,517			
INTER PROBA	GHENT 3 SCRUBBER INTERIM SURVIVOR CURVE IOWA 70-R3 PROBABLE RETIREMENT YEAR 6-2037 NET SALVAGE PERCENT7								
2007	11,277,366.96	3,429,621	3,429,052	8,637,731	21.23	406.864			
	764,631.32	141,860	141,836	676,319		31,737			
	12,041,998.28	3,571,481	3,570,888	9,314,050		438,601			
INTER PROBA	GHENT 4 SCRUBBER INTERIM SURVIVOR CURVE IOWA 70-R3 PROBABLE RETIREMENT YEAR 6-2038 NET SALVAGE PERCENT7								
2011	5,833.83	1,043	1,124	5,118	22.29	230			
2012	15,142,207.72	2,187,130	2,356,755	13,845,407	22.30	620,870			
	15,148,041.55	2,188,173	2,357,879	13,850,525		621,100			
	220,741,676.05	79,542,402	99,217,099	139,441,795		5,774,137			
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCEN	Γ 24.1	2.62			

### ACCOUNT 315.1 ACCESSORY ELECTRIC EQUIPMENT - RETIRED PLANT

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBABL	UNIT 3 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 12-201				
2007	24,678.67	27,147	27,147			
	24,678.67	27,147	27,147			
INTERIM PROBABL	IVER UNIT 3 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 12-201				
1954	17,322.04	19,054	19,054			
1955	443.76	488	488			
1996	107,389.55	118,129	118,129			
2007	40,561.24	44,617	44,617			
	165,716.59	182,288	182,288			
INTERIM PROBABL	IVER UNIT 4 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 12-201				
1959	16,325.58	17,958	17,958			
1995	26,722.51	29,395	29,395			
2001	33,590.00	36,949	36,949			
2003	17,006.69	18,707	18,707			
2005	60,053.27	66,059	66,059			
2006	19,724.94	21,697	21,697			
2009	79,664.81	87,631	87,631			
2010	90,945.25	100,040	100,040			
2011	91,557.59	100,713	100,713			
2012	44,842.47	49,327	49,326			
	480,433.11	528,476	528,476			
	670,828.37	737,911	737,911			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00



## ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM PROBABL	COUNTY UNIT 2 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2066				
2000	41,467.41	10,932	11,600	35,259	43.58	809
2002	26,900.64	6,359	6,747	23,650	43.93	538
2011	6,316,703.85	575,170	610,290	6,527,586	45.30	144,097
2012	203,432.33	14,685	15,582	214,297	45.43	4,717
2013	838,229.79	44,007	46,694	900,506	45.56	19,765
2014	889,231.16	28,427	30,163	974,668	45.69	21,332
2015	53,544.80	589	625	59,881	45.81	1,307
	8,369,509.98	680,169	721,700	8,735,846		192,565
INTERIM PROBABL	LABORATORY SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2040				
1983	229.68	129	134	98	22.43	4
1984	10,283.72	5,716	5,917	4,469	22.49	199
1986	48,397.00	26,118	27,039	21,842	22.60	966
1987	100,806.00	53,528	55,415	46,399	22.66	2,048
1989	3,576.00	1,835	1,900	1,712	22.76	75
1990	39,994.08	20,144	20,854	19,540	22.80	857
1991	72,843.39	35,963	37,231	36,341	22.85	1,590
1994	4,476.87	2,066	2,139	2,383	22.98	104
1995	3,198.74	1,439	1,490	1,741	23.02	76
1996	5,552.69	2,430	2,516	3,093	23.06	134
1997	47,150.16	20,031	20,737	26,885	23.10	1,164
1998	67,015.37	27,584	28,556	39,129	23.13	1,692
1999	62,975.53	25,026	25,908	37,697	23.17	1,627
2000	730.00	279	289	448	23.20	19
2001	69,759.00	25,608	26,511	43,946	23,24	1,891
2002	345,217.94	121,145	125,416	223,255	23.27	9,594
2003	632,334.03	211,051	218,491	420,167	23.30	18,033
2004	199,225.39	62,903	65,120	136,097	23.33	5,834
2005	131,911.92	39,119	40,498	92,733	23.36	3,970
2006	31,404.52	8,671	8,977	22,742	23.39	972
2007	89,149.53	22,690	23,490	66,551	23.42	2,842
2009	226,404.22	46,987	48,643	180,025	23.47	7,670
2010	90,044.40	16,322	16,897	74,047	23.50	3,151
2011	250,794.23	38,444	39,799	213,503	23.53	9,074
2012	175,216.25	21,693	22,458	154,511	23.55	6,561

### ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM PROBABI	LABORATORY 1 SURVIVOR CURVE LE RETIREMENT YE	EAR 6-2040				
NET SAI	LVAGE PERCENT	-1				
2013	161,221.62	14,758	15,278	147,556	23.58	6,258
2014	325,883.54	18,557	19,211	309,931	23.60	13,133
2015	38,318.47	771	798	37,903	23.62	1,605
	3,234,114.29	871,007	901,711	2,364,744		101,143
BROWN T	JNIT 1					
INTERI	I SURVIVOR CURVE	E IOWA 75-R	21.5			
PROBABI	LE RETIREMENT YE	EAR 6-2023	1			
NET SAI	LVAGE PERCENT	- 6				
1954	7,812.22	7,281	7,994	287	7.09	40
1955	921.00	857	941	35	7.10	5
1956	150,707.00	139,985	153,699	6,050	7.11	851
1958	497.00	460	505	22	7.14	3
1971	672.26	603	662	51	7.26	7
1980	1,078.00	933	1,024	118	7.32	16
1988	1,387.17	1,144	1,256	214	7.35	29
1990	18,405.00	14,923	16,385	3,124	7.36	424
1992	7,705.00	6,130	6,731	1,437	7.37	195
1994	9,227.37	7,179	7,882	1,899	7.38	257
1995	1,940.96	1,492	1,638	419	7.38	57
1996	2,858.88	2,168	2,380	650	7.38	88
2001	64,870.51	44,896	49,294	19,468	7.40	2,631
2003	118,172.07	77,605	85,208	40,055	7.40	5,413
2005	13,393.06	8,206	9,010	5,187	7.41	700
2007	497.91	278	305	223	7.41	30
2011	8,037.82	3,167	3,477	5,043	7.42	680
2014	37,649.44	6,592	7,238	32,671	7.43	4,397
	445,832.67	323,899	355,631	116,952		15,823

BROWN UNIT 2

INTERIM SURVIVOR CURVE.. IOWA 75-R1.5

PROBABLE RETIREMENT YEAR.. 6-2029

NET SALVAGE PERCENT.. -6

1963 59,546.28 49,293 63,119 1965 541.89 445 574



## ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BROWN U	אוד כ					
	SURVIVOR CURVE	TOWA 75-R	1.5			
	E RETIREMENT YE					
	VAGE PERCENT					
		•				
1968	520.36	422	552			
1969	4,400.82	3,550	4,665			
1970	555.08	446	588			
1995	3,998.73	2,515	4,190	49	13.09	4
1996	2,858.69	1,762	2,936	95	13.10	7
1998	5,685.52	3,350	5,581	445	13.12	34
2000	3,709.49	2,070	3,449	483	13.14	37
2007	21,010.50	8,482	14,131	8,140	13.20	617
2012	20,279.74	4,361	7,266	14,231	13.24	1,075
	123,107.10	76,696	107,051	23,443		1,774
BROWN U	NIT 3					
INTERIM	SURVIVOR CURVE	E IOWA 75-R	1.5			
PROBABL	E RETIREMENT YE	EAR 6-2035				
NET SAL	VAGE PERCENT	-6				
1948	3,382.73	2,740	3,423	163	15.95	10
1954	2,001.51	1,584	1,979	143	16.51	9
1955	1,111.17	875	1,093	85	16.60	5
1969	55,586.77	40,687	50,825	8,097	17.59	460
1970	2,634.00	1,915	2,392	400	17.65	23
1971	373,932.83	270,002	337,279	59,090	17.71	3,337
1972	16,006.07	11,477	14,337	2,630	17.76	148
1973	960.00	683	853	164	17.81	9
1974	3,179.00	2,246	2,806	564	17.86	32
1976	2,020.00	1,404	1,754	387	17.96	22
1977	40,063.51	27,610	34,490	7,978	18.00	443
1978	1,537.00	1,050	1,312	318	18.05	18
1980	1,594.00	1,068	1,334	356	18.13	20
1981	7,296.00	4,838	6,043	1,690	18.17	93
1982	900.00	590	737	217	18.21	12
1983	53,223.00	34,531	43,135	13,281	18.24	728
1984	10,688.00	6,852	8,559	2,770	18.28	152
1985	14,815.00	9,382	11,720	3,984	18.31	218
1986	146,238.43	91,378	114,147	40,866	18.35	2,227
1987	219,946.00	135,554	169,330	63,813	18.38	3,472
1988	146,004.06	88,688	110,786	43,978	18.41	2,389
1989	211,250.31	126,354	157,838	66,088	18.44	3,584
1990	328,072.94	193,023	241,119	106,639	18.47	5,774

## ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BROWN I	UNIT 3 M SURVIVOR CURVI	E IOWA 75-R	1.5			
	LE RETIREMENT Y LVAGE PERCENT					
1991	380,519.00	219,963	274,771	128,579	18.50	6,950
1992	143,407.00	81,363	101,636	50,375	18.53	2,719
1993	213,117.96	118,566	148,109	77,796	18.55	4,194
1994	244,539.14	133,134	166,307	92,904	18.58	5,000
1995	406,217.07	216,217	270,092	160,498	18.60	8,629
1996	132,026.00	68,574	85,661	54,287	18.62	2,916
1997	247,261.54	125,023	156,175	105,922	18.65	5,679
1998	28,007.66	13,761	17,190	12,498	18.67	669
1999	78,147.46	37,220	46,494	36,342	18.69	1,944
2000	12,638.00	5,817	7,266	6,130	18.71	328
2001	61,005.75	27,039	33,776	30,890	18.73	1,649
2003	217,402.17	88,300	110,302	120,145	18.77	6,401
2004	87,825.06	33,878	42,319	50,775	18.79	2,702
2005	126,190.46	45,911	57,351	76,411	18.81	4,062
2006	93,259.29	31,752	39,664	59,191	18.83	3,143
2007	109,967.17	34,743	43,400	73,165	18.84	3,883
2008	76,267.72	22,043	27,535	53,308	18.86	2,827
2009	25,225.68	6,554	8,187	18,552	18.88	983
2010	510,629.45	117,011	146,167	395,101	18.89	20,916
2011	184,777.66	36,012	44,985	150,879	18.91	7,979
2012	256,120.18	40,631	50,755	220,732	18.92	11,667
2013	319,773.21	37,838	47,266	291,693	18.94	15,401
2014	312,463.22	23,241	29,032	302,179	18.95	15,946
2015	471,937.93	12,346	15,422	484,832	18.97	25,558
	6,381,168.11	2,631,468	3,287,152	3,476,886		185,330
GHENT 1	UNIT 1 SCRUBBER					
INTERI	M SURVIVOR CURV	E IOWA 75-R	1.5			
PROBAB	LE RETIREMENT Y	EAR 6-2034				
NET SA	LVAGE PERCENT	-7				
1997	982,956.01	515,606	929,086	122,677	17.74	6,915
2000	2,454.00	1,174	2,115	510	17.80	29
2011	47,617.08	9,801	17,661	33,290	17.97	1,853
	1,033,027.09	526,581	948,862	156,477		8,797

## ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	UNIT 1 M SURVIVOR CURV LE RETIREMENT Y					
	LVAGE PERCENT					
1974	1,024,130.37	742,505	1,066,716	29,103	17.04	1,708
1975	81,621.12	58,737	84,384	2,950	17.08	173
1976	12,253.24	8,748	12,568	543	17.12	32
1978	6,426.72	4,512	6,482	394	17.20	23
1983	4,043.88	2,701	3,880	447	17.38	26
1988	74,936.00	46,969	67,478	12,704	17.53	725
1989	2,178.22	1,345	1,932	398	17.55	23
1990	137,000.67	83,256	119,609	26,981	17.58	1,535
1994	52,592.00	29,643	42,586	13,687	17.68	774
1995	11,112.00	6,126	8,801	3,089	17.70	175
1996	153,652.05	82,710	118,825	45,583	17.72	2,572
1997	18,479.01	9,693	13,925	5,847	17.74	330
1998	2,709.00	1,382	1,985	913	17.76	51
1999	79,194.16	39,178	56,285	28,453	17.78	1,600
2000	2,880.81	1,378	1,980	1,103	17.80	62
2004	42,569.91	17,129	24,608	20,942	17.87	1,172
2006	30,770.07	10,966	15,754	17,170	17.90	959
2007	7,433.84	2,460	3,534	4,420	17.91	247
2013	68,502.65	8,560	12,298	61,000	18.00	3,389
2015	70,787.92	1,925	2,766	72,978	18.03	4,048
	1,883,273.64	1,159,923	1,666,398	348,705		19,624
GHENT	UNIT 2					
INTERI	M SURVIVOR CURV	E IOWA 75-R	1.5			
PROBAB	LE RETIREMENT Y	EAR 6-2034				
NET SA	LVAGE PERCENT	- 7				
1976	97,461.37	69,583	96,843	7,440	17.12	435
1977	663,118.00	469,529	653,474	56,062	17.16	3,267
1978	591,177.00	415,003	577,587	54,972	17.20	3,196
1980	2,018.11	1,390	1,935	225	17.28	13
1985	7,576.54	4,944	6,881	1,226	17.44	70
1989	51,128.40	31,578	43,949	10,758	17.55	613
1990	7,692.02	4,674	6,505	1,725	17.58	98
1991	6,857.97	4,097	5,702	1,636	17.61	93
1992	50,988.28	29,920	41,642	12,916	17.63	733
2006	15,073.78	5,372	7,477	8,652	17.90	483

## ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1) GHENT	ORIGINAL COST (2) UNIT 2	CALCULATED ACCRUED (3)	ALLOC, BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBAB	M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2034				
2007	7,433.84	2,460	3,424	4,530	17.91	253
2013	17,365.58	2,170	3,020	15,561	18.00	864
2014	9,654.84	765	1,065	9,266	18.01	514
	1,527,545.73	1,041,485	1,449,503	184,971		10,632
GHENT	UNIT 3					
INTERI	M SURVIVOR CURV	E IOWA 75-R	1.5			
PROBAB	LE RETIREMENT Y	EAR 6-2037	•			
NET SA	LVAGE PERCENT	-7				
1981	2,137,927.84	1,379,595	1,814,698	472,885	19.85	23,823
1982	220,596.00	140,702	185,077	50,961	19.90	2,561
1983	9,393.97	5,919	7,786	2,266	19.95	114
1984	599,875.00	373,322	491,062	150,804	19.99	7,544
1987	14,126.58	8,429	11,087	4,028	20.12	200
1988	8,279.00	4,865	6,399	2,459	20.15	122
1993 1994	31,841.79	17,048	22,425	11,646	20.33	573
2004	1,429.72 70,857.65	749 25,886	985	545	20.36	27
2007	56,110.00	16,665	34,050 21,921	41,768 38,117	20.62 20.69	2,026
2013	8,682.80	946	1,244	8,046	20.83	1,842 387
2014	824,923.38	56,729	74,620	808,048	20.81	38,811
2017	024,525.50	30,723	74,020	000,040	20.02	30,011
	3,984,043.73	2,030,855	2,671,355	1,591,572		78,030
GHENT	INIT 4					
	M SURVIVOR CURV	E TOWA 75~R	1.5			
	LE RETIREMENT Y					
	LVAGE PERCENT					
1984	1,552,539.66	948,190	988,466	672,751	20.83	32,297
1985	75,061.39	45,218	47,139	33,177	20.88	1,589
1986	71,918.00	42,699	44,513	32,440	20.93	1,550
1987	197,214.00	115,362	120,262	90,757	20.97	4,328
1988	246,937.00	142,162	148,201	116,022	21.01	5,522
1989	288,049.17	163,069	169,996	138,217	21.05	6,566
1990	248,790.00	138,347	144,224	121,982	21.09	5,784
1991	238,960.87	130,393	135,932	119,756	21.13	5,668

## ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBAE	UNIT 4 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2038				
1992	186,806.00	99,893	104,136	95,746	21.17	4,523
	119,556.00	62,591	65,250	62,675	21.17	2,956
1993 1994	96,245.00	49,225	51,316	51,666	21.24	2,432
1995	403,518.00	201,427	209,983	221,781	21.27	10,427
1996	260,103.45	126,395	131,764	146,547	21.31	6,877
1997	261,371.59	123,434	128,677	150,991	21.34	7,075
1998	36,015.00	16,493	17,194	21,342	21.37	999
1999	626,250.00	277,322	289,102	380,986	21.40	17,803
2000	.69,931.00	29,880	31,149	43,677	21.42	2,039
2003	274,884.03	102,815	107,182	186,944	21.51	8,691
2004	259,074.19	91,801	95,700	181,509	21.53	8,431
2005	117,203.33	39,052	40,711	84,697	21.56	3,928
2006	15,073.78	4,691	4,890	11,239	21.58	521
2007	167,940.61	48,301	50,353	129,344	21.60	5,988
2008	38,302.23	10,031	10,457	30,526	21.63	1,411
2009	82,463.42	19,371	20,194	68,042	21.65	3,143
2010	820,549.05	169,118	176,302	701,686	21.67	32,381
2011	575,117.79	100,626	104,900	510,476	21.69	23,535
2012	694,925.41	98,114	102,282	641,289	21.71	29,539
2013	65,548.30	6,897	7,190	62,947	21.73	2,897
2014	109,379.77	7,173	7,478	109,559	21.75	5,037
2015	572,254.91	13,208	13,769	598,544	21.77	27,494
	8,771,982.95	3,423,298	3,568,709	5,817,313		271,431
	35,753,605.29	12,765,381	15,678,072	22,816,909		885,149

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.8

## ACCOUNT 316.1 MISCELLANEOUS POWER PLANT EQUIPMENT - RETIRED PLANT

PROBABLE	ORIGINAL COST (2) JNIT 3 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	ACCRUED (3) /E IOWA 75-R /EAR 12-201		FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
1987	1.57	2	2			
1989	18,427.65	20,270	20,270			
1994	16,747.71	18,422	18,422			
1995	7,264.00	7,990	7,990			
1996	21.00	23	23			
1998	6,158.71	6,775	6,775			
1999	1,781.97		1,960			
2000	10,208.60	11,229				
2003	1,945.90	2,140	· ·			
2004	2,086.10	2,295	2,295			
2009	9,848.48	10,833	10,833			
	74,491.69	81,939	81,941			
INTERIM PROBABLE	JNITS 1 AND 2 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 12-201				
2003	11,541.15	12,695	12,695			
	11,541.15	12,695	12,695			
INTERIM PROBABLE	IVER UNIT 4 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 12-201				
1954	1,164.00	1,280	1,280			
1959	8,874.48	9,762	9,762			
1966	2,606.00	2,867	2,867			
1971	881.40	970	970			
1972	65.10	72	72			
1974	36.19	40	40			
1975	1,648.52	1,813	1,813			
1980	5,026.03	5,529	5,529			
1981	66.60	73	73			
1984	7,645.65	8,410	8,410			
1985	9,431.32	10,374	10,374			
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### ACCOUNT 316.1 MISCELLANEOUS POWER PLANT EQUIPMENT - RETIRED PLANT

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
GREEN R	IVER UNIT 4					
	SURVIVOR CURV	E IOWA 75-R	1.5			
	E RETIREMENT Y					
NET SAL	VAGE PERCENT	-10				
1986	1,692.00	1,861	1,861			
1989	156.90	173	173			
1992	1,883.56	2,072	2,072			
1993	4,681.88	5,150	5,150			
1995	8,509.23	9,360	9,360			
1996	19,905.00	21,896	21,896			
1997	5,058.15	5,564	5,564			
1999	13,769.35	15,146	15,146			
2001	8,714.92	9,586	9,586			
2003	6,243.33	6,868	6,868			
2004	20,681.30	22,749	22,749			
2006	4,095.33	4,505	4,505			
2007	10,188.60	11,207	11,207			
2009	3,399.56	3,740	3,740			
2010	2,889.70	3,179	3,179			
2011	101,643.05	111,807	111,807			
2012	90,178.44	99,196	99,196			
2014	39,055.67	42,961	42,961			
	380,191.26	418,210	418,210			
	IVER UNITS 1 A					
	SURVIVOR CURV					
	E RETIREMENT Y		5			
NET SAL	VAGE PERCENT	-10				
1941	632.00	695	695			
1950	40,301.94	44,332	44,332			
1974	4,755.57	5,231	5,231			
	45 500		50 05-			
	45,689.51	50,258	50,258			
	511,913.61	563,102	563,104			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

### ACCOUNT 330.1 LAND RIGHTS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBABLI	SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2041				
1941	879,311.47	672,928	912,333	33,022-		
	879,311.47	672,928	912,333	33,022-		

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

### ACCOUNT 331 STRUCTURES AND IMPROVEMENTS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBABLI	SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2041	2.5			
1941	232,513.54	185,326	197,683	41,806	19.02	2,198
1967	1,469.92	1,015	1,083	431	23.06	19
1988	21,653.46	11,679	12,458	9,845	24.90	395
1990	54,778.00	28,440	30,336	26,085	25.00	1,043
1991	77,146.00	39,240	41,856	37,604	25.04	1,502
1992	1,037.00	516	550	518	25.08	21
2005	23,670.29	7,129	7,604	16,776	25.41	660
2007	66,025.06	17,037	18,173	49,833	25.43	1,960
2009	11,732.37	2,458	2,622	9,462	25.45	372
2010	75,260.09	13,771	14,689	62,829	25.46	2,468
2012	31,110.92	3,871	4,129	27,915	25.47	1,096
2013	6,860.35	631	673	6,393	25.48	251
2014	224,345.64	12,848	13,705	217,371	25.48	8,531
	827,602.64	323,961	345,562	506,869		20,516

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 24.7 2.48

## ACCOUNT 332 RESERVOIRS, DAMS AND WATERWAYS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
DIX DA	M M SURVIVOR CURV	ም. TOWN 105-	. C2 5			
	LE RETIREMENT Y					
	LVAGE PERCENT					
1941	5,868,664.83	4,602,030	4,975,220	1,069,505	21.60	49,514
1944	862.00	668	722	166	21.96	8
1950	229,388.00	173,264	187,314	48,955	22.64	2,162
1971	3,719.85	2,461	2,661	1,171	24.45	48
1990	7,354.12	3,804	4,112	3,462	25.24	137
1991	1,200,006.00	607,942	657,241	578,765	25.27	22,903
1992	370,020.00	183,449	198,325	182,795	25.29	7,228
1993	16,470.00	7,978	8,625	8,339	25.31	329
1994	10,861.26	5,132	5,548	5,639	25.33	223
2003	136,421.67	46,295	50,049	90,465	25.44	3,556
2007	1,072,820.18	276,494	298,916	806,089	25.47	31,649
2008	842,093.55	197,306	213,306	654,050	25.47	25,679
2011	300,776.20	46,501	50,272	259,528	25.48	10,186
2012	11,493,426.01	1,429,229	1,545,129	10,293,100	25.49	403,809
2014	297,790.55	17,048	18,430	288,294	25.49	11,310
2015	34,972.15	693	749	35,272	25.49	1,384
	21,885,646.37	7,600,294	8,216,620	14,325,596		570,125

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.1 2.61

### ACCOUNT 333 WATER WHEELS, TURBINES AND GENERATORS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBAB	M M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2041	-			
1941	47,034.96	39,205	16,976	31,470	14.18	2,219
1957	67,525.73	50,580	21,902	47,649	19.32	2,466
1958	4,342.00	3,229	1,398	3,074	19.59	157
1962	12,808.80	9,240	4,001	9,192	20.60	446
1963	31.46	23	10	22	20.82	1
1992	12,412.14	6,183	2,677	10,107	24.49	413
1997	24,821.62	10,821	4,686	20,881	24.76	843
2005	1,992.81	601	260	1,792	25.08	71
2008	62,158.95	14,592	6,319	57,705	25.17	2,293
2010	4,035,403.02	739,934	320,405	3,836,061	25.21	152,164
2012	4,177,975.81	521,088	225,640	4,077,675	25.26	161,428
2013	5,285,996.18	486,418	210,628	5,233,948	25.28	207,039
2015	326,392.84	6,512	2,820	333,365	25.31	13,171
	14,058,896.32	1,888,426	817,722	13,662,941		542,711

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.2 3.86

### ACCOUNT 334 ACCESSORY ELECTRIC EQUIPMENT

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBABI	1 1 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2041				
1941	54,187.00	46,673	40,928	14,884	6.55	2,272
1947	10,865.00	9,076	7,959	3,232	7.56	428
1949	290.00	240	210	88	7.92	11
1950	411.49	338	296	127	8.11	16
1952	206.57	168	147	65	8.49	8
1953	772.14	622	545	250	8.69	29
1960	1,738.80	1,339	1,174	617	10.09	61
1961	56.97	44	39	20	10.30	2
1962	3,724.00	2,828	2,480	1,356	10.49	129
1963	156.52	118	103	58	10.69	5
1974	3,361.98	2,382	2,089	1,374	12.33	111
1975	4,094.59	2,888	2,533	1,685	12.44	135
1989	5,503.19	3,409	2,989	2,679	15.01	178
2010	486,152.97	95,070	83,368	417,369	23.34	17,882
2012	401,455.77	52,767	46,272	367,227	23.86	15,391
2013	341,346.54	33,070	29,000	322,587	24.08	13,396
2014	7,365.24	438	384	7,202	24.29	297
	1,321,688.77	251,470	220,518	1,140,821		50,351

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 22.7 3.81

### ACCOUNT 335 MISCELLANEOUS POWER PLANT EQUIPMENT

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
DIX DAM	SURVIVOR CURV	E TOWN 40 C	0			
	E RETIREMENT YI					
	VAGE PERCENT					
		-				
1941	3,020.11	2,954	2,273	838	2.02	415
1947	1,160.75	1,068	822	374	4.27	88
1948	65.00	59	45	22	4.65	5
1949	41.43	37	28	14	5.03	3
1951	59.26	52	40	21	5.80	4
1952	2.05	2	2			
1962	18,423.86	14,161	10,896	8,080	10.15	796
1988	185,484.40	99,592	76,631	114,418	17.76	6,442
1990	1,449.67	750	577	916	18.16	50
1992	11,230.37	5,582	4,295	7,272	18.55	392
1994	22,393.40	10,633	8,182	14,884	18.93	786
1995	14,300.79	6,627	5,099	9,631	19.11	504
1996	9,512.12	4,289	3,300	6,497	19.30	337
2003	4,481.37	1,557	1,198	3,418	20.55	166
2010	10,026.50	1,931	1,486	8,841	21.83	405
2014	35,295.66	2,187	1,683	34,672	22.65	1,531
	316,946.74	151,481	116,558	209,897		11,924

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.6 3.76

## ACCOUNT 336 ROADS, RAILROADS AND BRIDGES

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBABLI	SURVIVOR CURVE RETIREMENT V		4			
1941	46,976.13	45,224	43,369	5,016	3.92	1,280
2009	129,383.46	27,206	26,090	107,175	25.34	4,229
2015	58,149.54	1,155	1,108	58,786	25.44	2,311
	234,509.13	73,585	70,567	170,977		7,820

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 21.9 3.33

### ACCOUNT 340.1 LAND RIGHTS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM PROBABL	T GAS PIPELINE SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	E SQUARE EAR 6-2031				
1994 1995	167,723.31 8,686.00	97,461 4,946	110,904 5,628	56,820 3,058	15.50 15.50	3,666 197
	176,409.31	102,407	116,532	59,877		3,863

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.5 2.19

### ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL			
(1)	(2)	(3)	(4)	(5)	(6)	(7)			
INTERIN PROBABI	CANE RUN CC 7 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2055 NET SALVAGE PERCENT12								
2015	46,895,473.79	682,273	663,228	51,859,703	36.48	1,421,593			
	46,895,473.79	682,273	663,228	51,859,703		1,421,593			
TRIMBLE	COUNTY CT 5								
	4 SURVIVOR CURVE								
	LE RETIREMENT YE LVAGE PERCENT								
2002	3,566,217.06	1,716,256	1,645,021	2,170,831	15.83	137,134			
2004	27,551.15	12,091 57,175	11,589	17,891		1,124			
2006	146,463.11	57,175	54,802	101,914	16.00	6,370			
	3,740,231.32	1,785,522	1,711,412	2,290,636		144,628			
	COUNTY CT 6								
	M SURVIVOR CURVE LE RETIREMENT YE								
	LVAGE PERCENT								
2002	3,564,353.91	1.715.359	1.636.951	2,176,908	15.83	137,518			
2004	24,330.33	10,678	10,190	15,844		995			
	3,588,684.24	1,726,037	1,647,141	2,192,751		138,513			
TOTMOLI	E COUNTY CT 7								
INTERIN PROBABI	S COUNTY CT / M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	AR 6-2034							
2004	3,559,154.97	1,461,357	1,423,558	2,384,738	17.73	134,503			
					-				
	3,559,154.97	1,461,357	1,423,558	2,384,738		134,503			

## ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	• •	FUTURE BOOK ACCRUALS (5)		ANNUAL ACCRUAL (7)			
INTERIM PROBABI	TRIMBLE COUNTY CT 8 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2034 NET SALVAGE PERCENT7								
2004	3,548,851.71	1,457,127	1,419,437	2,377,834	17.73	134,114			
	3,548,851.71	1,457,127	1,419,437	2,377,834		134,114			
INTERIN PROBABI	TRIMBLE COUNTY CT 9 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2034 NET SALVAGE PERCENT7								
2004	3,655,976.41	1,501,111	1,452,931	2,458,964	17.73	138,689			
	3,655,976.41	1,501,111	1,452,931	2,458,964		138,689			
INTERIM PROBABI	TRIMBLE COUNTY CT 10 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2034 NET SALVAGE PERCENT7								
2004	3,653,029.99	1,499,902	1,451,760	2,456,982	17.73	138,578			
	3,653,029.99	1,499,902	1,451,760	2,456,982		138,578			
INTERIM PROBABI	BROWN CT 5 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2031 NET SALVAGE PERCENT7								
	754,032.65			436,297		· ·			
2002	1,116.00	555	528	666					
2004	19,933.20		8,624						
2015	10,818.38	359	341	11,234	15.29	735			
	785,900.23	399,502	380,011	460,902		30,948			

### ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)	
PROBABI	CT 6 4 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2029					
1999	133,678.33	78,504	72,281	70,755	12.98	5,451	
2005	38,287.07	17,860	16,444	24,523		1,862	
2006	20,848.62	9,184	8,456	13,852	13.19	1,050	
	192,814.02	105,548	97,181	109,130		8,363	
PROBABI	CT 7 4 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2029					
1999	481,712.77	282,890	259,376	256,057	12.98	19,727	
2002	4,117.50	2,197	2,014	2,391		183	
2005	57,093.08	26,633	24,419	36,670		2,784	
2006	2,042.62	900	825	1,360		103	
2015	22,546.10	854	783	23,341		1,748	
	567,512.07	313,474	287,418	319,820		24,545	
PROBABI	CT 8 4 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2025					
1994	143,346.95	105,928	102,769	50,612	9.17	5,519	
1995	1,730,556.00	1,260,208	1,222,628	629,067		68,451	
1997	120,183.00	84,619	82,096	46,500		5,038	
2001	18,569.00	11,955	11,598	8,270	9.30	889	
	2,012,654.95	1,462,710	1,419,091	734,450		79,897	
INTERI	BROWN CT 9 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2031 NET SALVAGE PERCENT7						
1994	2,477,163.92	1,541,834	1,702,001	948,565	14.49	65,463	
1995	512,980.00	312,724	345,210	203,679		13,989	
1996	438,868.00	261,674	288,857	180,732	14.62	12,362	

## ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)		
PROBAB	CT 9 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2031						
1997 2001 2012 2013	1,190,538.00 18,569.00 6,254.64 15,782.48	692,937 9,592 1,227 2,338 2,822,326	764,920 10,588 1,354 2,581 3,115,511	508,956 9,280 5,338 14,306	14.68 14.88 15.23 15.25	34,670 624 350 938		
PROBAB	CT 10 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2031						
1995 1997 2001	1,751,485.20 95,664.00 18,569.00	1,067,744 55,680 9,592	1,133,010 59,083 10,178	741,079 43,277 9,691	14.56 14.68 14.88	50,898 2,948 651		
	1,865,718.20	1,133,016	1,202,272	794,046		54,497		
INTERI PROBAB	BROWN CT 11 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2026 NET SALVAGE PERCENT7							
1996	1,321,515.93	915,650	870,797	543,225	10.14	53,572		
1997	65,678.00	44,640	42,453	27,822	10.17	2,736		
1998	313,025.00	208,481	198,269	136,668	10.19	13,412		
2001	81,269.00	50,233	47,772	39,185	10.25	3,823		
2004	56,158.33	31,289	29,756	30,333	10.30	2,945		
2011	36,259.52	11,605	11,037	27,761	10.38	2,674		
2013	45,109.35	9,263	8,809	39,458	10.40	3,794		
	1,919,015.13	1,271,161	1,208,894	844,452		82,956		



## ACCOUNT 341 STRUCTURES AND IMPROVEMENTS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	ACCRUALS	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBAB	NG UNITS 1, 2 A M SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 50-R EAR 6-2020				
1994	3,638.00	3,298	951	3,051	4.43	689
2000	287,491.35	244,280	70,403	245,838	4.46	55,121
2013	322.20	127	37	318	4.48	71
	291,451.55	247,705	71,390	249,207		55,881
INTERI PROBAE	S RUN GENERATOR M SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 50-R EAR 6-2031				
2001	1,906,444.76	975,637	923,257	1,097,575	14.88	73,762
2002	3,883.00	1,913	1,810	2,306	14.92	155
2013	42,179.89	6,189	5,857	38,854	15.25	2,548
2015	183,795.18	6,049	5,724	189,099	15.29	12,367
	2,136,302.83	989,788	936,648	1,327,833		88,832
	83,072,927.45	18,858,559	18,487,883	72,732,304		2,804,933

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.9 3.38



## ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

				FUTURE BOOK ACCRUALS		ANNUAL
YEAR (1)	COST (2)	ACCRUED (3)	RESERVE (4)	ACCRUALS (5)		
	• •	(3)	(=/	(3)	(0)	( , ,
	UN CC 7 M SURVIVOR CURV	F. TOWA 45-R	22 5			
	LE RETIREMENT Y					
NET SA	LVAGE PERCENT	-12				
2015	111,535,551.95	1 660 194	1 643 640	172 276 170	35 63	2 459 999
2015	111,939,991.99	1,000,184	1,043,040	123,270,170	13.01	3,420,000
	111,535,551.95	1,660,184	1,643,640	123,276,178		3,459,898
	UN GAS PIPELINE					
	M SURVIVOR CURV LE RETIREMENT Y					
	LVAGE PERCENT		•			
2015	23,414,526.87	348,521	345,052	25,879,218	35.63	726,332
	23,414,526.87	348,521	345,052	25,879,218		726,332
тетмет	E COUNTY CT 5					
	M SURVIVOR CURV	E IOWA 45-R	22.5			
	LE RETIREMENT Y		2			
NET SA	LVAGE PERCENT	-7				
	237,747.79					
2004	1,836.64	808	770	1,195	15.76	76
	239,584.43	115,538	110,150	146,205		9,354
TRIMBI	E COUNTY CT 6					
	M SURVIVOR CURV	E IOWA 45-F	R2.5			
	BLE RETIREMENT Y		2			
NET SA	LVAGE PERCENT	-7				
2002	237,623.60	114,670	109,326	144,931	15.63	9,273
2004			680	1,056		
	239,245.54	115,383	110,006	145,987		9,340

## ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	COUNTY CT GAS					
	SURVIVOR CURV					
	E RETIREMENT Y					
NET SAL	VAGE PERCENT	- /				
2002	4,474,853.28	2,032,498	2,066,980	2,721,113	17.34	156,927
2005	369,111.16		146,000	248,949	17.58	14,161
2006	6,150.29	2,240	2,278	4,303		244
2013	6,019.92	768	781	5,660	18.02	314
	4,856,134.65	2,179,070	2,216,039	2,980,025		171,646
TRIMBLE	COUNTY CT 7					
INTERIM	SURVIVOR CURV	E IOWA 45-R	2.5			
	E RETIREMENT Y					
NET SAL	VAGE PERCENT	-7				
2224				226 611		
2004	578,059.38	238,113	231,910	386,614	17.51	22,080
	578,059.38	238,113	231,910	386,614		22,080
	,	,	,	,		,
тотмот.с	COUNTY CT 8					
	SURVIVOR CURV	F TOWN 45_P	2 5			
	E RETIREMENT Y					
	VAGE PERCENT					
	***************************************	•				
2004	576,385.74	237,424	231,239	385,494	17.51	22,016
	576,385.74	237,424	231,239	385,494		22,016
TRIMBLE	COUNTY CT 9					
	SURVIVOR CURV	E IOWA 45-R	2.5			
	E RETIREMENT Y					
	VAGE PERCENT					
2004	593,786.01	244,591	236,879	398,472	17.51	22,757
	593,786.01	244,591	236,879	398,472		22,757

## ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM PROBABLI	COUNTY CT 10 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2034				
2004	,	244,394	236,962	397,877		
2007	29,565.29	9,983	9,679	21,955	17.72	1,239
	622,872.60	254,377	246,641	419,833		23,962
PROBABLI	I 5 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2031				
2001	562,558.04	-	213,466	388,471		
2002	837.00	417	306	590		40
2010	232,392.85	65,022	47,640	201,020	15.11	13,304
	795,787.89	356,789	261,412	590,081		39,789
PROBABL	I 6 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2029				
1999	89,103.45	52,409	35,815	59,526	12.82	4,643
2009	20,420.52	7,082	4,840	17,010		1,289
2010	232,392.75		49,086	199,575		
2011	64,543.29	17,187	11,745	57,316	13.25	4,326
2014	553,157.19	59,271	40,504	551,374	13.30	41,457
	959,617.20	207,777	141,990	884,800		66,811
PROBABL	T 7 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2029				
1999	87,848.59	51,671	34,600	59,398	12.82	4,633
2009	21,086.20	7,313	4,897	17,665	13.20	1,338

## ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBABL	T 7 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2029				
2010	232,392.85	71,828	48,098	200,562	13.22	15,171
2011	64,543.31	17,187	11,509	57,552	13.25	4,344
2014	553,157.16	59,271	39,690	552,189	13.30	41,518
	959,028.11	207,270	138,794	887,366		67,004
PROBABL	T 8 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2025				
1995	2,370.10	1,726	2,049	487	9.09	54
1997	1,827.00	1,286	1,527	428	9.15	47
2010	232,392.85	90,851	107,846	140,814	9.38	15,012
2012	26,455.57	7,584	9,003	19,305	9.40	2,054
	263,045.52	101,447	120,424	161,035		17,167
PROBABI	T 9 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2031				
1994	82,736.81	51,722	47,649	40,880	14.14	2,891
1995	1,271,203.00	778,422	717,119	643,068	14.23	45,191
1996	198,281.39	118,708	109,359	102,802	14.32	7,179
1997	219,834.00	128,398	118,286	116,936	14.41	8,115
2010	232,392.85	65,022	59,901	188,759	15.11	12,492
2012	26,455.55	5,208	4,79B	23,510	15.17	1,550
2013	1,019,249.16	150,851	138,971	951,626	15.20	62,607
2014	105,015.81	9,897	9,118	103,249	15.22	6,784
	3,155,168.57	1,308,228	1,205,201	2,170,829		146,809

### ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
BROWN C	т 10					
	SURVIVOR CURV	E IOWA 45-R	2.5			
	E RETIREMENT Y					
	VAGE PERCENT					
1995	21,944.22	13,438	11,292	12,189	14.23	857
1997	1,653.00	965	811	958	14.41	66
2010	232,392.85	65,022	54,636	194,024	15.11	12,841
2012	26,455.57	5,208	4,376	23,931	15.17	1,578
	282,445.64	84,633	71,115	231,102		15,342
BROWN C	T 11					
INTERIM	SURVIVOR CURV	E IOWA 45-R	2.5			
PROBABL	E RETIREMENT Y	EAR 6-2026	;			
NET SAL	VAGE PERCENT	-7				
1996	16,452.45	11,408	8,721	8,883	10.02	887
1997	18,693.00	12,716	9,721	10,281	10.06	1,022
1998	7,567.00	5,044	3,856	4,241		420
2010	232,392.85	85,151	65,095	183,565		17,736
2012	26,455.57	7,051	5,390	22,917	10.37	2,210
	201 560 05	202 200				
	301,560.87	121,370	92,783	229,887		22,275
	T GAS PIPELINE					
	SURVIVOR CURV					
	E RETIREMENT Y		•			
NET SAL	VAGE PERCENT	- /				
1994	7,687,474.69	4,805,723	5,005,781	3,219,817	14.14	227,710
1998	206.00	117	122	99		7
1999	381,882.00	211,155	219,945	188,669		12,958
2003	36,567.97	17,473	18,200	20,927		1,413
2013	68,291.83	10,107	10,528	62,545		4,115
2015	33,700.20	1,123	1,170	34,889	15.25	2,288
	•		•	•		•
	8,208,122.69	5,045,698	5,255,746	3,526,945		248,491

### ACCOUNT 342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)		
INTERI PROBAB	NG UNITS 1, 2 A M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 45-R EAR 6-2020						
1970	29,175.92	29,040	17,904	14,189	3.95	3,592		
1971	25,248.00	25,077	15,461	12,312		3,086		
1973	245.00	242	149	120		30		
1977	66,536.25	65,141	40,162	33,028	4.18	7,901		
2011	350,911.66	192,353	118,594	267,409	4.48	59,690		
	472,116.83	311,853	192,271	327,058		74,299		
interi Probab	PADDY'S RUN GENERATOR 13 INTERIM SURVIVOR CURVE IOWA 45-R2.5 PROBABLE RETIREMENT YEAR 6-2031 NET SALVAGE PERCENT6							
2001	1,971,446.95	1,011,473	965,131	1,124,603	14.69	76,556		
2002	4,531.00	2,238	2,135	2,667		181		
2005	19,123.07	8,186	7,811			836		
2014	1,990.13	186	177	1,932	15.22	127		
	1,997,091.15	1,022,083	975,255	1,141,662		77,700		
	160,050,131.64	14,160,349	13,826,547	164,168,791		5,243,072		

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 31.3 3.28



### ACCOUNT 343 PRIME MOVERS

	ORIGINAL COST (2) RUN CC 7 IM SURVIVOR CURV	CALCULATED ACCRUED (3) E IOWA 35-R	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	BLE RETIREMENT Y ALVAGE PERCENT					
2015	89,873,336.88	1,349,826	1,353,524	99,304,613	30.91	3,212,702
	89,873,336.88	1,349,826	1,353,524	99,304,613		3,212,702
	LE COUNTY CT 5	P TOWN 3E B	1 5			
	BLE RETIREMENT Y					
	ALVAGE PERCENT					
2002	28,175,412.09	13,329,500	12,202,878	17,944,813	14.51	1,236,720
2004	535,878.89	230,893	211,378	362,013	14.73	24,577
2006	139,712.62	53,454	48,936	100,556	14.93	6,735
2007	41,824.49	14,898	13,639	31,113	15.01	2,073
2010	35,842.85	9,369	8,577	29,775	15.25	1,952
2011	504,489.32	113,143	103,580	436,224	15.31	28,493
2012	3,518,543.10	643,374	588,995	3,175,846	15.38	206,492
2013	20,239.38		2,551	19,106	15.44	1,237
2014	84,338.50	7,329	6,710	83,533	15.50	5,389
	33,056,281.24	14,404,746	13,187,243	22,182,978		1,513,668
TRIMBI	LE COUNTY CT 6					
INTER	IM SURVIVOR CURV	E IOWA 35-R	1.5			
	BLE RETIREMENT Y					
NET S	ALVAGE PERCENT	-7				
2002	28,160,141.31	13,322,276	12,447,622	17,683,729	14.51	1,218,727
2004	615,389.01	265,151	247,743	410,723		27,883
2007	9,593.87	3,417	3,193	7,073		471
2009	15,420.35	4,564	4,264	12,235		
2010	17,172.22	4,489	4,194	14,180	15.25	930
2011	3,199,061.90	717,460	670,356	2,752,640	15.31	179,794
2012	823,396.88	150,560	140,675	740,359	15.38	48,138
2013	20,239.38	2,786	2,603	19,053	15.44	1,234
2014	84,314.06	7,326	6,845	83,371	15.50	5,379
	32,944,728.98	14,478,029	13,527,496	21,723,364		1,483,363

## ACCOUNT 343 PRIME MOVERS

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER:	LE COUNTY CT 7 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2034				
2004	20,965,127.62	8,469,461	7,796,350	14,636,336	16.19	904,036
2006	404,108.42	143,958	132,517	299,879	16.45	18,230
2007	4,356.44	1,440	1,326	3,336	16.56	201
2011	447,639.13	91,819	84,522	394,452	16.95	23,272
2012	3,194,626.52	531,880	489,609	2,928,642	17.04	171,869
2013	1,199,885.22	149,803	137,897	1,145,980	17.11	66,977
2014	74,826.31	5,870	5,403	74,661	17.19	4,343
	26,290,569.66	9,394,231	8,647,624	19,483,286		1,188,928
INTER: PROBA	LE COUNTY CT 8 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2034				
2004	20,718,538.04	8,369,844	7,408,812	14,760,023	16.19	911,675
2006	294,116.88	104,775	92,745	221,960	16.45	13,493
2007	4,356.44	1,440	1,275	3,387	16.56	205
2010	17,172.20	4,124	3,650	14,724	16.86	873
2011	447,639.11	91,819	81,276	397,698	16.95	23,463
2012	3,146,258.75	523,827	463,681	2,902,816	17.04	170,353
2013	257,690.19	32,172	28,478	247,251	17.11	14,451
2014	272,690.21	21,393	18,937	272,842	17.19	15,872
	25,158,461.82	9,149,394	8,098,854	18,820,700		1,150,385
INTER: PROBA	LE COUNTY CT 9 IM SURVIVOR CURV BLE RETIREMENT V ALVAGE PERCENT.	EAR 6-2034				
2004	20,776,437.14	8,393,234	7,701,968	14,528,820	16.19	897,395
2006	294,378.88	104,868	96,231	218,754	16.45	13,298
2007	4,356.44	1,440	1,321	3,340	16.56	202
2009	193,712.50	52,786	48,439	158,834	16.77	9,471
2010	17,172.22	4,124	3,784	14,590	16.86	865
2011	447,639.11	91,819	84,257	394,717	16.95	23,287
				<b>,-</b> .		

## ACCOUNT 343 PRIME MOVERS

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBAE	E COUNTY CT 9 M SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2034				
2012	3,063,709.10	510,083	468,073	2,810,096	17.04	164,912
2013	17,078.50	2,132	1,956	16,318	17.11	954
2014	74,826.36	5,870	5,387	74,678	17.19	4,344
	24,889,310.25	9,166,356	8,411,416	18,220,146		1,114,728
TRIMBI	E COUNTY CT 10					
	M SURVIVOR CURV					
	SLE RETIREMENT Y					
NET SA	LVAGE PERCENT	- 7				
2004	20,640,467.03	8,338,305	7,661,757	14,423,543	16.19	890,892
2006	294,703.99	104,984	96,466	218,867	16.45	13,305
2007	170,474.64	56,337	51,766	130,642	16.56	7,889
2009	15,420.35	4,202	3,861	12,639	16.77	754
2011	447,639.11	91,819	84,369	394,605	16.95	23,281
2012	730,619.77	121,642	111,772	669,991	17.04	39,319
2013	2,340,915.97	292,258	268,545	2,236,235	17.11	130,698
2014	99,584.57	7,813	7,179	99,376	17.19	5,781
	24,739,825.43	9,017,360	8,285,715	18,185,898		1,111,919
BROWN	CT 5					
	M SURVIVOR CURV		21.5			
	SLE RETIREMENT Y		•			
NET SA	ALVAGE PERCENT	7				
2001	12,135,401.29	6,160,416	6,035,127	6,949,752	13.67	508,394
2002	16,181.00	7,902	7,741	9,572	13.78	695
2003	122,530.71	57,314	56,148	74,959	13.88	5,401
2006	718,680.00	285,725	279,914	489,074	14.14	34,588
2007	23,148.35	8,579	8,405	16,364	14.21	1,152
2010	16,889.40	4,628	4,534	13,538	14.41	939
2011	1,590,074.69	374,219	366,608	1,334,772	14.47	92,244
2012	99,764.48	19,217	18,826	87,922	14.53	6,051
	14,722,669.92	6,918,000	6,777,304	8,975,953		649,464

#### ACCOUNT 343 PRIME MOVERS

PROBA	ORIGINAL COST (2) CT 6 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2029		FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEI SA	ALVAGE PERCENI	- /				
1999 2002 2006 2007 2008 2009 2010 2012 2013	23,268,758.67 704,287.00 3,762,739.34 28,730.96 6,186,526.42 154,832.01 116,152.53 348,120.25 70,233.07	13,429,999 368,617 1,626,195 11,608 2,310,168 52,604 35,139 74,915 11,466	10,642,759 292,115 1,288,697 9,199 1,830,719 41,687 27,846 59,367 9,086	14,254,813 461,472 2,737,434 21,543 4,788,864 123,984 96,437 313,121 66,063	11.98 12.24 12.50 12.56 12.61 12.66 12.71 12.79 12.83	1,189,884 37,702 218,995 1,715 379,767 9,793 7,587 24,482 5,149
2014	62,091.32	6,523	5,169	61,268	12.86	4,764
	34,702,471.57	17,927,234	14,206,645	22,925,000		1,879,838
PROBA	CT 7 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2029				
1999 2001 2003 2004 2006 2007 2009 2012 2013	18,883,386.83 5,754,196.00 143,366.38 35,835.80 3,472,462.75 28,730.96 3,254,978.30 198,456.45 105,173.75	10,898,900 3,120,917 72,147 17,247 1,500,742 11,608 1,105,867 42,708 17,171	8,840,160 2,531,393 58,519 13,989 1,217,260 9,415 896,975 34,641 13,927	11,365,064 3,625,596 94,883 24,355 2,498,275 21,327 2,585,852 177,708 98,608	11.98 12.16 12.31 12.38 12.50 12.56 12.66 12.79 12.83	948,670 298,158 7,708 1,967 199,862 1,698 204,254 13,894 7,686
PROBAL	31,876,587.22  CT 8  IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2025		20,491,668		1,683,897
1995 1997 1998 2006	13,002,726.13 989,546.00 2,617,425.00 1,654,779.20	9,312,750 684,841 1,777,877 867,317	8,296,919 610,139 1,583,947 772,710	5,615,998 448,675 1,216,698 997,903	8.60 8.71 8.75 9.04	653,023 51,513 139,051 110,388

### ACCOUNT 343 PRIME MOVERS

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBA	CT 8 M SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2025				
2007	7,728,711.57	3,823,588	3,406,513	4,863,209	9.07	536,186
2010	20,578.26	7,921	7,057	14,962	9.13	1,639
2011	483,972.65	163,449	145,620	372,231	9.15	40,681
2012	43,169.43	12,196	10,866	35,326	9.17	3,852
2013	139,017.01	30,394	27,079	121,670	9.19	13,239
	26,679,925.25	16,680,333	14,860,849	13,686,671		1,549,572
PROBAL	CT 9 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2031				
1994	13,156,279.09	8,117,910	7,607,149	6,470,069	12.70	509,454
1995	409,078.00	246,967	231,428	206,285	12.76	16,041
1996	472,854.00	278,720	261,184	244,770	13.02	18,800
1997	1,221,475.00	702,200	658,019	648,959	13.16	49,313
1998	2,439,970.00	1,364,857	1,278,983	1,331,785	13.30	100,134
2006	1,051,911.47	418,208	391,895	733,650	14.14	51,885
2008	1,524,046.02	520,252	487,519	1,143,210	14.28	80,057
2009	637,647.85	197,112	184,710	497,573	14.35	34,674
2012	43,169.43	8,315	7,792	38,399	14.53	2,643
2013	7,591,117.33	1,102,548	1,033,178	7,089,317	14.58	486,236
2014	164,063.77	15,132	14,180	161,368	14.63	11,030
	28,711,611.96	12,972,221	12,156,038	18,565,387		1,360,267
BROWN						
	IM SURVIVOR CURV					
	BLE RETIREMENT Y ALVAGE PERCENT					
1995	12,529,955.77	7,564,527	7,292,939	6,114,114	12.86	475,437
1996	3,189,002.00	1,879,730	1,812,242	1,599,990	13.02	122,887
1997	61,215.88	35,192	33,929	31,572	13.16	2,399
1999	66,608.00	36,171	34,872	36,398	13.43	2,710
2006	1,075,401.49	427,547	412,197	738,483	14.14	52,227
2010	831,538.26	227,837	219,657	670,089	14.41	46,502

#### ACCOUNT 343 PRIME MOVERS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER:	CT 10 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2031				
2012	43,169.43	8,315	8,016	38,175	14.53	2,627
2014	70,820.51	6,532	6,297	69,480	14.63	4,749
2015	8,059,176.08	261,976	252,570	8,370,748	14.68	570,214
	25,926,887.42	10,447,827	10,072,720	17,669,050		1,279,752
BROWN	CT 11					
INTER	IM SURVIVOR CURV	E IOWA 35-F	21.5			
PROBAL	BLE RETIREMENT Y	EAR 6-2026	;			
NET S	ALVAGE PERCENT	- 7				
1996	14,143,515.81	9,635,236	9,100,258	6,033,303	9.45	638,445
1997	744,351.00	497,665	470,033	326,422	9.51	34,324
1998	580,337.00	379,978	358,880	262,080	9.57	27,386
1999	2,301,040.00	1,472,540	1,390,780	1,071,333	9.63	111,250
2000	14,259,988.00	8,902,847	8,408,534	6,849,653	9.68	707,609
2002	336,087.00	197,838	186,853	172,760	9.78	17,665
2003	1,267,900.75	721,346	681,295	675,359	9.82	68,774
2004	26,608.61	14,560	13,752	14,720	9.86	1,493
2007	979,775.63	459,098	433,607	614,752	9.96	61,722
2012	43,169.43	11,332	10,703	35,488	10.09	3,517
	34,682,773.23	22,292,440	21,054,696	16,055,871		1,672,185
PADDY	'S RUN GENERATOR	13				
INTER	IM SURVIVOR CURV	E IOWA 35-F	21.5			
PROBAL	BLE RETIREMENT Y	EAR 6-2031	L			
NET S	ALVAGE PERCENT	-6				
2001	13,635,667.06	6,857,320	4,733,997	9,719,810	13.67	711,032
2002	37,538.00	18,161	12,538	27,253	13.78	1,978
2005	23,907.18	10,010	6,910	18,431	14.06	1,311
2007	40,130.09	14,734	10,172	32,366	14.21	2,278
2009	1,637,901.07	501,581	346,270	1,389,905	14.35	96,857

### ACCOUNT 343 PRIME MOVERS

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	'S RUN GENERATOR IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 35-F				
2012	4,027,492.40	768,531	530,561	3,738,581	14.53	257,301
2013	42,179.90	6,069	4,190	40,521	14.58	2,779
2014	114,061.15	10,422	7,195	113,710	14.63	7,772
	19,558,876.85	8,186,828	5,651,832	15,080,577		1,081,308
	473,814,317.68	179,172,132	159,908,236	351,371,162		21,931,976
	COMPOSITE REMAIN	NING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	16.0	4.63



## ACCOUNT 344 GENERATORS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBABL	N CC 7 SURVIVOR CURVE E RETIREMENT YE VAGE PERCENT	EAR 6-2055				
2015 1	13,390,206.33	1,642,072	1,903,560	125,093,471	38.16	3,278,131
1	13,390,206.33	1,642,072	1,903,560	125,093,471		3,278,131
INTERIM PROBABL	COUNTY CT 5 SURVIVOR CURVI E RETIREMENT YI	EAR 6-2032				
2002	3,734,423.83			2,322,312		143,088
2004 2012	28,850.68 37,125.91	12,759 6,962	11,782 6,429	19,088 33,296		1,170 2,022
	3,800,400.42	1,831,991	1,691,733	2,374,695		146,280
INTERIM PROBABL	COUNTY CT 6 SURVIVOR CURVI E RETIREMENT YI VAGE PERCENT	EAR 6-2032				
2002	3,732,468.71					143,009
2004 2012	25,477.86 37,125.91	11,267 6,962	10,405 6,429	16,857 33,296		1,034 2,022
	3,795,072.48	1,829,551	1,689,538	2,371,190		146,065
intérim Probabi	COUNTY CT 7 SURVIVOR CURVI E RETIREMENT Y	EAR 6-2034				
2004 2012	2,950,282.37 32,943.60	1,220,199 5,623	1,149,660 5,298	2,007,142 29,952		110,161 1,624
	2,983,225.97	1,225,822	1,154,958	2,037,094		111,785

#### ACCOUNT 344 GENERATORS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	COUNTY CT 8	(3)	(2)	(3)	(6)	( / /
PROBABL	SURVIVOR CURV	EAR 6-2034				
NET SAL	VAGE PERCENT	-7				
2004 2012	2,937,930.22 32,943.58	1,215,090 5,623	1,144,837 5,298	1,998,748 29,952	18.22 18.44	109,701 1,624
2012	32, 243.30	3,623	3,230	23,332	10.44	1,624
	2,970,873.80	1,220,713	1,150,135	2,028,700		111,325
TRIMBLE	COUNTY CT 9					
	SURVIVOR CURVI E RETIREMENT Y					
	VAGE PERCENT					
2004	2,957,520.12	1,223,192	1,144,963	2,019,584	18.22	110,844
2012	32,943.58	5,623	5,263	29,986	18.44	1,626
	2,990,463.70	1,228,815	1,150,226	2,049,570		112,470
	COUNTY CT 10					
	SURVIVOR CURV E RETIREMENT Y					
	VAGE PERCENT	· · · · · · · · · · · · · · · · · · ·				
2004	2,954,148.53			2,017,117		110,709
2012	32,943.60	5,623	5,264	29,986	18.44	1,626
	2,987,092.13	1,227,421	1,149,086	2,047,103		112,335
BROWN C	T 5					
	SURVIVOR CURV E RETIREMENT Y					
	VAGE PERCENT		•			
2001	2,786,638.61					
2002	3,906.00	1,958	1,766	2,413		158
2011 2012	67,603.05 8,674.12	16,300 1,712	14,702 1,544	57,633 7,737		3,725 500
		,	·	·	, _ ,	
	2,866,821.78	1,471,672	1,327,386	1,740,113		114,116

## ACCOUNT 344 GENERATORS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBAB	CT 6 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2029				
1999	3,712,619.52	2,197,589	1,992,671			149,196
2012	8,674.11	1,912	1,734	7,548	13.49	560
	3,721,293.63	2,199,501	1,994,405	1,987,379		149,756
PROBAB	CT 7 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2029				
1999	3,693,120.46	2,186,047	1,955,274			150,442
2001	29,668.00		14,779	16,966		1,273
2012	8,674.11	1,912	1,710	7,571	13.49	561
	3,731,462.57	2,204,482	1,971,763	2,020,902		152,276
PROBAB	CT 8 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2025				
1995	4,953,960.72	3,633,762	3,435,112	1,865,626	9.34	199,746
2012			2,362		9.50	728
	4,962,634.83	3,636,261	3,437,474	1,872,545		200,474
PROBAB	CT 9 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-203				
1994	5,333,167.97	3,361,294	3,521,231	2,185,258	14.84	147,255
1995		73,348	76,838	50,356	14.91	
2012	8,674.11	1,712	1,793	7,488	15.47	484
	5,460,715.08	3,436,354	3,599,863	2,243,102		151,116

## ACCOUNT 344 GENERATORS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE	ANNUAL ACCRUAL (7)
BROWN		(-)	( - /	<b>\-</b> /	(*)	.,,
	M SURVIVOR CURV					
	LE RETIREMENT Y LVAGE PERCENT					
1995	4,944,422.71	3,050,838	3,127,299	2,163,233		145,086
2012	8,674.11	1,712	1,755	7,526	15.47	486
	4,953,096.82	3,052,550	3,129,054	2,170,760		145,572
BROWN	CT 11					
	M SURVIVOR CURV					
	LE RETIREMENT Y LVAGE PERCENT		1			
1996			2,601,158	2,292,301		222,122
1997	119,111.00		66,482	60,967		5,896
2012	8,674.11		1,890			704
2013	1,061,783.54	218,485	177,980	958,128	10.50	91,250
	5,762,894.98	3,495,546	2,847,510	3,318,788		319,972
HAEFLI	NG UNITS 1, 2 A	ND 3				
	M SURVIVOR CURV					
	LE RETIREMENT Y LVAGE PERCENT		)			
NEI SA	LVAGE PERCENT	-10				
1970	2,280,419.06	2,279,915	2,019,725	488,736	4.19	116,643
1971	146,547.00		•	31,654		,
1975	18,497.00		16,217		4.27	
2001	236,672.62	198,720	176,042	84,298	4.49	18,775
	2,682,135.68	2,643,178	2,341,531	608,818		143,904

### ACCOUNT 344 GENERATORS

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	'S RUN GENERATOR IM SURVIVOR CURVI BLE RETIREMENT YI ALVAGE PERCENT	E IOWA 55-S EAR 6-2031				
2001	4,940,529.59	2,549,719	2,221,371	3,015,590	15.24	197,873
2002	11,002.00	5,464	4,760	6,902	15.28	452
2012	26,588.67	5,200	4,530	23,654	15.47	1,529
2014	472,429.16	44,213	38,519	462,256	15.49	29,842
	5,450,549.42	2,604,596	2,269,181	3,508,401		229,696
	172,508,939.62	34,950,525	32,807,403	157,472,631		5,625,273
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	28.0	3.26



## ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
		(3)	\*/	(3)	(0)	V / /
INTER:	RUN CC 7 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2055				
2015	26,286,452.56	382,142	421,424	29,019,403	37.25	779,044
	26,286,452.56	382,142	421,424	29,019,403		779,044
INTER: PROBAL	LE COUNTY CT 5 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2032				
2002	1,645,529.86	797,534	721,538	1,039,179	15.99	64,989
2004	12,857.15		5,142	8,615		536
2011	24,962.92		5,189	21,521	16.31	1,319
2012	68,399.27	12,826	11,604	61,583	16.33	3,771
2014	138,194.66	12,337	11,161	136,707	16.37	8,351
	1,889,943.86	834,117	754,635	1,267,605		78,966
INTER: PROBAL	LE COUNTY CT 6 IM SURVIVOR CURV BLE RETIREMENT V ALVAGE PERCENT.	YEAR 6-2032				
2002	4,313,237.34	2,090,485	1,683,398	2,931,766	15.99	183,350
2004	* *	5,019	4,042	8,107		504
2012	5,249.63		792	4,825		295
	4,329,841.09	2,096,488	1,688,232	2,944,698		184,149
INTER:	LE COUNTY CT 7 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT.	YEAR 6-2034				
2004 2009	3,136,584.26 2,204.23	1,297,452 617	1,194,784 568	2,161,361 1,790		120,544 99

### ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	COST	CALCULATED ACCRUED (3)		FUTURE BOOK ACCRUALS (5)	LIFE	ACCRUAL
INTERIM PROBABL	COUNTY CT 7 SURVIVOR CURVE RETIREMENT Y VAGE PERCENT	EAR 6-2034				
2012	22,579.92	3,858	3,553	20,608	18.26	1,129
2013	50,147.90	6,407	5,900	47,758	18.29	2,611
2014	621,521.71	50,043	46,083	618,945	18.31	33,804
	3,833,038.02	1,358,377	1,250,888	2,850,463		158,187
INTERIM PROBABL	COUNTY CT 8 SURVIVOR CURV E RETIREMENT V VAGE PERCENT.	EAR 6-2034				
2004	3.137.127.45	1.297.677	1.228.387	2,128,340	17.93	118,703
2009	2,204.23	617	584	1,774		98
2012	5,249.63	897	849		18.26	
	3,144,581.31	1,299,191	1,229,820	2,134,882		119,062
INTERIM PROBABL	COUNTY CT 9 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT.	EAR 6-2034				
2004	3,222,176.42	1.332.857	1.239.857	2,207,872	17.93	123,138
2009	2,204.19		574	1,785		
	22,579.92		3,589	20,572		
2014	· · · · · · · · · · · · · · · · · · ·	14,196		175,451		9,582
	3,423,274.57	1,351,528	1,257,225	2,405,679		133,945
INTERIM PROBABI	COUNTY CT 10 SURVIVOR CURV SE RETIREMENT TO VAGE PERCENT.	YEAR 6-2034				
2004 2009	7,144,489.03 2,204.23	2,955,327 617	2,496,860 521	5,147,743 1,837	17.93 18.16	287,102 101

## ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	ACCRUED	RESERVE	FUTURE BOOK ACCRUALS (5)	LIFE	ACCRUAL
INTERI	E COUNTY CT 10 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2034				
2011	49,925.08	10,500	8,871	44,549	18.23	2,444
2012	5,249.63	897	758	4,859	18.26	266
2013	59,208.10	7,564	6,391	56,962	18.29	3,114
	7,261,076.07	2,974,905	2,513,401	5,255,950		293,027
PROBAB	CT 5 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2031				
2001	2,262,097.84	1,175,852	993,869	1,426,575	15.03	94,915
2002	3,069.00		1,298	1,986		132
2010	11,853.65	3,328	2,813	9,870	15.32	644
2012	33,212.26		5,535	30,002		1,953
	2,310,232.75	1,187,265	1,003,516	1,468,433		97,644
PROBAB	CT 6 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2029				
1999	1,930,284.42	1,139,752	966,414	1,098,991	13.10	83,892
2010	44,931.99		11,820	36,257		*
2010	41,923.74		7,842	37,017		
2013	9,502.80	1,592	1,350	8,818		658
	2,026,642.95	1,164,532	987,425	1,181,083		90,024

### ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBAB	CT 7 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2029				
1999	1,920,146.21	1,133,766	952,813	1,101,743	13.10	84,103
2010	15,635.77	4,851	4,077	12,654	13.37	946
2012	41,923.74	9,248	7,772	37,086	13.40	2,768
2013	9,502.80	1,592	1,338	8,830	13.41	658
	1,987,208.52	1,149,457	966,000	1,160,313		88,475
PROBAB	CT 8 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2025				
1993	1,248,083.99	939,502	775,318	560,132	9.20	60,884
1995	1,075,103.50	786,318	648,904	501,457	9.25	54,212
1997	302,783.00	214,133	176,712	147,266	9.29	15,852
2007	10,526.68	5,316	4,387	6,877	9.43	729
2012	530,214.36	152,895	126,176	441,154	9.46	46,634
2014	159,624.16	23,355	19,274	151,524	9.47	16,000
	3,326,335.69	2,121,519	1,750,769	1,808,410		194,311
PROBAB	CT 9 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2031				
1994	1,895,387.28	1,188,831	1,141,994	886,070	14.62	60,607
1995	1,463,066.43	898,711	863,304	702,177	14.69	47,800
1996	293,484.00	176,245	169,301	144,726	14.76	9,805
1997	336,423.00	197,229	189,459	170,514	14.82	11,506
2011	217,486.58	52,418	50,353	182,358	15.34	11,888
2012	353,258.42	69,655	66,911	311,076	15.36	20,252
2014	148,050.77	13,983	13,432	144,982	15.39	9,421
	4,707,156.48	2,597,072	2,494,754	2,541,903		171,279

## ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBABI	CT 10 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2031				
1993 1995 1997 2012 2014	940,073.23 1,483,977.47 320,442.00 353,258.41 148,140.76	601,304 911,556 187,860 69,655 13,992	559,271 847,835 174,728 64,786 13,014	446,608 740,021 168,145 313,201 145,497	14.54 14.69 14.82 15.36 15.39	30,716 50,376 11,346 20,391 9,454
	3,245,891.87	1,784,367	1,659,633	1,813,471		122,283
PROBAB	CT 11 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2026				
1996	1,767,686.75	1,230,750	1,209,195	682,230	10.21	66,820
1997	35,427.00	24,214	23,790	14,117	10.23	1,380
2012	477,155.79	127,547	125,313	385,244	10.45	36,865
2014	173,988.88	23,349	22,940	163,228	10.46	15,605
	2,454,258.42	1,405,860	1,381,238	1,244,819		120,670
INTERI PROBAB	NG UNITS 1, 2 A M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 50-F EAR 6-2020				
1970	199,408.97	199,082	40,159	179,190	4.11	43,599
1971	41,999.00	41,844	8,441	37,758	4.14	9,120
1973	2,825.81	2,803	565	2,543	4.19	607
2007	19,643.19	14,116	2,848	18,760	4.49	4,178
2012	552,386.44	265,739	53,606	554,019	4.49	123,390
	816,263.41	523,584	105,619	792,271		180,894

#### ACCOUNT 345 ACCESSORY ELECTRIC EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER I PROBAB	S RUN GENERATOR M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 50-R EAR 6-2031	· <del>-</del>			
2001	2,416,310.20	1,244,274	1,132,321	1,428,968	15.03	95,074
2002	5,178.00	2,568	2,337	3,152	15.07	209
2012	25,073.74	4,898	4,457	22,121	15.36	1,440
2014	10,513.67	984	895	10,249	15.39	666
2015	42,575.01	1,419	1,291	43,838	15.40	2,847
	2,499,650.62	1,254,143	1,141,302	1,508,328		100,236
	73,541,848.19	23,484,547	20,605,881	59,397,711		2,912,196

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.4 3.96

#### ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	
PROBABLE	SURVIVOR CURV	E IOWA 40-R EAR 6-2055 -12				
2015	21,065.55	319	88	23,505	33.56	700
	21,065.55	319	88	23,505		700
INTERIM :		E IOWA 40-R EAR 6-2032 -7				
	15,274.16		7,024	9,319	15.46	603
2007	13,689.47	4,960	5,856	8,792	15.53	566
	28,963.63	10,910	12,880	18,111		1,169
INTERIM :		TE IOWA 40-R TEAR 6-2034 -7				
2004	8,888.93	3,653	3,661	5,850	16.92	346
	8,888.93	3,653	3,661	5,850		346
INTERIM PROBABLE		E IOWA 40-R EAR 6-2034				
2004	8,861.01	3,641	3,649	5,832	16.92	345
	8,861.01	3,641	3,649	5,832		345

### ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM PROBABL	COUNTY CT 9 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2034				
2004	9,113.52	3,745	3,730	6,021	16.92	356
	9,113.52	3,745	3,730	6,021		356
INTERIM PROBABI	COUNTY CT 10 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2034				
2004	9,105.52	3,742	3,657	6,086	16.92	360
2010	26,747.06	6,536	6,388	22,232	17.47	1,273
2011	6,015.93	1,255	1,226	5,211	17.54	297
	41,868.51	11,533	11,271	33,528		1,930
PROBABI	T 5 I SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2031				
2001	2,082,373.17	1.073.919	1,044,237	1,183,903	14.23	83,198
2002	2,790.00	1,384	1,346	1,640		115
2003	998.32	•	462	606		
2004	22,748.93		10,035	14,307		
2007	30,442.19	11,467	11,150	21,423	14.67	1,460
	2,139,352.61	1,097,565	1,067,229	1,221,878		85,804
PROBABI	CT 6 M SURVIVOR CURV JE RETIREMENT Y JVAGE PERCENT	EAR 6-2029				
1999	15,859.82	9,279	B,674	8,296	12.45	666
2001	2,144.00	1,181	1,104	1,190		95
2003	16,198.37	8,278	7,738	9,594		755

### ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBABLI	r 6 SURVIVOR CURV E RETIREMENT Y JAGE PERCENT	EAR 6-2029				
2005	14,757.51	6,856	6,409	9,382	12.81	732
2011	4,789.15	1,272	1,189	3,935		302
2015	48,476.11	1,861	1,740	50,130	13.17	3,806
	102,224.96	28,727	26,854	82,527		6,356
BROWN C'						
PROBABL	SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2029				
1999	15,776.54	9,230	9,435	7,446	12.45	598
2003	19,870.85	10,154	10,380	10,882		857
2015	48,476.09	1,861	1,902	49,967		3,794
	84,123.48	21,245	21,717	68,295		5,249
PROBABL	I 8 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2025				
1994	34,743.72	25,552	24,731	12,445	8.82	1,411
1995	185,434.00	134,346	130,030	68,384		7,710
2001	9,891.00	6,339	6,135	4,448		490
2011	55,863.61	19,079	18,466	41,308	9.30	4,442
2012	5,293.68	1,511	1,462	4,202	9.32	451
	291,226.01	186,827	180,825	130,787		14,504
PROBABL	I 9 SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2031				
1994	196,427.37	122,435	135,916	74,261	13.48	5,509
1995	548,710.00	334,729	371,585	215,535	13.61	15,837
1996	5,227.00	3,117	3,460	2,133	13.73	155

## ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
BROWN C'	г 9					
	SURVIVOR CURV	E IOWA 40-R	2			
	E RETIREMENT Y					
	VAGE PERCENT					
2001	9,891.00	5,101	5,663	4,921	14.23	346
2014	66,684.25	6,290	6,983	64,370	15.00	4,291
2015	33,485.67	1,108	1,230	34,600	15.04	2,301
	060 405 00	432 300	524 036	305 010		20 420
	860,425.29	472,780	524,836	395,819		28,439
DDOING G						
BROWN C'	SURVIVOR CURV	70 TOWN 40 D	2			
	BORVIVOR CORV E RETIREMENT Y					
	VAGE PERCENT		•			
NEI DAD	VAGE FERCENT	- 7				
1995	228,488.31	139,384	146,888	97,595	13.61	7,171
1996	3,144.00	1,875	1,976	1,388	13.73	101
2001	9,891.00	5,101	5,376	5,208	14.23	366
2003	32,867.56	15,630	16,471	18,697	14.40	1,298
				_		
	274,390.87	161,990	170,711	122,887		8,936
BROWN C'						
	SURVIVOR CURV					
	E RETIREMENT Y		1			
NET SAL	VAGE PERCENT	7				
1996	149,568.53	103,119	95,861	64,178	9.77	6,569
1997	21,262.00	14,391	13,378	9,372	9.81	955
1999	9,687.00	6,280	5,838	4,527	9.90	457
2001	24,337.00	14,972	13,918	12,122	9.98	1,215
2003	277,131.30	159,765	148,520	148,011	10.05	14,727
2004	46,587.64	25,830	24,012	25,837	10.08	2,563
2005	20,014.16	10,617	9,870	11,545	10.11	1,142
2011	41,975.19	13,360	12,420	32,494	10.25	3,170
	590,562.82	348,334	323,816	308,086		30,798



### ACCOUNT 346 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR	COST	ACCRUED			LIFE	
INTER:	ING UNITS 1, 2 A IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 40-F EAR 6-2020				
1970	30,264.20	29.970	17,059	16.232	3.80	4,272
1971	5,384.33	•	3,029	•		754
1973	·		63		3.92	
_	69,229.69		15,387		4.47	
	104,991.22	62,435	35,538	79,952		18,636
INTER:	'S RUN GENERATOR IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 40-F EAR 6-2031	_			
2001	1,086,962.03	555.328	545.052	607.128	14.23	42.665
2002		1,272				
			,	·		
	1,089,550.03	556,600	546,300	608,623		42,769
	5,655,608.44	2,970,304	2,933,105	3,111,701		246,337
	COMPOSITE REMAIN	NING LIFE AND	ANNUAL ACCRUA	L RATE, PERCEN	T 12.6	4.36

#### ACCOUNT 350.1 LAND RIGHTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA					
1941	686,361.06	567,229	686,361			
1942	27,091.62	22,231	27,092			
1943	1,077.00	877	1,077			
1944	860.00	695	860			
1945	5,395.00	4,324	5,395			
1946	38,829.00	30,864	38,829			
1947	65,530.00	51,638	65,530			
1948	33,277.00	25,985	33,277			
1949	228,344.00	176,640	228,344			
1950	22,549.00	17,276	22,549			
1951	104,789.00	79,475	104,789			
1952	186,048.00	139,642	186,048			
1953	409,306.00	303,881	409,306			
1954	108,821.00	79,906	108,821			
1955	85,914.00	62,362	85,914			
1956	259,450.00	186,101	259,450			
1957	32,179.00	22,797	32,179			
1958	373,514.00	261,299	371,912	1,602	21.03	76
1959	226,833.00	156,612	222,909	3,924	21.67	181
1960	263,434.00	179,435	255,394	8,040	22.32	360
1961	327,284.00	219,840	312,903	14,381	22.98	626
1962	280,359.36	185,637	264,221	16,138	23.65	682
1963	465,120.00	303,458	431,918	33,202	24.33	1,365
1964	93,142.00	59,850	85,186	7,956	25.02	318
1965	287,634.00	181,949	258,972	28,662	25.72	1,114
1966	415,879.00	258,856	368,435	47,444	26.43	1,795
1967	611,565.00	374,455	532,970	78,595	27.14	2,896
1968	128,655.00	77,432	110,211	18,444	27.87	662
1969	402,094.00	237,754	338,400	63,694	28.61	2,226
1970	1,682,695.00	977,158	1,390,809	291,886	29.35	9,945
1971	970,069.00	552,804	786,817	183,252	30.11	6,086
1972	593,107.00	331,547	471,898	121,209	30.87	3,926
1973	978,038.00	535,965	762,850	215,188	31.64	6,801
1974	542,946.00	291,486	414,878	128,068	32.42	3,950
1975	172,802.00	90,844	129,300	43,502	33.20	1,310
1976	454,641.00	233,881	332,888	121,753	33.99	3,582
1977	141,182.00	71,015	101,077	40,105	34.79	1,153
1978	902,286.00	443,410	631,115	271,171	35.60	7,617
1979	881,852.00	423,033	602,112	279,740	36.42	7,681
1980	758,709.00	355,076	505,387	253,322	37.24	6,802
1981	572,541.00	261,159	371,713	200,828	38.07	5,275
1982	859,510.00	381,743	543,343	316,167	38.91	8,126

#### ACCOUNT 350.1 LAND RIGHTS

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA ALVAGE PERCENT					
1983	315,498.00	136,339	194,054	121,444	39.75	3,055
1984	2,222,027.00	933,251	1,328,315	893,712	40.60	22,013
1985	1,379,271.00	562,343	800,394	578,877	41.46	13,962
1986	169,584.00	67,059	95,446	74,138	42.32	1,752
1987	604,324.00	231,456	329,436	274,888	43.19	6,365
1988	124,766.00	46,217	65,782	58,984	44.07	1,338
1989	125,746.00	44,999	64,048	61,698	44.95	1,373
1990	125,552.00	43,333	61,677	63,875	45.84	1,393
1991	308,966.00	102,710	146,189	162,777	46.73	3,483
1992	56,034.00	17,907	25,487	30,547	47.63	641
1993	47,759.00	14,641	20,839	26,920	48.54	555
1994	84,416.00	24,782	35,273	49,143	49.45	994
1995	414,604.00	116,325	165,568	249,036	50.36	4,945
1996	75,397.00	20,153	28,684	46,713	51.29	911
1997	64,154.96	16,304	23,206	40,949	52.21	784
1998	315,419.00	75,972	108,133	207,286	53.14	3,901
1999	347,323.37	78,992	112,431	234,892	54.08	4,343
2000	70,004.00	14,981	21,323	48,681	55.02	885
2003	349,837.18	60,672	86,356	263,481	57.86	4,554
2005	545.00	80	114	431	59.77	7
2009	353,837.52	32,150	45,760	308,078	63.64	4,841
2010	152,130.15	11,714	16,673	135,457	64.61	2,097
2011	24,821.33	1,564	2,226	22,595	65.59	344
2012	3,922,392.56	192,746	274,339	3,648,054	66.56	54,809
2013	1,801,301.84	63,298	90,093	1,711,209	67.54	25,336
2014	291,572.35	6,164	8,773	282,799	68.52	4,127
	29,428,995.30	12,133,773	17,044,058	12,384,937		253,363

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 48.9 0.86

### ACCOUNT 352.1 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFÉ (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA					
NEI SALV	AGE PERCENT	-25				
1940	1,901.21	1,978	2,377			
1941	42,347.02	43,746	52,934			
1947	3,222.45	3,174	3,909	119	14.84	8
1948	1,400.50	1,367	1,683	68	15.34	4
1949	24,234.72	23,434	28,859	1,434	15.85	90
1950	22,123.18	21,187	26,092	1,562	16.37	95
1951	26,145.14	24,787	30,525	2,156	16.91	127
1952	2,055.05	1,928	2,374	195	17.46	11
1953	28,141.84	26,117	32,163	3,014	18.03	167
1954	46,002.37	42,224	51,998	5,505	18.60	296
1955	13,433.92	12,189	15,011	1,781	19.19	93
1956	161,112.14	144,455	177,895	23,495	19.79	1,187
1957	13,238.93	11,724	14,438	2,111	20.41	103
1958	49,232.11	43,052	53,018	8,522	21.03	405
1959	37,746.86	32,577	40,118	7,066	21.67	326
1960	37,268.81	31,732	39,078	7,508	22.32	336
1961	17,168.99	14,416	17,753	3,708	22.98	161
1962	12,553.11	10,390	12,795	2,896	23.65	122
1963	11,844.93	9,660	11,896	2,910	24.33	120
1964	42,399.73	34,056	41,940	11,060	25.02	442
1965	32,209.35	25,468	31,364	8,898	25.72	346
1966	45,936.12	35,740	44,013	13,407	26.43	507
1967	12,722.00	9,737	11,991	3,912	27.14	144
1968	13,800.95	10,383	12,787	4,464	27.87	160
1969	39,890.18	29,483	36,308	13,555	28.61	474
1970	70,548.61	51,210	63,065	25,121	29.35	856
1971	125,888.81	89,674	110,432	46,929	30.11	1,559
1972	199,094.35	139,117	171,321	77,547	30.87	2,512
1973	26,126.25 32,497.65	17,896	22,039	10,619	31.64	336
1974 1975	•	21,808	26,856	13,766	32.42	425
1976	83,479.24 43,600.10	54,857	67,556	36,793	33.20 33.99	1,108
1977	226,179.21	28,036 142,210	34,526 175,130	19,974 107,594		588
1978	201,284.69			99,336	34.79	3,093
1978	212,287.33	123,647 127,295	152,270 156,762	108,597	35.60 36.42	2,790 2,982
1980	195,674.53	114,470	140,968	103,625	37.24	2,783
1981	966,223.83	550,917	678,448	529,332	38.07	13,904
1982	700,284.66	388,781	478,779	396,577	38.91	10,192
1983	431,367.27	233,014	286,954	252,255	39.75	6,346
1984	212,916.21	111,781	137,657	128,488	40.60	3,165
1985	112,188.04	57,175	70,410	69,825	41.46	1,684
1986	53,056.45	26,225	32,296	34,025	42.32	804
	,	, <b>-</b>	,	,		

### ACCOUNT 352.1 STRUCTURES AND IMPROVEMENTS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
1987	133,190.84	63,765	78,526	87,963	43.19	2,037
1988	114,353.09	52,950	65,207	77,734	44.07	1,764
1989	17,100.34	7,649	9,420	11,955	44.95	266
1990	171,913.94	74,168	91,337	123,555	45.84	2,695
1991	7,702.35	3,201	3,942	5,686	46.73	122
1992	141,734.20	56,617	69,723	107,445	47.63	2,256
1993	102,402.67	39,242	48,326	79,677	48.54	1,641
1994	299,706.89	109,981	135,440	239,194	49.45	4,837
1995	479,982.26	168,336	207,304	392,674	50.36	7,797
1996	105,458.55	35,235	43,392	88,431	51.29	1,724
1997	95,464.07	30,327	37,347	81,983	52.21	1,570
1998	633,320.49	190,677	234,817	556,834	53.14	10,479
1999	27,077.02	7,698	9,480	24,366	54.08	451
2000	204,160.00	54,613	67,255	187,945	55.02	3,416
2001	150,801.95	37,808	46,560	141,942	55.96	2,536
2002	81,986.71	19,164	23,600	78,883	56.91	1,386
2003	38,594.54	8,367	10,304	37,939	57.86	656
2004	293,527.04	58,654	72,232	294,677	58.81	5,011
2005	191,745.22	35,027	43,135	196,547	59.77	3,288
2007	199,665.65	29,593	36,443	213,139	61.70	3,454
2008	5,336,706.92	698,508	860,206	5,810,678	62.67	92,719
2009	2,352,857.19	267,226	329,086	2,611,985	63.64	41,043
2010	130,562.84	12,567	15,476	147,728	64.61	2,286
2011	1,453,389.24	114,454	140,949	1,675,788	65.59	25,549
2012	891,090.53	54,735	67,406	1,046,457	66.56	15,722
2013	3,666,932.75	161,070	198,356	4,385,310	67.54	64,929
2014	2,085,586.37	55,112	67,869	2,539,114	68.52	37,057
2015	1,276,621.32	11,170	13,756	1,582,021	69.51	22,760
	25,314,463.82	5,381,031	6,625,682	25,017,398		420,302

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 59.5 1.66

## ACCOUNT 352.2 STRUCTURES AND IMPROVEMENTS - SYSTEM CONTROL/COMMUNICATION

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA AGE PERCENT					
1956	17,016.61	17,197	18,185	3,086	12.45	248
1958	9,243.36	9,121	9,645	1,909	13.69	139
1960	35.08	34	36	8	15.00	1
1962	26.03	24	25	8	16.36	
1968	50.32	43	45	18	20.69	1
1974	6,614.02	5,032	5,321	2,947	25.44	116
1988	4,541.07	2,364	2,500	3,176	37.93	84
1997	77,868.93	27,524	29,106	68,230	46.62	1,464
2011	77,830.59	6,721	7,107	90,181	60.51	1,490
	193,226.01	68,060	71,970	169,563		3,543

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 47.9 1.83

## ACCOUNT 353.1 STATION EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CIDUTIO	AD CUDATE TOWN	60 B2				
	R CURVE IOWA VAGE PERCENT					
1929	1,329.06	1,352	1,370	158	6.93	23
1940	614.96	585	593	114	10.35	11
1941	1,577.30	1,491	1,511	303	10.69	28
1942	3,185.97	2,990	3,030	634	11.04	57
1943	6,406.69	5,968	6,048	1,320	11.40	116
1944	2,571.36	2,377	2,409	548	11.76	47
1945	16,249.99	14,906	15,106	3,581	12.14	295
1946	23,097.96	21,020	21,302	5,261	12.52	420
1947	10,076.59	9,095	9,217	2,371	12.91	184
1948	18,358.68	16,429	16,650	4,462	13.31	335
1949	460,870.87	408,896	414,388	115,614	13.71	8,433
1950	679,885.12	597,738	605,766	176,102	14.13	12,463
1951	389,755.98	339,450	344,009	104,210	14.56	7,157
1952	102,589.77	88,504	89,693	28,285	14.99	1,887
1953	2,060,125.68	1,759,493	1,783,126	586,019	15.44	37,955
1954	192,644.52	162,833	165,020	56,521	15.90	3,555
1955	1,293,855.69	1,082,219	1,096,755	391,179	16.36	23,911
1956	1,178,902.86	975,223	988,322	367,416	16.84	21,818
1957	1,586,495.86	1,297,800	1,315,231	509,239	17.32	29,402
1958	15,987.39	12,925	13,099	5,286	17.82	297
1959	595,989.03	476,118	482,513	202,874	18.32	11,074
1960	350,377.01	276,412	280,125	122,809	18.84	6,519
1961	519,477.18	404,636	410,071	187,328	19.36	9,676
1962	358,532.14	275,560	279,261	133,051	19.90	6,686
1963	992,783.17	752,757	762,868	378,833	20.44	18,534
1964	1,103,159.69	824,612	835,688	432,946	21.00	20,616
1965	992,755.06	731,433	741,257	400,411	21.56	18,572
1966	768,602.09	557,736	565,227	318,665	22.14	14,393
1967	284,326.58	203,160	205,889	121,087	22.72	5,330
1968	456,958.19	321,344	325,660	199,842	23.31	8,573
1969	2,819,648.41	1,949,870	1,976,060	1,266,536	23.92	52,949
1970	1,956,880.52	1,330,376	1,348,245	902,168	24.53	36,778
1971	3,018,845.94	2,016,452	2,043,536	1,428,137	25.15	56,785
1972	1,533,551.57	1,005,825	1,019,335	744,249	25.78	28,869
1973	838,327.57	539,719	546,968	417,109	26.41	15,794
1974	1,647,063.80	1,039,874	1,053,841	840,282	27.06	31,053
1975	1,309,959.20	810,728	821,617	684,836	27.71	24,714
1976	468,961.96	284,214	288,031	251,275	28.38	8,854
1977	7,943,911.51	4,712,364	4,775,658	4,359,840	29.05	150,081
1978	2,083,272.53	1,208,663	1,224,897	1,170,866	29.73	39,383
1979	3,795,491.58	2,151,854	2,180,756	2,184,059	30.42	71,797
1980	6,499,049.23	3,598,686	3,647,021	3,826,886	31.11	123,011

#### ACCOUNT 353.1 STATION EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVI	VOR CURVE IOWA	60-R2				
	ALVAGE PERCENT					
1981	3,247,892.39	1,754,851	1,778,421	1,956,655	31.81	61,511
1982	9,635,152.70	5,074,835	5,142,997	5,937,429	32.52	182,578
1983	1,605,263.83	823,340	834,399	1,011,654	33.24	30,435
1984	3,100,245.72	1,546,727	1,567,502	1,997,781	33.97	58,810
1985	6,924,282.01	3,357,726	3,402,825	4,560,099	34.70	131,415
1986	408,753.93	192,413	194,997	275,070	35.44	7,762
1987	322,854.77	147,336	149,315	221,968	36.19	6,133
1988	2,290,454.44	1,012,334	1,025,931	1,608,092	36.94	43,533
1989	1,656,388.49	707,974	717,483	1,187,364	37.70	31,495
1990	1,380,098.71	569,504	577,153	1,009,961	38.47	26,253
1991	1,158,687.52	460,815	467,004	865,487	39.25	22,051
1992	7,182,903.62	2,749,289	2,786,216	5,474,123	40.03	136,751
1993	2,367,410.60	870,744	882,439	1,840,083	40.81	45,089
1994	1,521,675.18	536,352	543,556	1,206,370	41.61	28,992
1995	3,696,636.77	1,246,304	1,263,044	2,988,088	42.41	70,457
1996	2,312,766.67	744,259	754,255	1,905,427	43.21	44,097
1997	3,894,099.17	1,192,683	1,208,703	3,269,511	44.02	74,273
1998	3,843,836.90	1,116,906	1,131,908	3,288,504	44.84	73,339
1999	1,059,125.44	290,894	294,801	923,193	45.67	20,214
2000	3,361,549.26	870,458	882,150	2,983,632	46.49	64,178
2001	156,600.10	38,030	38,541	141,549	47.33	2,991
2002	698,980.26	158,491	160,620	643,207	48.17	13,353
2003	13,062,138.98	2,751,481	2,788,437	12,233,023	49.01	249,603
2004	2,377,597.37	461,621	467,821	2,266,416	49.87	45,446
2005	3,340,402.36	594,159	602,139	3,239,324	50.72	63,867
2006	2,976,240.72	480,304	486,755	2,935,922	51.58	56,920
2007	2,708,418.47	391,920	397,184	2,717,497	52.45	51,811
2008	6,520,763.07	834,850	846,063	6,652,815	53.32	124,771
2009	10,938,738.65	1,216,065	1,232,399	11,347,150	54.20	209,357
2010	10,711,770.63	1,010,120	1,023,687	11,294,849	55.08	205,063
2011	7,037,833.48	544,936	552,255	7,541,254	55.96	134,762
2012	35,675,668.49	2,153,918	2,182,849	38,844,170	56.85	683,275
2013	13,590,385.40	586,085	593,957	15,034,986	57.75	260,346
2014	23,688,207.28	617,563	625,858	26,615,580	58.64	453,881
2015	14,899,307.63	128,507	130,233	17,003,971	59.55	285,541
	257,735,637.27	69,507,481	70,441,066	225,954,917		4,908,788

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 46.0 1.90

## ACCOUNT 353.2 STATION EQUIPMENT - SYSTEM CONTROL/COMMUNICATION

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SIIRVIVO	R CURVE IOWA	45-D2				
	VAGE PERCENT					
0.115	THE I DREDNI	13				
1956	47,196.60	46,050	54,276			
1957	4,105.00	3,972	4,721			
1958	16,541.06	15,865	19,022			
1959	668.56	635	769			
1963	18.00	16	21			
1964	520.00	470	598			
1965	4,631.00	4,139	5,326			
1966	126.37	112	145			
1969	12,502.99	10,624	14,378			
1970	395.87	332	455			
1971	595.00	491	684			
1972	279.00	227	321			
1974	20,933.98	16,483	24,074			
1975	119,759.61	92,673	137,724			
1976	17,902.00	13,606	20,587			
1977	1,712.00	1,277	1,969			
1978	17,378.00	12,706	19,985			
1979	4,878.00	3,494	5,610			
1980	38,794.04	27,204	44,613			
1981	1,017.00	698	1,170			
1982	1,475.00	988	1,696			
1984	158,135.22	100,828	181,856			
1985	39,869.71	24,759	45,850			
1988	1,170.11	666	1,346			
1989	2,677.45	1,477	3,079			
1990	23,387.00	12,473	26,895			
1991 1992	51,555.00	26,561	59,288			
1992	424,824.23 7,293.25	210,945	488,548			
1994	1,060,360.12	3,485 486,412	8,387			
1995	846,562.36	372,109	1,219,414 973,547			
1996	69,429.47	29,152	79,844			
1997	1,379,250.62	551,976	1,586,138			
1998	1,310,019.29	498,162	1,506,522			
1999	43,011.56	15,487	49,463			
2001	142,678.00	45,542	164,080			
2002	355,960.00	106,252	409,354			
2003	340,447.80	94,398	391,514			
	,	,	,			
	6,568,060.27	2,832,746	7,553,269			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00



#### ACCOUNT 354 TOWERS AND FIXTURES

(1) (2) (3) (4) (5) (6) (7)  SURVIVOR CURVE. IOWA 70-R4 NET SALVAGE PERCENT40  1941 411,762.97 507,621 576,468 1942 1,388.10 1,700 1,943 1949 360,382.06 417,972 497,439 7,096 12.01 591 1951 20,488.00 23,295 27,724 959 13.15 73 1953 20,743.65 23,075 27,462 1,579 14.38 110 1956 19,906.16 21,367 25,429 2,440 16.33 149 1958 986,158.80 1,031,518 1,227,636 152,986 17.70 8,643 1959 17,524.00 18,088 21,527 3,007 18.39 164 1960 16,344.36 16,638 19,801 3,081 19.10 161 1961 630,143.58 632,538 752,800 129,401 19.81 6,532 1962 252,963.20 250,231 297,806 56,432 20.54 2,743 1963 276,404.84 269,329 320,535 66,432 20.54 2,743 1963 276,404.84 269,329 320,535 66,432 20.54 2,743 1964 49,946.80 47,919 57,030 12,896 22.03 585 1965 56,872.95 53,711 63,923 15,699 22.78 689 1966 72,558.00 67,406 80,222 21,359 23.55 907 1967 140,496.00 128,329 152,728 43,966 24.33 1,807 1969 503,586.20 443,860 528,249 176,772 25.93 6,817 1970 2,450,234.08 2,119,943 2,522,999 907,329 26.74 33,932 1971 1,216,527.88 1,032,596 1,228,919 474,220 27,56 17,207 1972 272,111.12 226,451 269,505 111,451 28.39 3,926 1973 977,622.68 797,155 948,715 419,957 29,23 14,367 1976 465,378.15 355,364 422,928 228,601 31.82 7,184 1977 971,068.22 724,421 862,152 497,344 32.70 15,209 1978 5,770,262.52 4,201,882 5,000,769 3,077,599 33.59 91,622
NET SALVAGE PERCENT40  1941
NET SALVAGE PERCENT40  1941
1942         1,388.10         1,700         1,943           1949         360,382.06         417,972         497,439         7,096         12.01         591           1951         20,488.00         23,295         27,724         959         13.15         73           1953         20,743.65         23,075         27,462         1,579         14.38         110           1956         19,906.16         21,367         25,429         2,440         16.33         149           1958         986,158.80         1,031,518         1,227,636         152,986         17.70         8,643           1959         17,524.00         18,088         21,527         3,007         18.39         164           1960         16,344.36         16,638         19,801         3,081         19.10         161           1961         630,143.58         632,538         752,800         129,401         19.81         6,532           1962         252,963.20         250,231         297,806         56,342         20.54         2,743           1963         276,404.84         269,329         320,535         66,432         21.28         3,122           1964         49,946.80         4
1949     360,382.06     417,972     497,439     7,096     12.01     591       1951     20,488.00     23,295     27,724     959     13.15     73       1953     20,743.65     23,075     27,462     1,579     14.38     110       1956     19,906.16     21,367     25,429     2,440     16.33     149       1958     986,158.80     1,031,518     1,227,636     152,986     17.70     8,643       1959     17,524.00     18,088     21,527     3,007     18.39     164       1960     16,344.36     16,638     19,801     3,081     19,10     161       1961     630,143.58     632,538     752,800     129,401     19.81     6,532       1962     252,963.20     250,231     297,806     56,342     20.54     2,743       1963     276,404.84     269,329     320,535     66,432     21.28     3,122       1964     49,946.80     47,919     57,030     12,896     22.03     585       1965     56,872.95     53,711     63,923     15,699     22.78     689       1966     72,558.00     67,406     80,222     21,359     23.55     907       1969     503,586.20
1951       20,488.00       23,295       27,724       959       13.15       73         1953       20,743.65       23,075       27,462       1,579       14.38       110         1956       19,906.16       21,367       25,429       2,440       16.33       149         1958       986,158.80       1,031,518       1,227,636       152,986       17.70       8,643         1959       17,524.00       18,088       21,527       3,007       18.39       164         1960       16,344.36       16,638       19,801       3,081       19.10       161         1961       630,143.58       632,538       752,800       129,401       19.81       6,532         1962       252,963.20       250,231       297,806       56,342       20.54       2,743         1963       276,404.84       269,329       320,535       66,432       21.28       3,122         1964       49,946.80       47,919       57,030       12,896       22.03       585         1965       56,872.95       53,711       63,923       15,699       22.78       689         1966       72,558.00       67,406       80,222       21,359       23.55
1953         20,743.65         23,075         27,462         1,579         14.38         110           1956         19,906.16         21,367         25,429         2,440         16.33         149           1958         986,158.80         1,031,518         1,227,636         152,986         17.70         8,643           1959         17,524.00         18,088         21,527         3,007         18.39         164           1960         16,344.36         16,638         19,801         3,081         19.10         161           1961         630,143.58         632,538         752,800         129,401         19.81         6,532           1962         252,963.20         250,231         297,806         56,342         20.54         2,743           1963         276,404.84         269,329         320,535         66,432         21.28         3,122           1964         49,946.80         47,919         57,030         12,896         22.03         585           1965         56,872.95         53,711         63,923         15,699         22.78         689           1966         72,558.00         67,406         80,222         21,359         23.55         907
1956         19,906.16         21,367         25,429         2,440         16.33         149           1958         986,158.80         1,031,518         1,227,636         152,986         17.70         8,643           1959         17,524.00         18,088         21,527         3,007         18.39         164           1960         16,344.36         16,638         19,801         3,081         19.10         161           1961         630,143.58         632,538         752,800         129,401         19.81         6,532           1962         252,963.20         250,231         297,806         56,342         20.54         2,743           1963         276,404.84         269,329         320,535         66,432         21.28         3,122           1964         49,946.80         47,919         57,030         12,896         22.03         585           1965         56,872.95         53,711         63,923         15,699         22.78         689           1966         72,558.00         67,406         80,222         21,355         907           1967         140,496.00         128,329         152,728         43,966         24.33         1,807
1958       986,158.80       1,031,518       1,227,636       152,986       17.70       8,643         1959       17,524.00       18,088       21,527       3,007       18.39       164         1960       16,344.36       16,638       19,801       3,081       19.10       161         1961       630,143.58       632,538       752,800       129,401       19.81       6,532         1962       252,963.20       250,231       297,806       56,342       20.54       2,743         1963       276,404.84       269,329       320,535       66,432       21.28       3,122         1964       49,946.80       47,919       57,030       12,896       22.03       585         1965       56,872.95       53,711       63,923       15,699       22.78       689         1966       72,558.00       67,406       80,222       21,359       23.55       907         1967       140,496.00       128,329       152,728       43,966       24.33       1,807         1970       2,450,234.08       2,119,943       2,522,999       907,329       26.74       33,932         1971       1,216,527.88       1,032,596       1,228,919       474,2
1959       17,524.00       18,088       21,527       3,007       18.39       164         1960       16,344.36       16,638       19,801       3,081       19.10       161         1961       630,143.58       632,538       752,800       129,401       19.81       6,532         1962       252,963.20       250,231       297,806       56,342       20.54       2,743         1963       276,404.84       269,329       320,535       66,432       21.28       3,122         1964       49,946.80       47,919       57,030       12,896       22.03       585         1965       56,872.95       53,711       63,923       15,699       22.78       689         1966       72,558.00       67,406       80,222       21,359       23.55       907         1967       140,496.00       128,329       152,728       43,966       24.33       1,807         1970       2,450,234.08       2,119,943       2,522,999       907,329       26.74       33,932         1971       1,216,527.88       1,032,596       1,228,919       474,220       27.56       17,207         1972       272,111.12       226,451       269,505       111,451<
1960       16,344.36       16,638       19,801       3,081       19.10       161         1961       630,143.58       632,538       752,800       129,401       19.81       6,532         1962       252,963.20       250,231       297,806       56,342       20.54       2,743         1963       276,404.84       269,329       320,535       66,432       21.28       3,122         1964       49,946.80       47,919       57,030       12,896       22.03       585         1965       56,872.95       53,711       63,923       15,699       22.78       689         1966       72,558.00       67,406       80,222       21,359       23.55       907         1967       140,496.00       128,329       152,728       43,966       24.33       1,807         1969       503,586.20       443,860       528,249       176,772       25.93       6,817         1970       2,450,234.08       2,119,943       2,522,999       907,329       26.74       33,932         1971       1,216,527.88       1,032,596       1,228,919       474,220       27.56       17,206         1973       977,622.68       797,155       948,715       4
1961       630,143.58       632,538       752,800       129,401       19.81       6,532         1962       252,963.20       250,231       297,806       56,342       20.54       2,743         1963       276,404.84       269,329       320,535       66,432       21.28       3,122         1964       49,946.80       47,919       57,030       12,896       22.03       585         1965       56,872.95       53,711       63,923       15,699       22.78       689         1966       72,558.00       67,406       80,222       21,359       23.55       907         1967       140,496.00       128,329       152,728       43,966       24.33       1,807         1969       503,586.20       443,860       528,249       176,772       25.93       6,817         1970       2,450,234.08       2,119,943       2,522,999       907,329       26.74       33,932         1971       1,216,527.88       1,032,596       1,228,919       474,220       27.56       17,207         1972       272,111.12       226,451       269,505       111,451       28.39       3,926         1974       226,225.99       180,573       214,905
1962       252,963.20       250,231       297,806       56,342       20.54       2,743         1963       276,404.84       269,329       320,535       66,432       21.28       3,122         1964       49,946.80       47,919       57,030       12,896       22.03       585         1965       56,872.95       53,711       63,923       15,699       22.78       689         1966       72,558.00       67,406       80,222       21,359       23.55       907         1967       140,496.00       128,329       152,728       43,966       24.33       1,807         1969       503,586.20       443,860       528,249       176,772       25.93       6,817         1970       2,450,234.08       2,119,943       2,522,999       907,329       26.74       33,932         1971       1,216,527.88       1,032,596       1,228,919       474,220       27.56       17,207         1972       272,111.12       226,451       269,505       111,451       28.39       3,926         1973       977,622.68       797,155       948,715       419,957       29.23       14,367         1974       226,225.99       180,573       214,905
1963       276,404.84       269,329       320,535       66,432       21.28       3,122         1964       49,946.80       47,919       57,030       12,896       22.03       585         1965       56,872.95       53,711       63,923       15,699       22.78       689         1966       72,558.00       67,406       80,222       21,359       23.55       907         1967       140,496.00       128,329       152,728       43,966       24.33       1,807         1969       503,586.20       443,860       528,249       176,772       25.93       6,817         1970       2,450,234.08       2,119,943       2,522,999       907,329       26.74       33,932         1971       1,216,527.88       1,032,596       1,228,919       474,220       27.56       17,207         1972       272,111.12       226,451       269,505       111,451       28.39       3,926         1973       977,622.68       797,155       948,715       419,957       29.23       14,367         1974       226,225.99       180,573       214,905       101,811       30.09       3,384         1975       192,029.00       149,975       178,489
1964       49,946.80       47,919       57,030       12,896       22.03       585         1965       56,872.95       53,711       63,923       15,699       22.78       689         1966       72,558.00       67,406       80,222       21,359       23.55       907         1967       140,496.00       128,329       152,728       43,966       24.33       1,807         1969       503,586.20       443,860       528,249       176,772       25.93       6,817         1970       2,450,234.08       2,119,943       2,522,999       907,329       26.74       33,932         1971       1,216,527.88       1,032,596       1,228,919       474,220       27.56       17,207         1972       272,111.12       226,451       269,505       111,451       28.39       3,926         1973       977,622.68       797,155       948,715       419,957       29.23       14,367         1974       226,225.99       180,573       214,905       101,811       30.09       3,384         1975       192,029.00       149,975       178,489       90,352       30.95       2,919         1976       465,378.15       355,364       422,928
1965       56,872.95       53,711       63,923       15,699       22.78       689         1966       72,558.00       67,406       80,222       21,359       23.55       907         1967       140,496.00       128,329       152,728       43,966       24.33       1,807         1969       503,586.20       443,860       528,249       176,772       25.93       6,817         1970       2,450,234.08       2,119,943       2,522,999       907,329       26.74       33,932         1971       1,216,527.88       1,032,596       1,228,919       474,220       27.56       17,207         1972       272,111.12       226,451       269,505       111,451       28.39       3,926         1973       977,622.68       797,155       948,715       419,957       29.23       14,367         1974       226,225.99       180,573       214,905       101,811       30.09       3,384         1975       192,029.00       149,975       178,489       90,352       30.95       2,919         1976       465,378.15       355,364       422,928       228,601       31.82       7,184         1977       971,068.22       724,421       862,152 </td
1966       72,558.00       67,406       80,222       21,359       23.55       907         1967       140,496.00       128,329       152,728       43,966       24.33       1,807         1969       503,586.20       443,860       528,249       176,772       25.93       6,817         1970       2,450,234.08       2,119,943       2,522,999       907,329       26.74       33,932         1971       1,216,527.88       1,032,596       1,228,919       474,220       27.56       17,207         1972       272,111.12       226,451       269,505       111,451       28.39       3,926         1973       977,622.68       797,155       948,715       419,957       29.23       14,367         1974       226,225.99       180,573       214,905       101,811       30.09       3,384         1975       192,029.00       149,975       178,489       90,352       30.95       2,919         1976       465,378.15       355,364       422,928       228,601       31.82       7,184         1977       971,068.22       724,421       862,152       497,344       32.70       15,209         1978       5,770,262.52       4,201,882 <t< td=""></t<>
1967       140,496.00       128,329       152,728       43,966       24.33       1,807         1969       503,586.20       443,860       528,249       176,772       25.93       6,817         1970       2,450,234.08       2,119,943       2,522,999       907,329       26.74       33,932         1971       1,216,527.88       1,032,596       1,228,919       474,220       27.56       17,207         1972       272,111.12       226,451       269,505       111,451       28.39       3,926         1973       977,622.68       797,155       948,715       419,957       29.23       14,367         1974       226,225.99       180,573       214,905       101,811       30.09       3,384         1975       192,029.00       149,975       178,489       90,352       30.95       2,919         1976       465,378.15       355,364       422,928       228,601       31.82       7,184         1977       971,068.22       724,421       862,152       497,344       32.70       15,209         1978       5,770,262.52       4,201,882       5,000,769       3,077,599       33.59       91,622         1979       105,174.77       74,716
1969     503,586.20     443,860     528,249     176,772     25.93     6,817       1970     2,450,234.08     2,119,943     2,522,999     907,329     26.74     33,932       1971     1,216,527.88     1,032,596     1,228,919     474,220     27.56     17,207       1972     272,111.12     226,451     269,505     111,451     28.39     3,926       1973     977,622.68     797,155     948,715     419,957     29.23     14,367       1974     226,225.99     180,573     214,905     101,811     30.09     3,384       1975     192,029.00     149,975     178,489     90,352     30.95     2,919       1976     465,378.15     355,364     422,928     228,601     31.82     7,184       1977     971,068.22     724,421     862,152     497,344     32.70     15,209       1978     5,770,262.52     4,201,882     5,000,769     3,077,599     33.59     91,622       1979     105,174.77     74,716     88,921     58,324     34.48     1,692
1970       2,450,234.08       2,119,943       2,522,999       907,329       26.74       33,932         1971       1,216,527.88       1,032,596       1,228,919       474,220       27.56       17,207         1972       272,111.12       226,451       269,505       111,451       28.39       3,926         1973       977,622.68       797,155       948,715       419,957       29.23       14,367         1974       226,225.99       180,573       214,905       101,811       30.09       3,384         1975       192,029.00       149,975       178,489       90,352       30.95       2,919         1976       465,378.15       355,364       422,928       228,601       31.82       7,184         1977       971,068.22       724,421       862,152       497,344       32.70       15,209         1978       5,770,262.52       4,201,882       5,000,769       3,077,599       33.59       91,622         1979       105,174.77       74,716       88,921       58,324       34.48       1,692
1971     1,216,527.88     1,032,596     1,228,919     474,220     27.56     17,207       1972     272,111.12     226,451     269,505     111,451     28.39     3,926       1973     977,622.68     797,155     948,715     419,957     29.23     14,367       1974     226,225.99     180,573     214,905     101,811     30.09     3,384       1975     192,029.00     149,975     178,489     90,352     30.95     2,919       1976     465,378.15     355,364     422,928     228,601     31.82     7,184       1977     971,068.22     724,421     862,152     497,344     32.70     15,209       1978     5,770,262.52     4,201,882     5,000,769     3,077,599     33.59     91,622       1979     105,174.77     74,716     88,921     58,324     34.48     1,692
1972     272,111.12     226,451     269,505     111,451     28.39     3,926       1973     977,622.68     797,155     948,715     419,957     29.23     14,367       1974     226,225.99     180,573     214,905     101,811     30.09     3,384       1975     192,029.00     149,975     178,489     90,352     30.95     2,919       1976     465,378.15     355,364     422,928     228,601     31.82     7,184       1977     971,068.22     724,421     862,152     497,344     32.70     15,209       1978     5,770,262.52     4,201,882     5,000,769     3,077,599     33.59     91,622       1979     105,174.77     74,716     88,921     58,324     34.48     1,692
1973     977,622.68     797,155     948,715     419,957     29.23     14,367       1974     226,225.99     180,573     214,905     101,811     30.09     3,384       1975     192,029.00     149,975     178,489     90,352     30.95     2,919       1976     465,378.15     355,364     422,928     228,601     31.82     7,184       1977     971,068.22     724,421     862,152     497,344     32.70     15,209       1978     5,770,262.52     4,201,882     5,000,769     3,077,599     33.59     91,622       1979     105,174.77     74,716     88,921     58,324     34.48     1,692
1974     226,225.99     180,573     214,905     101,811     30.09     3,384       1975     192,029.00     149,975     178,489     90,352     30.95     2,919       1976     465,378.15     355,364     422,928     228,601     31.82     7,184       1977     971,068.22     724,421     862,152     497,344     32.70     15,209       1978     5,770,262.52     4,201,882     5,000,769     3,077,599     33.59     91,622       1979     105,174.77     74,716     88,921     58,324     34.48     1,692
1975     192,029.00     149,975     178,489     90,352     30.95     2,919       1976     465,378.15     355,364     422,928     228,601     31.82     7,184       1977     971,068.22     724,421     862,152     497,344     32.70     15,209       1978     5,770,262.52     4,201,882     5,000,769     3,077,599     33.59     91,622       1979     105,174.77     74,716     88,921     58,324     34.48     1,692
1976     465,378.15     355,364     422,928     228,601     31.82     7,184       1977     971,068.22     724,421     862,152     497,344     32.70     15,209       1978     5,770,262.52     4,201,882     5,000,769     3,077,599     33.59     91,622       1979     105,174.77     74,716     88,921     58,324     34.48     1,692
1977     971,068.22     724,421     862,152     497,344     32.70     15,209       1978     5,770,262.52     4,201,882     5,000,769     3,077,599     33.59     91,622       1979     105,174.77     74,716     88,921     58,324     34.48     1,692
1978     5,770,262.52     4,201,882     5,000,769     3,077,599     33.59     91,622       1979     105,174.77     74,716     88,921     58,324     34.48     1,692
1979 105,174.77 74,716 88,921 58,324 34.48 1,692
, , , , , , , , , , , , , , , , , , , ,
1000 10 600 000 00 00 600 10 000 10 000
1980 12,532,292.00 8,674,878 10,324,197 7,221,012 35.39 204,041
1981 138,335.27 93,238 110,965 82,704 36.30 2,278
1982 6,445,195.05 4,225,509 5,028,888 3,994,385 37.22 107,318
1984 9,911,845.74 6,131,507 7,297,266 6,579,318 39.07 168,398
1985 4,464,870.00 2,678,038 3,187,202 3,063,616 40.01 76,571
1986 1,888,194.87 1,097,041 1,305,617 1,337,856 40.95 32,670
1987 1,778,980.00 999,790 1,189,876 1,300,696 41.90 31,043
1988 11,777.06 6,393 7,608 8,880 42.86 207
1989 1,632,118.38 854,897 1,017,435 1,267,531 43.81 28,932
1990 238,275.00 120,187 143,038 190,547 44.78 4,255
1992 44,670.00 20,807 24,763 37,775 46.71 809
1994 0.01
1996 108,099.00 41,900 49,866 101,473 50.62 2,005
1997 1,549,505.00 570,224 678,639 1,490,668 51.60 28,889
1999 106,700.00 35,061 41,727 107,653 53.57 2,010

#### ACCOUNT 354 TOWERS AND FIXTURES

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
2000	30,847.86	9,526	11,337	31,850	54.56	584
2001	42,618.00	12,317	14,659	45,006	55.55	810
2002	452,193.36	121,733	144,878	488,193	56.54	8,634
2003	2,222,893.40	553,945	659,264	2,452,787	57.54	42,628
2004	831,149.91	190,669	226,920	936,690	58.53	16,004
2005	1,603.60	336	400	1,845	59.52	31
2009	1,570,011.47	203,778	242,521	1,955,495	63.51	30,790
2010	841,844.22	92,436	110,011	1,068,571	64.51	16,564
2011	61,080.35	5,485	6,528	78,984	65.51	1,206
2012	8,105,126.65	567,359	675,228	10,671,949	66.50	160,480
2013	3,112,137.44	155,588	185,170	4,171,822	67.50	61,805
2014	895,946.95	26,880	31,990	1,222,336	68.50	17,844
2015	900,683.97	9,003	10,715	1,250,243	69.50	17,989
	76,403,298.64	41,316,198	49,143,732	57,820,886		1,289,330

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 44.8 1.69

#### ACCOUNT 355 POLES AND FIXTURES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA					
	LVAGE PERCENT					
1941	49,501.34	72,439	79,128	7,499	9.50	789
1942	23,167.41	33,672	36,781	3,762	9.83	383
1943	8,711.34	12,572	13,733	1,512	10.17	149
1944	278.28	399	436	51	10.52	5
1945	3,917.29	5,571	6,085	770	10.87	71
1946	2,071.16	2,923	3,193	432	11.23	38
1947	43,007.56	60,211	65,771	9,492	11.60	818
1948	9,448.45	13,120	14,331	2,204	11.98	184
1949	72,294.42	99,555	108,748	17,767	12.36	1,437
1950	4,479.31	6,114	6,679	1,160	12.76	91
1951	143,235.10	193,744	211,634	39,027	13.17	2,963
1952	78,634.67	105,391	115,122	22,489	13.58	1,656
1953	210,762.63	279,743	305,574	63,261	14.01	4,515
1954	14,385.25	18,907	20,653	4,521	14.44	313
1955	245,747.30	319,653	349,169	80,889	14.89	5,432
1956	178,925.18	230,305	251,571	61,548	15.34	4,012
1957	52,287.22	66,560	72,706	18,797	15.81	1,189
1958	373,755.56	470,481	513,924	140,148	16.28	8,609
1959	410,130.07	510,204	557,315	160,413	16.77	9,565
1960	320,076.26	393,348	429,668	130,465	17.27	7,554
1961	369,663.62	448,711	490,144	156,767	17.77	8,822
1962	231,678.89	277,587	303,218	102,220	18.29	5,589
1963	537,569.39	635,493	694,172	246,574	18.82	13,102
1964	333,354.15	388,746	424,642	158,728	19.35	8,203
1965	602,793.34	692,956	756,941	297,947	19.90	14,972
1966	565,212.28	640,199	699,313	289,808	20.46	14,165
1967	792,125.50	883,590	965,178	421,042	21.03	20,021
1968	245,101.70	269,191	294,047	134,881	21.60	6,244
1969	1,649,051.79	1,781,747	1,946,268	939,573	22.19	42,342
1970	803,293.08	853,396	932,196	473,567	22.79	20,780
1971	601,618.65	628,246	686,256	366,577	23.39	15,672
1972	1,122,083.06	1,150,755	1,257,012	706,633	24.01	29,431
1973	2,519,769.01	2,537,017	2,771,277	1,638,319	24.63	66,517
1974	1,134,205.72	1,120,076	1,223,500	761,360	25.27	30,129
1975	1,011,951.71	979,812	1,070,285	700,630	25.91	27,041
1976	1,561,506.76	1,481,280	1,618,057	1,114,580	26.56	41,965
1977	638,078.25	592,588	647,306	469,331	27.22	17,242
1978	1,361,062.08	1,236,518	1,350,694	1,031,165	27.89	36,973
1979	1,340,209.40	1,190,062	1,299,948	1,045,418	28.57	36,591 32,513
1980	1,185,133.59	1,028,053	1,122,980	951,004	29.25	54,041
1981	1,960,635.57	1,659,355	1,812,574	1,618,538	29.95	
1982	1,408,631.89	1,162,421	1,269,755	1,195,351	30.65	39,000

#### ACCOUNT 355 POLES AND FIXTURES

## CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
GUDUT	TOUR CURVES TOUR	E0 B0				
	VOR CURVE IOWA					
NEI 5	ALVAGE PERCENT	- /5				
1983	1,440,317.61	1,157,716	1,264,616	1,255,940	31.36	40,049
1984	2,273,009.79	1,777,664	1,941,808	2,035,959	32.08	63,465
1985	1,580,351.03	1,201,604	1,312,556	1,453,058	32.80	44,301
1986	3,527,168.76	2,604,197	2,844,660	3,327,885	33.53	99,251
1987	590,855.70	423,050	462,113	571,884	34.27	16,688
1988	2,372,872.15	1,645,272	1,797,191	2,355,335	35.02	67,257
1989	2,317,960.70	1,554,019	1,697,512	2,358,919	35.78	65,928
1990	1,505,268.28	974,661	1,064,658	1,569,561	36,54	42,955
1991	1,468,700.81	916,851	1,001,510	1,568,716	37.31	42,045
1992	2,489,377.34	1,496,209	1,634,364	2,722,046	38.08	71,482
1993	707,926.13	408,827	446,577	792,294	38.86	20,388
1994	1,419,981.90	786,194	858,789	1,626,179	39.65	41,013
1995	2,994,768.95	1,585,827	1,732,257	3,508,589	40.45	86,739
1996	3,231,991.65	1,633,392	1,784,214	3,871,771	41.25	93,861
1997	2,553,646.78	1,228,183	1,341,589	3,127,293	42.06	74,353
1998	2,053,898.99	937,615	1,024,191	2,570,132	42.87	59,952
1999	3,471,370.10	1,498,799	1,637,193	4,437,705	43.69	101,573
2000	1,032,772.53	420,047	458,833	1,348,519	44.52	30,290
2001	3,399,636.14	1,297,556	1,417,368	4,531,995	45.35	99,934
2002	1,384,479.67	493,339	538,892	1,883,947	46.19	40,787
2003	6,370,205.61	2,108,506	2,303,199	8,844,661	47.03	188,064
2004	1,508,743.00	460,680	503,218	2,137,082	47.88	44,634
2005	6,460,010.00	1,806,881	1,973,722	9,331,296	48.73	191,490
2006	2,936,712.52	745,191	814,000	4,325,247	49.59	87,220
2007	8,318,033.57	1,892,353	2,067,087	12,489,472	50.46	247,512
2008	1,876,246.58	378,153	413,070	2,870,362	51.32	55,931
2009	15,459,085.06	2,705,340	2,955,142	24,098,257	52.20	461,652
2010	8,925,672.90	1,325,038	1,447,388	14,172,540	53.08	267,003
2011	5,709,054.76	695,962	760,225	9,230,621	53.96	171,064
2012	45,400,179.38	4,314,947	4,713,375	74,736,939	54.85	1,362,570
2013	11,920,916.11	809,222	883,943	19,977,660	55.75	358,344
2014	12,994,487.43	533,261	582,500	22,157,853	56.64	391,205
2015	34,884,598.58	473,733	517,476	60,530,572	57.55	1,051,791
	228,799,845.74	66,823,000	72,993,220	327,406,510		6,711,919

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 48.8 2.93

### ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
1941	624,600.94	936,833	1,005,979	87,073	9.29	9,373
1942	70,238.60	104,707	112,435	10,483	9.63	1,089
1943	16,512.85	24,456	26,261	2,636	9.99	264
1944	222.83	328	352	38	10.36	4
1945	6,864.73	10,027	10,767	1,246	10.75	116
1946	20,588.38	29,849	32,052	3,978	11.15	357
1947	214,275.52	308,292	331,047	43,935	11.56	3,801
1948	47,452.06	67,723	72,722	10,319	11.99	861
1949	1,225,264.33	1,734,175	1,862,172	282,041	12.43	22,690
1950	88,276.76	123,873	133,016	21,468	12.88	1,667
1951	478,658.06	665,615	714,743	122,909	13.35	9,207
1952	253,646.28	349,370	375,156	68,725	13.84	4,966
1953	1,162,064.09	1,585,282	1,702,289	331,323	14.33	23,121
1954	174,476.23	235,577	252,965	52,368	14.85	3,526
1955	608,653.13	813,109	873,123	192,020	15.38	12,485
1956	937,573.94	1,238,901	1,330,342	310,412	15.92	19,498
1957	123,937.58	161,900	173,850	43,041	16.48	2,612
1958	1,887,154.10	2,436,236	2,616,051	686,469	17.05	40,262
1959	772,716.10	985,482	1,058,219	294,034	17.63	16,678
1960	576,221.76	725,576	779,130	229,258	18.23	12,576
1961	1,158,183.34	1,439,347	1,545,583	481,238	18.84	25,543
1962	577,895.63	708,549	760,846	250,471	19.46	12,871
1963	1,448,584.98	1,751,118	1,880,365	654,659	20.10	32,570
1964	971,917.59	1,157,892	1,243,354	457,502	20.75	22,048
1965 1966	1,262,198.14 1,602,269.72	1,481,297	1,590,629	618,218	21.41	28,875
1967	916,997.36	1,851,491 1,042,844	1,988,147 1,119,815	815,825 484,930	22.08 22.76	36,949
1968	297,658.29	332,976	357,552	163,350	23.45	21,306 6,966
1969	2,269,124.29	2,494,999	2,679,151	1,291,817	24.16	53,469
1970	3,221,341.14	3,480,385	3,737,267	1,900,080	24.87	76,400
1971	1,738,361.40	1,844,475	1,980,613	1,061,519	25.59	41,482
1972	1,856,575.22	1,932,899	2,075,563	1,173,444	26.33	44,567
1973	3,238,666.32	3,307,310	3,551,417	2,116,249	27.07	78,177
1974	991,690.21	992,682	1,065,950	669,508	27.82	24,066
1975	1,317,277.75	1,291,647	1,386,981	918,255	28.58	32,129
1976	2,506,725.98	2,405,968	2,583,549	1,803,221	29.35	61,439
1977	1,621,233.45	1,522,022	1,634,360	1,202,799	30.13	39,920
1978	6,122,982.85	5,619,704	6,034,486	4,680,734	30.91	151,431
1979	2,003,773.68	1,795,907	1,928,460	1,578,144	31.71	49,768
1980	11,194,599.03	9,792,336	10,515,093	9,075,455	32.51	279,159
1981	4,221,188.75	3,600,315	3,866,049	3,521,031	33.32	105,673
1982	6,044,678.61	5,022,206	5,392,887	5,185,301	34.14	151,883
		•				

### ACCOUNT 356 OVERHEAD CONDUCTORS AND DEVICES

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVI	VOR CURVE IOWA	65-R3				
	ALVAGE PERCENT					
1121 0	IMVIOL LEROSHI	, 5				
1983	1,731,795.63	1,400,611	1,503,988	1,526,654	34.96	43,669
1984	7,376,631.79	5,799,158	6,227,185	6,681,921	35.80	186,646
1985	3,673,869.95	2,805,156	3,012,200	3,417,072	36.64	93,261
1986	5,144,212.24	3,810,074	4,091,290	4,911,081	37.49	130,997
1987	8,070,624.52	5,792,792	6,220,349	7,903,244	38.34	206,136
1988	1,683,670.65	1,169,053	1,255,339	1,691,085	39.21	43,129
1989	828,642.35	555,949	596,983	853,141	40.08	21,286
1990	1,292,730.03	837,043	898,824	1,363,454	40.95	33,296
1991	835,854.17	521,410	559,894	902,851	41.83	21,584
1992	2,015,043.28	1,208,719	1,297,933	2,228,393	42.72	52,163
1993	310,447.57	178,697	191,886	351,397	43.62	8,056
1994	1,172,361.60	646,428	694,140	1,357,493	44.52	30,492
1995	2,831,606.29	1,491,945	1,602,063	3,353,248	45.43	73,811
1996	2,053,849.85	1,031,834	1,107,992	2,486,245	46.34	53,652
1997	1,059,699.88	506,123	543,479	1,310,996	47.26	27,740
1998	1,575,075.94	713,269	765,914	1,990,469	48.18	41,313
1999	1,525,005.27	652,405	700,558	1,968,201	49.11	40,077
2000	1,770,196.87	712,504	765,093	2,332,752	50.05	46,608
2001	2,885,029.66	1,088,219	1,168,539	3,880,263	50.99	76,099
2002	715,884.24	251,913	270,506	982,291	51.93	18,916
2003	4,336,663.35	1,415,075	1,519,520	6,069,641	52.88	114,781
2004	838,350.06	252,123	270,732	1,196,381	53.83	22,225
2005	2,753,852.53	757,729	813,656	4,005,586	54.78	73,121
2006	1,458,250.35	363,549	390,382	2,161,556	55.74	38,779
2007	2,832,666.14	632,237	678,901	4,278,265	56.71	75,441
2008	835,594.27	164,902	177,073	1,285,217	57.67	22,286
2009	5,328,616.25	912,459	979,806	8,345,272	58.64	142,314
2010	6,679,746.54	969,298	1,040,841	10,648,715	59.61	178,640
2011	4,002,620.29	475,261	510,339	6,494,247	60.59	107,183
2012	12,390,049.23	1,147,442	1,232,133	20,450,453	61.56	332,204
2013	4,896,967.54	324,363	348,304	8,221,389	62.54	131,458
2014	4,262,613.58	169,854	182,391	7,277,183	63.52	114,565
2015	13,501,170.31	178,148	191,297	23,435,751	64.51	363,289
	178,542,714.22	106,341,422	114,190,318	198,259,432		4,527,061

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 43.8 2.54

### ACCOUNT 357 UNDERGROUND CONDUIT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA AGE PERCENT					
1962	16,102.50	14,212	15,803	300	5.87	51
1969	629.49	514	572	57	9.14	6
1972	1,023.52	798	887	137	11.00	12
1973	66,872.27	51,264	57,005	9,867	11.67	846
1974	1,183.38	891	991	192	12.35	16
1980	26,278.29	17,496	19,455	6,823	16.71	408
1984	275.00	165	183	92	19.92	5
1997	318,959.12	116,675	129,741	189,218	31.71	5,967
1998	449.82	156	173	277	32.67	8
1999	702.00	230	256	446	33.64	13
2002	3,451.41	926	1,030	2,421	36.58	66
2003	12,833.46	3,193	3,550	9,283	37.56	247
	448,760.26	206,520	229,646	219,114		7,645

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 28.7 1.70

### ACCOUNT 358 UNDERGROUND CONDUCTORS AND DEVICES

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA AGE PERCENT					
1962	13,218.53	12,062	13,219			
1969	87,624.88	75,576	87,625			
1972	15,875.19	13,268	15,875			
1973	78,405.34	64,743	78,405			
1974	136,383.31	111,186	136,383			
1980	204,862.86	151,496	204,863			
1982	13,871.63	9,842	13,872			
1984	2,212.12	1,499	2,210	2	12.89	
1988	123,767.49	75,282	110,986	12,781	15.67	816
1992	116,241.28	61,928	91,298	24,943	18.69	1,335
1997	313,023.53	134,757	198,667	114,357	22.78	5,020
2009	55,822.59	8,820	13,003	42,820	33.68	1,271
2015	11,994.57	147	217	11,778	39.51	298
:	1,173,303.32	720,606	966,623	206,680		8,740

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.6 0.74

### ACCOUNT 360.1 LAND RIGHTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVO	R CURVE IOWA	70-R4				
	VAGE PERCENT					
1941	373,772.94	329,133	373,773			
1942	41,173.38	36,027	41,173			
1943	911.00	792	911			
1944	850.00	734	850			
1945	2,100.00	1,799	2,100			
1946	3,262.00	2,774	3,262			
1947	4,434.00	3,739	4,434			
1948	3,258.00	2,724	3,258			
1949	4,314.00	3,574	4,314			
1950	59,904.00	49,147	59,904			
1951	18,663.00	15,157	18,663			
1952	27,550.00	22,134	27,550			
1953	33,233.00	26,406	33,233			
1954	24,267.00	19,060	24,267			
1955	40,298.35	31,277	40,298			
1956	21,633.00	16,586	21,633			
1957	19,771.00	14,967	19,771			
1958	27,040.00	20,203	27,040			
1959	19,357.00	14,272	19,357			
1960	33,627.00	24,452	33,627			
1961	18,106.00	12,982	18,106			
1962	10,562.32	7,463	10,562	3.00		_
1963	21,516.00	14,975	21,338	178	21.28	8
1964	20,398.00	13,979	19,919	479	22.03	22
1965	35,563.00	23,990	34,184	1,379	22.78	61
1966	5,187.00	3,442	4,905	282	23.55	12
1967	19,695.00	12,850	18,310	1,385	24.33	57
1968	15,350.00	9,841	14,023	1,327	25.12	53
1969	41,542.00	26,154	37,267	4,275	25.93	165
1970	24,874.00	15,372	21,904	2,970	26.74	111
1971	46,508.00	28,197	40,178	6,330	27.56	230
1972	16,301.00	9,690	13,807	2,494	28.39	88
1973	8,970.00	5,224	7,444	1,526	29.23	52
1974	43,465.00	24,781	35,311	8,154	30.09	271
1975	27,337.00	15,250	21,730	5,607	30.95	181
1976	6,205.00	3,384	4,822	1,383	31.82	43
1977	15,472.00	8,244	11,747	3,725	32.70	114
1978	17,820.00	9,269	13,207	4,613	33.59	137
1979	31,886.00	16,180	23,055	8,831	34.48 35.39	256
1980	10,670.00	5,276	7,518	3,152		89 16
1981	1,808.00	870 28,644	1,240	568 20.353	36.30 37.22	16 547
1982	61,168.00	20,011	40,815	20,353	31.22	24/

### ACCOUNT 360.1 LAND RIGHTS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA VAGE PERCENT					
1984	14,670.00	6,482	9,236	5,434	39.07	139
1985	33,531.00	14,366	20,470	13,061	40.01	326
1986	779.00	323	460	319	40.95	8
1987	16,266.00	6,530	9,305	6,961	41.90	166
1988	4,886.00	1,894	2,699	2,187	42.86	51
1989	7,350.00	2,750	3,919	3,431	43.81	78
1990	38,364.00	13,822	19,695	18,669	44.78	417
1991	12,981.00	4,499	6,411	6,570	45.74	144
1992	5,140.00	1,710	2,437	2,703	46.71	58
1993	38,715.00	12,345	17,590	21,125	47.68	443
1994	23,233.00	7,083	10,093	13,140	48.66	270
1995	54,744.00	15,923	22,689	32,055	49.64	646
1996	143,362.00	39,691	56,556	86,806	50.62	1,715
1997	100,670.04	26,462	37,706	62,964	51.60	1,220
1998	11,034.00	2,744	3,910	7,124	52.59	135
1999	28,534.63	6,697	9,543	18,992	53.57	355
2000	5,450.00	1,202	1,713	3,737	54.56	68
2001	1,400.00	289	412	988	55.55	18
2003	113.00	20	28	85	57.54	1
2004	74,362.56	12,185	17,362	57,001	58.53	974
2009	58,265.05	5,402	7,697	50,568	63.51	796
2010	3,796.63	298	425	3,372	64.51	52
2011	22,282.80	1,429	2,036	20,247	65.51	309
2012	209,177.61	10,459	14,903	194,275	66.50	2,921
	2,168,929.31	1,125,619	1,458,105	710,824		13,823

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 51.4 0.64

## ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

SURVIVOR CURVE IOWA 60-R2.5  NET SALVAGE PERCENT25  1940	7 16 2 325 134 78
1941     503.83     534     488     142     9.11       1945     56.00     58     53     17     10.29       1946     11,183.46     11,505     10,524     3,455     10.62	16 2 325 134 78
1945     56.00     58     53     17     10.29       1946     11,183.46     11,505     10,524     3,455     10.62	2 325 134 78
1946 11,183.46 11,505 10,524 3,455 10.62	325 134 78
	134 78
	78
1947 4,642.00 4,744 4,339 1,464 10.95	
1948 2,742.00 2,782 2,545 882 11.30	9.4 =
1949 5,131.61 5,168 4,727 1,688 11.66	145
1950 13,026.82 13,019 11,909 4,375 12.03	364
1951 5,204.70 5,159 4,719 1,787 12.42	144
1952 5,293.78 5,203 4,759 1,858 12.82	145
1953 202.30 197 180 73 13.23	6
1954 16,676.06 16,099 14,726 6,119 13.66	448
1955 20,624.35 19,718 18,037 7,743 14.11	549
1956 18,449.76 17,462 15,973 7,089 14.57	487
1957 12,480.07 11,690 10,693 4,907 15.04	326
1958 26,992.10 25,007 22,875 10,865 15.53	700
1959 11,277.90 10,331 9,450 4,647 16.03	290
1960 16,138.04 14,608 13,362 6,811 16.55	412
1961     16,723.37     14,953     13,678     7,226     17.08       1962     28,657.49     25,302     23,144     12,678     17.62	423
1962     28,657.49     25,302     23,144     12,678     17.62       1963     39,606.77     34,507     31,565     17,943     18.18	720 987
1964 33,481.83 28,773 26,320 15,532 18.75	828
1965 27,875.09 23,613 21,600 13,244 19.34	685
1966 20,756.17 17,327 15,850 10,095 19.93	507
1967 29,960.66 24,630 22,530 14,921 20.54	726
1968 38,002.13 30,750 28,128 19,375 21.16	916
1969 52,376.58 41,694 38,139 27,332 21.79	1,254
1970 14,931.52 11,684 10,688 7,976 22.44	355
1971 76,589.72 58,895 53,873 41,864 23.09	1,813
1972 44,762.96 33,796 30,914 25,040 23.76	1,054
1973 54,026.62 40,036 36,622 30,911 24.43	1,265
1974 63,345.57 46,044 42,118 37,064 25.11	1,476
1975 48,572.11 34,597 31,647 29,068 25.81	1,126
1976 26,172.81 18,261 16,704 16,012 26.51	604
1977 72,116.85 49,235 45,037 45,109 27.23	1,657
1978 67,478.67 45,056 41,214 43,134 27.95	1,543
1979 95,377.11 62,234 56,927 62,294 28.68	2,172
1980 158,265.95 100,829 92,231 105,601 29.42	3,589
1981 59,640.98 37,065 33,904 40,647 30.17	1,347
1982 103,233.38 62,543 57,210 71,832 30.92	2,323
1983 13,444.28 7,929 7,253 9,552 31.69	301
1984 68,778.00 39,461 36,096 49,876 32.46	1,537

### ACCOUNT 361 STRUCTURES AND IMPROVEMENTS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA					
1985	8,631.87	4,812	4,402	6,388	33.24	192
1986	50,245.96	27,185	24,867	37,940	34.03	1,115
1987	80,691.35	42,330	38,720	62,144	34.82	1,785
1988	9,583.49	4,866	4,451	7,528	35.63	211
1989	21,186.00	10,399	9,512	16,970	36.44	466
1990	89,521.00	42,430	38,812	73,089	37.25	1,962
1991	232,064.00	105,975	96,938	193,142	38.08	5,072
1992	133,283.06	58,561	53,567	113,037	38.91	2,905
1993	45,318.28	19,128	17,497	39,151	39.74	985
1994	559,184.42	226,120	206,839	492,142	40.59	12,125
1995	40,486.86	15,655	14,320	36,289	41.44	876
1997	163,072.85	57,212	52,333	151,508	43.16	3,510
1998	81,469.76	27,106	24,795	77,042	44.03	1,750
2000	66,743.00	19,773	18,087	65,342	45.78	1,427
2001	270,942.78	75,244	68,828	269,850	46.67	5,782
2002	141,181.00	36,589	33,469	143,007	47.56	3,007
2003	212,582.75	51,153	46,791	218,937	48.45	4,519
2004	15,786.36	3,503	3,204	16,529	49.35	335
2005	134,777.18	27,348	25,016	143,455	50.26	2,854
2006	137,673.95	25,327	23,167	148,925	51.17	2,910
2007	632,246.14	104,321	95,426	694,882	52.08	13,343
2008	39,332.05	5,736	5,247	43,918	53.00	829
2009	376,899.45	47,739	43,668	427,456	53.92	7,928
2010	1,748,743.89	187,618	171,620	2,014,310	54.85	36,724
2011	662,257.08	58,361	53,384	774,437	55.77	13,886
2012	736,752.19	50,495	46,189	874,751	56.71	15,425
2013	793,055.08	38,989	35,665	955,654	57.64	16,580
2014	1,147,920.41	33,964	31,068	1,403,833	58.58	23,964
2015	662,124.22	6,481	5,928	821,727	59.53	13,804
		-,	- <b>,</b> - <b></b>	<b>, ·-</b> ·	<del>-</del>	,,,,
	10,718,796.73	2,467,173	2,256,794	11,141,702		230,057

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 48.4 2.15

## ACCOUNT 362 STATION EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CITEUTUOD	CURVE IOWA	E4_D2				
	'AGE PERCENT					
1930	15,555.43	17,280	16,212	2,455	4.01	612
1931	729.35	806	756	119	4.30	28
1934	1,455.51	1,579	1,481	266	5.17	51
1935	3,176.82	3,427	3,215	597	5.46	109
1937	2,952.72	3,147	2,952	591	6.04	98
1939	12,360.53	13,011	12,207	2,626	6.63	396
1940	20,935.23	21,898	20,544	4,578	6.93	661
1941	36,231.37	37,656	35,328	8,150	7.23	1,127
1942	8,428.73	8,702	8,164	1,950	7.54	259
1943	3,934.21	4,036	3,786	935	7.84	119
1944	10,947.83	11,152	10,463	2,674	8.16	328
1945	22,095.81	22,356	20,974	5,541	8.47	654
1946	19,892.98	19,981	18,746	5,126	8.80	582
1947	32,135.31	32,043	30,062	8,500	9.13	931
1948	137,378.61	135,944	127,540	37,314	9.47	3,940
1949	128,858.17	126,538	118,716	35,914	9.81	3,661
1950	96,435.66	93,929	88,122	27,601	10.17	2,714
1951	49,455.90	47,774	44,821	14,526	10.53	1,379
1952	225,772.23	216,240	202,872	68,055	10.90	6,244
1953	322,649.00	306,301	287,366	99,813	11.28	8,849
1954	363,371.02	341,729	320,604	115,441	11.68	9,884
1955	255,309.63	237,836	223,133	83,239	12.08	6,891
1956	500,562.62	461,739	433,195	167,480	12.49	13,409
1957	173,267.34	158,213	148,432	59,489	12.91	4,608
1958	326,971.75	295,436	277,172	115,194	13.34	8,635
1959	183,873.55	164,341	154,182	66,466	13.78	4,823
1960	320,917.58	283,550	266,021	119,080	14.24	8,362
1961	436,362.45	381,091	357,532	166,103	14.70	11,300
1962	716,323.13	617,949	579,748	279,840	15.18	18,435
1963	714,897.33	609,093	571,439	286,438	15.66	18,291
1964	540,627.11	454,607	426,504	222,249	16.16	13,753
1965	768,070.75	637,161	597,772	323,913	16.67	19,431
1966	775,871.38	634,666	595,431	335,615	17.19	19,524
1967	690,294.92	556,530	522,126	306,228	17.72	17,281
1968	866,204.61	687,957	645,428	394,018	18.26	21,578
	1,454,949.96	1,137,445	1,067,129	678,811	18.82	36,069
1970	447,206.14	344,050	322,781	213,866	19.38	11,035
	1,025,259.41	775,785	727,827	502,484	19.95	25,187
1972	897,923.42	667,656	626,382	451,126	20.54	21,963
	1,284,663.07	938,369	880,360	661,236	21.13	31,294
	1,279,217.89	917,061	860,369	674,692	21.74	31,035
1975	1,018,426.59	716,292	672,011	550,101	22.35	24,613

### ACCOUNT 362 STATION EQUIPMENT

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIV	OR CURVE IOWA	54-R2				
	LVAGE PERCENT					
-						
1976	900,410.18	620,678	582,308	498,184	22.98	21,679
1977	1,314,022.89	887,407	832,548	744,279	23.61	31,524
1978	1,781,805.86	1,177,574	1,104,777	1,033,390	24.26	42,596
1979	319,366.51	206,451	193,688	189,552	24.91	7,609
1980	2,303,384.07	1,455,223	1,365,262	1,398,799	25.57	54,705
1981	1,906,111.86	1,175,850	1,103,160	1,184,174	26.24	45,129
1982	1,840,756.23	1,107,325	1,038,871	1,170,036	26.93	43,447
1983	904,278.72	530,110	497,339	587,795	27.62	21,281
1984	2,434,345.23	1,389,213	1,303,333	1,617,881	28.32	57,12 <del>9</del>
1985	321,673.52	178,564	167,525	218,483	29.02	7,529
1986	1,448,830.85	781,082	732,796	1,005,801	29.74	33,820
1987	3,219,958.60	1,684,412	1,580,283	2,283,667	30.46	74,973
1988	220,988.50	112,017	105,092	160,094	31.19	5,133
1989	2,372,671.60	1,163,141	1,091,236	1,755,970	31.94	54,977
1990	1,507,932.86	714,416	670,251	1,139,268	32.68	34,861
1991	3,540,874.19	1,617,783	1,517,773	2,731,276	33.44	81,677
1992	4,756,373.26	2,092,823	1,963,446	3,744,202	34.20	109,480
1993	1,686,952.31	713,399	669,297	1,355,046	34.97	38,749
1994	5,872,031.10	2,381,414	2,234,197	4,812,240	35.75	134,608
1995	3,713,046.69	1,440,647	1,351,587	3,104,069	36.54	84,950
1996	9,964.23	3,691	3,463	8,494	37.33	228
1997	5,714,713.73	2,015,397	1,890,807	4,966,849	38.13	130,261
1998	4,781,179.72	1,601,141	1,502,160	4,235,256	38.93	108,792
1999	2,417,232.41	765,982	718,630	2,182,049	39.74	54,908
2000	1,218,266.69	363,857	341,364	1,120,556	40.56	27,627
2001	6,399,383.48	1,793,261	1,682,403	5,996,857	41.39	144,887
2002	4,370,900.20	1,144,214	1,073,479	4,171,601	42.22	98,806
2003	4,452,469.89	1,082,431	1,015,516	4,327,448	43.06	100,498
2004	873,793.19	196,121	183,997	864,555	43.90	19,694
2005	3,325,354.65	683,560	641,303	3,349,123	44.75	74,841
2006	2,314,030.88	431,437	404,766	2,372,071	45.61	52,008
2007	2,007,739.11	335,951	315,183	2,094,104	46.47	45,064
2008	599,194.72	88,815	83,325	635,709	47.33	13,431
2009	14,297,621.07	1,839,589	1,725,867	15,431,278	48.21	320,085
2010	16,335,795.12	1,786,025	1,675,614	17,927,340	49.08	365,268
2011	7,308,925.55	654,558	614,093	8,156,618	49.97	163,230
2012	10,253,428.60	717,699	673,331	11,630,783	50.85	228,727

### ACCOUNT 362 STATION EQUIPMENT

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA ALVAGE PERCENT					
2013	10,447,078.54	522,396	490,102	12,046,392	51.75	232,781
2014	11,105,751.65	333,173	312,576	13,014,326	52.65	247,186
2015	6,438,165.38	64,356	60,378	7,665,420	53.55	143,145
	173,228,756.89	50,995,539	47,843,031	160,031,477		3,967,466
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	40.3	2.29



## ACCOUNT 364 POLES, TOWERS AND FIXTURES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA					
			50.053			
1941	39,382.10	50,519	59,073			
1942 1943	2,785.61 5,097.53	3,550 6,452	4,178 7,646			
1944	9,886.80	12,425	14,830			
1945	33,159.32	41,373	49,739			
1946	84,808.39	105,052	127,213			
1947	143,668.38	176,626	215,503			
1948	159,504.60	194,612	239,257			
1949	285,208.94	345,245	427,813			
1950	462,615.98	555,556	693,924			
1951	454,992.54	541,896	682,489			
1952	508,633.22	600,594	760,524	2,426	10.64	228
1953	168,070.27	196,693	249,070	3,035	10.99	276
1954	97,546.06	113,134	143,260	3,059	11.34	270
1955	233,803.17	268,640	340,175	10,530	11.70	900
1956	401,026.31	456,328	577,842	23,697	12.07	1,963
1957	536,481.77	604,347	765,277	39,446	12.45	3,168
1958	359,433.34	400,696	507,396	31,754	12.84	2,473
1959	507,072.27	559,199	708,107	52,501	13.24	3,965
1960	150,349.13	163,956	207,615	17,909	13.65	1,312
1961	592,707.31	638,879	809,004	80,057	14.07	5,690
1962	540,075.82	575,343	728,549	81,565	14.49	5,629
1963	729,390.32	767,392	971,739	122,346	14.93	8,195
1964	845,588.59	878,228	1,112,089	156,294	15.38	10,162
1965	858,182.09	879,465	1,113,655	173,618	15.84	10,961
1966	941,548.56	951,623	1,205,028	207,295	16.31	12,710
1967	919,429.97	916,028	1,159,954	219,191	16.79	13,055
1968	1,069,462.49	1,049,784	1,329,328	274,866	17.28	15,907
1969	1,181,859.83	1,142,386	1,446,589	326,201	17.78	18,347
1970	835,562.56	794,871	1,006,535	246,809	18.29	13,494
1971	1,404,520.39	1,314,210	1,664,167	442,614	18.81	23,531
1972	1,216,907.24	1,118,946	1,416,907	408,454	19.35	21,109
1973	1,846,293.82	1,667,757	2,111,859	657,582	19.89	33,061
1974	1,804,898.20	1,600,584	2,026,799	680,548	20.44	33,295
1975	1,407,829.76	1,224,812	1,550,964	560,781	21.00	26,704
1976	1,678,853.94	1,431,391	1,812,552	705,729	21.58	32,703
1977	1,786,765.58	1,492,307	1,889,689	790,459	22.16	35,671
1978	1,842,666.63	1,506,380	1,907,510	856,490	22.75	37,648
1979	2,522,979.93	2,017,122	2,554,256	1,230,214	23.35	52,686
1980	2,613,531.68	2,041,691	2,585,367	1,334,931	23.96	55,715
1981	2,860,831.18	2,181,670	2,762,621	1,528,626	24.58	62,190
1982	3,179,965.83	2,364,941	2,994,694	1,775,255	25.21	70,419

### ACCOUNT 364 POLES, TOWERS AND FIXTURES

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CIIDVII	VOR CURVE IOWA	50-D1 5				
	ALVAGE PERCENT					
		30				
1983	3,669,562.25	2,659,699	3,367,943	2,136,400	25.84	82,678
1984	2,991,572.33	2,109,956	2,671,810	1,815,548	26.49	68,537
1985	3,368,563.38	2,310,161	2,925,327	2,127,518	27.14	78,390
1986	4,431,626.37	2,951,463	3,737,400	2,910,040	27.80	104,678
1987	4,569,918.39	2,951,710	3,737,712	3,117,166	28.47	109,489
1988	4,815,348.29	3,013,445	3,815,887	3,407,135	29.14	116,923
1989	5,102,888.46	3,087,758	3,909,988	3,744,345	29.83	125,523
1990	5,146,362.11	3,007,534	3,808,402	3,911,141	30.52	128,150
1991	5,130,094.56	2,890,295	3,659,943	4,035,199	31.22	129,250
1992	6,579,633.24	3,568,793	4,519,117	5,350,333	31.92	167,617
1993	6,561,609.05	3,419,254	4,329,757	5,512,657	32.63	168,944
1994	8,287,655.84	4,139,684	5,242,029	7,189,455	33.35	215,576
1995	9,005,843.54	4,303,893	5,449,965	8,058,800	34.07	236,537
1996	7,853,400.16	3,581,150	4,534,764	7,245,336	34.80	208,199
1997	8,797,655.79	3,819,062	4,836,029	8,360,455	35.53	235,307
1998	7,696,222.27	3,170,074	4,014,224	7,530,109	36.27	207,613
1999	7,459,313.97	2,904,657	3,678,130	7,510,841	37.02	202,886
2000	7,107,332.71	2,607,680	3,302,072	7,358,927	37.77	194,835
2001	6,263,578.19	2,157,176	2,731,604	6,663,763	38.52	172,995
2002	7,285,069.52	2,342,878	2,966,756	7,960,848	39.28	202,669
2003	10,597,393.96	3,163,322	4,005,674	11,890,417	40.05	296,889
2004	4,463,082.69	1,229,133	1,556,435	5,138,189	40.82	125,874
2005	5,002,953.85	1,262,245	1,598,365	5,906,066	41.59	142,007
2006	6,290,113.12	1,439,807	1,823,209	7,611,961	42.37	179,654
2007	4,234,788.67	870,249	1,101,985	5,250,198	43.15	121,673
2008	23,434,556.73	4,260,402	5,394,893	29,756,942	43.94	677,218
2009	33,359,927.81	5,274,205	6,678,658	43,361,234	44.73	969,399
2010	15,138,104.70	2,030,020	2,570,588	20,136,569	45.53	442,270
2011	15,348,256.03	1,689,843	2,139,827	20,882,557	46.33	450,735
2012	24,065,080.01	2,064,784	2,614,610	33,483,010	47.14	710,289
2013	15,655,391.86	962,807	1,219,190	22,263,898	47.95	464,315
2014	21,504,931.62	793,532	1,004,839	31,252,558	48.77	640,815
2015	16,256,031.40	199,949	253,193	24,130,854	49.59	486,607
	354,797,240.32	120,189,323	152,141,111	380,054,749		9,477,978

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 40.1 2.67

### ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
			(4)	(3)	(0)	( / /
	R CURVE IOWA VAGE PERCENT					
1941	72,252.21	81,317	93,928			
1942	19,204.65	21,444	24,966			
1943	12,543.65	13,892	16,307			
1944	20,020.85	21,985	26,027			
1945	53,861.88	58,653	70,020			
1946	111,529.54	120,371	144,988			
1947	107,573.80	115,061	139,846			
1948	245,169.62	259,859	318,721			
1949	291,533.25	306,098	378,993			
1950	333,751.64	347,011	433,877			
1951	267,775.57	275,670	348,108			
1952	365,196.64	372,128	472,409	2,347	10.16	231
1953	314,613.44	317,276	402,776	6,221	10.54	590
1954	277,667.27	277,024	351,676	9,291	10.93	850
1955	393,521.63	388,365	493,022	18,556	11.32	1,639
1956	420,072.46	409,920	520,385	25,709	11.72	2,194
1957	401,712.02	387,444	491,852	30,374	12.13	2,504
1958	420,923.27	401,202	509,318	37,882	12.54	3,021
1959	386,812.49	364,199	462,343	40,513	12.96	3,126
1960	317,378.91	295,136	374,669	37,924	13.38	2,834
1961	485,939.88	446,103	566,319	65,403	13.81	4,736
1962	533,121.24	482,929	613,069	79,989	14.25	5,613
1963	742,622.84	663,671	842,517	122,893	14.69	8,366
1964	872,558.78	768,688	975,834	158,492	15.15	10,462
1965	1,160,545.95	1,007,954	1,279,578	229,132	15.60	14,688
1966	959,392.18	820,776	1,041,959	205,251	16.07	12,772
1967	1,088,941.85	917,452	1,164,687	250,937	16.54	15,172
1968	1,370,656.33	1,136,591	1,442,880	338,973	17.02	19,916
1969	1,463,853.90	1,194,443	1,516,322	386,688	17.50	22,096
1970	1,143,596.58	917,309	1,164,506	322,170	18.00	17,898
1971	2,030,548.62	1,600,669	2,032,017	607,696	18.50	32,848
1972	1,614,599.94	1,250,006	1,586,858	512,122	19.01	26,940
1973	1,894,137.46	1,439,704	1,827,676	634,703		32,516
1974	2,412,888.69	1,799,306	2,284,183	852,572	20.04	42,544
1975	1,575,440.78	1,151,713	1,462,077	585,996	20.57	28,488
1976	1,595,696.28	1,142,686	1,450,617	623,788	21.11	29,549
1977	2,219,559.11	1,555,678	1,974,902	910,525	21.66	42,037
1978	2,646,789.26	1,814,864	2,303,934	1,136,892	22.21	51,188
1979	3,141,266.53	2,105,242	2,672,563	1,411,083	22.77	61,971
1980	3,024,088.76	1,979,024	2,512,332	1,418,983	23.34	60,796
1981	2,837,957.07	1,812,501	2,300,934	1,388,410	23.91	58,068
1982	3,023,316.43	1,882,383	2,389,648	1,540,663	24.49	62,910

#### ACCOUNT 365 OVERHEAD CONDUCTORS AND DEVICES

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
( - /	(2)	(3)	(4)	(3)	(0)	( / /
	VOR CURVE IOWA					
NET S.	ALVAGE PERCENT	-30				
						100
1983	3,140,604.10	1,904,129	2,417,254	1,665,531	25.08	66,409
1984	2,806,244.64	1,654,859	2,100,811	1,547,307	25.68	60,253
1985	2,579,753.85	1,478,470	1,876,888	1,476,792	26.28	56,195
1986	3,478,412.55	1,934,801	2,456,191	2,065,745	26.89	76,822
1987	3,895,200.15	2,099,840	2,665,705	2,398,055	27.51	87,170
1988	4,431,790.51	2,313,115	2,936,453	2,824,875	28.13	100,422
1989	5,695,742.90	2,873,599	3,647,977	3,756,489	28.76	130,615
1990	4,889,429.80	2,381,563	3,023,347	3,332,912	29.39	113,403
1991	4,473,559.93	2,099,791	2,665,643	3,149,985	30.03	104,895
1992	5,190,747.37	2,343,098	2,974,516	3,773,456	30.68	122,994
1993	4,783,545.41	2,073,284	2,631,993	3,586,616	31.33	114,479
1994	6,122,311.14	2,543,459	3,228,871	4,730,133	31.98	147,909
1995	7,462,226.13	2,963,914	3,762,630	5,938,264	32.64	181,932
1996	6,471,562.83	2,450,548	3,110,922	5,302,110	33.31	159,175
1997	6,423,727.09	2,315,105	2,938,980	5,411,865	33.97	159,313
1998	5,156,659.88	1,761,520	2,236,214	4,467,444	34.65	128,931
1999	5,538,851.65	1,789,398	2,271,605	4,928,902	35.32	139,550
2000	4,543,916.50	1,382,496	1,755,051	4,152,040	36.00	115,334
2001	9,210,683.04	2,629,107	3,337,599	8,636,289	36.68	235,450
2002	5,791,447.38	1,542,593	1,958,291	5,570,591	37.37	149,066
2003	3,559,974.66	880,286	1,117,506	3,510,461	38.06	92,235
2004	6,895,432.82	1,573,462	1,997,479	6,966,584	38.75	179,783
2005	2,315,397.57	483,529	613,830	2,396,187	39.45	60,740
2006	4,138,382.71	784,066	995,356	4,384,542	40.15	109,204
2007	4,394,621.87	747,547	948,996	4,764,012	40.85	116,622
2008	20,874,073.27	3,140,755	3,987,126	23,149,169	41.56	557,006
2009	42,894,719.73	5,612,002	7,124,325	48,638,811	42.27	1,150,670
2010	11,588,279.78	1,288,489	1,635,711	13,429,053	42.98	312,449
2011	13,280,509.90	1,212,152	1,538,803	15,725,860	43.70	359,859
2012	20,086,909.59	1,427,858	1,812,637	24,300,345	44.43	546,936
2013	12,404,951.65	631,350	801,486	15,324,951	45.16	339,348
2014	26,710,505.46	820,173	1,041,193	33,682,464	45.89	733,983
2015	24,036,835.16	245,921	312,192	30,935,694	46.63	663,429
	337,937,644.27	94,106,026	119,403,224	319,915,714		8,351,144

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 38.3 2.47

### ACCOUNT 366 UNDERGOUND CONDUIT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1)	(2)	(3)	(4)	(3)	(0)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	CURVE IOWA					
NET SALV	AGE PERCENT	0				
1966	2,177.50	1,849	1,636	542	7.55	72
1967	2,766.65	2,321	2,054	713	8.05	89
1968	978.07	810	717	261	8.58	30
1973	23,444.43	17,973	15,902	7,542	11.67	646
1974	276,752.56	208,395	184,387	92,366	12.35	7,479
1976	18,557.11	13,458	11,908	6,649	13.74	484
1979	407,636.17	277,600	245,618	162,018	15.95	10,158
1980	218,176.00	145,262	128,527	89,649	16.71	5,365
1981	14.49	9	8	6	17.49	
1982	64,154.00	40,686	35,999	28,155	18.29	1,539
1983	61,681.09	38,119	33,727	27,954	19.10	1,464
1986	44,082.77	25,030	22,146	21,937	21.61	1,015
1987	66,410.57	36,552	32,341	34,070	22.48	1,516
1989	19,761.59	10,177	9,005	10,757	24.25	444
1995	104,460.14	42,223	37,359	67,101	29.79	2,252
1998	5,323.27	1,845	1,632	3,691	32.67	113
2001	2,842.29	819	725	2,117	35.60	59
2003	124,493.17	30,974	27,406	97,087	37.56	2,585
2004	45,591.40	10,440	9,237	36,354	38.55	943
2005	26,268.24	5,495	4,862	21,406	39.54	541
2008	3,671.25	549	486	3,185	42.52	75
2009	31,753.72	4,122	3,647	28,107	43.51	646
2010	97,394.76	10,694	9,462	87,933	44.51	1,976
2011	52,912.65	4,752	4,204	48,709	45.51	1,070
2012	54,026.80	3,782	3,346	50,681	46.50	1,090
2014	204,076.52	6,122	5,417	198,660	48.50	4,096
2015	91,114.48	911	806	90,308	49.50	1,824
	2,050,521.69	940,969	832,564	1,217,958		47,571

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.6 2.32

### ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CIRVIT	OR CURVE IOWA	40_D2				
	ALVAGE PERCENT					
1967	2,500.28	2,185	2,445	555	13.04	43
1968	15,640.76	13,482	15,089	3,680	13.52	272
1970	18,653.98	15,618	17,480	4,905	14.51	338
1971	12,220.86	10,076	11,277	3,388	15.02	226
1972	95,302.52	77,338	86,557	27,806	15.54	1,789
1973	49,085.47	39,170	43,839	15,064	16.08	937
1974	281,136.77	220,481	246,762	90,602	16.63	5,448
1975	230,859.88	177,821	199,017	78,015	17.19	4,538
1976	248,527.81	187,824	210,212	88,021	17.77	4,953
1977	181,159.27	134,285	150,291	67,100	18.35	3,657
1978	265,936.62	193,137	216,159	102,965	18.95	5,434
1979	340,191.28	241,876	270,707	137,523	19.56	7,031
1980	405,190.75	281,809	315,400	170,829	20.18	8,465
1981	228,364.99	155,232	173,735	100,303	20.81	4,820
1982	268,888.24	178,473	199,747	122,919	21.45	5,730
1983	326,723.35	211,474	236,681	155,387	22.11	7,028
1984	340,728.87	214,913	240,530	168,345	22.77	7,393
1985	286,726.74	176,051	197,036	147,036	23.44	6,273
1986	520,197.42	310,427	347,429	276,808	24.13	11,472
1987	848,549.12	491,738	550,352	467,907	24.82	18,852
1988	983,128.62	552,514	618,373	561,381	25.52	21,998
1989	1,324,658.51	720,943	806,878	782,712	26.23	29,840
1990	689,050.09	362,438	405,640	421,220	26.96	15,624
1991	1,080,496.93	548,616	614,010	682,586	27.69	24,651
1992	952,792.93	466,156	521,721	621,631	28.43	21,865
1993	1,080,605.28	508,420	569,023	727,703	29,18	24,938
1994	1,702,290.51	769,013	860,678	1,182,071	29.93	39,495
1995	3,416,001.89	1,477,434	1,653,541	2,445,661	30.70	79,663
1996	3,307,903.72	1,367,011	1,529,956	2,439,528	31.47	77,519
1997	3,449,088.41	1,357,230	1,519,009	2,619,897	32.26	81,212
1998	3,468,047.45	1,296,190	1,450,693	2,710,964	33.05	82,026
1999	3,949,268.73	1,397,046	1,563,571	3,175,551	33.85	93,812
2000	3,944,614.69	1,316,491	1,473,414	3,260,124	34.65	94,087
2001	8,298,706.82	2,601,645	2,911,756	7,046,692	35.46	198,722
2002	5,473,522.80	1,603,764	1,794,929	4,773,298	36.28	131,568
2003	9,031,651.75	2,458,921	2,752,019	8,085,963	37.11	217,892
2004	5,209,396.59	1,308,892	1,464,909	4,786,367	37.95	126,123
2005	3,483,875.96	802,183	897,802	3,282,849	38.79	84,631
2006	2,098,340.02	438,561	490,837	2,027,171	39.64	51,140
2007	2,386,276.21	448,028	501,432	2,362,099	40,49	58,338
2008	17,345,995.67	2,883,737	3,227,472	17,587,723	41.35	425,338
2009	36,106,160.94	5,217,485	5,839,399	37,487,994	42.22	887,920

### ACCOUNT 367 UNDERGROUND CONDUCTORS AND DEVICES

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
	(2)	(3)	(4)	(5)	(6)	(7)
	VOR CURVE IOWA ALVAGE PERCENT					
2010	4,735,344.01	581,254	650,538	5,031,875	43.09	116,776
2011	6,997,262.94	704,988	789,021	7,607,695	43.97	173,020
2012	9,242,764.28	725,594	812,083	10,279,234	44.86	229,140
2013	3,355,687.12	188,778	211,280	3,815,545	45.75	83,400
2014	20,090,636.96	677,938	758,747	23,350,017	46.65	500,536
2015	13,223,505.98 181,393,660.79	148,844 36,263,524	166,586 40,586,062	15,701,621 177,086,331	47.55	330,213 4,406,186

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 40.2 2.43

### ACCOUNT 368 LINE TRANSFORMERS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
			(4)	(3)	(0)	( / /
	OR CURVE IOWA					
NET SAI	LVAGE PERCENT	<b>-</b> 5				
1041	16 074 EE	16 506	17 710			
1941 1942	16,874.55 1,433.77	16,586 1,400	17,718 1,505			
1942	1,283.53	1,245	1,348			
1944	2,669.42	2,571	2,803			
1945	4,274.72	4,089	4,488			
1946	10,300.71	9,786	10,816			
1947	8,455.53	7,977	8,878			
1948	13,118.27	12,289	13,774			
1949	251,367.08	233,754	263,935			
1950	23,565.43	21,758	24,744			
1951	22,579.76	20,694	23,709			
1952	58,514.32	53,226	61,440			
1953	172,381.63	155,621	181,001			
1954	22,381.25	20,047	23,500			
1955	71,123.70	63,186	74,680			
1956	22,841.99	20,126	23,984			
1957	71,644.34	62,585	75,227			
1958	114,901.24	99,481	120,646			
1959	157,057.42	134,760	164,910			
1960	195,026.28	165,737	204,778			
1961	188,426.77	158,536	197,848			
1962	562,878.26	468,834	591,022			
1963	320,021.28	263,704	336,022			
1964	390,461.28	318,185	409,984			
1965	645,736.80	520,159	678,024			
1966	576,219.72	458,510	605,002	29	11.14	3
1967	1,069,253.69	840,084	1,108,486	14,230	11.58	1,229
1968	788,335.85	611,279	806,579	21,174	12.03	1,760
1969	1,151,639.25	880,893	1,162,334	46,887	12.49	3,754
1970	1,603,214.51	1,209,101	1,595,403	87,972	12.96	6,788
1971	1,551,855.66	1,153,014	1,521,396	108,052	13.45	8,034
1972	1,751,268.02	1,281,187	1,690,520	148,311	13.95	10,632
1973	3,152,701.15	2,269,004	2,993,939	316,397	14.47	21,866
1974	3,763,959.91	2,663,399	3,514,341	437,817	15.00	29,188
1975	1,743,193.87	1,212,005	1,599,234	231,120	15.54	14,873
1976	2,323,199.37	1,586,120	2,092,877	346,482	16.09	21,534
1977	4,080,226.60	2,732,615	3,605,671	678,567	16.66	40,730
1978	4,315,584.24	2,834,051	3,739,516	791,847	17.23	45,957
1979	4,369,445.38	2,810,604	3,708,577	879,341	17.82	49,346
1980	2,937,982.56	1,848,924	2,439,646	645,236	18.43	35,010
1981	2,011,700.08	1,237,989	1,633,520	478,765	19.04	25,145
1982	4,646,486.34	2,792,582	3,684,798	1,194,013	19.67	60,702

### ACCOUNT 368 LINE TRANSFORMERS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

SURVIVOR CURVE IOWA 46-R2 NET SALVAGE PERCENT5  1983    5,226,656.37    3,066,140    4,045,756    1,442,233    20.30    71,04 1984    3,655,635.48    2,090,287    2,758,123    1,080,294    20.95    51,56 1985    5,244,790.64    2,919,938    3,852,843    1,654,187    21.61    76,54 1986    5,988,873.32    3,242,571    4,278,556    2,009,761    22.28    90,20	L
NET SALVAGE PERCENT5  1983    5,226,656.37    3,066,140    4,045,756    1,442,233    20.30    71,04 1984    3,655,635.48    2,090,287    2,758,123    1,080,294    20.95    51,56 1985    5,244,790.64    2,919,938    3,852,843    1,654,187    21.61    76,54 1986    5,988,873.32    3,242,571    4,278,556    2,009,761    22.28    90,20	
1983 5,226,656.37 3,066,140 4,045,756 1,442,233 20.30 71,04 1984 3,655,635.48 2,090,287 2,758,123 1,080,294 20.95 51,56 1985 5,244,790.64 2,919,938 3,852,843 1,654,187 21.61 76,54 1986 5,988,873.32 3,242,571 4,278,556 2,009,761 22.28 90,20	
1984     3,655,635.48     2,090,287     2,758,123     1,080,294     20.95     51,56       1985     5,244,790.64     2,919,938     3,852,843     1,654,187     21.61     76,54       1986     5,988,873.32     3,242,571     4,278,556     2,009,761     22.28     90,20	
1985     5,244,790.64     2,919,938     3,852,843     1,654,187     21.61     76,54       1986     5,988,873.32     3,242,571     4,278,556     2,009,761     22.28     90,20	46
1986 5,988,873.32 3,242,571 4,278,556 2,009,761 22.28 90,20	65
	47
	05
1987 5,761,058.26 3,029,818 3,997,829 2,051,282 22.96 89,34	42
1988 6,600,546.42 3,367,358 4,443,211 2,487,363 23.65 105,17	.74
1989 6,523,152.09 3,222,121 4,251,572 2,597,738 24.36 106,63	39
1990 6,417,040.61 3,065,741 4,045,229 2,692,664 25.07 107,40	06
1991 5,925,561.61 2,733,565 3,606,925 2,614,915 25.79 101,39	93
1992 6,758,610.24 3,005,243 3,965,403 3,131,138 26.52 118,06	67
1993 8,393,828.90 3,590,540 4,737,699 4,075,821 27.26 149,51	17
1994 9,037,366.70 3,711,145 4,896,837 4,592,398 28.01 163,95	56
1995 9,174,458.28 3,608,301 4,761,135 4,872,046 28.77 169,34	45
1996 8,601,748.86 3,233,759 4,266,928 4,764,908 29.53 161,35	58
1997 9,140,735.81 3,273,704 4,319,635 5,278,138 30.31 174,13	.39
1998 8,806,739.52 2,997,255 3,954,863 5,292,213 31.09 170,22	22
1999 7,140,099.56 2,299,662 3,034,392 4,462,713 31.89 139,94	41
2000 9,733,724.37 2,957,276 3,902,110 6,318,301 32.69 193,27	:79
2001 9,967,169.52 2,846,205 3,755,553 6,709,975 33.49 200,35	58
2002 5,552,804.82 1,481,691 1,955,084 3,875,361 34.31 112,95	951
2003 13,086,544.82 3,246,968 4,284,357 9,456,515 35.13 269,18	.86
2004 4,510,571.41 1,032,659 1,362,588 3,373,512 35.97 93,78	187
2005 191,437.68 40,202 53,046 147,964 36.80 4,02	21
2006 18,497,333.40 3,525,518 4,651,903 14,770,297 37.65 392,30	
2007 11,344,595.79 1,942,104 2,562,596 9,349,230 38.50 242,83	
2008 9,342,791.67 1,416,064 1,868,489 7,941,442 39.36 201,76	
2009 16,205,575.29 2,134,299 2,816,197 14,199,657 40.23 352,96	
2010 2,101,353.39 235,028 310,118 1,896,303 41.10 46,13	
2011 14,063,163.54 1,290,429 1,702,715 13,063,607 41.98 311,18	
2012 7,245,096.86 519,278 685,185 6,922,167 42.86 161,50	306
2013 5,010,844.73 257,334 339,551 4,921,836 43.75 112,49	199
2014 16,704,347.49 514,786 679,257 16,860,308 44.65 377,61	
2015 914,157.13 9,387 12,386 947,479 45.55 20,80	301
308,054,000.11 107,164,073 141,176,694 182,280,006 5,515,60	504

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 33.0 1.79

### ACCOUNT 369 SERVICES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
(-)	(2)	(3)	(4/	(5)	(0)	(7)
	R CURVE IOWA					
NET SALV	/AGE PERCENT	-25				
1948	15,027.91	15,110	18,785			
1949	29,532.25	29,417	36,915			
1950	24,785.16	24,443	30,981			
1951 1952	22,356.38 38,120.26	21,827 36,839	27,945 47,650			
1953	17,867.25	17,086	22,334			
1954	2,339.39	2,213	2,924			
1955	26,155.09	24,466	32,694			
1956	92,925.07	85,956	116,156			
1957	115,431.48	105,512	144,289			
1958	99,976.91	90,292	124,203			
1959	150,813.11	134,554	188,516			
1960	43,611.56	38,410	54,514			
1961	171,532.95	149,152	214,416			
1962	158,198.52	135,705	197,748			
1963	172,256.12	145,746	215,320			
1964	184,744.54	154,098	230,931			
1965	121,090.55	99,553	151,363			
1966	192,361.46	155,743	240,452			
1967	243,352.54	193,985	304,191			
1968	181,618.75	142,505	227,023			
1969	235,824.42	181,965	294,781			
1970	165,486.50	125,538	206,858			
1971	367,341.53	273,881	459,177			
1972	414,097.89	303,130	517,622			
1973	481,911.81	346,248	602,390			
1974	762,688.53	537,457	948,904	4,457	20,94	213
1975	614,971.99	424,715	749,853	18,862	21.48	878
1976	984,013.99	665,747	1,175,406	54,611	22.02	2,480
1977	1,234,019.91	817,214	1,442,828	99,697	22.57	4,417
1978	1,146,067.77	742,251	1,310,477	122,108	23.13	5,279
1979	1,249,104.39	790,777	1,396,152	165,228	23.69	6,975
1980	915,976.55	566,051	999,388	145,583	24.27	5,998
1981	1,338,766.10	807,092	1,424,957	248,501	24.85	10,000
1982	1,347,036.70	791,738	1,397,849	285,947	25.43	11,244
1983	2,220,449.87	1,270,403	2,242,953	532,609	26.03	20,461
1984	2,069,188.35	1,151,529	2,033,076	553,409	26.63	20,781
1985	2,002,079.98	1,082,900	1,911,908	590,692	27.23	21,693
1986	2,055,374.12	1,078,532	1,904,197	665,021	27.85	23,879
1987	1,594,617.90	811,023	1,431,897	561,375	28.47	19,718
1988	2,264,065.32	1,114,939	1,968,475	861,607	29.09	29,619
1989	2,471,019.85	1,176,298	2,076,807	1,011,968	29.72	34,050

### ACCOUNT 369 SERVICES

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA ALVAGE PERCENT					
1990	2,343,029.20	1,076,329	1,900,307	1,028,480	30.36	33,876
1991	2,583,899.24	1,143,246	2,018,452	1,211,422	31.01	39,066
1992	2,528,831.07	1,076,713	1,900,985	1,260,054	31.65	39,812
1993	3,299,020.38	1,347,980	2,379,919	1,743,856	32.31	53,973
1994	3,815,211.08	1,494,275	2,638,209	2,130,805	32.96	64,648
1995	4,620,071.37	1,728,946	3,052,532	2,722,557	33.63	80,956
1996	4,841,911.94	1,728,684	3,052,069	3,000,321	34.29	87,498
1997	5,202,671.98	1,766,762	3,119,298	3,384,042	34.96	96,798
1998	5,260,594.29	1,693,254	2,989,516	3,586,227	35.64	100,624
1999	4,309,241.73	1,311,841	2,316,114	3,070,438	36.31	84,562
2000	2,763,589.89	792,390	1,399,000	2,055,487	36.99	55,569
2001	3,002,551.79	806,936	1,424,682	2,328,508	37.68	61,797
2002	3,037,287.74	762,473	1,346,180	2,450,430	38.36	63,880
2003	1,238,259.63	288,607	509,549	1,038,276	39.05	26,588
2004	183,156.33	39,351	69,476	159,469	39.75	4,012
2006	26,485.90	4,732	8,355	24,752	41.14	602
2007	12,776.61	2,046	3,612	12,359	41.85	295
2008	2,118,838.83	300,716	530,927	2,117,622	42.55	49,768
2009	29,434.60	3,626	6,402	30,391	43.27	702
2010	3,721,987.97	389,646	687,937	3,964,548	43.98	90,144
2011	2,370,584.51	203,722	359,680	2,603,551	44.70	58,245
2012	6,543,792.37	437,943	773,208	7,406,532	45.43	163,032
2013	2,383,531.96	114,201	201,627	2,777,788	46.16	60,177
2014	387,812.58	11,208	19,788	464,978	46.89	9,916
2015	212,594.34	2,049	3,618	262,125	47.63	5,503
	94,875,368.05	35,389,716	61,837,515	56,756,695		1,549,728

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 36.6 1.63

### ACCOUNT 370 METERS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PROBABLE	SURVIVOR CURV E RETIREMENT Y VAGE PERCENT	EAR 6-2020				
1932	256.00	246	256			
1940	84.00	78	84			
1941	4,518.76	4,156	4,519			
1942	5,492.19	5,033	5,492			
1946	143.78	130	144			
1947	189.09	171	189			
1948	45.02	41	45			
1949	43,375.25	38,959	43,375			
1950	124,031.65	111,136	124,032			
1951	199,643.26	178,451	199,643			
1952	162,426.96	144,896	162,427			
1953	94,499.81	84,128	94,500			
1954	145,402.38	129,183	145,402			
1955	148,806.24	131,988	148,806			
1956	124,118.11	109,863	124,118			
1957	195,127.61	172,423	195,128			
1958	282,971.70	249,626	282,972			
1959	226,794.66	199,806	226,795			
1960	248,850.24	218,859	248,716	134	3.36	40
1961	259,542.58	227,951	259,048	495	3.39	146
1962	261,810.20	229,532	260,845	965	3.43	281
1963	311,696.72	272,887	310,114	1,583	3.46	458
1964	331,941.96	290,194	329,782	2,160	3.49	619
1965	415,091.60	362,342	411,773	3,319	3.52	943
1966	351,607.77	306,465	348,273	3,335	3.55	939
1967	333,427.36	290,162	329,746	3,681	3.58	1,028
1968	410,706.62	356,999	405,701	5,006	3.60	1,391
1969	499,200.25	433,186	492,281	6,919	3.63	1,906
1970	447,345.28	387,687	440,575	6,770	3.65	1,855
1971	590,644.41	510,966	580,672	9,972	3.68	2,710
1972	729,034.35	629,791	715,707	13,327	3.70	3,602
1973	772,207.56	666,091	756,959	15,249	3.72	4,099
1974	1,506,963.97	1,297,270	1,474,243	32,721	3.75	8,726
1975	632,224.04	543,321	617,441	14,783	3.77	3,921
1976	987,281.74	846,979	962,524	24,758	3.79	6,532
1977	1,674,450.03	1,433,798	1,629,396	45,054	3.81	11,825
1978	1,244,419.61	1,063,406	1,208,475	35,945	3.83	9,385
1979	1,565,320.23	1,334,780	1,516,870	48,450	3.85	12,584
1980	635,533.38	540,966	614,764	20,769	3.86	5,381
1981	564,719.97	479,526	544,943	19,777	3.88	5,097
1982	710,972.55	602,151	684,296	26,677	3.90	6,840

### ACCOUNT 370 METERS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
INTERI	M SURVIVOR CURV	E IOWA 28-L	1			
	LE RETIREMENT Y					
	LVAGE PERCENT					
		-				
1983	1,300,880.56	1,098,685	1,248,567	52,314	3.92	13,345
1984	903,737.50	761,381	865,248	38,490	3.93	9,794
1985	905,107.05	760,127	863,823	41,284	3.95	10,452
1986	1,114,093.39	932,830	1,060,086	54,007	3.96	13,638
1987	1,151,398.41	960,543	1,091,580	59,818	3.98	15,030
1988	1,221,553.73	1,014,952	1,153,411	68,143	4.00	17,036
1989	1,177,299.65	974,510	1,107,452	69,848	4.01	17,418
1990	1,495,505.99	1,232,746	1,400,917	94,589	4.02	23,530
1991	1,553,505.30	1,274,061	1,447,868	105,637	4.04	26,148
1992	2,274,577.07	1,856,032	2,109,231	165,346	4.05	40,826
1993	1,203,958.30	976,579	1,109,804	94,154	4.07	23,134
1994	1,483,991.15	1,196,364	1,359,572	124,419	4.08	30,495
1995	1,888,267.11	1,512,275	1,718,579	169,688	4.09	41,489
1996	1,888,549.61	1,500,264	1,704,929	183,621	4.11	44,677
1997	2,294,899.50	1,808,289	2,054,975	239,924	4.12	58,234
1998	1,983,536.61	1,548,488	1,759,732	223,805	4.13	54,190
1999	1,775,684.50	1,371,983	1,559,148	216,536	4.14	52,303
2000	2,191,344.41	1,673,749	1,902,081	289,263	4.15	69,702
2001	2,290,366.87	1,724,898	1,960,208	330,159	4.17	79,175
2002	2,298,261.99	1,704,897	1,937,479	360,783	4.18	86,312
2003	1,530,578.47	1,115,042	1,267,156	263,422	4.20	62,720
2004	507,456.67	361,979	411,360	96,097	4.22	22,772
2005	85,774.69	59,624	67,758	18,017	4.25	4,239
2006	3,478,669.70	2,347,372	2,667,600	811,070	4.27	189,946
2007	323,978.33	210,719	239,465	84,513	4.30	19,654
2009	1,810,784.76	1,067,983	1,213,677	597,108	4.34	137,582
2010	1,444,365.45	792,307	900,393	543,972	4.37	124,479
2011	567,383.89	283,045	321,658	245,726	4.39	55,974
2012	1,706,714.95	745,459	847,154	859,561	4.41	194,912
2013	4,944,354.99	1,760,685	2,000,877	2,943,478	4.43	664,442
2014	49,712.95	12,428	14,124	35,589	4.44	8,016
2015	123,596.02	12,235	13,904	109,692	4.46	24,595
	66,212,808.46	49,538,154	56,280,887	9,931,921		2,326,567

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.3 3.51

## ACCOUNT 370.1 METERING EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA AGE PERCENT					
1941	41,613.33	37,794	31,527	10,086	2.57	3,925
1942	61.84	56	47	15,000	2.74	5,525
1943	12,390.22	11,103	9,262	3,128	2.91	1,075
1944	6,909.10	6,147	5,128	1,781	3.09	576
1945	20,694.86	18,285	15,253	5,442	3.26	1,669
1946	30,134.62	26,432	22,049	8,086	3.44	2,351
1947	62,014.51	53,997	45,044	16,971	3.62	4,688
1948	67,799.84	58,599	48,883	18,917	3.80	4,978
1949	12,850.15	11,024	9,196	3,654	3.98	918
1950	18,892.89	16,086	13,419	5,474	4.16	1,316
1951	17,696.32	14,947	12,469	5,227	4.35	1,202
1952	28,242.39	23,663	19,739	8,503	4.54	1,873
1953	10,013.44	8,322	6,942	3,071	4.73	649
1954	15,256.87	12,576	10,491	4,766	4.92	969
1955	33,172.75	27,119	22,622	10,551	5.11	2,065
1956	34,207.47	27,720	23,124	11,083	5.31	2,087
1957	20,350.16	16,345	13,635	6,715	5.51	1,219
1958	23,825.97	18,967	15,822	8,004	5.71	1,402
1959	49,498.70	39,051	32,576	16,923	5.91	2,863
1960	35,876.50	28,035	23,387	12,490	6.12	2,041
1961	39,613.81	30,658	25,575	14,039	6.33	2,218
1962	47,064.07	36,071	30,090	16,974	6.54	2,595
1963	56,092.75	42,570	35,511	20,582	6.75	3,049
1964	48,988.23	36,794	30,693	18,295	6.97	2,625
1965	75,388.21	56,029	46,739	28,649	7.19	3,985
1966	83,377.48	61,312	51,146	32,231	7.41	4,350
1967	66,872.27	48,626	40,563	26,309	7.64	3,444
1968	99,293.50	71,385	59,549	39,744	7.87	5,050
1969	107,597.36	76,471	63,791	43,806	8.10	5,408
1970	90,708.21	63,690	53,130	37,578	8.34	4,506
1971	125,934.75	87,390	72,900	53,035	8.57	6,188
1972	51,409.73	35,216	29,377	22,033	8.82	2,498
1973	112,116.72	75,839	63,264	48,853	9.06	5,392
1974	181,179.13	120,937	100,884	80,295	9.31	8,625
1975	94,918.39	62,476	52,117	42,801	9.57	4,472
1976	24,100.09	15,648	13,053	11,047	9.82	1,125
1977	162,837.51	104,157	86,887	75,951	10.09	7,527
1978	229,932.64	144,940	120,908	109,025	10.35	10,534
1979	174,665.38	108,417	90,440	84,225	10.62	7,931
1980	199,272.43	121,698	101,519	97,753	10.90	8,968
1981	197,888.25	118,873	99,163	98,725	11.18	8,831
1982	293,082.24	173,127	144,421	148,661	11.46	12,972

### ACCOUNT 370.1 METERING EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC, BOOK RESERVE	FUTURE BOOK ACCRUALS	REM. LIFE	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIV	OR CURVE IOWA	28-L1				
NET SA	LVAGE PERCENT	0				
1983	134,941.75	78,315	65,330	69,612	11.75	5,924
1984	183,906.37	104,827	87,446	96,460	12.04	8,012
1985	189,041.95	105,729	88,198	100,844	12.34	8,172
1986	243,615.01	133,552	111,408	132,207	12.65	10,451
1987	208,299.79	111,961	93,397	114,903	12.95	8,873
1988	201,506.25	106,006	88,429	113,077	13.27	8,521
1989	157,975.47	81,300	67,820	90,155	13.59	6,634
1990	64,723.61	32,547	27,150	37,574	13.92	2,699
1991	53,139.92	26,095	21,768	31,372	14.25	2,202
1992	432,512.57	207,143	172,797	259,716	14.59	17,801
1993	258,057.50	120,366	100,408	157,650	14.94	10,552
1994	252,915.96	114,806	95,770	157,146	15.29	10,278
1995	20,024.02	8,832	7,368	12,656	15.65	809
1997	612,562.43	253,993	211,878	400,684	16.39	24,447
1998	274,102.55	109,934	91,706	182,397	16.77	10,876
1999	24,261.50	9,393	7,836	16,426	17.16	957
2000	217,767.05	81,197	67,734	150,033	17.56	8,544
2001	102,670.74	36,778	30,680	71,991	17.97	4,006
2002	17,093.36	5,848	4,878	12,215	18.42	663
2003	390,798.50	127,287	106,182	284,616	18.88	15,075
2005	206,936.97	59,641	49,752	157,185	19.93	7,887
2006	129,130.33	34,589	28,854	100,276	20.50	4,892
2007	826,592.78	203,102	169,425	657,168	21.12	31,116
2008	45,006.34	9,982	8,327	36,679	21.79	1,683
2009	889,518.03	175,048	146,023	743,495	22.49	33,059
2010	123,028.74	20,915	17,447	105,582	23.24	4,543
2011	410,617.37	58,221	48,567	362,050	24.03	15,067
2012	405,634.75	45,634	38,068	367,567	24.85	14,791
2013	236,457.39	19,340	16,133	220,324	25.71	8,570
	10,416,674.08	4,630,973	3,863,114	6,553,560		447,268
		.,,	3,0-0,	-,,500		,

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 14.7 4.29

### ACCOUNT 370.2 METERS - AMS

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA ALVAGE PERCENT					
2015	698,893.34	23,294	4,284	694,609	14.50	47,904
	698,893.34	23,294	4,284	694,609		47,904
	COMPOSITE REMAINI	NG LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	14.5	6.85

### ACCOUNT 371 INSTALLATIONS ON CUSTOMERS' PREMISES

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
(1)	\2/	(3)	(4)	(3)	(0)	( / /
SURVIVO	R CURVE IOWA	28-01				
NET SAL	VAGE PERCENT	-10				
1064	02.00	0.5	00			
1964	83.89	85	92			
1965	66.43	66 12	73 14			
1968	12.47	8,072	9,934			
1970 1971	9,031.33 5,339.00	4,667	5,873			
	1,592.19	1,360	1,751			
1972	43,992.72	36,726	48,392			
1973 1974	1,502.79	1,225	1,653			
1975	1,694.31	1,348	1,864			
1976	142,236.37	110,361	156,460			
1977	148,854.53	112,571	163,740			
1978	43,733.74	32,214	48,107			
1979	160,871.41	115,340	176,959			
1980	80,134.38	55,880	88,148			
1981	347,072.75	235,203	381,780			
1982	323,830.63	213,091	356,214			
1983	346,719.60	221,344	381,392			
1984	327,136.68	202,416	359,850			
1985	220,670.72	132,205	242,738			
1986	341,756.13	198,037	375,932			
1987	159,052.33	89,041	174,958			
1988	195,933.46	105,839	215,527			
1989	562,083.85	292,582	618,292			
1990	540,376.98	270,673	594,415			
1991	476,735.40	229,429	524,409			
1992	778,536.83	359,376	856,391			
1993	1,204,616.79	532,403	1,325,078			
1994	1,306,338.06	551,697	1,415,380	21,592	17.25	1,252
1995	1,677,194.50	675,368	1,732,659	112,255	17.75	6,324
1996	1,541,740.94	590,535	1,515,019	180,896	18.25	9,912
1997	1,567,237.49	569,528	1,461,126	262,835	18.75	14,018
1998	1,991,701.26	684,647	1,756,464	434,407	19.25	22,567
1999	1,931,763.00	626,092	1,606,240	518,699	19.75	26,263
2000	427,938.23	130,294	334,270	136,462	20.25	6,739
2001	94,517.53	26,921	69,066	34,903	20.75	1,682
2003	1,642.18	403	1,034	772	21.75	35
2006	8,816.12	1,645	4,220	5,478	23.25	236
2007	7,242.67	1,209	3,102	4,865	23.75	205
2008	1,721.13	254	652	1,241	24.25	51

### ACCOUNT 371 INSTALLATIONS ON CUSTOMERS' PREMISES

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT	28-01 -10				
2011	3,024.65	267	685	2,642	25.75	103
2012	5,205.53	358	918	4,808	26.25	183
2014	24,340.74	717	1,839	24,936	27.25	915
	17,054,091.74	7,421,501	17,012,710	1,746,791		90,485

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.3 0.53

### ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA VAGE PERCENT					
1941	41,076.95	35,648	33,795	11,390	5.91	1,927
1942	4,029.94	3,480	3,299	1,134	6.02	188
1943	209.71	180	171	60	6.12	10
1944	1,079.79	924	876	312	6.22	50
1945	768.80	655	621	225	6.32	36
1946	4,292.27	3,637	3,448	1,273	6.43	198
1947	8,668.75	7,308	6,928	2,608	6.54	399
1948	14,478.70	12,144	11,513	4,414	6.65	664
1949	8,669.40	7,234	6,858	2,678	6.76	396
1950	6,816.54	5,656	5,362	2,136	6.88	310
1951	10,701.80	8,829	8,370	3,402	7.00	486
1952	8,588.11	7,045	6,679	2,768	7.12	389
1953	26,886.57	21,917	20,778	8,797	7.25	1,213
1954	32,945.12	26,675	25,289	10,951	7.39	1,482
1955	51,458.10	41,381	39,230	17,374	7.53	2,307
1956	43,799.36	34,982	33,164	15,015	7.67	1,958
1957	39,844.80	31,588	29,946	13,883	7.82	1,775
1958	52,805.95	41,553	39,393	18,694	7.97	2,346
1959	54,347.49	42,424	40,219	19,563	8.13	2,406
1960	69,688.55	53,961	51,156	25,501	8.29	3,076
1961	76,191.02	58,488	55,448	28,362	8.46	3,352
1962	87,922.10	66,906	63,428	33,286	8.63	3,857
1963	135,706.71	102,361	97,041	52,236	8.80	5,936
1964	179,809.90	134,357	127,373	70,418	8.98	7,842
1965	60,513.96	44,765	42,438	24,127	9.17	2,631
1966	307,750.16	225,360	213,646	124,879	9.36	13,342
1967	193,235.19	140,061	132,781	79,778	9.55	8,354
1968	148,659.02	106,584	101,044	62,481	9.75	6,408
1969	192,188.27	136,281	129,198	82,209	9.95	8,262
1970	26,167.89	18,340	17,387	11,398	10.16	1,122
1971	182,510.45	126,407	119,837	80,924	10.37	7,804
1972	50,953.82	34,851	33,040	23,009	10.59	2,173
1973	111,085.64	75,019	71,120	51,074	10.81	4,725
1974	186,696.68	124,392	117,926	87,440	11.04	7,920
1975	113,908.64	74,866	70,975	54,325	11.27	4,820
1976	88,366.64	57,281	54,304	42,899	11.50	3,730
1977	125,285.70	80,030	75,870	61,944	11.74	5,276
1978	145,082.33	91,252	86,509	73,082	11.99	6,095
1979	333,194.11	206,296	195,573	170,941	12.24	13,966
1980	61,598.79	37,509	35,559	32,200	12.50	2,576
1981	1,045,858.37	626,175	593,628	556,816	12.76	43,638
1982	458,933.77	270,083	256,045	248,782	13.02	19,108

#### ACCOUNT 373 STREET LIGHTING AND SIGNAL SYSTEMS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVI	OR CURVE IOWA	28-L0.5				
	ALVAGE PERCENT					
1983	195,437.83	112,943	107,073	107,909	13.29	8,120
1984	870,408.00	493,431	467,784	489,665	13.57	36,084
1985	930,846.77	517,454	490,558	533,373	13.85	38,511
1986	625,183.91	340,413	322,719	364,983	14.14	25,812
1988	178,175.94	92,887	88,059	107,935	14.73	7,328
1989	1,122,501.63	571,517	541,811	692,941	15.04	46,073
1990	740,066.91	367,790	348,673	465,401	15.35	30,319
1991	587,593.72	284,628	269,834	376,519	15.67	24,02B
1992	417,023.52	196,761	186,534	272,192	15.99	17,023
1993	969,302.45	444,768	421,650	644,583	16.32	39,497
1994	1,528,527.70	680,959	645,565	1,035,815	16.66	62,174
1995	600,454.85	259,484	245,997	414,503	17.00	24,383
1996	933,533.18	390,587	370,285	656,601	17.35	37,844
1997	1,287,919.21	520,641	493,580	923,131	17.71	52,125
1998	912,390.42	355,576	337,094	666,535	18.08	36,866
1999	2,614,443.57	980,879	929,896	1,945,992	18.45	105,474
2000	2,971,656.54	1,070,539	1,014,895	2,253,927	18.83	119,699
2001	2,434,615.19	838,800	795,201	1,882,876	19.23	97,913
2002	1,985,302.15	652,027	618,136	1,565,696	19.64	79,720
2003	5,111,538.88	1,592,403	1,509,634	4,113,059	20.07	204,936
2004	1,903,209.90	559,266	530,197	1,563,334	20.52	76,186
2005	396,543.57	109,049	103,381	332,817	21.00	15,848
2006	318,362.08	81,172	76,953	273,245	21.51	12,703
2007	42,005.95	9,836	9,325	36,882	22.04	1,673
2008	2,808,783.88	594,760	563,846	2,525,816	22.61	111,712
2009	8,358,582.52	1,572,893	1,491,139	7,703,302	23.21	331,896
2010	17,156,153.84	2,803,779	2,658,046	16,213,723	23.B4	680,106
2011	4,672,804.56	640,660	607,360	4,532,725	24.51	184,934
2012	6,355,945.80	696,637	660,428	6,331,112	25.21	251,135
2013	2,005,001.28	162,259	153,825	2,051,676	25.94	79,093
2014	15,925,692.98	800,760	759,139	16,759,123	26.72	627,213
2015	4,245,037.71	75,040	71,140	4,598,401	27.55	166,911
	95,997,822.30	22,095,483	20,947,022	84,650,583		3,837,892

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 22.1 4.00

## ACCOUNT 390.1 STRUCTURES AND IMPROVEMENTS - TO OWNED PROPERTY

NET SALVAGE PERCENT15  1941	YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
1942   561,26   516   427   218   10.03   22     1949   227.20   194   161   100   12.85   84     1950   2,473.03   2,090   1,731   1,113   13.25   84     1952   2,144.06   1,771   1,467   999   14.08   71     1953   807.17   659   546   382   14.49   26     1955   9,134.26   7,284   6,032   4,472   15.33   292     1956   269,264.00   212,113   175,651   134,003   15.75   8,508     1957   13.55   11   9   7   16.18     1958   157,902.06   121,300   100,449   81,138   16.60   4,888     1960   3,486.27   2,609   2,161   1,848   17.46   106     1961   43,899.38   32,411   26,840   23,644   17.90   1,321     1962   361,103.33   263,031   217,816   197,453   18.33   10,772     1963   315,228.70   10,939   9,059   8,454   48.77   450     1965   93,255.64   65,076   53,889   53,355   19.66   2,714     1966   311,293.37   214,076   177,276   180,711   20.10   8,991     1967   30,369.85   20,571   17,035   17,890   20.55   871     1968   6,845.65   4,564   3,779   4,093   21.01   195     1969   177,919.99   116,790   96,714   107,894   21.46   5,028     1970   931,480.68   601,587   498,175   573,028   21.92   26,142     1971   153,987.54   97,787   80,977   96,109   22.39   4,292     1972   381,891.85   238,472   197,479   241,697   22.85   10,578     1973   20,525.49   12,595   10,430   13,174   23.32   565     1974   29,934.37   18,038   14,937   19,488   23.80   819     1977   99,499.44   56,663   46,923   67,501   25.24   2,674     1980   80,159.37   42,921   35,543   56,640   26.23   2,644     1980   80,159.37   42,921   35,543   56,640   26.23   2,644     1980   80,159.37   42,921   35,543   56,640   26.23   2,644     1980   80,159.37   42,921   35,543   56,640   26.23   2,644     1980   80,159.37   42,921   35,543   56,640   26.23   2,644     1980   80,159.37   42,921   35,543   56,640   26.23   2,644     1980   80,159.37   42,921   35,543   56,640   27.72   2,884     1981   1,181,126,82   618,568   512,769   995,585   92.29   33,991     1986   718,386.14   333,432   276,115   550,029   29.82   18,445     1980							
1949	1941	20,925.95	19,425	16,086	7,979	9.64	828
1950         2,473.03         2,090         1,731         1,113         13.25         84           1952         2,144.06         1,771         1,467         999         14.08         71           1953         807.17         659         546         382         14.49         26           1955         9,134.26         7,284         6,032         4,472         15.33         292           1956         269,264.00         212,113         175,651         134,003         15.75         8,508           1957         13.35         11         9         7         16.18           1950         3,486.27         2,609         2,161         1,848         17.46         106           1961         43,899.38         32,411         26,840         23,644         17.90         1,321           1962         361,103.33         263,031         217,816         197,453         18.33         10,772           1963         15,228.70         10,939         9,059         8,454         18.77         450           1966         311,293.37         214,076         177,276         180,711         20.10         8,991           1967         30,369.85         20,	1942	561.26	516	427	218	10.03	22
1952   2,144.06   1,771   1,467   9.99   14.08   71   1.953   807.17   6.59   5.46   382   14.49   26   1.955   9,134.26   7,284   6,032   4,472   15.33   2.92   1.956   269,264.00   212,113   175,651   134,003   15.75   8,508   1.957   13.55   11   7   7   16.18   1.958   1.959   1.902.06   121,300   100,449   81,138   16.60   4,888   1.960   3,486.27   2,609   2,161   1,848   17.46   106   1.961   43,899.38   32,411   26,840   23,644   17.90   1,321   1.962   361,103.33   263,031   217,816   197,453   18.33   10,772   1.963   15,228.70   10,939   9,059   8,454   18.77   4.50   1.955   33,255.64   65,076   53,889   53,355   19.66   2,714   1.966   311,293.37   214,076   177,276   180,711   20.10   8,991   1.967   30,369.85   20,571   17,035   17,890   20.55   871   1.968   6,845.65   4,564   3,779   4,093   21.01   1.95   1.969   1.77,919.99   116,790   96,714   107,894   21.46   5,028   1.970   931,480.68   601,587   498,175   573,028   21.92   26,142   1.971   23,387.54   97,787   80,977   96,109   22.39   4,292   1.972   381,891.85   238,472   197,479   241,697   22.85   10,578   1.973   20,525.49   12,595   10,430   13,174   23,332   565   1.974   29,934.37   18,038   14,937   19,488   23.80   819   1.975   106,055.99   62,763   51,974   69,990   24.27   2,884   1.977   99,499.44   56,663   46,923   67,501   25.24   2,674   1.980   80,159.37   42,921   35,543   56,640   26.72   2,120   1.981   1,181,126.82   618,568   512,237   846,059   27.23   31,071   1.982   243,932.20   124,888   103,420   177,102   27.74   6,384   1.980   80,159.37   42,921   35,543   56,640   26.72   2,120   1.983   381,705.99   190,948   188,124   280,838   28.25   9,941   1.986   718,386.14   333,432   276,115   550,029   29,82   33,991   1.986   718,386.14   333,432   276,115   550,029   29,82   33,991   1.986   718,386.14   333,432   276,115   550,029   29,82   33,991   1.986   718,386.14   333,432   276,115   550,029   29,82   33,991   1.986   718,386.14   333,432   276,115   550,029   29,82   33,991   1.986   718,386.14   33	1949	227.20	194	161	100	12.85	8
1953	1950	2,473.03	2,090	1,731	1,113	13.25	84
1955         9,134.26         7,284         6,032         4,472         15.33         292           1956         269,264.00         212,113         175,651         134,003         15.75         8,508           1957         13.55         11         9         7         16.18           1958         157,902.06         121,300         100,449         81,138         16.60         4,888           1960         3,486.27         2,609         2.161         1,848         17.46         106           1961         43,899.38         32,411         26,840         23,644         17.90         1,321           1962         361,103.33         263,031         217,816         197,453         18.33         10,772           1963         15,228.70         10,939         9,059         8,454         18.77         450           1966         31,293.37         214,076         177,276         180,711         20.10         8,991           1967         30,369.85         20,571         17,035         17,890         20.55         871           1968         6,845.65         4,564         3,779         4,092         21.46         5,028           1971         153	1952	2,144.06	1,771	1,467	999		71
1956         269,264.00         212,113         175,651         134,003         15.75         8,508           1957         13.55         11         9         7         16.18         18           1958         157,902.06         121,300         100,449         81,138         16.60         4,888           1960         3,486.27         2,609         2,161         1,848         17.46         106           1961         43,899.38         32,411         26,840         23,644         17.90         1,321           1963         15,228.70         10,939         9,059         8,454         18.77         450           1965         93,255.64         65,076         53,889         53,355         19.66         2,714           1966         311,293.37         214,076         177,276         180,711         20.10         8,991           1967         30,369.85         20,571         17,035         17,890         20.55         871           1968         6,845.65         4,564         3,779         4,093         21.01         195           1969         177,919.99         116,790         96,714         107,894         21.46         5,028           19	1953	807.17	659	546		14.49	26
1957         13.55         11         9         7         16.18           1958         157,902.06         121,300         100,449         81,138         16.60         4,888           1960         3,486.27         2,609         2,161         1,848         17.46         106           1961         43,899.38         32,411         26,840         23,644         17.90         1,321           1962         361,103.33         263,031         217,816         197,453         18.33         10,772           1963         15,228.70         10,939         9,059         8,454         18.77         450           1965         93,255.64         65,076         53,889         53,355         19.66         2,714           1966         311,293.37         214,076         177,276         180,711         20.10         8,991           1967         30,369.85         20,571         17,035         17,890         20.55         871           1968         6,845.65         4,564         3,779         4,093         21.01         195           1969         177,919.99         116,790         96,714         107,894         21.46         5,028           1971 <td< td=""><td>1955</td><td>9,134.26</td><td>7,284</td><td>6,032</td><td></td><td></td><td></td></td<>	1955	9,134.26	7,284	6,032			
1958         157,902.06         121,300         100,449         81,138         16.60         4,888           1960         3,486.27         2,609         2,161         1,888         17.46         106           1961         43,899.38         32,411         26,840         23,644         17.90         1,321           1962         361,103.33         263,031         217,816         197,453         18.33         10,772           1963         15,228.70         10,939         9,059         8,454         18.77         450           1965         93,255.64         65,076         53,889         53,355         19.66         2,714           1966         311,293.37         214,076         177,276         180,711         20.10         8,991           1967         30,369.85         20,571         17,035         17,890         20.55         871           1968         6,845.65         4,564         3,779         4,093         21.01         195           1969         177,919.99         116,790         96,714         107,894         21.46         5,028           1970         931,480.68         601,587         498,175         573,028         21.92         26,142 </td <td>1956</td> <td>269,264.00</td> <td>212,113</td> <td>175,651</td> <td>134,003</td> <td></td> <td>8,508</td>	1956	269,264.00	212,113	175,651	134,003		8,508
1960       3,486.27       2,609       2,161       1,848       17,46       106         1961       43,899.38       32,411       26,840       23,644       17.90       1,321         1962       361,103.33       263,031       217,816       197,453       18.33       10,772         1963       15,228.70       10,939       9,059       8,454       18.77       450         1965       93,255.64       65,076       53,889       53,355       19.66       2,714         1966       311,293.37       214,076       177,276       180,711       20.10       8,991         1967       30,369.85       20,571       17,035       17,890       20.55       871         1968       6,845.65       4,564       3,779       4,093       21.01       195         1979       931,480.68       601,587       498,175       573,028       21.92       26,142         1971       153,987.54       97,787       80,977       96,109       22.39       4,292         1972       381,891.85       238,472       197,479       241,697       22.85       10,578         1973       20,525.49       12,595       10,430       13,174       23.32	1957						
1961       43,899.38       32,411       26,840       23,644       17.90       1,321         1962       361,103.33       263,031       217,816       197,453       18.33       10,772         1963       15,228.70       10,939       9,059       8,454       18.77       450         1965       93,255.64       65,076       53,889       53,355       19.66       2,714         1966       311,293.37       214,076       177,276       180,711       20.10       8,991         1967       30,369.85       20,571       17,035       17,890       20.55       871         1968       6,845.65       4,564       3,779       4,093       21.01       195         1969       177,919.99       116,790       96,714       107,894       21.46       5,028         1970       931,480.68       601,587       498,175       573,028       21.92       26,142         1971       153,987.54       97,787       80,977       96,109       22.39       4,292         1972       381,891.85       238,472       197,479       241,697       22.85       10,578         1973       20,525.49       12,595       10,430       13,174       2							
1962       361,103.33       263,031       217,816       197,453       18.33       10,772         1963       15,228.70       10,939       9,059       8,454       18.77       450         1965       93,255.64       65,076       53,889       53,355       19.66       2,714         1966       311,293.37       214,076       177,276       180,711       20.10       8,991         1967       30,369.85       20,571       17,035       17,890       20.55       871         1968       6,845.65       4,564       3,779       4,093       21.01       195         1970       931,480.68       601,587       498,175       573,028       21.92       26,142         1971       153,987.54       97,787       80,977       96,109       22.39       4,292         1972       381,891.85       238,472       197,479       241,697       22.85       10,578         1973       20,525.49       12,595       10,430       13,174       23.32       565         1974       29,934.37       18,038       14,937       19,488       23.80       819         1975       106,055.99       62,763       51,974       69,990       24.27 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
1963         15,228.70         10,939         9,059         8,454         18.77         450           1965         93,255.64         65,076         53,889         53,355         19.66         2,714           1966         311,293.37         214,076         177,276         180,711         20.10         8,991           1967         30,369.85         20,571         17,035         17,890         20.55         871           1968         6,845.65         4,564         3,779         4,093         21.01         195           1970         931,480.68         601,587         498,175         573,028         21.92         26,142           1971         153,987.54         97,787         80,977         96,109         22.39         4,292           1972         381,891.85         238,472         197,479         241,697         22.85         10,578           1973         20,525.49         12,595         10,430         13,174         23.32         565           1974         29,934.37         18,038         14,937         19,488         23.80         819           1975         106,055.99         62,763         51,974         69,990         24.27         2,884 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
1965         93,255.64         65,076         53,889         53,355         19.66         2,714           1966         311,293.37         214,076         177,276         180,711         20.10         8,991           1967         30,369.85         20,571         17,035         17,890         20.55         871           1968         6,845.65         4,564         3,779         4,093         21.01         195           1969         177,919.99         116,790         96,714         107,894         21.46         5,028           1970         931,480.68         601,587         498,175         573,028         21.92         26,142           1971         153,987.54         97,787         80,977         96,109         22.39         4,292           1972         381,891.85         238,472         197,479         241,697         22.85         10,578           1973         20,525.49         12,595         10,430         13,174         23.32         565           1974         29,934.37         18,038         14,937         19,488         23.80         819           1975         106,055.99         62,763         51,974         69,990         24.27         2,884							
1966       311,293.37       214,076       177,276       180,711       20.10       8,991         1967       30,369.85       20,571       17,035       17,890       20.55       871         1968       6,845.65       4,564       3,779       4,093       21.01       195         1969       177,919.99       116,790       96,714       107,894       21.46       5,028         1970       931,480.68       601,587       498,175       573,028       21.92       26,142         1971       153,987.54       97,787       80,977       96,109       22.39       4,292         1972       381,891.85       238,472       197,479       241,697       22.85       10,578         1973       20,525.49       12,595       10,430       13,174       23.32       565         1974       29,934.37       18,038       14,937       19,488       23.80       819         1975       106,055.99       62,763       51,974       69,990       24.27       2,884         1977       99,499.44       56,663       46,923       67,501       25.24       2,674         1980       80,159,37       42,921       35,543       56,640       26.72							
1967         30,369.85         20,571         17,035         17,890         20.55         871           1968         6,845.65         4,564         3,779         4,093         21.01         195           1969         177,919.99         116,790         96,714         107,894         21.46         5,028           1970         931,480.68         601,587         498,175         573,028         21.92         26,142           1971         153,987.54         97,787         80,977         96,109         22.39         4,292           1972         381,891.85         238,472         197,479         241,697         22.85         10,578           1973         20,525.49         12,595         10,430         13,174         23.32         565           1974         29,934.37         18,038         14,937         19488         23.80         819           1975         106,055.99         62,763         51,974         69,990         24.27         2,884           1977         99,498.55         54,375         45,028         69,349         26.23         2,644           1979         99,458.52         54,375         45,028         69,349         26.23         2,644 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
1968         6,845.65         4,564         3,779         4,093         21.01         195           1969         177,919.99         116,790         96,714         107,894         21.46         5,028           1970         931,480.68         601,587         498,175         573,028         21.92         26,142           1971         153,987.54         97,787         80,977         96,109         22.39         4,292           1972         381,891.85         238,472         197,479         241,697         22.85         10,578           1973         20,525.49         12,595         10,430         13,174         23.32         565           1974         29,934.37         18,038         14,937         19,488         23.80         819           1975         106,055.99         62,763         51,974         69,990         24.27         2,884           1977         99,499.44         56,663         46,923         67,501         25.24         2,674           1979         99,458.52         54,375         45,028         69,349         26.23         2,644           1980         80,159.37         42,921         35,543         56,640         26.72         2,120							
1969     177,919.99     116,790     96,714     107,894     21.46     5,028       1970     931,480.68     601,587     498,175     573,028     21.92     26,142       1971     153,987.54     97,787     80,977     96,109     22.39     4,292       1972     381,891.85     238,472     197,479     241,697     22.85     10,578       1973     20,525.49     12,595     10,430     13,174     23.32     565       1974     29,934.37     18,038     14,937     19,488     23.80     819       1975     106,055.99     62,763     51,974     69,990     24.27     2,884       1977     99,499.44     56,663     46,923     67,501     25.24     2,674       1980     80,159.37     42,921     35,543     56,640     26.72     2,120       1981     1,181,126.82     618,568     512,237     846,059     27.23     31,071       1982     243,932.20     124,888     103,420     177,102     27.74     6,384       1983     381,705.99     190,948     158,124     280,838     28.25     9,941       1984     181,632.11     88,689     73,443     135,434     28.77     4,707 <td< td=""><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td></td<>			-				
1970       931,480.68       601,587       498,175       573,028       21.92       26,142         1971       153,987.54       97,787       80,977       96,109       22.39       4,292         1972       381,891.85       238,472       197,479       241,697       22.85       10,578         1973       20,525.49       12,595       10,430       13,174       23.32       565         1974       29,934.37       18,038       14,937       19,488       23.80       819         1975       106,055.99       62,763       51,974       69,990       24.27       2,884         1977       99,499.44       56,663       46,923       67,501       25.24       2,674         1979       99,458.52       54,375       45,028       69,349       26.23       2,644         1980       80,159.37       42,921       35,543       56,640       26.72       2,120         1981       1,181,126.82       618,568       512,237       846,059       27.23       31,071         1982       243,932.20       124,888       103,420       177,102       27.74       6,384         1983       381,705.99       190,948       158,124       280,838							
1971       153,987.54       97,787       80,977       96,109       22.39       4,292         1972       381,891.85       238,472       197,479       241,697       22.85       10,578         1973       20,525.49       12,595       10,430       13,174       23.32       565         1974       29,934.37       18,038       14,937       19,488       23.80       819         1975       106,055.99       62,763       51,974       69,990       24.27       2,884         1977       99,499.44       56,663       46,923       67,501       25.24       2,674         1979       99,458.52       54,375       45,028       69,349       26.23       2,644         1980       80,159.37       42,921       35,543       56,640       26.72       2,120         1981       1,181,126.82       618,568       512,237       846,059       27.23       31,071         1982       243,932.20       124,888       103,420       177,102       27.74       6,384         1983       381,705.99       190,948       158,124       280,838       28.25       9,941         1984       181,632.11       88,689       73,443       135,434				·			
1972       381,891.85       238,472       197,479       241,697       22.85       10,578         1973       20,525.49       12,595       10,430       13,174       23.32       565         1974       29,934.37       18,038       14,937       19,488       23.80       819         1975       106,055.99       62,763       51,974       69,990       24.27       2,884         1977       99,499.44       56,663       46,923       67,501       25.24       2,674         1979       99,458.52       54,375       45,028       69,349       26.23       2,644         1980       80,159.37       42,921       35,543       56,640       26.72       2,120         1981       1,181,126.82       618,568       512,237       846,059       27.23       31,071         1982       243,932.20       124,888       103,420       177,102       27.74       6,384         1983       381,705.99       190,948       158,124       280,838       28.25       9,941         1984       181,632.11       88,689       73,443       135,434       28.77       4,707         1985       1,317,694.72       627,658       519,764       995,585 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
1973       20,525.49       12,595       10,430       13,174       23.32       565         1974       29,934.37       18,038       14,937       19,488       23.80       819         1975       106,055.99       62,763       51,974       69,990       24.27       2,884         1977       99,499.44       56,663       46,923       67,501       25.24       2,674         1979       99,458.52       54,375       45,028       69,349       26.23       2,644         1980       80,159.37       42,921       35,543       56,640       26.72       2,120         1981       1,181,126.82       618,568       512,237       846,059       27.23       31,071         1982       243,932.20       124,888       103,420       177,102       27.74       6,384         1983       381,705.99       190,948       158,124       280,838       28.25       9,941         1984       181,632.11       88,689       73,443       135,434       28.77       4,707         1985       1,317,694.72       627,658       519,764       995,585       29.29       33,991         1986       588,128.55       258,365       213,952       462,396 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
1974       29,934.37       18,038       14,937       19,488       23.80       819         1975       106,055.99       62,763       51,974       69,990       24.27       2,884         1977       99,499.44       56,663       46,923       67,501       25.24       2,674         1979       99,458.52       54,375       45,028       69,349       26.23       2,644         1980       80,159.37       42,921       35,543       56,640       26.72       2,120         1981       1,181,126.82       618,568       512,237       846,059       27.23       31,071         1982       243,932.20       124,888       103,420       177,102       27.74       6,384         1983       381,705.99       190,948       158,124       280,838       28.25       9,941         1984       181,632.11       88,689       73,443       135,434       28.77       4,707         1985       1,317,694.72       627,658       519,764       995,585       29.29       33,991         1986       718,386.14       333,432       276,115       550,029       29.82       18,445         1989       6,204,960.03       2,647,346       2,192,269       <							
1975     106,055.99     62,763     51,974     69,990     24.27     2,884       1977     99,499.44     56,663     46,923     67,501     25.24     2,674       1979     99,458.52     54,375     45,028     69,349     26.23     2,644       1980     80,159.37     42,921     35,543     56,640     26.72     2,120       1981     1,181,126.82     618,568     512,237     846,059     27.23     31,071       1982     243,932.20     124,888     103,420     177,102     27.74     6,384       1983     381,705.99     190,948     158,124     280,838     28.25     9,941       1984     181,632.11     88,689     73,443     135,434     28.77     4,707       1985     1,317,694.72     627,658     519,764     995,585     29.29     33,991       1986     718,386.14     333,432     276,115     550,029     29.82     18,445       1989     6,204,960.03     2,647,346     2,192,269     4,943,435     31.45     157,184       1990     764,131.71     316,351     261,970     616,781     32.00     19,274       1991     278,237.87     111,607     92,422     227,552     32.56     6,989 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
1977       99,499.44       56,663       46,923       67,501       25.24       2,674         1979       99,458.52       54,375       45,028       69,349       26.23       2,644         1980       80,159.37       42,921       35,543       56,640       26.72       2,120         1981       1,181,126.82       618,568       512,237       846,059       27.23       31,071         1982       243,932.20       124,888       103,420       177,102       27.74       6,384         1983       381,705.99       190,948       158,124       280,838       28.25       9,941         1984       181,632.11       88,689       73,443       135,434       28.77       4,707         1985       1,317,694.72       627,658       519,764       995,585       29.29       33,991         1986       718,386.14       333,432       276,115       550,029       29.82       18,445         1988       588,128.55       258,365       213,952       462,396       30.90       14,964         1989       6,204,960.03       2,647,346       2,192,269       4,943,435       31.45       157,184         1990       764,131.71       316,351       261,97							
1979       99,458.52       54,375       45,028       69,349       26.23       2,644         1980       80,159.37       42,921       35,543       56,640       26.72       2,120         1981       1,181,126.82       618,568       512,237       846,059       27.23       31,071         1982       243,932.20       124,888       103,420       177,102       27.74       6,384         1983       381,705.99       190,948       158,124       280,838       28.25       9,941         1984       181,632.11       88,689       73,443       135,434       28.77       4,707         1985       1,317,694.72       627,658       519,764       995,585       29.29       33,991         1986       718,386.14       333,432       276,115       550,029       29.82       18,445         1988       588,128.55       258,365       213,952       462,396       30.90       14,964         1989       6,204,960.03       2,647,346       2,192,269       4,943,435       31.45       157,184         1990       764,131.71       316,351       261,970       616,781       32.00       19,274         1991       278,237.87       111,607       9							
1980       80,159.37       42,921       35,543       56,640       26.72       2,120         1981       1,181,126.82       618,568       512,237       846,059       27.23       31,071         1982       243,932.20       124,888       103,420       177,102       27.74       6,384         1983       381,705.99       190,948       158,124       280,838       28.25       9,941         1984       181,632.11       88,689       73,443       135,434       28.77       4,707         1985       1,317,694.72       627,658       519,764       995,585       29.29       33,991         1986       718,386.14       333,432       276,115       550,029       29.82       18,445         1988       588,128.55       258,365       213,952       462,396       30.90       14,964         1989       6,204,960.03       2,647,346       2,192,269       4,943,435       31.45       157,184         1990       764,131.71       316,351       261,970       616,781       32.00       19,274         1991       278,237.87       111,607       92,422       227,552       32.56       6,989         1992       761,913.37       295,630 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
1981       1,181,126.82       618,568       512,237       846,059       27.23       31,071         1982       243,932.20       124,888       103,420       177,102       27.74       6,384         1983       381,705.99       190,948       158,124       280,838       28.25       9,941         1984       181,632.11       88,689       73,443       135,434       28.77       4,707         1985       1,317,694.72       627,658       519,764       995,585       29.29       33,991         1986       718,386.14       333,432       276,115       550,029       29.82       18,445         1988       588,128.55       258,365       213,952       462,396       30.90       14,964         1989       6,204,960.03       2,647,346       2,192,269       4,943,435       31.45       157,184         1990       764,131.71       316,351       261,970       616,781       32.00       19,274         1991       278,237.87       111,607       92,422       227,552       32.56       6,989         1992       761,913.37       295,630       244,811       631,389       33.13       19,058         1994       800,609.07       289,284							
1982     243,932.20     124,888     103,420     177,102     27.74     6,384       1983     381,705.99     190,948     158,124     280,838     28.25     9,941       1984     181,632.11     88,689     73,443     135,434     28.77     4,707       1985     1,317,694.72     627,658     519,764     995,585     29.29     33,991       1986     718,386.14     333,432     276,115     550,029     29.82     18,445       1988     588,128.55     258,365     213,952     462,396     30.90     14,964       1989     6,204,960.03     2,647,346     2,192,269     4,943,435     31.45     157,184       1990     764,131.71     316,351     261,970     616,781     32.00     19,274       1991     278,237.87     111,607     92,422     227,552     32.56     6,989       1992     761,913.37     295,630     244,811     631,389     33.13     19,058       1994     800,609.07     289,284     239,556     681,144     34.29     19,864       1995     3,291,747.62     1,143,981     947,332     2,838,178     34.89     81,346							
1983     381,705.99     190,948     158,124     280,838     28.25     9,941       1984     181,632.11     88,689     73,443     135,434     28.77     4,707       1985     1,317,694.72     627,658     519,764     995,585     29.29     33,991       1986     718,386.14     333,432     276,115     550,029     29.82     18,445       1988     588,128.55     258,365     213,952     462,396     30.90     14,964       1989     6,204,960.03     2,647,346     2,192,269     4,943,435     31.45     157,184       1990     764,131.71     316,351     261,970     616,781     32.00     19,274       1991     278,237.87     111,607     92,422     227,552     32.56     6,989       1992     761,913.37     295,630     244,811     631,389     33.13     19,058       1994     800,609.07     289,284     239,556     681,144     34.29     19,864       1995     3,291,747.62     1,143,981     947,332     2,838,178     34.89     81,346							
1984     181,632.11     88,689     73,443     135,434     28.77     4,707       1985     1,317,694.72     627,658     519,764     995,585     29.29     33,991       1986     718,386.14     333,432     276,115     550,029     29.82     18,445       1988     588,128.55     258,365     213,952     462,396     30.90     14,964       1989     6,204,960.03     2,647,346     2,192,269     4,943,435     31.45     157,184       1990     764,131.71     316,351     261,970     616,781     32.00     19,274       1991     278,237.87     111,607     92,422     227,552     32.56     6,989       1992     761,913.37     295,630     244,811     631,389     33.13     19,058       1994     800,609.07     289,284     239,556     681,144     34.29     19,864       1995     3,291,747.62     1,143,981     947,332     2,838,178     34.89     81,346							
1985     1,317,694.72     627,658     519,764     995,585     29.29     33,991       1986     718,386.14     333,432     276,115     550,029     29.82     18,445       1988     588,128.55     258,365     213,952     462,396     30.90     14,964       1989     6,204,960.03     2,647,346     2,192,269     4,943,435     31.45     157,184       1990     764,131.71     316,351     261,970     616,781     32.00     19,274       1991     278,237.87     111,607     92,422     227,552     32.56     6,989       1992     761,913.37     295,630     244,811     631,389     33.13     19,058       1994     800,609.07     289,284     239,556     681,144     34.29     19,864       1995     3,291,747.62     1,143,981     947,332     2,838,178     34.89     81,346							
1986       718,386.14       333,432       276,115       550,029       29.82       18,445         1988       588,128.55       258,365       213,952       462,396       30.90       14,964         1989       6,204,960.03       2,647,346       2,192,269       4,943,435       31.45       157,184         1990       764,131.71       316,351       261,970       616,781       32.00       19,274         1991       278,237.87       111,607       92,422       227,552       32.56       6,989         1992       761,913.37       295,630       244,811       631,389       33.13       19,058         1994       800,609.07       289,284       239,556       681,144       34.29       19,864         1995       3,291,747.62       1,143,981       947,332       2,838,178       34.89       81,346							
1988     588,128.55     258,365     213,952     462,396     30.90     14,964       1989     6,204,960.03     2,647,346     2,192,269     4,943,435     31.45     157,184       1990     764,131.71     316,351     261,970     616,781     32.00     19,274       1991     278,237.87     111,607     92,422     227,552     32.56     6,989       1992     761,913.37     295,630     244,811     631,389     33.13     19,058       1994     800,609.07     289,284     239,556     681,144     34.29     19,864       1995     3,291,747.62     1,143,981     947,332     2,838,178     34.89     81,346							
1989     6,204,960.03     2,647,346     2,192,269     4,943,435     31.45     157,184       1990     764,131.71     316,351     261,970     616,781     32.00     19,274       1991     278,237.87     111,607     92,422     227,552     32.56     6,989       1992     761,913.37     295,630     244,811     631,389     33.13     19,058       1994     800,609.07     289,284     239,556     681,144     34.29     19,864       1995     3,291,747.62     1,143,981     947,332     2,838,178     34.89     81,346		•					
1990     764,131.71     316,351     261,970     616,781     32.00     19,274       1991     278,237.87     111,607     92,422     227,552     32.56     6,989       1992     761,913.37     295,630     244,811     631,389     33.13     19,058       1994     800,609.07     289,284     239,556     681,144     34.29     19,864       1995     3,291,747.62     1,143,981     947,332     2,838,178     34.89     81,346							
1991     278,237.87     111,607     92,422     227,552     32.56     6,989       1992     761,913.37     295,630     244,811     631,389     33.13     19,058       1994     800,609.07     289,284     239,556     681,144     34.29     19,864       1995     3,291,747.62     1,143,981     947,332     2,838,178     34.89     81,346							19,274
1992     761,913.37     295,630     244,811     631,389     33.13     19,058       1994     800,609.07     289,284     239,556     681,144     34.29     19,864       1995     3,291,747.62     1,143,981     947,332     2,838,178     34.89     81,346							
1994       800,609.07       289,284       239,556       681,144       34.29       19,864         1995       3,291,747.62       1,143,981       947,332       2,838,178       34.89       81,346							
1995 3,291,747.62 1,143,981 947,332 2,838,178 34.89 81,346					681,144	34.29	19,864
1996 926,707.45 309,270 256,107 809,607 35.49 22,812	1995	3,291,747.62	1,143,981	947,332		34.89	
	1996	926,707.45	309,270	256,107	809,607	35.49	22,812

### ACCOUNT 390.1 STRUCTURES AND IMPROVEMENTS - TO OWNED PROPERTY

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	OR CURVE IOWA					
NET SA	ALVAGE PERCENT	-15				
1997	199,853.77	63,893	52,910	176,922	36.10	4,901
1998	143,057.78	43,696	36,185	128,331	36.72	3,495
1999	434,929.92	126,543	104,790	395,379	37.35	10,586
2000	448,594.83	123,915	102,614	413,270	37.99	10,878
2001	1,061,063.69	277,235	229,579	990,644	38.64	25,638
2002	161,504.46	39,746	32,914	152,816	39.30	3,888
2003	1,738,444.06	400,642	331,772	1,667,439	39.98	41,707
2004	317,371.37	68,105	56,398	308,579	40.67	7,587
2005	1,183,971.00	235,006	194,609	1,166,958	41.37	28,208
2006	646,597.22	117,635	97,414	646,173	42.09	15,352
2007	1,088,091.67	179,437	148,592	1,102,713	42.83	25,746
2008	4,422,984.30	653,098	540,830	4,545,602	43.58	104,305
2009	2,633,686.17	342,248	283,416	2,745,323	44.35	61,901
2010	1,160,979.54	129,507	107,245	1,227,881	45.15	27,196
2011	3,125,052.54	290,380	240,464	3,353,346	45.96	72,962
2012	6,334,518.20	466,221	386,077	6,898,619	46.80	147,406
2013	2,888,311.90	154,785	128,177	3,193,382	47.67	66,989
2014	1,775,868.42	58,408	48,368	1,993,881	48.57	41,052
2015	5,860,718.68	66,050	54,696	6,685,130	49.51	135,026
	56,676,361.14	13,473,198	11,157,166	54,020,649		1,378,746

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 39.2 2.43

### ACCOUNT 390.2 STRUCTURES AND IMPROVEMENTS - TO LEASED PROPERTY

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
(1)	(2)	(3)	(4)	(3)	(0)	(7)
	OR CURVE IOWA					
NET SAI	LVAGE PERCENT	-10				
1954	172.93	181	190			
1960	725.23	722	798			
1962	7,205.33	7,056	7,926			
1963	399.36	388	439			
1966	623.09	588	685			
1967	465.41	435	512			
1970	405.94	367	447			
1971	1,164.17	1,041	1,281			
1973	131.45	115	145			
1974	186.50	161	205			
1977	148.09	122	163			
1978	3,924.94	3,186	4,317			
1979	5,040.26	4,022	5,544			
1980	837.61	657	921			
1981	51,658.03	39,742	56,824			
1982	4,351.91	3,281	4,787			
1983	18,457.70	13,628	20,129	174	10.85	16
1984	1,919.65	1,387	2,049	63	11.33	6
1985	10,670.24	7,530	11,122	615	11.83	52
1986	4,221.73	2,906	4,292	352	12.35	29
1987	3,902.50	2,617	3,865	428	12.88	33
1988	4,433.34	2,892	4,272	605	13.43	45
1989	121,720.51	77,130	113,922	19,971	13.99	1,428
1991	42,777.33	25,438	37,572	9,483	15.16	626
1992	1,038.61	597	882	260	15.77	16
1993	2,633.36	1,458	2,153	744	16.39	45
1994	62,551.31	33,319	49,213	19,593	17.02	1,151
1995	3,884.36	1,985	2,932	1,341	17.67	76
1996	40,240.41	19,678	29,065	15,199	18.33	829
1998	16,271.89	7,225	10,671	7,228	19.68	367
1999	2,747.75	1,157	1,709	1,314	20.37	65
2000	113,747.39	45,234	66,812	58,310	21.07	2,767
2000	110,141.07	23,433	00,012	30,310	21.07	4,707
	528,658.33	306,245	445,844	135,680		7,551

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.0 1.43

### ACCOUNT 391.1 OFFICE FURNITURE AND EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE 20-SO LVAGE PERCENT	<b>-</b>				
1979	139.70	140	140			
1981	3,659.24	3,659	3,659			
1992	98,424.92	98,425	98,425			
1993	97,780.00	97,780	97,780			
1994	146,869.00	146,869	146,869			
1995	380,370.00	380,370	380,370			
1996	218,919.78	213,447	217,218	1,702	0.50	1,702
1997	273,690.39	253,164	257,636	16,054	1.50	10,703
1998	217,728.76	190,513	193,879	23,850	2.50	9,540
1999	197,525.05	162,958	165,837	31,688	3.50	9,054
2000	3,589,975.52	2,782,231	2,831,381	758,595	4.50	168,577
2001	163,226.00	118,339	120,430	42,796	5.50	7,781
2002	188,528.48	127,257	129,505	59,023	6.50	9,080
2003	250,973.01	156,858	159,629	91,344	7.50	12,179
2004	149,260.52	85,825	87,341	61,920	8.50	7,285
2005	164,091.73	86,148	87,670	76,422	9.50	8,044
2006	99,011.55	47,030	47,861	51,151	10.50	4,872
2007	312,121.99	132,652	134,995	177,127	11.50	15,402
2008	181,323.81	67,996	69,197	112,127	12.50	8,970
2009	591,964.52	192,388	195,787	396,178	13.50	29,347
2010	56,433.78	15,519	15,793	40,641	14.50	2,803
2011	106,713.53	24,011	24,435	82,279	15.50	5,308
2012	415,596.78	72,729	74,014	341,583	16.50	20,702
2013	396,657.69	49,582	50,458	346,200	17.50	19,783
2014	865,497.68	64,912	66,059	799,439	18.50	43,213
2015	831,276.04	20,782	21,149	810,127	19.50	41,545
	9,997,759.47	5,591,584	5,677,517	4,320,242		435,890

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.9 4.36

### ACCOUNT 391.2 NON PC COMPUTER EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE 5-SQ ALVAGE PERCENT					
2010	206,886.83	206,887	206,887			
2011	3,765,841.71	3,389,258	3,765,842			
2012	4,343,857.39	3,040,700	4,343,857			
2013	3,274,129.88	1,637,065	2,361,534	912,596	2.50	365,038
2014	4,786,100.58	1,435,830	2,071,245	2,714,856	3.50	775,673
2015	10,578,786.40	1,057,879	1,526,034	9,052,752	4.50	2,011,723
	26,955,602.79	10,767,619	14,275,399	12,680,204		3,152,434
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	4.0	11.69

### ACCOUNT 391,31 PERSONAL COMPUTERS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE 4-SQI LVAGE PERCENT					
2009	90,680.82	90,681	90,681			
2010	585,963.69	585,964	585,964			
2011	1,781,377.64	1,781,378	1,781,378			
2012	807,591.04	706,642	322,984	484,607	0.50	484,607
2013	880,851.66	550,532	251,631	629,221	1.50	419,481
2014	1,114,963.88	418,111	191,106	923,858	2.50	369,543
2015	2,225,749.13	278,219	127,165	2,098,584	3.50	599,595
	7,487,177.86	4,411,527	3,350,909	4,136,269		1,873,226

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.2 25.02

### ACCOUNT 392 TRANSPORTATION EQUIPMENT - CARS AND LIGHT TRUCKS

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA AGE PERCENT					
1995	13,338.44	11,871	13,338			
1997	92,023.03	78,483	92,023			
1999	245,293.25	198,688	245,293			
2000	19,170.48	15,076	19,170			
2002	20,067.63	14,692	20,068			
2005	25,658.90	16,147	25,659			
2006	21,485.44	12,630	21,485			
2007	48,222.98	26,144	48,223			
2008	53,416.01	26,288	53,416			
2009	37,375.96	16,339	35,017	2,359	7.88	299
2010	72,524.72	27,404	58,732	13,793	8.71	1,584
2011	207,041.78	65,071	139,459	67,583	9.60	7,040
2012	20,712.34	5,119	10,971	9,741	10.54	924
2013	137,303.90	24,421	52,339	84,965	11.51	7,382
2014	66,621.85	7,138	15,298	51,324	12.50	4,106
3	L,080,256.71	545,511	850,491	229,766		21,335

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.8 1.97

### ACCOUNT 392.1 TRANSPORTATION EQUIPMENT - HEAVY TRUCKS AND OTHER

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVO	R CURVE IOWA	16-L2.5				
NET SAL	VAGE PERCENT	0				
1986	53,393.62	44,483	53,394			
1987	29,800.99	24,493	29,801			
1990	42,398.59	33,309	42,399			
1991	28,015.92	21,625	28,016			
1992	43,105.44	32,679	43,105			
1995	65,953.79	47,033	65,954			
1996	117,263.62	81,938	117,264			
1999	89,313.31	59,002	89,313			
2000	751,980.60	488,321	751,981			
2002	71,349.71	44,371	71,350			
2004	96,078.24	55,666	96,078			
2007	12,992.33	6,171	12,992			
2008	6,659.48	2,859	6,564	95	9.13	10
2009	31,924.42	12,131	27,853	4,071	9.92	410
2010	20,403.31	6,669	15,312	5,091	10,77	473
2011	957,253.85	260,258	597,567	359,687	11.65	30,874
2012	75,086.09	16,050	36,852	38,234	12.58	3,039
2013	27,046.30	4,175	9,586	17,460	13.53	1,290
2014	1,893,957.35	176,365	404,943	1,489,014	14.51	102,620
2015	82,110.68	2,566	5,892	76,219	15.50	4,917
	02,110.00	2,300	3,332	,0,213		1,517
	4,496,087.64	1,420,164	2,506,216	1,989,872		143,633

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.9 3.19

## ACCOUNT 393 STORES EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 25-S( VAGE PERCENT	•				
1992	4,871.57	4,579	4,093	779	1.50	519
1993	15,790.00	14,211	12,704	3,086	2.50	1,234
1994	69,979.00	60,182	53,800	16,179	3.50	4,623
1995	49,532.00	40,616	36,309	13,223	4.50	2,938
1996	70,779.00	55,208	49,353	21,426	5.50	3,896
1997	863.00	639	571	292	6.50	45
1998	2,667.00	1,867	1,669	998	7.50	133
1999	15,683.00	10,351	9,253	6,430	8.50	756
2003	102,957.32	51,479	46,020	56,937	12.50	4,555
2005	118,483.26	49,763	44,486	73,997	14.50	5,103
2007	4,390.25	1,493	1,335	3,055	16.50	185
2009	49,517.43	12,875	11,509	38,008	18.50	2,054
2011	15,739.13	2,833	2,533	13,206	20.50	644
2012	94,723.04	13,261	11,854	82,869	21.50	3,854
2014	289,857.21	17,391	15,547	274,310	23.50	11,673
2015	598,593.70	11,972	10,702	587,892	24.50	23,996
	1,504,425.91	348,720	311,738	1,192,688		66,208

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.0 4.40

### ACCOUNT 394 TOOLS, SHOP AND GARAGE EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

	ORIGINAL	CALCULATED	ALLOC. BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVI	OR CURVE 25-S	OUARE				
	ALVAGE PERCENT					
1991	71,615.29	70,183	69,747	1,868	0.50	1,868
1992	266,024.00	250,063	248,508	17,516	1.50	11,677
1993	51,227.00	46,104	45,817	5,410	2.50	2,164
1994	182,973.00	157,357	156,379	26,594	3.50	7,598
1995	128,983.00	105,766	105,108	23,875	4.50	5,306
1996	320,563.36	250,039	248,484	72,079	5.50	13,105
1997	275,144.00	203,607	202,341	72,803	6.50	11,200
1998	177,280.00	124,096	123,324	53,956	7.50	7,194
1999	291,566.00	192,434	191,238	100,328	8.50	11,803
2000	137,515.75	85,260	84,730	52,786	9.50	5,556
2001	113,230.00	65,673	65,265	47,965	10.50	4,568
2002	71,343.48	38,525	38,285	33,058	11.50	2,875
2003	865,094.84	432,547	429,857	435,238	12.50	34,819
2004	311,595.23	143,334	142,443	169,152	13.50	12,530
2005	203,940.80	85,655	85,122	118,819	14.50	8,194
2006	147,385.38	56,006	55,658	91,727	15.50	5,918
2007	204,061.37	69,381	68,950	135,111	16.50	8,189
2008	92,875.65	27,863	27,690	65,186	17.50	3,725
2009	831,398.08	216,164	214,820	616,578	18.50	33,329
2010	1,353,580.22	297,788	295,936	1,057,644	19.50	54,238
2011	1,081,030.09	194,585	193,375	887,655	20.50	43,300
2012	2,662,620.33	372,767	370,449	2,292,171	21.50	106,613
2013	647,844.06	64,784	64,381	583,463	22.50	25,932
2014	587,894.75	35,274	35,055	552,840	23.50	23,525
2015	1,070,112.37	21,402	21,269	1,048,843	24.50	42,810
	10 146 800 65	2 606 655	3 504 033	0 560 665		400 036
	12,146,898.05	3,606,657	3,584,231	8,562,667		488,036

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.5 4.02

### ACCOUNT 396 POWER OPERATED EQUIPMENT

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA AGE PERCENT	<del>-</del>				
1997	6,098.00	5,389	6,098			
1999	3,705.14	3,228	3,705			
2000	20,831.00	17,902	20,831			
2003	24,822.74	18,772	22,193	2,630	3.90	674
2004	96,576.68	68,146	80,564	16,013	4.71	3,400
2005	11,307.99	7,357	8,698	2,610	5.59	467
2009	132,372.80	53,776	63,575	68,798	9.50	7,242
2010	701,660.60	241,196	285,148	416,513	10.50	39,668
2011	200,469.07	56,382	66,656	133,813	11.50	11,636
2012	236,821.97	51,805	61,246	175,576	12.50	14,046
2013	303,598.60	47,437	56,081	247,518	13.50	18,335
2014	522,741.73	49,007	57,938	464,804	14.50	32,055
2015	32,193.96	1,006	1,189	31,005	15.50	2,000
:	2,293,200.28	621,403	733,922	1,559,278		129,523

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.0 5.65

## ACCOUNT 397 COMMUNICATION EQUIPMENT - MICROWAVE, FIBER AND OTHER

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA ALVAGE PERCENT					
1998	12,457.85	8,658	10,481	1,977	5.49	360
1999	719,866.06	492,705	596,463	123,403	5.68	21,726
2000	235,068.25	157,888	191,137	43,931	5.91	7,433
2001	421,824.46	276,531	334,765	87,059	6.20	14,042
2002	364,284.37	231,117	279,788	84,496	6.58	12,841
2003	1,005,438.46	611,085	739,772	265,666	7.06	37,630
2004	353,367.98	203,384	246,214	107,154	7.64	14,025
2005	130,862.23	70,447	85,282	45,580	8.31	5,485
2006	2,661,141.55	1,320,219	1,598,242	1,062,900	9.07	117,189
2007	2,467,174.30	1,111,610	1,345,702	1,121,472	9.89	113,395
2008	1,494,380.55	601,907	728,661	765,720	10.75	71,230
2009	1,220,864.00	430,696	521,396	699,468	11.65	60,040
2010	1,979,741.19	596,120	721,656	1,258,085	12.58	100,007
2011	2,762,282.69	685,958	830,412	1,931,871	13.53	142,784
2012	634,785.07	123,078	148,997	485,788	14.51	33,480
2013	841,007.21	116,807	141,405	699,602	15.50	45,136
2014	1,189,824.02	99,148	120,028	1,069,796	16.50	64,836
2015	7,362,781.63	204,538	247,611	7,115,171	17.50	406,581
	25,857,151.87	7,341,896	8,888,012	16,969,140		1,268,220

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.4 4.90

### ACCOUNT 397.1 COMMUNICATION EQUIPMENT - RADIO AND TELEPHONE

# CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2015

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE 10-S LVAGE PERCENT	_				
1998	55,121.82	55,122	55,122			
1999	21,147.52	21,148	21,148			
2000	6,604,605.34	6,604,605	6,604,605			
2001	26,921.72	26,922	26,922			
2002	287,671.98	287,672	287,672			
2003	570,618.36	570,618	570,618			
2004	318,932.87	318,933	318,933			
2005	11,795.73	11,796	11,796			
2006	157,786.36	149,897	2,254-	160,040	0.50	160,040
2007	140,698.85	119,594	1,798-	142,497	1.50	94,998
2008	579,287.48	434,466	6,534-	585,821	2.50	234,328
2010	3,948,503.15	2,171,677	32,658-	3,981,161	4.50	884,702
2011	134,632.83	60,585	911-	135,544	5.50	24,644
2012	152,535.52	53,387	803-	153,339	6.50	23,591
2013	176,438.80	44,110	663 -	177,102	7.50	23,614
2014	370,049.66	55,507	835-	370,885	8.50	43,634
2015	6,452,905.12	322,645	4,852-	6,457,757	9.50	679,764
	20,009,653.11	11,308,684	7,845,508	12,164,145		2,169,315

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.6 10.84

### ACCOUNT 397.2 COMMUNICATION EQUIPMENT - DSM

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE 10-S ALVAGE PERCENT	-				
2012	5,875,508.03	2,056,428	497,906	5,377,602	6.50	827,323
	5,875,508.03	2,056,428	497,906	5,377,602		827,323
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	6.5	14.08