## COMMONWEALTH OF KENTUCKY

## BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

| ELECTRONIC APPLICATION OF | ) |
| :--- | :--- |
| KENTUCKY UTILITIES COMPANY FOR AN | ) |
| ADJUSTMENT OF ITS ELECTRIC RATES, A | ) |
| CERTIFICATE OF PUBLIC CONVENIENCE | ) |
| AND NECESSITY TO DEPLOY ADVANCED | ) CASE NO. 2020-00349 |
| METERING INFRASTRUCTURE, | ) |
| APPROVAL OF CERTAIN REGULATORY | ) |
| AND ACCOUNTING TREATMENTS, AND | ) |
| ESTABLISHMENT OF A ONE-YEAR | ) |
| SURCREDIT | ) |

In the Matter of:
ELECTRONIC APPLICATION OF )
LOUISVILLE GAS AND ELECTRIC ) COMPANY FOR AN ADJUSTMENT OF ITS ) ELECTRIC AND GAS RATES, A CERTIFICATE OF PUBLIC CONVENIENCE ) AND NECESSITY TO DEPLOY ADVANCED

CASE NO. 2020-00350
METERING INFRASTRUCTURE, APPROVAL OF CERTAIN REGULATORY ) AND ACCOUNTING TREATMENTS, AND ) ESTABLISHMENT OF A ONE-YEAR SURCREDIT

Filed: November 25, 2020

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## I. INTRODUCTION

Q. Please state your name and business address.
A. My name is William Steven Seelye. My business address is 2604 Sunningdale Place East, La Grange, Kentucky 40031.

## Q. By whom and in what capacity are you employed?

A. I am the managing partner for The Prime Group, LLC, a firm located in La Grange, Kentucky, providing consulting and educational services in the areas of utility regulatory analysis, revenue requirement support, cost of service, rate design and economic analysis.
Q. On whose behalf are you testifying in these proceedings?
A. I am testifying on behalf of Kentucky Utilities Company ("KU"), which provides electric service to utilities throughout Kentucky, and Louisville Gas and Electric Company ("LG\&E") (collectively, "Companies"), which provides both electric and natural gas sales and delivery services in Louisville-Jefferson County and surrounding counties in Kentucky.

## Q. What is the purpose of your testimony?

A. The purpose of my testimony is (i) to describe the proposed allocation of the revenue increases for KU and for LG\&E's electric and natural gas operations; (ii) to support KU and LG\&E's proposed rates; (iii) to sponsor the fully allocated cost of service studies based on KU and LG\&E's embedded cost of providing electric and natural gas service for the fully forecasted test year, which is the 12 months beginning July 1 ,

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2021; and (iv) to sponsor the revenue lag portion of the updated revenue lag study for







KU and LG\&E.

## Q. Please summarize your testimony.

A. My direct testimony addresses the following:

- Cost of Service Studies and the Allocation of the Revenue Increase. In developing their proposed rates in these proceedings, KU and LG\&E considered the results of the cost of service studies. The purpose of a class cost of service study is to determine the contribution that each customer class is making towards the utility's overall rate of return. Cost of service is a standard measure of reasonableness for utility rate design. Rates of return are calculated for each rate class. In the electric cost of service studies, production fixed costs were allocated based on hourly class loads weighted by the hourly Loss of Load Probability ("LOLP"), which is a key measure that has been used by KU and LG\&E for many years to plan their generation resources. The Companies used the LOLP as an electric cost of service methodology in their 2016 and 2018 rate cases. In accordance with the Commission's Order in Case Nos. 2018-00294 and 201800295, KU and LG\&E are also submitting 6 Coincident Peak (" 6 -CP") and 12 Coincident Peak ("12-CP") cost of service studies as alternatives to the LOLP cost of service proposed by the Companies. LG\&E's gas cost of service study used the same methodology as was filed in its 2018 and prior rate cases. The Companies’ class cost of service studies were also used as a guide for allocating the revenue increase to the rate classes and for developing unit charges for electric and gas service.
- Elimination of Environmental Cost Recovery (ECR) Surcharge and Gas Line Tracker (GLT) Projects. KU and LG\&E are proposing to eliminate certain ECR projects. LG\&E is also proposing to eliminate all but two GLT projects. The test-year costs of these projects will be transferred into base rates.
- Continued Separation of Rates into Infrastructure and Variable Cost Components. KU and LG\&E are also proposing to continue to separate out the infrastructure and variable cost components of the energy charge for Residential Service (Rate RS), General Service (Rate GS) and other two-part rates that include only a customer charge and an energy charge. The purpose of this structure 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 (ie., the variable cost component) and which costs are less likely to be avoided (i.e., the fixed cost component). In its Orders
in Case Nos. 2018-00294 and 2018-00295, the Commission ruled that splitting the energy charges into infrastructure and variable components for information purposes is reasonable. My testimony will address the continued importance of this practice.
- Residential Time-of-Day Services. The Companies are proposing to modify Residential Time-of-Day Service (Rates RTOD-E and RTOD-D) to shift the morning peak period by one hour to more accurately reflect current peak periods and to add evening hours to the winter peak period. The on- and off-peak charges are adjusted to reflect this change.
- General Time-of-Day Services. The Companies are proposing to offer optional General Time of Day Services (Rate GTOD - Energy and GTOD - Demand) rate schedules that would be available to any General Service (Rate GS) customer enrolled under the Advanced Metering Systems Customer Service Offering set forth in the Companies' Demand-Side Management Cost Recovery Mechanism.
- Lighting Rates. The Companies are introducing three new light emitting diode (LED) lighting offerings. In its Orders in Case Nos. 2018-00294 and 2018-00295, the Commission approved an LED Conversion Fee that applies whenever a customer requests the replacement of a working non-LED fixture with an LED fixture prior to the failure of the non-LED fixture. The current LED Conversion Fee, which provides for the recovery of the stranded costs created by the replacement of a working non-LED fixture with an LED fixture, is a fixed charge that applies for a period of five years. The Companies are proposing to offer an alternative in which customers can make an up-front payment of the LED Conversion Fee. For Outdoor Sports Lighting Service (Rate OSL), the Companies are proposing to reduce the number of hours during the peak period by one hour.
- Net Metering. In March 2019, Senate Bill 100 was signed into law thereby modifying 278.466 to allow each electric utility to implement rates to recover from non-grandfathered or new net metering customers "all costs necessary to serve its eligible customer-generators, including but not limited to fixed and demand-based costs, without regard for the rate structure for customers who are not eligible customer-generators." The Companies are proposing a new net metering service called "Net Metering Service 2 - NMS 2" that will be applicable to new net metering customers taking service on or after the effective date of the new rates approved in these proceedings.
- Electric Vehicle Rates. The Companies are proposing to offer a new Electric Vehicle Fast Charging Service (Rate EV-FAST). Under the proposed rate, KU and LG\&E would charge $\$ 0.25$ per kWh for charging at Direct Current Fast

Charging Stations (DCFCs) that would be installed by the Companies in late 2022. Because spending for the stations would occur after the end of the forecasted test year in these proceedings, none of the costs are included in revenue requirements.

- Annual Waiver of Non-Residential Late Payment Charges. In Case Nos. 2018-00294 and 2018-00295, the Companies implemented a program to waive late payment charges for residential customers who have not been late in paying their bills during each of the previous 11 months. The Companies are proposing to extend this practice to non-residential customers.
- Miscellaneous Charges. The Companies are proposing changes in certain miscellaneous charges to reflect changes in costs. The Companies are also proposing miscellaneous charges related to the proposed Advanced Metering Infrastructure (AMI) deployment.
- Update to the Lead-Lag Studies. The revenue lags in the study submitted in the Companies' last rate cases were updated for the calendar year 2019.


## Q. Are you supporting certain information required by Commission Regulations 807 KAR 5:001, Section 16(7) and 16(8)?

A. Yes. I am sponsoring the following schedules for the corresponding Filing Requirements:

- Cost of Service Studies
Section 16(7)(v) Tab 52
- Revenue Summary
Section 16(8)(m) Tab 66


## Q. How is your testimony organized?

A. My testimony is divided into the following sections: (I) Introduction, (II) Qualifications, (III) Electric Rate Design and the Allocation of the Increases, (IV) Gas Rate Design and the Allocation of the Increase, (V) Miscellaneous Service Charges, (VI) Advanced Metering Infrastructure (AMI), (VII) Electric Cost of Service Studies, (VIII) Gas Cost of Service Study, and (IX) Lead-Lag Studies.

## II. QUALIFICATIONS

## Q. Please describe your educational and professional background.

A. 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 investorowned utilities, rural electric distribution cooperatives, generation and transmission cooperatives, and municipal utilities. Therefore, including my time at LG\&E, I have more than 40 years of experience in the utility industry. A more detailed description
of my qualifications is included in Exhibit WSS-1.

## Q. Have you ever testified before any state or federal regulatory commissions?

A. Yes. I have testified in over 75 regulatory and court proceedings in 13 different jurisdictions. I have testified before the Kentucky Public Service Commission on behalf of both KU and LG\&E, as well as on behalf of other utilities, on numerous occasions. A listing of my testimony in other proceedings is included in Exhibit WSS1.
Q. Please describe your work and testimony experience as they relate to topics addressed in your testimony.
A. I have performed or supervised the development of cost of service and rate studies for over 150 utilities throughout North America. I have testified on numerous occasions regarding the rates proposed by electric, gas and water utilities, including KU and LG\&E. I have also testified on numerous occasions regarding lead-lag studies.
III. ELECTRIC RATE DESIGN AND THE ALLOCATION OF THE INCREASES A. ALLOCATION OF THE ELECTRIC INCREASES
Q. Please summarize your recommendations for allocating the electric revenue increases to the classes of service.
A. The Companies are proposing an overall revenue increase of $\$ 170,120,598$ for KU , which corresponds to a $10.36 \%$ increase, and a $\$ 131,073,276$, revenue increase for LG\&E, which corresponds to an $11.61 \%$ increase. The Companies are also proposing
changes in miscellaneous charges which result in changes to other operating revenue. Accounting for changes in other operating revenue, the overall increase in revenues from sales to ultimate customers is $\$ 169,747,181$ (or $10.57 \%$ ) for KU and \$130,983,319 (or 11.83\%) for LG\&E. (See Schedule M-2.1 for KU and Schedule M-2.1-E for LG\&E in the Companies' Filing Requirements.)

Except for the lighting rates, KU is proposing to increase revenues for all rate classes by approximately $10.68 \%$. Based on the results of the cost of service study, KU is proposing no net increases, within rounding, for Lighting Service (Rate LS), Restricted Lighting Service (Rate RLS), Lighting Energy Service (Rate LE), and Traffic Energy Service (TE). KU is proposing a rate reduction for Outdoor Lighting Service (Rate OSL), which is an optional pilot program, of approximately $5.00 \%$. KU is proposing no changes to the rate credits set forth in its Curtailable Service Rider (CSR).

Except for three lighting rates, LG\&E is proposing to increase revenues for all rate classes by approximately $11.80 \%$. LG\&E is proposing no increases, within rounding, for Lighting Energy Service (Rate LE) and Traffic Energy Service (TE). LG\&E is proposing a rate reduction for Outdoor Lighting Service (Rate OSL), which is an optional pilot program, of approximately $10.00 \%$. LG\&E is proposing no changes to the rate credits set forth in its Curtailable Service Rider (CSR).

Both KU and LG\&E are proposing to increase the disconnect/reconnect charges and returned check charges. The Companies are proposing to decrease the unauthorized reconnect charges. KU and LG\&E are proposing minor changes to
certain other miscellaneous charges, which will be discussed later in my testimony.
Q. Have you prepared schedules showing the proposed revenue increase for each standard rate schedule?
A. Yes. The electric revenue increases for each rate class are shown on Schedule M-2.1 of Section 16(8)(m) of the Filing Requirements for KU and Schedule M-2.1-E of Section $16(8)(\mathrm{m})$ of the Filing Requirements for LG\&E. The detailed billing calculations for each rate schedule are shown on Schedule M-2.3 for KU and Schedule M-2.3-E for LG\&E. The proposed unit charges for each rate schedule are shown on these schedules.

## B. ELIMINATION OF ENVIRONMENTAL COST RECOVERY (ECR) PROJECTS

Q. Are the Companies proposing to eliminate certain Environmental Cost Recovery (ECR) projects?
A. Yes. KU is proposing to eliminate projects 28 through 31 of the 2009 ECR Plan, all projects in the 2011 ECR Plan, and projects 36 through 38 of the 2016 ECR Plan. LG\&E is proposing to eliminate projects 22 and 23 of the 2009 ECR Plan, all projects in the 2011 ECR Plan, and project 28 of the 2016 ECR Plan. Because work will have been completed on these projects prior to the end of the test year (or, in the case of LG\&E, Project 22, because the project was cancelled), the Companies are proposing to eliminate them from recovery through the ECR mechanism.
Q. Will the costs of these eliminated ECR projects be recovered through base rates

## instead of the ECR?

A. Yes. The impact of these projects is also shown in Schedule M-2.3 for KU and Schedule M-2.3-E for LG\&E and in the supporting detail for those schedules. Specifically, on page 1 of these Schedules, the column labeled "Base Rate ECR Adjustment to Reflect ECR Project Elimination" reflects the amount of base rate ECR revenue transferred to base rate revenue, and the column labeled "ECR Mechanism Adjustment to Reflect ECR Project Elimination" reflects the amount of ECR Mechanism revenue transferred to base rates. These adjustments do not alter total revenue, but simply represent the removal of ECR costs for the eliminated projects from the ECR mechanism into base rate recovery. These adjustments are revenue neutral. The supporting details for each rate class are shown on pages 2 through 26 of these schedules.

## C. RESIDENTIAL SERVICE (RATE RS)

## Q. Please provide a brief description of Rate RS.

A. Rate RS is the standard electric rate schedule available to single-family residential service. KU and LG\&E serve approximately 442,000 and 377,000 residential customers, respectively, under this rate schedule. Rate RS has a two-part rate structure that includes a Basic Service Charge and an Energy Charge.
Q. What are the charges that KU and LG\&E are proposing for Rate RS?
A. KU is proposing a Basic Service Charge of $\$ 0.61$ per day, and LG\&E is proposing a Basic Service Charge of $\$ 0.52$ per day. For KU, the charge would increase from $\$ 0.53$
to $\$ 0.61$, which corresponds to a $15.1 \%$ increase. For LG\&E, the charge would increase from $\$ 0.45$ to $\$ 0.52$ per day, which again corresponds to $15.6 \%$ increase. For both Companies, the Basic Service Charges were designed to reflect $75 \%$ of the customer-related costs calculated in the cost of service studies. ${ }^{1}$ The customer-related cost for KU is $\$ 0.82$ per day; thus, KU's proposed Basic Service Charge of $\$ 0.61$ per day represents $75 \%$ of the customer cost from the cost of service study $(\$ 0.61 \div \$ 0.82$ $=75 \%$ ). The customer-related cost for LG\&E is $\$ 0.69$ per day; therefore, LG\&E's proposed Basic Service Charge of $\$ 0.52$ also represents $75 \%$ of the customer cost $(\$ 0.52 \div \$ 0.69=75 \%)$. Although higher Basic Service Charges could be supported based on results of the Companies' cost of service studies, the increase was capped at $75 \%$ of customer costs to reflect the ratemaking principles of rate continuity and gradualism. KU is proposing to increase its energy charge from $\$ 0.08963$ per kWh to $\$ 0.09950$ per kWh . LG\&E is proposing to increase its energy charge from $\$ 0.09278$ per kWh to $\$ 0.10482$ per kWh .

## Q. Are the Companies proposing to continue to separate the energy charge into a variable cost component and a fixed cost component?

A. Yes. In its Orders in Case Nos. 2018-00294 and 2018-00295, the Commission ruled that splitting the energy charges into variable cost component (Variable Energy Charge) and fixed cost component (Infrastructure Energy Charge) for informational

[^0]purposes is reasonable. For KU, the proposed Variable Energy Charge is $\$ 0.03200$ per kWh , and the proposed Infrastructure Energy Charge is $\$ 0.06750$ per kWh . For LG\&E, the proposed Variable Energy Charge is $\$ 0.03245$ per kWh , and the proposed Infrastructure Energy Charge is $\$ 0.07237$ per kWh .

## Q. Why do the Companies separate their energy charges into variable and fixed components?

A. The purpose of showing the energy charge as consisting of both a variable cost component and a fixed cost component is solely educational and informational. The Companies want 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 twopart rate structure consisting of a Basic Service Charge and an Energy Charge. The energy cost component consists of costs that vary directly with the kWh usage of customers, such as fuel expenses and variable operation and maintenance expenses. 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, energy conservation and other new technologies such as electric vehicles, it is important for customers, stakeholders and
employees to understand the distinction between fixed and variable costs.

## Q. What is the breakdown of total costs among these three cost components for Rate RS?

A. The following table (TABLE 1) 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 for KU and LG\&E:

TABLE 1

| Cost Component | KU <br> Percentage of Cost | LG\&E <br> Percentage of Cost |
| :---: | :---: | :---: |
| Customer-Related Fixed Costs | $19.41 \%$ | $19.74 \%$ |
| Demand-Related Fixed Costs <br> (Infrastructure Demand Costs) | $52.61 \%$ | $53.18 \%$ |
| Energy-Related Variable Costs | $27.98 \%$ | $27.08 \%$ |

## Q. How are these costs currently recovered from Rate RS customers?

A. Rate RS, as well as a number of the Companies' other 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 daily charge per customer, and the Energy Charge is 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 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 an energy charge. For Rate RS, all demand costs and a portion of the customer costs are currently being recovered through the Energy Charge, which includes the Infrastructure Energy Charge and the Variable Energy Charge. The following tables compare the percentage of costs broken down by component (customer cost, demand cost, and energy cost) to the percentage of recovery through the proposed rate components (customer charge and energy charge) for KU (TABLE 2) and LG\&E (TABLE 3):

TABLE 2 - KU

| Component | Percentage of Cost | Rate Design |
| :--- | :---: | :---: |
| Customer | $19.41 \%$ | $14.5 \%$ |
| Demand | $52.61 \%$ | $0.0 \%$ |
| Energy | $27.98 \%$ | $85.5 \%$ |

TABLE 3 - LG\&E

| Component | Percentage of Cost | Rate Design |
| :--- | :---: | :---: |
| Customer | $19.74 \%$ | $14.8 \%$ |
| Demand | $53.18 \%$ | $0.0 \%$ |
| Energy | $27.08 \%$ | $85.2 \%$ |

As can be seen from these tables, all demand costs and a significant portion of customer costs are currently recovered through the Energy Charge.

## Q. What are three- and multi-part rate designs?

A. A three-part rate is a rate structure that includes a customer charge, energy charge and demand charge. KU and LG\&E'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 (Rates 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. In my experience, 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 industrial) customers and thereby offer rates that more accurately reflect cost of service. Multi-part rates allow customers to better manage their load by shifting their usage pattern to avoid higher peak period charges. Several utilities in the U.S. have implemented three- and multi-part rates for residential and small general service customers. This is a trend in the industry that I believe the Companies and the Commission should closely monitor.

## Q. Does recovering fixed customer and demand costs through a variable energy charge create problems?

A. Yes, it certainly does. The Companies 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 KU or LG\&E 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 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. What is the basis for the proposed increase in the Basic Service Charge for Rate RS?

A. The Companies are proposing a Basic Service Charge that moves the charge towards the customer-related costs from the Companies' cost of service studies. As will be explained in greater detail in the portion of my testimony dealing with the electric 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 Rate RS?

A. Yes. Exhibit WSS-2 shows the calculation of the unit customer cost, demand related cost, and energy costs from the Companies' cost of service studies. From this calculation, the customer cost for KU is $\$ 0.82$ per customer per day; the demandrelated cost (infrastructure cost) is $\$ 0.06017 / \mathrm{kWh}$; and the energy cost (variable cost) is $\$ 0.03200 / \mathrm{kWh} . \mathrm{KU}$ is proposing to increase the Basic Service Charge from $\$ 0.53$ per day to $\$ 0.61$ per day, which corresponds to a $15.1 \%$ increase in the charge. KU's proposed Basic Service Charge of $\$ 0.61$ per day is $75 \%$ of the unit cost from KU's cost of service study.

The customer cost for LG\&E is $\$ 0.69$ per customer per day; the demandrelated cost is $\$ 0.06371 / \mathrm{kWh}$; and the energy cost is $\$ 0.03245 / \mathrm{kWh}$. LG\&E is proposing to increase the Basic Service Charge from $\$ 0.45$ per day to $\$ 0.52$ per day, which corresponds to a $15.6 \%$ increase in the charge. LG\&E's proposed Basic Service Charge of $\$ 0.52$ is $75 \%$ of the unit cost from LG\&E's cost of service study. The Companies are proposing Basic Service Charges for Rate RS that reflect only 75\% of customer costs, which correspond to percentage increases in the Basic Service Charges of less than $16 \%$, to reflect the ratemaking principles of rate continuity and gradualism. It should be noted, however, that in the last several years the Commission has allowed a number of utilities to increase their customer charges by close to $50 \%$.

For example, in its Order in Case No. 2019-00066, the Commission authorized a 46\% increase in Jackson Energy Cooperative Corporation's residential customer charge increasing the customer charge from $\$ 16.44$ to $\$ 24.00$ per month. ${ }^{2}$

## Q. Please describe the type of costs that are recovered through the Basic Service Charge.

A. Customer costs include costs related to the minimum system that each customer must have in place to access the electric grid. Customer costs also include 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 are 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.
Q. What other costs need to be considered in developing the Basic Service Charge?
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

[^1]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 that are not related to demand, as discussed in the NARUC Electric Utility Cost Allocation Manual. As discussed earlier, the Companies 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 demand-related and are collected through a kWh energy charge for Rate RS or through a kW or kVA 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.

## Q. Will the Companies' proposed Basic Service Charges recover all of KU and LG\&E's customer-related costs for Rate RS?

A. No. KU's proposed Basic Service Charge of $\$ 0.61$ per day does not recover all of the customer-related fixed costs of $\$ 0.82$ per day. Likewise, LG\&E's proposed Basic Service Charge of $\$ 0.52$ per day does not fully recover the customer-related fixed costs
of $\$ 0.69$ per day. The differences between the proposed Basic Service Charge and customer-related fixed costs will therefore be recovered in the energy charge.

## Q. Will the Companies' proposed residential rates help to reduce 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. The Companies' proposed rates are designed to make progress towards reducing both inter- and intra-class rate subsidies. 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, the Companies propose 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 their current rate design.

Increasing the Basic Service Charge by a larger percentage than the energy charge will help reduce subsidies by bringing the charges toward the actual cost of providing service. Increasing KU's Basic Service Charge from $\$ 0.53$ per day to $\$ 0.61$ per day and increasing LG\&E's Basic Service Charge from $\$ 0.45$ per day to $\$ 0.52$ per day will eliminate some, but not all, of the subsidies that high-usage customers are currently providing low-usage customers.

## D. RESIDENTIAL TIME-OF-DAY ENERGY AND DEMAND SERVICES

Q. Please provide a brief description of the Companies' residential time-of-day rates.
A. The Companies offer two residential time-of-day rates, RTOD-Energy and RTODDemand. 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. Rate RTOD-Demand is a time-of-day rate that includes a flat energy charge but a time differentiated demand charge.
Q. Are the Companies proposing changes to the time-of-day periods (rating periods)

## for their RTOD rates?

A. Yes. The Companies are proposing to modify the on-peak period during the months of November through March ("Winter Months") for both RTOD-Energy and RTODDemand. The on-peak period during the Winter Months are currently 7 AM to 11 AM. KU and LG\&E are proposing to redefine the on-peak period during the Winter Months as the hours between from 6 AM to 10 AM and from 6 PM to 10 PM . With this change, the morning on-peak period will be shifted by one hour earlier in the morning, and non-contiguous evening hours will be added to the on-peak period to capture a secondary daily peak that occurs on the combined KU and LG\&E system during the evening.

## Q. Why are these changes to the on-peak period being made?

A. The new on-peak hours will more accurately reflect the hours when a peak on the combined KU and LG\&E system would likely occur during the Winter Months. Because the Companies plan their generation resources to meet their combined load, it is appropriate to define the peak period as the hours during which the combined system peak would likely occur. Another objective is to define the peak period as narrowly as practicable so that customers can manage their loads to avoid higher onpeak charges, while still reflecting the period during which the Companies' peak will likely occur. During the Winter Months, the Companies' hourly combined system load will exhibit a pronounced peak during the morning and another during the evening. In the industry, this is referred to vernacularly as a "double hump", and is MW for a January peak:

## GRAPH 1



This graph shows the typical hourly load pattern for KU and LG\&E's combined system on a winter peak day, with the evening peak somewhat lower than the morning peak. While the peak during the Winter Months will typically occur during the morning hours, the Companies' all-time winter peak occurred during the evening.

GRAPH 2 shows the hourly loads in MW for the Companies’ all-time highest winter peak that occurred on January 6, 2014:

GRAPH 2


As seen in the graph, the Companies proposed on-peak period would encompass this all-time winter system peak.
Q. What charges are KU and LG\&E proposing for Rate RTOD-Energy?
A. KU is proposing to increase the Basic Service Charge from $\$ 0.53$ per day to $\$ 0.61$ per
day, to increase the off-peak Energy Charge from $\$ 0.05760$ per kWh to $\$ 0.06512$ per kWh , and to decrease the on-peak Energy Charge from $\$ 0.27542$ per kWh to $\$ 0.22124$ per kWh. LG\&E is proposing to increase the Basic Service Charge from $\$ 0.45$ per day to $\$ 0.52$ per day, to increase the off-peak Energy Charge from $\$ 0.07080$ per kWh to $\$ 0.08180$ per kWh , and to decrease the on-peak Energy Charge from $\$ 0.20508$ per kWh to $\$ 0.17949$ per kWh. The proposed Basic Service Charges for the Companies are the same as for Rate RS. The increases in the off-peak Energy Charges and decreases in the on-peak Energy Charges account for proposed changes to the offpeak and on-peak hours during the Winter Months described above.

## Q. What charges are KU and LG\&E proposing for Rate RTOD-Demand?

A. KU is proposing a Basic Service Charge of $\$ 0.61$ per day, an Energy Charge of $\$ 0.04476$ per kWh , a Base Demand charge of $\$ 4.01$ per kW , and a Peak Demand charge of $\$ 10.37$ per kW. LG\&E is proposing a Basic Service Charge of $\$ 0.52$ per day, an Energy Charge of $\$ 0.05340$ per kWh , a Base Demand charge of $\$ 4.22$ per kW , and a Peak Demand charge of $\$ 9.25$ per kW . The energy charge for Rate RTODDemand is broken down into Variable Energy Charge and Infrastructure Energy Charge components.

## E. GENERAL SERVICE (RATE GS)

## Q. Please provide a brief description of Rate GS.

A. Rate GS is the standard electric rate schedule available to small commercial and industrial customers served at secondary voltages (available voltages less than
$2,400 / 4,160 \mathrm{Y}$ volts). The rate schedule is limited to customers whose 12 -month average monthly demands do not exceed 50 kW . Approximately 83,000 small commercial and industrial customers are served under Rate GS on KU and approximately 45,000 are served under Rate GS on LG\&E. Rate GS has a two-part rate structure that includes a Basic Service Charge and an Energy Charge.

## Q. What charges are the Companies proposing for Rate GS?

A. KU is proposing an increase in the Basic Service Charge for Rate GS from $\$ 1.04$ per day to $\$ 1.35$ per day for single-phase service and from $\$ 1.66$ per day to $\$ 2.15$ per day for three-phase service. LG\&E is proposing an increase in the Basic Service Charge for Rate GS from $\$ 1.04$ per day to $\$ 1.16$ per day for single-phase service and from $\$ 1.66$ per day to $\$ 1.85$ per day for three-phase service. KU is proposing to increase the energy charge from $\$ 0.11225$ per kWh to $\$ 0.12469$ per kWh , and LG\&E is proposing to increase the energy charge from $\$ 0.10530$ per kWh to $\$ 0.12355$ per kWh . As with Rate RS, the energy charge for Rate GS is broken down into Variable Energy Charge and Infrastructure Energy Charge components. For KU the proposed Variable Energy Charge is $\$ 0.03253$ per kWh , and the proposed Infrastructure Energy Charge is $\$ 0.09216$ per kWh. For LG\&E the proposed Variable Energy Charge is $\$ 0.03340$ per kWh , and the proposed Infrastructure Energy Charge is $\$ 0.09015$ per kWh .

## F. GENERAL TIME-OF-DAY SERVICE (RATE GTOD)

## Q. Are the Companies proposing a General Time-of-Day service?

A. Yes. The Companies are proposing to offer optional General Time-of-Day Service
(Rate GTOD-Energy and GTOD-Demand) standard rates that would be available to any General Service (Rate GS) customer enrolled under the Advanced Metering Systems Customer Service Offering set forth in the Companies' Demand-Side Management Cost Recovery Mechanism. Currently there are approximately 460 KU and LG\&E customers enrolled under the Advanced Metering Systems Customer Service Offering that would be eligible to take service under Rate GTOD-Energy or GTOD-Demand.

## Q. Please describe the rate structure for Rate GTOD-Energy.

A. Rate GTOD-Energy will have the same pricing structure as RTOD-Energy. Specifically, GTOD-Energy will consist of a Basic Service Charge and a timedifferentiated Energy Charge consisting of an Off-Peak Charge and an On-Peak Charge. During the Summer Months of April through October, the On-Peak will be 1:00 PM to 5:00 PM on weekdays, with all other hours considered Off-Peak. During the Non-Summer Months of November through March, the On-Peak will be 6 AM to 10 AM in the morning and 6 PM to 10 PM in the evening, with all other hours considered Off-Peak.

## Q. What charges are KU and LG\&E proposing for GTOD-Energy?

A. KU is proposing a Basic Service Charge $\$ 1.35$ per day for single-phase service and $\$ 2.15$ per day for three-phase service. KU is proposing an off-peak Energy Charge of $\$ 0.08094$ per kWh and an on-peak Energy Charge of $\$ 0.30029$ per kWh. LG\&E is proposing a Basic Service Charge $\$ 1.16$ per day for single-phase service and $\$ 1.85$ per day for three-phase service. LG\&E is proposing an off-peak Energy Charge of
$\$ 0.08075$ per kWh and an on-peak Energy Charge of $\$ 0.24797$ per kWh .

## Q. Please describe the rate structure for Rate GTOD-Demand.

A. Rate GTOD-Demand will have the same pricing structure as RTOD-Demand. Specifically, GTOD-Demand will consist of a Basic Service Charge, Energy Charge, Peak Demand Charge, and Base Demand Charge. During the Summer Months of April through October, the On-Peak will be 1:00 PM to 5:00 PM on weekdays, with all other hours considered Off-Peak. During the Non-Summer Months of November through March, the On-Peak will be 6 AM to 10 AM in the morning and 6 PM to 10 PM in the evening, with all other hours considered Off-Peak.

## Q. What charges are KU and LG\&E proposing for GTOD-Demand?

A. KU is proposing a Basic Service Charge of $\$ 1.35$ per day for single-phase service and $\$ 2.15$ per day for three-phase service. KU is proposing an Energy Charge of \$0.06916 per kWh , Peak Demand Charge of $\$ 14.16$ per kW per month, and Base Demand Charge of $\$ 5.47$ per kW per month. LG\&E is proposing a Basic Service Charge $\$ 1.16$ per day for single-phase service and $\$ 1.85$ per day for three-phase service. LG\&E is proposing an Energy Charge of $\$ 0.05950$ per kWh, Peak Demand Charge of $\$ 11.75$ per kW per month, and Base Demand Charge of $\$ 5.37$ per kW per month. Exhibit WSS-3 shows the cost support for the charges.

## G. ALL ELECTRIC SCHOOLS SERVICE (AES) (KU ONLY)

## Q. Please provide a brief description of Rate AES.

A. Rate AES is a KU-only 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 420 schools taking service under Rate AES. KU is proposing to increase the energy charge from $\$ 0.08732$ per kWh to $\$ 0.10079$ per kWh . The energy charge for Rate AES is broken down into Variable Energy Charge and Infrastructure Energy Charge components. The proposed Variable Energy Charge is $\$ 0.03223$ per kWh , and the proposed Infrastructure Energy Charge is $\$ 0.06856$ per kWh .

## H. POWER SERVICE (RATE PS)

## Q. What charges are the Companies proposing for Rate PS?

A. Rate PS is 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 $(2,400 / 4,160 \mathrm{Y}$ volts, $7,200 / 12,470 \mathrm{Y}$ volts, or 34,500 volts) whose 12 -month average do not exceed 250 kW . The rate changes proposed for Rate PS are shown on Schedule M-2.3 for KU and Schedule M-2.3-E for LG\&E.

## I. LARGE CUSTOMER RATES (RATES TODS, TODP, RTS, FLS)

Q. What are the standard large customer rates offered by KU and LG\&E?
A. KU and LG\&E offer four standard rates for large commercial and industrial customers: Time-of-Day Secondary Service (Rate TODS), Time-of-Day Primary

Service (Rate TODP), Retail Transmission Service (Rate RTS), and Fluctuating Load Service (Rate FLS). Rate TODS is available to customers served at secondary voltages (available voltages less than $2,400 / 4,160 \mathrm{Y}$ volts) with average demands between 250 kW and $5,000 \mathrm{~kW}$. Rate TODP is available to customers served at primary voltages $(2,400 / 4,160 \mathrm{Y}$ volts, $7,200 / 12,470 \mathrm{Y}$ volts, or 34,500 volts $)$ with average demands greater than 250 kVA . Rate RTS is available to customers served at transmission voltages ( 69,000 volts or higher) with average demands greater than 250 kVA. Rate FLS is available to customers served at primary or transmission voltage whose demands are $20,000 \mathrm{~kW}$ or greater. Customers with demands of $20,000 \mathrm{~kW}$ or greater whose load either increases or decreases 20 MVA or more per minute or whose load either increases or decreases 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 Rate FLS. The Companies' largest customers are served under these rate schedules. For KU, the proposed charges for Rates TODS, TODP, RTS, and FLS are shown on pages $9,10,11$, and 12, respectively, of Schedule M-2.3 of KU's Filing Requirements. For LG\&E, the proposed charges for Rates TODS, TODP, RTS, and FLS are shown on pages $8,9,10$, and 11, respectively, of Schedule M-2.3-E of LG\&E's Filing Requirements.

## Q. Do all of these rate schedules have the same basic rate structure?

A. Yes. All four of these rates have a rate structure consisting of a Basic Service Charge, an Energy Charge, and a Maximum Load Charge comprising a Peak Demand Charge, an Intermediate Demand Charge, and a Base Demand Charge. The demand charges
for these rates are billed based on a charge per kVA. 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. The Companies must install sufficient generation resources to meet their 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 and 10:00 PM but vary by season. The Companies must also install sufficient transmission and distribution facilities to deliver power to individual customers regardless of when they need it - 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. Therefore, the Maximum Load Charge 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. Are the Companies proposing any changes to the pricing structure of these rates?

A. No.
J. CURTAILABLE SERVICE RIDERS (CSR)

## Q. Please describe the Companies' CSR schedules.

A. The Companies' CSR schedules provide credits to industrial or commercial customers who have agreed to interrupt a portion of their load when called upon by KU or LG\&E. 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. KU and LG\&E have two CSR schedules: Curtailable Service Rider-1 (Rider CSR-1) and Curtailable Service-2 (Rider CSR-2). The Companies' CSR schedules are now all closed to new participation.

## Q. Are KU and LG\&E proposing changes to the CSR schedules?

A. No, other than a change to the LG\&E CSR schedules to indicate that they are now closed to new participation. Specifically, the Companies are not proposing to change the CSR credits.

## K. OUTDOOR SPORTS LIGHTING SERVICE (OSL)

## Q. Please describe OSL.

A. OSL is a pilot rate introduced in the Stipulation and Recommendation in the Companies' 2016 rate case proceedings. The pilot rate is limited to 20 customers each for KU and LG\&E on a first-come-first-served basis. The rate affords customers with lighting for outdoor sports fields to realize savings by operating their lighting equipment during off-peak hours. The rate consists of a Basic Service Charge, Energy Charge, and Base and Peak Demand Charges. KU currently serves four OSLSecondary customers, and LG\&E currently serves one OSL-Secondary customer. No customers take service under OSL-Primary.

## Q. Are the Companies proposing to retain OSL?

A. Yes. The Companies are proposing to retain the rate schedule as a pilot program. By allowing sports fields the opportunity to avoid the Companies' system peaks and thereby avoid costs, the rate schedule appears to be operating effectively. Furthermore, the Companies' cost of service studies do not indicate that OSL is being subsidized by other customer classes. Therefore, the Companies propose to continue the rate as a pilot program. Because there are fewer than 20 customers currently taking service under OSL, the Companies propose to leave the maximum number of customers under the schedules at the current level of 20 customers on each system.

## Q. Are the Companies proposing to adjust the Peak Period for the Summer Months for OSL?

A. Yes. To accommodate the management of sports lighting loads in late September, the

Companies are proposing to reduce the Peak Period during the summer peak months by one hour from the current peak hours of $1 \mathrm{PM}-7 \mathrm{PM}$ to $1 \mathrm{PM}-6 \mathrm{PM}$.

## Q. Are the Companies proposing to adjust the charges for OSL?

A. Yes. For OSL-Secondary, KU is proposing to decrease the energy charge from $\$ 0.03249$ to $\$ 0.03210$ per kWh, to decrease the Peak Demand Charge from $\$ 24.17$ to $\$ 19.61$ per kW and increase the Base Demand Charge from $\$ 2.02$ to $\$ 2.93$ per KW. These changes result in a net decrease in revenue for this rate of approximately $5.0 \%$ for KU. LG\&E is proposing to decrease the energy charge for OSL-Secondary from $\$ 0.03441$ to $\$ 0.03292$ per kWh , to decrease the Peak Demand Charge from $\$ 26.57$ to $\$ 23.14$ per kW and decrease the Base Demand Charge from $\$ 3.44$ to $\$ 3.38$ per KW. These changes result in a net decrease in revenue for this rate of approximately $10.0 \%$ for LG\&E. The detailed rate changes for OSL are shown on pages 16 and 17 of Schedule M-2.3 for KU and Schedule M-2.3-E for LG\&E.

## L. LIGHTING RATES

## Q. Please provide an overview of the lighting rates currently offered by KU and LG\&E.

A. KU and LG\&E offer two rates that include the lighting fixture along with the delivered energy to operate the lights. Those two rates are Lighting Service (Rate LS) and Restricted Lighting Service (Rate RLS). Under Rates LS and RLS, the rates include the lighting fixtures along with the delivered energy to operate the lighting fixtures. Under these two rates, the lights can be fed by either overhead or underground service.

For lights fed from underground service, the cost of a non-wood pole is currently included in the rate. For lights fed from overhead service, the fixture is typically attached to an existing pole; therefore, the cost of the pole is not included in the rate. However, if a wood pole must be installed to provide service for an overhead light, then the customer would pay a separate monthly fee for that pole. KU and LG\&E also offer two types of delivered energy service to customers who own their lighting fixtures or traffic signal and control equipment. Those two rates are Lighting Energy Service (Rate LE) and Traffic Energy Service (Rate TE).

## Q. Please provide an overview of the proposed modifications to Rates LS and RLS.

A. In their 2016 and 2018 rate cases, KU and LG\&E each introduced a number of lightemitting diode (LED) offerings. In the current rate case, KU is offering a new Victorian style LED offering, and LG\&E is offering a new Victorian and a new London style LED offering. Under the proposed tariffs, the Companies will no longer be installing new non-LED lights. Accordingly, all non-LED lights would be moved from Rate LS to Rate RLS and thus be restricted. The Companies will continue to maintain the existing non-LED lights. However, if a non-LED fixture fails and the Companies no longer have replacement equipment in inventory to repair or replace the fixture, then the customer will be given a choice to have the light removed or to replace the non-LED light with an LED light. KU and LG\&E will also continue to allow customers, at their option, to replace non-LED lights that are functioning (i.e., in good working order) with LED lights, but in those instances the customer would pay an LED Conversion Fee, as approved by the Commission in Case Nos. 2018-

00294 and 2018-00295.

## Q. How were the charges for the LED fixtures determined?

A. For overhead lights, the proposed charge reflects the current cost to the Companies of the LED fixture, photocell and associated equipment (service wire, connectors, etc.), labor required for installation, and expected maintenance of the fixture. For underground lights, the Companies are proposing to break out the charges into a fixture charge and a pole charge. The fixture charge consists of the costs to the Companies of an LED fixture, photocell, labor required for installation, and expected maintenance of the fixture. Included in the pole charge is the cost to the Companies of the pole and associated equipment (base, connectors, etc.), labor to install the pole, and expected maintenance of the pole. The proposed charges for both underground and overhead fixtures are determined by calculating the monthly costs of the various types of fixtures using a standard carrying cost methodology that is consistent with how overall revenue requirements are determined in these proceedings. The cost of the fixtures reflects the installed cost of new fixtures, associated equipment, and maintenance. In calculating the charge for poles for underground lighting service, the annual cost was determined based on the embedded cost of an existing pole. In other words, it is assumed that an LED fixture will be installed on an existing pole, and the cost of the pole thus reflects the net depreciated cost of a pole on KU or LG\&E's system. This is a reasonable assumption because for most LED conversions the existing pole will be used. The carrying charge calculations used to develop the rates for the fixtures assume an average service life of 25 years for the new LED offerings.

The calculation of the charges for the overhead and underground LED fixtures and the underground poles are shown in Exhibit WSS-4.

## Q. Are the Companies proposing to lower the LED Conversion Fee that was authorized in the Companies last rate cases?

A. Yes. The LED Conversion Fee was approved by the Commission in Case Nos. 201800294 and 2018-00295. The Companies have updated the cost support for the Conversion Fee, as shown in Exhibit WSS-5. Based on the updated cost support, KU is proposing to reduce the monthly LED Conversion Fee from $\$ 6.03$ to $\$ 5.01$ per fixture per month, and LG\&E is proposing to reduce the monthly LED Conversion Fee from $\$ 7.37$ to $\$ 7.08$ per fixture per month. ${ }^{3}$

## Q. Are the Companies proposing to offer customers an option to pay the LED

 Conversion Fee as an up-front charge?A. Yes. The LED Conversion Fee was implemented by the Commission in Case Nos. 2018-00294 and 2018-00295. The LED Conversion Fee was structured as a monthly charge that would be assessed over a period of five years. The Companies are proposing an option that would allow customers to make an up-front payment of the fee. The up-front payment reflects a discounted payment reflecting the discounted

[^2]present value charges based on KU and LG\&E's weighted cost of capital. A KU customer that chooses to convert a restricted light to an LED light could elect to pay either $\$ 5.01$ per month for 60 months or make an upfront payment of $\$ 197.16$. An LG\&E customer that chooses to convert a restricted light to an LED light could elect to pay either $\$ 7.08$ per month for 60 months or make an upfront payment of $\$ 277.29$.

## Q. Please discuss the proposed rate changes to Rates LS, RLS, LE, and TE.

A. KU is not proposing an increase for Rate LS and RLS in total. However, KU is proposing changes to the monthly charges for individual fixtures and poles. For LED fixtures offered under Rate LS, KU is proposing to change the monthly charge for each fixture to reflect the current cost of the fixture. KU is also proposing to change the monthly charge for poles to reflect the current cost of each pole. This generally resulted in a reduction in the charges for LS LED fixtures and an increase in the charges for LS poles. Accounting for the effect of eliminating the ECR projects and the net reduction in revenue due to the decreases in the charges for LS fixtures and poles resulted in an increase of approximately $1.75 \%$ for each RLS fixture ${ }^{4}$ to produce revenue neutral rates for LS and RLS customer class as a whole. The overall percentage increase in total revenue for LS and RLS, after accounting for revenues from the rate mechanisms (FAC, ECR, etc.) is $0.00 \%$ for KU.

[^3]LG\&E is proposing an increase of $11.90 \%$ for Rate LS and RLS in total. For LED fixtures offered under Rate LS, LG\&E is again proposing to change the monthly charge for each fixture to reflect the current cost of the fixture. LG\&E is also proposing to change the monthly charge for poles to reflect the current cost of each pole. This generally resulted in an increase in the charges for LS LED fixtures and an increase in the charges for LS poles. Accounting for the effect of eliminating the ECR projects and the increases in charges for LED fixtures and poles, an increase of approximately $16.57 \%$ was required for each RLS fixture and pole ${ }^{5}$ to produce an overall increase for Rate LS and RLS of $11.90 \%$. Therefore, the overall percentage increase in total revenue for LS and RLS, after accounting for revenues from the rate mechanisms (FAC, ECR, etc.) is $11.90 \%$ for LG\&E. The cost support for LED fixtures under LS and for poles is included in Exhibit WSS-4. The Companies are not proposing revenue increases for Rates LE and TE. However, the energy charge for the rates are modified to reflect the elimination of ECR projects. Changes in all lighting rates are shown in Schedule M-2.3 for KU and Schedule M-2.3-E for LG\&E.

## Q. Please describe KU and LG\&E's Solar Share rates.

[^4]A. KU and LG\&E offer an optional Solar Share Program Rider (Rider SSP) under which customers can purchase electric energy from solar panels jointly installed and maintained by the Companies. Rider SSP was filed by the Companies on August 2, 2016, in Case No. 2016-00274 and was approved by the Commission in its Order dated November 4, 2016. As originally filed, Rider SSP included three rate components: (1) an upfront subscription fee, (2) a monthly Solar Capacity Charge, and (3) monthly Solar Energy Credits for the energy produced by the Solar Share Facilities. On August 2, 2018, the Companies filed revised tariff sheets with the Commission to consolidate the upfront subscription fee with the Solar Capacity Charge and account for the effects of the federal Tax Cuts and Jobs Act and Kentucky House Bill 487. This change, which was accepted for filing by the Commission on August 28, 2018, resulted in the currently effective monthly Solar Capacity Charge of $\$ 5.55$ per quarter-kW (nominal) subscribed.
Q. Are the Companies proposing modifications to KU and LG\&E's Solar Share rates?
A. No.
Q. In the Companies' last rate cases, adjustments to miscellaneous revenues were made to ensure that costs related to the Solar Share Program were not shifted to other customers. Are the Companies making such adjustments for Solar Share in these proceedings?
A. Yes. The Solar Share Program was approved as a pilot program in Case No. 201600274. In that proceeding, the Companies made a commitment that the Solar Share Program would not result in increased charges to the Companies' other customers.

The Companies will continue to honor that commitment. To ensure that the costs of the Solar Share Program are not shifted to other customers, the Companies have imputed revenues to bring the class rate of return for Solar Share in the Companies' cost of service studies up to the overall rate of return on rate base proposed by the Companies in these proceedings. The Companies are also making imputed revenue adjustments for their Business Solar Programs. Specifically, for the Solar Share Programs, revenues of $\$ 295,846$ are imputed for KU and revenues of $\$ 110,942$ are imputed for LG\&E. For the Business Solar Programs, revenues of \$9,579 are imputed for $K \mathrm{U}$ and revenues of \$9,378 are imputed for LG\&E.

## N. NET METERING

## Q. Are the Companies proposing a new rate schedule for Net Metering Service to address recent amendments to KRS 278.465-278.467?

A. Yes. The Companies are proposing a new rate schedule called "NMS-2 Net Metering Service-2" that implements changes authorized by the amended statutes. NMS-2 will apply to new or non-grandfathered eligible customer-generators served by KU or LG\&E on or after the date on which new rates from these proceedings take effect. Eligible electric generating facilities for which the Companies' written Application for Interconnection and Net Metering have been executed prior to the date new rates take effect will be grandfathered for 25 years under the Companies' current rate schedule for Net Metering Service, which will be renamed Net Metering Service - 1 (NMS-1). In my testimony, such customers who own such facilities are referred to as
"grandfathered net metering customers." Customers to be served under NMS-2 are referred to as "non-grandfathered" or "new" net metering customers.

## Q. What is a "customer-generator" according to the statutes?

A. Subparagraph (1) of KRS 278.465 defines an "eligible customer-generator" as follows:

> "Eligible customer-generator" means a customer of a retail electric supplier who owns and operates an electric generating facility that is located on the customer's premises, for the primary purpose of supplying all or part of the customer's own electricity requirements.

According to subparagraph (1)(b) of KRS 278.465, the eligible customer-generator would generate power from an "eligible electric generating facility", which must generate electricity from solar energy, wind energy, biomass or biogas energy, or hydro energy and cannot have a rated capacity above 45 kW . In the industry, an "eligible customer-generator" is also referred to as a "renewable distributed generation customer". I will use the terms "customer-generator" and "distributed generation customer" interchangeably to refer to an "eligible customer-generator" as defined in KRS 278.465.

## Q. Does KRS 278.466 indicate that the utility shall compensate the customergenerator for the energy supplied to the grid?

A. Yes. Subparagraph (3) of KRS 278.466 states:

A retail electric supplier serving an eligible customer-generator shall compensate that customer for all electricity produced by the customer's eligible electric generating facility that flows to the retail electric supplier, as measured by the standard kilowatt-hour metering prescribed in subsection (2) of this section. The rate to be
used for such compensation shall be set by the commission using the ratemaking processes under this chapter during a proceeding initiated by a retail electric supplier or generation and transmission cooperative on behalf of one (1) or more retail electric suppliers.

## Q. How are the Companies proposing to compensate new customer-generators for energy they supply to the grid? <br> A. Under the Companies' proposed NMS-2 schedule, new customer-generators will be compensated for any net generation they supply to the grid (i.e., generation that exceeds their energy requirements during the month) at the avoided cost rate set forth in Rate B - Non-Time Differentiated Rate set for KU and LG\&E's Small Capacity Cogeneration and Small Production Qualifying Facilities Rider (Rider SQF).

## Q. Please provide some background on the Companies' Rider SQF.

A. SQF was implemented to comply with Sections 201 and 210 of the Public Utility Regulatory Policies Act of 1978 ("PURPA"). Both KU and LG\&E were required to implement rate schedules under which the Companies would purchase energy from cogeneration and small power production qualifying facilities ("qualifying facilities"). These rate schedules were designed to apply to energy produced from cogeneration and from small power production from what are now characterized as "renewable resources". In its Order in Administrative Case No. 244, the Commission introduced 807 KAR 5:054 implementing Sections 201 and 210 of PURPA. ${ }^{6}$ In compliance with those regulations, the Companies filed rate schedules applicable to energy

[^5]purchased from qualifying facilities. Rider SQF is applicable to energy purchased from qualifying facilities of 100 kW or less.

## Q. What are avoided energy costs, and why is it appropriate to compensate customergenerators at a rate reflective of avoided costs?

A. The term avoided energy costs means the incremental costs of the energy that the utility would otherwise generate itself or purchase from another source if the customer-generator did not supply the energy. Whenever a distributed generation customer supplies electric energy to the grid, the utility can avoid generating the energy or purchasing the energy from another power supplier and thus avoid the incurring cost of the generating or purchasing the energy. Because of the intermittent and uncertain nature of the energy source (i.e., due the intermittent and uncertain availability of wind, sunlight, etc.), renewable distributed generating facilities identified in subparagraph (1)(b) of KRS 278.465 cannot be dispatched by the utility and cannot be supplied as firm capacity. Thus, only energy costs are avoided by the utility receiving electric energy from a customer-generator. Accordingly, the energy rates for energy purchases under SQF, which apply to qualifying facilities of 100 kW or less and are based on avoided energy costs, should also apply to the energy supplied to the grid by new customer-generators, as addressed in Subparagraph (3) of KRS 278.466. As specified in Subsection (5)(1)(a) of the 807 KAR 5:054 of the Commission's regulations, the Companies' avoided energy costs, as used to determine the purchase rates under SQF, are updated every two years. Using the avoided cost rate set forth in SQF will therefore place the compensation that new customer-
generators receive under NMS-2 on the same non-discriminatory footing as the compensation that qualifying facilities receive under SQF.

## Q. Will compensating customer-generators at avoided costs for the energy they

 supply to the grid put net metering on a more economically accurate footing for new customer-generators?A. Yes. Under the older-style net metering service (such as the Companies' NMS-1, which will continue to be available for grandfathered customer-generators), customergenerators would be compensated for the power they put on the grid at a rate that is over four times the cost that would otherwise be incurred by the Companies to generate the power themselves or purchase the power. For example, KU is proposing an energy charge of $\$ 0.09950$ per kWh for Rate RS. Therefore, under the older-style net metering service such as NMS-1, KU would effectively compensate customergenerators at a rate of $\$ 0.09950$ per kWh plus amounts reflecting various costrecovery riders (i.e., FAC, DSM, and ECR) for power they supply to the grid. However, the cost that KU would incur to generate this power itself or purchase the power is currently only $\$ 0.02173$ per $\mathrm{kWh}{ }^{7}$ Consequently, under the older-style net metering service such as NMS-1, customer-generators are compensated at a rate that is over four times the economic value of the energy. This creates the situation in which one group of customers, customer-generators, is being subsidized by other customers, non-customer-generators. This is particularly problematic in the case of

[^6]low-income customers who may not be able to afford to install solar panels or other types of distributed generation facilities. In those instances, lower-income customers, who may not be able to afford solar panels, would be required to subsidize higherincome customers who can afford to install solar panels. Compensating customergenerators at avoided costs for the power they put on the grid will eliminate these types of cross subsidies and will establish a more economically accurate framework for compensating net metering customers.

## O. OTHER COST CONSIDERATIONS FOR SERVING CUSTOMERGENERATORS

## Q. Are there provisions of the net metering statutes that the Companies are choosing

 not to address at this time?A. Yes. Subsection (5) of KRS 278.466 states:

Using the ratemaking process provided by this chapter, each retail electric supplier shall be entitled to implement rates to recover from its eligible customer-generators all costs necessary to serve its eligible customer-generators, including but not limited to fixed and demand-based costs, without regard for the rate structure for customers who are not eligible customer-generators.

This subsection entitles electric energy suppliers subject to KRS 278.465 to .467 to implement new rate schedules that recover the cost of providing service to customergenerators "without regard for the rate structure for customers who are not eligible
customer-generators". ${ }^{8}$ The Companies are choosing not to develop cost-based rates designed specifically for distributed generation customers at this time, but the Companies plan to continue to evaluate the use of cost-based rate designs, such as four-part rates that include a customer charge, energy charge, peak demand charge, and base demand charge, to serve distributed generation customers.

## Q. Why aren't the Companies implementing fully cost-based rates that recover fixed and demand-based costs?

A. By compensating net generation based on the rates set forth in SQF, the Companies believe that they are taking a major step toward addressing some of the subsidy issues related to serving distributed generation customers. The Companies' proposal represents a gradual movement toward implementing a cost-based pricing structure for customer-generators that will reduce some of the subsidies provided by nondistributed generation customers to distributed generation customers. The Companies' proposal is thus consistent with the ratemaking principles of rate continuity and gradualism. Before implementing fully cost-based rate structures, such as four-part rates, the Companies have also determined that it is necessary to gather more load data for distributed generation customers. Additionally, the Companies believe that more community and customer education and outreach are necessary before taking additional steps toward implementing fully cost-based rates - such as four-part rate designs - for distributed generation customers.

[^7]
## Q. What pricing structures have been utilized in other jurisdictions to reflect the cost of serving distributed generation customers?

A. There has been a movement toward implementing three- or four-part rates for distributed generation customers, consisting of a customer charge, energy charge and one or two demand charges. For example, in its Order in Docket No. 15-WSSE-115RTS, the Kansas Corporation Commission approved a residential rate schedule ${ }^{9}$ for Westar Energy Company (now called "Evergy Kansas Central, Inc." ${ }^{10}$ ) (hereinafter referred to as "Evergy") that required any residential customer adding behind-themeter electric generation after October 28, 2015, ${ }^{11}$ to take service under a three-part rate schedule consisting of a customer charge, energy charge and a seasonally differentiated demand charge. Evergy serves approximately 1.6 million customers in Kansas and Missouri. Evergy's Residential Standard Distributed Generation Rate (see Exhibit WSS-6) currently consists of the following rate components:

| Basic Service Fee | $\$ 14.50$ per month |
| :--- | :--- |
| Energy Charge | $4.5840 \notin$ per kWh |
| Demand Charge |  |

Winter Period
$\$ 3.00$ per kW
Summer Period
$\$ 9.00$ per kW

[^8]The demand charge in the rate helps prevent a customer with behind-the-meter generation from shifting fixed, and therefore unavoidable, demand-related capacity costs onto other residential customers. In its Order in Docket No. 16-GIME-403GIE, the Kansas Corporation Commission stated:
[T]he Commission finds the current two-part residential rate design [consisting of only a customer charge and energy charges] is problematic for utilities and residential private DG [distributed generation] customers because DG customers use the electric grid as a backup system resulting in their consuming less energy than non-DG customers, which results in DG customers not paying the same proportion of fixed costs as non-DG customers. The Commission finds DG customers are thus being subsidized by nonDG customers. ${ }^{12}$

For ease of reference, Kansas Corporation Commission's Order in Docket No. 16-GIME-403-GIE is attached hereto as Exhibit WSS-7. Challenges with serving distributed generation customers are generally recognized in the industry and utilities are beginning to develop rate designs such as Evergy's three-part rates or four-part rates to address the issue. Other utilities and regulatory commissions have also recognized the problem with the continued use of two-part rates consisting of only a customer charge and energy charge for serving distributed distribution customers. The New Mexico Public Regulation Staff has filed testimony in a number of proceedings pointing out problems with serving distributed generation customers under two-part

[^9]rates. ${ }^{13}$
Q. KRS 278.466 addresses the recovery of fixed- and demand-based costs. Why is it important for utilities to have rates that provide for the recovery of these types of costs to serve customer-generators?
A. Serving distributed generation customers under two-part rate schedules such as Residential Service RS, General Service GS, and All Electric School Service AES creates a pricing environment in which customers who do not have their own electric generation facilities are forced to subsidize customers who operate their own behind-the-meter generating facilities. As will be explained, a two-part rate schedule consisting of a customer charge and an energy charge allows a customer-generator with solar panels, for example, to fall back on the utility when sunlight is not available and avoid paying the full cost of service. Therefore, serving distributed generation customers under a two-part rate consisting of only a customer charge and energy charge forces non-distributed generation customers to subsidize distributed generation customers. Because it accurately reflects cost of service, a four-part rate would ensure that distributed generation customers are not over-charged or under-charged for the service they receive. A four-part rate design would thus prevent customers who do not have electric generation facilities from subsidizing distributed generation customers.

## Q. Do KU and LG\&E have any four-part rate schedules?

[^10]A. Yes. The Companies have used four-part rates for decades for its large customers. Rates TODS, TODP, RTS, and FLS are four-part rates. Four-part rates are mandatory for all customers with loads greater than 250 kVA . The Companies require customers with demands between 50 kVA and 250 kVA to take service under Rate PS, which is a three-part rate consisting of a customer charge, energy charge and maximum demand charge. ${ }^{14}$ A wide variety of customers take service under these rate schedules. Load factors of customers taking service under these rates range from less than $5 \%$ to almost $100 \%$. To put this in perspective, a residential customer will typically have a load factor based on their maximum demand of between $15 \%$ to $30 \%$. Therefore, there are customers taking service under these rates with load factors less than a typical residential customer.

## Q. Why have residential and small commercial and industrial (C\&I) customers traditionally not been served under rate schedules with demand charges?

A. The concept of demand rates was conceived in the 1890 s by the British electrical engineer John Hopkinson. ${ }^{15}$ It was not long afterwards that electric utilities began billing some their customers under demand-energy rates, which were often referred to as "Hopkinson Rates". Based on my research, the principal reason that residential and small C\&I customers were not originally served under three- and four-part rates was

[^11]the high cost of metering equipment required to measure a customer's maximum or peak period demands. Until recently, to implement a three-part rate required a relatively expensive demand meter (e.g., a reset demand meter), and to implement a four-part rate required the installation of special chart meters or paper tape meters, which were even more expensive than reset demand meters. (See photos in Exhibit WSS-8.) These types of meters were generally available during the very early years of the electric utility industry, but they were prohibitively expensive. Consequently, they were only used for the largest customers served by electric utilities. As early as 1915, some rate engineers were promoting demand and energy rates for all customers. For example, the electrical engineer Paul M. Lincoln had developed a relatively inexpensive thermal meter which he promoted for use in measuring customer's maximum demand. ${ }^{16}$ Lincoln argued that his meter could eventually be used to implement demand rates for all types of customers, including residential customers. While the meter was relatively inexpensive, it proved not to be sufficiently accurate

[^12]for use in billing customers. ${ }^{17}$ During the early history of the electric utility industry, the principal residential use of electric energy was for lighting. Electric appliances such as clothes irons, fans and refrigerators did not become prevalent until much later. Because customer loads for lighting were considered homogenous, demand metering was not considered necessary during the early years of the industry. ${ }^{18}$ But as residential customers began to use a multitude of appliances, residential customer loads became more diverse and less homogeneous. Until the emergence of Advanced Metering Systems (AMS) and Advanced Metering Infrastructure (AMI), the implementation of demand rates on a wide scale for residential and small $\mathrm{C} \& \mathrm{I}$ customers was not considered practical. Over the past decade, a small but growing number of utilities have implemented demand rates for all their residential customers, not just new distributed generation customers as in Kansas.

## Q. Do customers with distributed generation facilities generally have different load characteristics than customers who do not own generation facilities?

A. Yes. Customers with distributed generation facilities typically have significantly different load characteristics and load shapes than customers that do not have distributed generation facilities. For example, customer-generators will have lower load factors than non-distributed generation customers. The following graph (GRAPH

[^13]3) compares the loads for a small sample of the Companies' residential customers ${ }^{19}$ with solar panels to the loads for the residential rate class on a summer peak day:


As can be seen from this graph, loads for the distributed generation customers are depressed during the hours of the day when there is sufficient sunlight to operate the solar panels, but the graph shows a spike in the customer-generators' loads in the

[^14]evening when the sunlight is no longer available for solar generation. ${ }^{20}$ However, KU and LG\&E must stand ready to deliver power to distributed generation customers when the load spikes in the evening. Thus, distributed generation facilities do not result in appreciable savings in generation, transmission, or distribution fixed costs. With a two-part rate, in which generation, transmission and distribution demand costs are recovered through a volumetric-based energy charge, the customer-generators realize reductions in their electric bills that are disproportionate to the savings created by the customer's solar generation. This results in other customers subsidizing distributed generation customers.

The following graph (GRAPH 4) compares the loads for the Companies' residential customers with solar panels to the loads for the residential rate class on a winter peak day:

[^15]GRAPH 4


As can be seen from this graph, on the winter peak day, the loads for residential distributed generation customers do not have an appreciably different pattern than the loads for the Companies' residential customers. KU and LG\&E's combined system peak demand occurs during the hours from 6 AM to 10 AM during the morning and from 6 PM to 10 PM during the evening. During these hours, the customergenerators' solar panels are not operating at significant levels. Therefore, the Companies must have sufficient generation, transmission, and distribution capacity to serve customer-generators' loads during those hours. The distributed generation facilities do not appear to result in any fixed cost savings to the customers. But with
a two-part rate in which fixed costs are recovered through a volumetric energy charge, the distributed generation customers are able to shift demand-related cost recovery to other customers without creating any fixed-cost savings.

## Q. Please describe the costs necessary to serve eligible customer-generators.

A. Earlier in my testimony, I discussed that an electric utility incurs three types (or "classifications") of costs to serve customers - namely, energy-related costs, demandrelated costs, and customer-related costs. These same three types of costs are also incurred to serve customer-generators.

As explained earlier in my testimony, energy-related costs are the strictly variable expenses, such as fuel costs, that an electric utility incurs to supply the amount of energy measured in kilowatt-hours $(\mathrm{kWh})$ that a customer uses. To the extent that a customer-generator produces energy from its own electric generation facilities, instead of purchasing the energy from the utility, the energy-related cost incurred by the utility to serve that customer is reduced or avoided.

Demand-related costs are costs related to the maximum load or kW demand placed on the utility system. An electric utility must install sufficient generation, transmission and distribution capacity to meet the maximum demand placed on the facilities. These costs are therefore demand related. For example, an electric utility must have sufficient generation capacity to serve its maximum system peak demand. The maximum system peak demand represents the aggregated load of all of its customers, effectively taking into consideration that while individual customers may have different load patterns, when they are all added together the aggregated loads
result in a well-defined load shape for the system as a whole. Based on their combined system loads in MW, KU and LG\&E's load pattern on a summer peak day is depicted below (GRAPH 5).

KU and LG\&E must install sufficient generation and transmission capacity to meet the summer system peak demand that occurs between the hours of 1 PM to 5 PM during the summer months.

An integrated electric utility such as KU and LG\&E must also have sufficient
distribution capacity to serve its customers' loads. Unlike generation facilities, distribution facilities must be sized to meet the localized loads of individual customers served on the distribution system. For example, an electric utility must install sufficient secondary distribution capacity, transformer capacity, and service line capacity to serve a customer's individual maximum demand whenever it occurs. This is precisely the reason that distribution demand-related costs are allocated differently in the Companies' class cost of service studies than production and transmission costs, as discussed later in my testimony. Therefore, to the extent that a customer-generator can reduce the maximum demand placed on the system, these demand-related distribution costs can be reduced.

Customer-related costs are costs incurred to serve customers regardless of the quantity of electric energy ( kWh ) purchased or the peak demand requirements $(\mathrm{kW})$ of the customers. As with any other customers, customer-related costs are incurred to serve customer-generators.

## Q. How are energy-related costs impacted by customer generation?

A. The electric energy produced by a customer-generator allows an electric utility to avoid its energy-related costs. If a customer generates energy with any type of distributed generation technology, then the utility is not required to generate that energy to serve the customer. The utility's energy-related costs are thereby reduced. Thus, the customer-generator that reduces its energy should not pay for the energyrelated costs. Furthermore, a customer-generator that generates more energy than the total amount of the customer-generator's own energy requirements, thereby resulting
in net generation, allows the utility to further avoid its energy-related costs. The customer-generator should therefore be compensated for such net generation at a rate that reflects the utility's avoided energy costs. In other words, the customer-generator that generates net energy should receive a billing credit that reflects KU and LG\&E's avoided energy costs as set forth in Rider SQF.

## Q. How are demand-related costs impacted by customer generation?

A. If a customer-generator can consistently generate power at the time of the utility's system peak demand, then the utility will not incur demand-related generation costs to serve the customer. Specifically, if a customer-generator can generate power during KU and LG\&E's peak period, as shown in GRAPH 5 above, the Companies do not need to have generation capacity to serve the customer-generator. Consequently, the customer-generator should only be assessed a generation demand charge during the Companies' peak periods. Likewise, if a customer-generator can reduce the maximum demand that is placed on the distribution system, the Companies are not required to install the distribution facilities for the reduced load. Therefore, if a customer-generator can reduce its maximum demand through self-generation, then the customer-generator should pay a lower distribution demand cost.

## Q. Is it possible for customer-generators to reduce demand-related costs?

A. Yes, but the extent to which demand cost reductions can be realized depends on the distributed generation technology used by the customer. Not all distributed generation technologies create the same demand cost savings. For example, assume a customer-generator installs a combination of solar panels and battery storage. The
combination of solar panels and battery storage can be managed to ensure that both peak-period demands and customer-maximum demands are reduced. This is not likely to be the case for a customer-generator who installs only solar panels. With solar panels, power is generated only when there is sufficient sunlight to produce power. If the solar panels are not producing power during the peak period, then no generation demand cost savings can be realized. These two examples underscore the difference in demand savings created by various distributed generation configurations and underscore the importance of including a demand charge in the pricing structure for distributed generation. With a pricing structure in which demand costs are recovered as an energy charge (per kWh charge), rather than as a demand charge (per kW charge), a technology configuration that includes only solar panels would receive the same pricing benefits as a technology configuration that includes both solar panels and battery storage, even though a combination of solar panels and battery storage can be managed to provide significantly higher demand cost savings. Recovering demandrelated costs though a per- kWh charge overcompensates a customer-generator that installs solar panels but without battery storage.
Q. Can you provide a numerical example of how a customer-generator with solar panels, but no battery backup, is more costly to serve than a customer-generator with solar panels and managed battery storage?
A. Yes. Consider the example of a residential customer served by either KU or LG\&E with a maximum demand of 10 kW during the summer and 20 kW during the winter. Suppose that during the summer, the customer has 7 kW of air-conditioning load and

3 kW of lighting, refrigeration, water heating, and other load, and that during the winter the customer has 17 kW of electric heating load and 3 kW of lighting, refrigeration, water hearing and other load. Assume further that the customer has 20 kW of solar panel capacity. During the summer months, it is likely that the solar panels are fully or partially operational during the KU and LG\&E peak hours from 1:00 to 5:00 PM. Therefore, solar panels may result in a partial reduction in generation demand costs. However, during the evening hours, when the customer's solar panels are not generating power, the customer will still be operating air conditioning equipment and will be fully utilizing KU or LG\&E's distribution system. Consequently, the customer's solar generation does not result in a reduction of the distribution capacity required to serve the customer. For this reason, the customergenerator should be assessed a charge that reflects the demand that the customer imposes on the distribution system.

During the winter, KU and LG\&E's peaks typically occur during the hours of 6 AM to 10 AM in the morning and 6 PM to 10 PM in the evening. During those hours, it is less likely that the customer's solar panels are generating power. Therefore, KU and LG\&E must have the generation, transmission, and distribution capacity necessary to serve the customer-generator's full load. Since the customergenerator cannot reduce demand during the peak period, the customer-generator should be assessed a charge that reflects the demand that the customer imposes on the generation, transmission, and distribution system.
Q. But what about a customer-generator who has installed solar panels and managed battery storage?
A. Let us assume that the same customer has installed 40 kW of solar panels but has also installed lithium ion batteries with 20 kW maximum output and with the ability to store energy for several days. Then the customer can store electric energy in the batteries while the solar panels are operating but draw power from the batteries when there is insufficient sunlight to generate power from the solar panels. This customer can effectively reduce the demand imposed on the generation system during KU and LG\&E's system peak periods and also reduce the maximum demand that the customer places on the Companies' distribution systems. Therefore, unlike a customer with only solar panels, this customer can fully reduce the production demand costs required to serve the customer and partially reduce the distribution costs incurred to serve the customer. Because the customer-generator with a combination of solar panels and managed battery storage can fully reduce demand during the peak period, along with reducing maximum demand during the month, the customer-generator should be assessed lower demand charges than a customer-generator with only solar panels. But this would not be the case if the customer is served under a two-part rate. With a twopart rate design, consisting of only a customer charge and an energy charge, there is no economic benefit for installing battery storage. With a two-part rate, the only benefit for adding battery storage is increased reliability.

## Q. How are customer-related costs impacted by customer generation?

A. Customer-related costs are not impacted by customer generation. Customer-related costs are the costs related to connecting the customer to the system and include the
cost of the meter, service line, the minimum distribution assets required to connect the customer to the grid, and meter reading and billing costs. These costs do not vary with the customer's energy usage or demand.
Q. Will the Companies be investigating these issues in the future?
A. Yes, that is their intention.

## P. ELECTRIC VEHICLE CHARGING STATION RATES

Q. Do KU and LG\&E currently offer public electric vehicle charging service?
A. Yes. KU and LG\&E currently provide electric vehicle charging service to licensed electric vehicles from twenty Level 2 Charging Stations. Service is provided from these Level 2 Charging Stations under Electric Vehicle Charging Service Rate EVC, which was originally approved by the Commission in Case No. 2015-00355 and substantially modified in the Companies' last general rate case filings in Case Nos. 2018-00294 and 2018-00295.
Q. Are the Companies proposing any changes to the Level 2 charging service set forth in Rate EVC?
A. No.
Q. In the Companies' last rate cases, adjustments to miscellaneous revenues were made to ensure that costs related to Level 2 charging under Rate EV were not shifted to other customers. Are the Companies making such an adjustment for Level $\mathbf{2}$ charging service in these proceedings?
A. Yes. Level 2 Charging Service under Rate EV was approved as a pilot program in

Case No. 2015-00355. In that proceeding, the Companies made a commitment that the Level 2 charging service would not result in increased charges to the Companies' other customers. For Level 2 charging service offered under Rate EV, the Companies will continue to honor that commitment. To ensure that the cost of providing Level 2 charging service isn't shifted to other customers, the Companies have imputed revenues for Rate EV to bring the class rate of return for Rate EV in the Companies' cost of service studies up to the overall rate of return on rate base proposed by the Companies in these proceedings. Specifically, revenues of $\$ 48,431$ are imputed for KU and revenues of \$55,206 are imputed for LG\&E.

## Q. Are KU and LG\&E proposing a new electric vehicle charging rate schedule in these proceedings?

A. Yes. The Companies are proposing a new rate schedule to provide Level 3 Charging Service, which is generally referred to as "DC Fast Charging Service". The new rate schedule for DC Fast Charging Service is called "EVC-FAST Electric Vehicle Fast Charging Service."

## Q. Please describe the differences between Level 1, Level 2 and Level 3 Charging.

A. A Level 1 Charger is the most basic type of electric vehicle charger, which charges a vehicle from a standard 120 V household outlet. A Level 1 charger can only provide about 4 to 5 miles of driving per hour, which for some drivers can be sufficient if the vehicle is charged through the night and if the vehicles are driven relatively short distances.

A Level 2 Charger charges a vehicle from a 240 V outlet and will typically - 65 -
provide between 12 and 60 miles of range per hour. A 240 V circuit is typically what is required for electric washing machines, dryers, and central air-conditioning units. As the mileage range of electric vehicles increases, it is anticipated that most residential customers with electric vehicles will install Level 2 Chargers. The electric vehicle charging service currently provided by KU and LG\&E under Rate EV utilizes Level 2 Charging Technology.

A Level 3 Charger (or "DC Fast Charging Station") is a primary voltage charger that uses a direct current (DC) circuit to charge a plug-in electric vehicle. In comparison to the Companies' Level 2 stations, which provide charging at a rate of 7.2 kW , the DC Fast Charging Stations will be able to charge at a rate of 50 kW or greater (i.e., 50 kWh or greater per hour). A DC Fast Charging Station can provide 300 miles of range or more in about an hour, although charging speeds vary. Beginning in the second half of 2022, KU and LG\&E plan to install DC Fast Charging Stations to provide service under Rate EVC-FAST. DC Fast Chargers are a key enabling technology for the adoption of electric vehicles.

## Q. Are any costs of DC Fast Charging Stations included in revenue requirements in these proceedings?

A. No. All costs incurred to install and operate any DC Fast Charging Stations would be incurred beyond the end of the forecasted test year used in these proceedings. Therefore, revenue requirements in these proceedings do not include any costs of DC Fast Charging Stations. In these proceedings, the Companies are requesting approval for rates for service from DC Fast Charging Stations that the Companies plan to install
beginning in the second half of 2022.

## Q. Are there benefits to ratepayers from the adoption of electric vehicles?

A. Yes. The adoption of electric vehicles by residential and non-residential customers has an enormous potential to reduce the unit cost of providing electric service to electric utility customers. What is particularly compelling about the adoption of electric vehicles from a utility customer's perspective is that electric vehicle charging by customers typically takes place through the night, when electric utility loads are at their lowest levels. A residential customer who owns an electric vehicle will typically drive the vehicle during daytime hours and charge the vehicle at night. Since electric vehicles are typically connected to home charging stations during off-peak hours, increased numbers of electric vehicles will result in additional revenue but typically without creating the need to install new generation, transmission or even distribution capacity to serve the load. Consequently, increased electric vehicle ownership helps spread fixed generation and transmission costs over a larger number of sales, thus placing a downward pressure on the Companies' rates. Increasing electric vehicle charging sales provides benefits comparable to adding new industrial and commercial load from economic development efforts. Just as adding new large commercial and industrial loads allows KU and LG\&E to spread fixed costs over a larger number of sales, additional electric vehicle charging will allow KU and LG\&E to spread their fixed costs over a larger sales base.

## Q. How does the adoption of electric vehicles in Kentucky compare to other states?

A. Kentucky ranks as a state with one of lowest numbers of electric vehicles in the
country. According to data published by the United States Department of Energy, on a per capita basis, Kentucky had the sixth lowest number of electric vehicles registered in the state, ahead of only West Virginia, Mississippi, Arkansas, North Dakota, and Louisiana. In 2018, there were 1,240 electric vehicles registered in Kentucky, which corresponds to 27.75 electric vehicles registered for every 100,000 residents in Kentucky, ${ }^{21}$ though this number appears to be growing. ${ }^{22}$ Undoubtedly, there is a regional element to the adoption of electric vehicles, with the highest levels of adoption in California, Hawaii, Washington, and Oregon. However, there are also high levels of adoption in Georgia, Florida, Virginia, Texas, and North Carolina. For example, in 2018, there were 5 times more electric vehicles per 100,000 residents registered in Georgia than in Kentucky, and there were 4 times more electric vehicles per 100,000 residents registered in Florida than in Kentucky. Although the number of electric vehicles in Indiana cannot be considered high, there were almost twice the number of electric vehicles per 100,000 residents in Indiana as in Kentucky.

## Q. What are the major impediments to the adoption of electric vehicles?

A. As I mentioned earlier, a plug-in electric vehicle is significantly less costly to operate than a conventional passenger vehicle. Therefore, it is useful to consider what the impediments are to the widespread adoption of electric vehicles. Based on my research, there are four major impediments to the adoption of plug-in electric vehicles,

[^16]three of which are being quickly addressed in the automotive industry.
The first impediment is the higher cost of a plug-in electric vehicle in comparison to a traditional vehicle powered by an internal combustion engine. However, over the past few years there has been a dramatic decrease in the cost difference between plug-in electric vehicles and conventional passenger vehicles. This reduction seems to have been in large part due to the engineering, manufacturing and marketing by Tesla, Inc. and other manufacturers. Based on the trends over the past several years, we can expect the price difference between plug-in electric vehicles and conventional vehicles to continue to decline as the economies of scale increase for electric vehicles.

The second impediment to the adoption of plug-in electric vehicles is the mileage range of the batteries. Again, this is an area in which the automotive industry is making dramatic improvements. For example, Tesla currently sells seven vehicles with a range of over 300 miles on a fully charged battery. Tesla's Model S Long Range Plus has a listed range of 391 miles. General Motors and Hyundai currently offer passenger vehicles with ranges that are over 250 miles. However, General Motors announced that it has developed a new electric vehicle battery with a range of up to 400 miles. A few years ago, it was difficult to find a plug-in electric vehicle with a range greater than 100 miles. It is reasonable to expect that the battery range will continue to improve.

The third impediment is the life of the battery. This is yet another area in which the automotive industry is making major improvements. The batteries in all electric
vehicles sold in the United States are covered under warranties for at least 8 years or 100,000 miles. However, it is expected that electric vehicle batteries will last longer than 100,000 miles. For example, Tesla recently announced that a $1,000,000$ mile battery is ready for production. Long-lived batteries along with charging ranges greater than 500 miles will likely be game changers for the adoption of plug-in electric vehicles.

The fourth impediment to the adoption of plug-in electric vehicles is the availability of fast charging stations. While technological advances in the automobile industry are addressing the first three impediments, from a public policy perspective, the availability of fast charging stations may represent the most formidable challenge to the adoption of plug-in electric vehicles. Even with battery ranges greater than 500 miles, there will be a public need for the availability of fast charging stations in order to facilitate the adoption of plug-in electric vehicles. Without the availability of fast charging stations, it is unlikely that passenger vehicle owners will be willing to purchase a plug-in vehicle without the prospects for charging their vehicles on long distance trips. Without more fast charging stations, electric vehicles will likely be limited in their use to commuter vehicles and will thus be demoted to use as a secondary passenger vehicle, forcing people to own a vehicle with an internalcombustion engine to serve as their primary passenger vehicle. Thus, fast charging stations are a key enabling technology that will allow people to purchase electric passenger vehicles.

## Q. From a public policy perspective, why is it important for utilities to provide fast

charging service?
A. As mentioned earlier, there are enormous benefits to customers adopting electric vehicle technology. Electric vehicles are not only less costly to operate, the revenues generated by charging electric vehicles have the effect of lowering rates to other customers, by spreading utility fixed costs over a larger sales volume. Therefore, it is in ratepayers' interests for more people to use electric vehicles, providing ratepayer and public benefits that go well beyond the lower operating cost of electric vehicles. The need for electric utilities to install electric vehicle charging infrastructure is addressed in the report Electric Vehicles: Key Trends, Issues, and Considerations for State Regulators prepared by NARUC and sponsored by the United States Department of Energy (DOE), which explains:

> Many utilities around the country have begun to explore owning and operating EV charging stations to accelerate the growth of EVs and the corresponding growth in electric sales. Proponents of utility ownership present several arguments in favor: Most experts agree that current EV charging infrastructure will need to grow dramatically to cover the expected growth of EVs. This large "infrastructure gap" demands all hands on deck, including participation of utilities. Furthermore, widespread charging infrastructure is a prerequisite for many consumers to consider purchasing an EV, but it is difficult for EVs to be profitable without high usage from many EVs on the road. (Id., at p. 20 . Emphasis supplied.)

According to this assessment, electric utilities will have to serve as providers of fast charging service until the number of electric vehicles on the roads make it feasible for private industry such as filling stations along interstates and highways like Pilot,

Flying J, Loves, TA, RaceTrac, Murphy USA, and others to begin installing DC Fast Charging ports in larger numbers.
Q. Nationally, is there a correlation between the number of DC Fast Charging Ports and the number of plug-in electric vehicles owned?
A. Yes. There is a $98.7 \%$ correlation between the number of DC Fast Charging Ports and electric vehicles in a state. As can be seen from the graph shown in Exhibit WSS-10, the relationship is essentially linear. While it is impossible to prove causality from this analysis, the relationship does strongly suggest that DC Fast Charging Stations are an essential enabling technology for the adoption of plug-in electric vehicles.
Q. Do other utilities in our region offer DC Fast Charging Service?
A. Yes. Georgia Power currently owns and operates 39 DC Fast Charging stations. In June 2020, the Governor of Florida, Ron DeSantis, signed a directive for the Florida Public Service Commission to encourage utilities to develop electric charging stations along state highways. In July, Florida announced that 34 DC Fast Charging stations would be added along Interstate 95, Interstate 4, Interstate 75, Interstate 275, and Interstate 295.
Q. Please describe the proposed pricing structure for DC Fast Charging Service.
A. KU and LG\&E are proposing to charge $\$ 0.25$ per kWh for charging service under Rate EVC-FAST.
Q. How does this rate compare to the average rate for Level 2 charging service that the Companies currently charge under Rate EVC?
A. The Level 2 charging service rate under Rate EVC has a different pricing structure
than what the Company is proposing for DC Fast Charging Service. Under Rate EVC, which was approved in the Companies' last rate cases, KU and LG\&E charge a fee of $\$ 0.75$ for the first hour of charging service and $\$ 1.00$ for all additional hours during the charging session, plus appropriate taxes and fees. On average this is equivalent to $\$ 0.20$ per kWh after taxes and fees. A recent study has found that the majority of respondents who have an electric vehicle or are considering purchasing one are willing to pay $25 \%$ more for fast charging in relation to Level 2 charging service provided under Rate EVC. ${ }^{23}$ Therefore, in the industry, the charge for DC Fast Charging Service (Level 3 service) is typically higher than the charge for Level 2 charging service.

## Q. How does the charge for service under the Companies' proposed Rate EVCFAST compare to the DC Fast Charging Service offered by other utilities? <br> A. Although I have not performed an exhaustive review of all DC Fast Charging rates charged by utilities, several electric utilities providing service in Eastern United States (i.e., east of the Mississippi River) offer DC Fast Charging Service. The following table (TABLE 4) summarizes the charges per kWh for the utilities that I am aware of in Eastern United States that provide DC Fast Charging Service:

[^17]TABLE 4

| Utility | DC Fast Charging Rate |
| :--- | :---: |
| Baltimore Gas and Electric Company (BG\&E) | $\$ 0.255$ to $\$ 0.34$ per kWh * |
| Duke Energy Carolinas | $\$ 0.236$ per kWh ** |
| Florida Power \& Light (FPL) | $\$ 0.30$ per kWh |
| Georgia Power Company | $\$ 0.30$ per kWh *** |
| Potomac Electric Power Company (PEPCO) | $\$ 0.255$ to $\$ 0.34$ per kWh |

[^18]As seen in this table, KU and LG\&E's proposed charge for DC Fast Charging Service is in line with what is being charged by these other utilities.

## Q. Based on your review of the filings submitted to state regulatory commissions by

 these utilities, were these DC Fast Charging rates supported by a cost analysis?A. No. In developing the rates, the rate filings reflected market considerations rather than costs. Due to the uncertainty regarding future usage of DC Fast Charging Service any such cost analysis would be speculative. As more data is collected over time, a better picture of the actual unit cost of providing this service will emerge. But regardless, as discussed earlier, because of the benefits that the availability of fast charging stations provide as an enabling technology, it is important that more fast charging stations are available for public use. It is important to recognize that KU and LG\&E are not trying to compete with third-party providers of DC Fast Charging
service, and the Companies are not trying to undercut other providers by providing a below market price for fast charging service. More fast charging stations are needed to enable people to purchase electric vehicles. A thriving market for fast charging service will enable more customers to drive electric vehicles and thereby benefit KU and LG\&E's existing customers by putting downward pressure on electric rates.

## Q. You mentioned earlier that adjustments to miscellaneous revenues are being made to ensure that costs related to Level 2 charging under Rate EVC are not shifted to other customers. Are similar adjustments being made for DC Fast Charging Service?

A. No, nor are such adjustments necessary in these proceedings. As mentioned earlier, there are no costs related to the DC Fast Charging in test-year revenue requirements. Because test year revenue requirements do not include costs related to the DC Fast Charging Service, such an adjustment is neither necessary nor possible. The revenue requirement treatment of future investments in DC Fast Charging Stations will be addressed in subsequent rate proceedings. In these proceedings, the Companies are requesting approval of rates for DC Fast Charging Service that will be available to the public beginning during the second half of 2022. Consequently, none of the costs for this service is included in test year revenue requirements in these proceeding.

## Q. Are the Companies proposing any changes to Electric Vehicle Supply Equipment Rate EVSE and EVSE-R?

A. Yes. Under Electric Vehicle Supply Equipment - Rider (Rider EVSE-R), the Companies provide charging stations behind the customers' meters which can be used
by the customers to charge electric vehicles. Under Rider EVSE-R, the customer is responsible for providing the electric energy for the charging station and the Companies bill the customers a monthly fixed charge for the use of the charging station. Pursuant to Rate EVSE, the Companies provide an unmetered charging station which can be used by customers to charge electric vehicles. Under this rate schedule, the Companies provide the energy for the charging station, the cost of which is bundled into the monthly fixed charge. The Companies are proposing to add an additional charging unit option to the EVSE and EVSE-R tariff. The new charging unit is a basic non-networked charger that is preferred by some customers. The addition of this unit is not meant to compete with or replace the existing charging unit, but to supplement the options available to KU and LG\&E's customers. Cost Support for the new EVSE and EVSE-R rates are shown in Exhibit WSS-11.

## Q. REDUNDANT CAPACITY (RIDER RC)

## Q. Please describe the Companies' Redundant Capacity rider.

A. 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, such as hospitals, 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. 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 Excess Facilities rider. To provide a customer full backup capacity on a second feed, the Companies must incur additional costs to ensure sufficient network distribution capacity for 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, the Companies assess a demand charge to cover the distribution demand-related cost of providing backup service for 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 electric service. Rider RC includes a charge for customers taking service at primary voltages and a charge for customers taking service at secondary voltages.

## Q. What changes are the Companies proposing to the Redundant Capacity charges?

A. KU is proposing to decrease the demand charge for primary voltage customers from $\$ 0.99$ to $\$ 0.92$ per kW per month and to increase the charge from $\$ 1.16$ to $\$ 1.36$ per kW
per month for secondary voltage customers. LG\&E is proposing to decrease the demand charge for primary voltage customers from $\$ 1.41$ to $\$ 1.31$ per kW per month and to increase the charge from $\$ 1.84$ to $\$ 1.93$ per kW per month for secondary voltage customers. The cost support for the proposed redundant capacity charges is included in Exhibit WSS-12.

## IV. GAS RATE DESIGN AND THE ALLOCATION OF THE INCREASE A. ALLOCATION OF THE GAS REVENUE INCREASE

Q. Please summarize your recommendations for allocating the gas revenue increase to the classes of service?
A. LG\&E is proposing an overall revenue increase of $\$ 29,988,054$ for its gas line of business, which corresponds to an $8.34 \%$ increase. LG\&E is also proposing changes to other miscellaneous charges which result in changes to other operating revenue. Accounting for changes in other operating revenue results in increases in revenues from sales to ultimate customers of $\$ 29,979,285$ (or $8.37 \%$ ) for LG\&E's gas operations. (See Schedule M 2.1-G in LG\&E’s Filing Requirements.)

I relied on the results of the gas cost-of-service study to develop my recommendations for allocating the gas revenue increase to the classes of service. As seen in the table below (TABLE 5), the class rates of return for As-Available Gas Service (Rate AAGS) and Firm Transportation Service (Rate FT) are significantly lower than for the other rate classes. I am recommending the elimination of $25 \%$ of
the subsidies for Rates Residential Gas Service (RGS), AAGS, and FT. Because of its high rate of return, I am not recommending an increase for Rate IGS. Rate CGS is adjusted to collect the residual increase required to yield the overall increase. Specifically, as shown on Schedule M-2.1-G, I am recommending revenue increases of $9.37 \%$ for Rate RGS, $4.86 \%$ for Rate CGS, $26.09 \%$ for Rate AAGS, $39.75 \%$ for Rate FT, and no increase for Rate IGS.

It should be noted, however, that the percentage increase for Rate FT is somewhat misleading. The revenues for Rates RGS, CGS, IGS, and AAGS include recovery of the cost of the natural gas (the commodity), but Rate FT is a transportationonly service. Therefore, the recovery of the cost of the natural gas is not included in Rate FT revenues, which inflates the percentage increase for this class. If a proxy price of $\$ 3.42$ per Mcf is assumed as the cost that Rate FT customers pay for natural gas, which reflects LG\&E's average Gas Supply Cost Component during the test year, the effective increase that Rate FT customers would see in their total natural gas costs due to LG\&E's proposed rate increase would only be $5.56 \%$, which is not significantly higher than the increase that LG\&E is proposing for Rate CGS. A comparison of the rate of return at current rates and the percentage revenue increase (decrease) proposed for each rate class is shown below in TABLE 5:

| Rate Class | Rate of Retun <br> On Rate Base | Customer <br> Increase in <br> Cost of Gas * | Rate of Return <br> On Rate Base <br> After Increase |
| :--- | ---: | ---: | ---: |
| Residential Service Rate RGS | $4.62 \%$ | $9.37 \%$ | $6.87 \%$ |
| Commercial Service Rate CGS | $7.56 \%$ | $4.86 \%$ | $9.08 \%$ |
| Industrial Service Rate IGS | $13.70 \%$ | $0.00 \%$ | $13.69 \%$ |
| As Available Gas Service Rate AAGS | $-3.24 \%$ | $26.09 \%$ | $0.98 \%$ |
| Firm Transportation Service Rate FT | $-1.75 \%$ | $5.56 \%$ | $2.10 \%$ |
| Total | $5.10 \%$ | $7.58 \%$ | $7.23 \%$ |

## TABLE 5

* The increase shown for Rate FT reflects a proxy price for the customer's natural gas of $\$ 3.42$ per Mcf.

The rates of return for each rate class are shown in Exhibit WSS-13, and the revenue increases necessary to eliminate $25 \%$ of the subsidies for Rates RGS, FT and AAGS are calculated in Exhibit WSS-14.

## Q. Is LG\&E proposing to eliminate all subsidies?

A. No. As mentioned above, LG\&E's proposal is to eliminate $25 \%$ of the subsidies for Rates FT, AAGS, and RGS. This approach moderates the large increase that would otherwise be required to bring the rates of return for Rates FT, AAGS, and RGS to the proposed overall rate of return.

## Q. Has Rate FT increased significantly since it was first introduced?

A. No. Rate FT has increased very little since it was first introduced in 1995. Rate FT replaced a similar service called Rate T, which was introduced in 1988. The distribution charge for Rate T was $\$ 0.43$ per Mcf when it was first introduced in
1988. ${ }^{24}$ Rate T was replaced with Rate FT in 1995 , but the distribution charge of $\$ 0.43$ per Mcf remained the same. ${ }^{25}$ Rate FT was not increased until July 1, 2015, when the charge was raised from $\$ 0.43$ per Mcf to $\$ 0.4302$ per Mcf. ${ }^{26}$ Rate FT was increased again on July 1, 2017, from $\$ 0.4302$ per Mcf to $\$ 0.4440$ per Mcf. ${ }^{27}$ The distribution charge was restructured as a demand/commodity rate in Case No. 2018-00295; however, the modification in that proceeding was designed to be revenue neutral. Therefore, during a period of over 32 years, the distribution charge for Rate FT (or its predecessor, Rate T) has only increased a total of $3.26 \%$.

## Q. What is creating the need for rate increases for Rates FT and AAGS?

A. As discussed in detail in Mr. Bellar's testimony, LG\&E obtained approval from the Commission to modernize its gas transmission system. This Transmission Modernization Program ("TMP") and other modifications to LG\&E's gas transmission pipelines, such as the planned modification to the Western Kentucky A and $B$ pipelines, represent a commitment on the part of LG\&E to invest in the replacement of aging gas transmission infrastructure. Prior to these transmission projects, LG\&E had focused primarily on upgrading its distribution infrastructure. The investment that LG\&E made to replace distribution infrastructure did not have a

[^19]major impact on the cost of providing service to customers taking service under Rates FT and AAGS. Customers served under Rates FT and AAGS are allocated relatively little of the cost of distribution infrastructure. This is not the case with transmission infrastructure. Because transmission costs make up a significantly larger portion of the total cost of service to Rate FT and Rate AAGS customers, TMP and other modifications to LG\&E's gas transmission system have increased the cost of service to these two rate classes.

## Q. Are there any rate classes not shown on the above table?

A. Yes. Rate VFD is not broken out in the cost-of-service study but is included with Rate RGS. Distributed Generation Gas Service (Rate DGGS) is a rate class that serves a small number of customers. It is a demand/commodity rate that is derived from unit costs from the cost-of-service study for Rate IGS. Rate DGGS is not broken out in the cost-of-service study but is included in Rate IGS in the study, as is the Companies' special contract with LG\&E to provide gas sales service to the Mill Creek Generating Station. Local Gas Delivery Service (Rate LGDS) is a rate for the transportation of locally produced natural gas through LG\&E's delivery system. Rate LGDS has the same rate structure and unit charges as Rate FT. There are currently no customers served under Rate LGDS.

Substitute Gas Sales Service (Rate SGSS) is a rate available to serve customers that desire substitute gas sales service from LG\&E. It is a demand/commodity rate that is derived from unit costs from the cost-of-service study based on either Rate CGS or Rate IGS, as applicable. One commercial customer is served under Rate SGSS.

Therefore, Rate SGSS is not broken out separately in the cost-of-service study but is included in Rate CGS.
Q. Have you prepared an exhibit showing the proposed gas revenue increase for each rate schedule?
A. Yes. The revenue increase for each rate class is shown on Schedule M-2.1-G of Section 16(8)(m) of the Filing Requirements. The detailed billing calculations and proposed unit charges for each rate schedule are shown on Schedule M-2.3-G.

## B. ELIMINATION OF GAS LINE TRACKER PROGRAMS

Q. Is LG\&E proposing to eliminate certain Gas Line Tracker (GLT) projects?
A. Yes. LG\&E is proposing to eliminate the Main Replacements portion of the Leak Mitigation Project, the Aldyl-A Mains and Services Replacement Project, and the Steel Customer Service Lines and Targeted Removal of County Loops and Steel Curbed Services Program ("Steel Services Program"), and Transmission Modernization Program ("TMP"). Except for the Steel Services Program, all work on the eliminated projects has been or will be completed before to the end of the test year. The Steel Service Program and the Transmission Modernization Program were only authorized for GLT recovery for a period of five years, which corresponds to the end of the test year.
Q. Will the costs of these eliminated GLT projects be recovered through base rates instead of the GLT?
A. Yes. The impact of the elimination of these programs are also shown in Schedule M-
2.3-G. Specifically, on page 1 of this Schedule, the column labeled "GLT Mechanism Adjustment to Reflect GLT Project Elimination" reflects the amount of GLT Mechanism revenue transferred to base rates. This adjustment does not alter total revenue, but simply represents the removal of GLT costs for the eliminated projects from the GLT mechanism into base rate recovery. This adjustment is revenue neutral. The supporting details for each rate class are shown on pages 2 through 11 of Schedule M-2.3-G.

## C. RESIDENTIAL GAS SERVICE (RATE RGS)

## Q. Please provide a brief description of Rate RGS.

A. Rate RGS is the standard gas rate schedule available to single-family residential service. Approximately 301,000 residential customers are served under this rate schedule. Rate RGS consists of a Basic Service Charge, Distribution Charge and Gas Supply Cost Component.
Q. What are the charges that LG\&E is proposing for Rate RGS?
A. LG\&E is proposing to increase the Basic Service Charge from $\$ 0.65$ per day to $\$ 0.78$ per day. The Company is also proposing to increase the Distribution Charge from $\$ 0.36782$ per Ccf to $\$ 0.48398$ per Ccf. LG\&E is proposing the same charges for Volunteer Fire Department Service (Rate VFD).
Q. What is the basis for the proposed increase in the Basic Service Charge for Rate RGS?
A. LG\&E is proposing a Basic Service Charge that moves the Basic Service Charge
towards the customer-related costs from the cost-of-service study. As will be explained in greater detail later in my testimony regarding the gas 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 prior rate case orders.
Q. Have you prepared an exhibit showing the calculation of the unit cost components for Rate RGS?
A. Yes. Exhibit WSS- 15 shows the calculation of the unit customer cost and distribution delivery cost. From this exhibit, the customer cost is calculated to be $\$ 0.98$ per customer per day, and the distribution delivery cost is $\$ 0.37070$ per Ccf. LG\&E's proposed Basic Service Charge of $\$ 0.78$ is approximately $79.6 \%$ of the unit customerrelated cost from the cost-of-service study. LG\&E is proposing an increase in the Basic Service Charge of approximately $25 \%$, which reflects a gradual movement of the charge towards cost of service.

## D. COMMERCIAL GAS SERVICE (RATE CGS)

## Q. Please provide a brief description of Rate CGS.

A. Rate CGS is the standard gas rate schedule available to commercial customers for gas sales service. Approximately 25,700 commercial customers are served under this rate schedule. Rate CGS consists of a Basic Service Charge, Distribution Charge and Gas Supply Cost Component. The Basic Service Charge is differentiated between customers who do not have a meter with a capacity equal to or greater than 5,000 cubic
feet per hour (cf/hr) and customers who do have at least one meter with a capacity equal to or greater than $5,000 \mathrm{cf} / \mathrm{hr}$.

## Q. What are the charges that LG\&E is proposing for Rate CGS?

A. LG\&E is proposing to increase the Basic Service Charge from $\$ 1.97$ per day to $\$ 2.30$ per day for customers who do not have a meter with a capacity equal to or greater than $5,000 \mathrm{cf} / \mathrm{hr}$ and to increase the charge from $\$ 9.37$ per day to $\$ 11.00$ per day for customers who do have at least one meter with a capacity equal to or greater than $5,000 \mathrm{cf} / \mathrm{hr}$. LG\&E is proposing to increase the Distribution Charge from $\$ 0.30670$ to $\$ 0.37688$ per Ccf for on-peak usage and from $\$ 0.25670$ to $\$ 0.32688$ per Ccf for offpeak usage.

## E. INDUSTRIAL GAS SERVICE (RATE IGS)

## Q. Please provide a brief description of Rate IGS.

A. Rate IGS is the standard gas rate schedule available to industrial customers for gas sales service. Approximately 200 industrial customers are served under this rate schedule. Rate IGS consists of a Basic Service Charge, Distribution Charge and Gas Supply Cost Component. The Basic Service Charge is differentiated on the same basis as Rate CGS.

## Q. What are the charges that LG\&E is proposing for Rate IGS?

A. LG\&E is not proposing a revenue increase for Rate IGS. However, Distribution Cost Components of Rate IGS are being adjusted to reflect the elimination of certain GLT projects and the transfer of cost recovery of the GLT project costs to base rates. To
reflect the elimination of the GLT projects, LG\&E is proposing to increase the Distribution Charge from $\$ 0.21929$ to $\$ 0.27023$ per Ccf for on-peak usage and from $\$ 0.16929$ to $\$ 0.22023$ per Ccf for off-peak usage. Again, this change is revenue neutral because there will be a corresponding reduction in the GLT.

## F. AS AVAILABLE GAS SERVICE (RATE AAGS)

## Q. Please provide a brief description of Rate AAGS.

A. Rate AAGS is the rate schedule available to commercial and industrial customers that agree to take gas sales service on a non-firm basis. There are only three customers on this rate schedule. Rate AAGS consists of a Basic Service Charge, Distribution Charge and Gas Supply Cost Component.

## Q. Is LG\&E proposing changes to Rate AAGS?

A. Yes. LG\&E is proposing to increase the Basic Service Charge from $\$ 500.00$ per month to $\$ 630.00$ per month and to increase the Distribution Charge from $\$ 1.0644$ to $\$ 2.0168$ per Mcf.

## G. FIRM TRANSPORTATION SERVICE (RATE FT)

## Q. Please provide a brief description of Rate FT.

A. Rate FT is the standard gas rate schedule available to large commercial and industrial customers for firm gas transportation service. It is generally available to customers who use at least 50 Mcf per day at each delivery point. Rate FT currently includes an Administrative Charge of $\$ 550.00$ per delivery point per month, a Basic Service

Charge of $\$ 750.00$ per delivery point per month, a Distribution Charge of $\$ 0.0380$ per Mcf, and a Demand Charge of $\$ 4.89$ per Mcf of billing demand per month. The Basic Service Charge is applied to each customer receipt point. The Demand Charge is applied to the customer's monthly billing demand, which is the greater of the Maximum Daily Quantity (MDQ) or the highest daily volume of gas delivered to the delivery point during the current or preceding 11 monthly billing periods. The Distribution Charge is applied to the volumes of gas (Mcf) delivered to the customer at its facility. LG\&E's largest gas customers receive service under this rate schedule.

## Q. Is LG\&E proposing changes to Rate FT?

A. Yes. LG\&E is proposing to increase the Distribution Charge to $\$ 0.0456$ per Mcf and the Demand Charge to $\$ 7.78$ per Mcf of billing demand per month.

## H. SUBSTITUTE GAS SALES SERVICE (RATE SGSS)

## Q. Please describe Rate SGSS.

A. Rate SGSS is a standard rate schedule that provides substitute gas sales service for any customer who desires to receive firm sales service from LG\&E in addition to gas received from other sources with which the customer is physically connected. This rate therefore applies to customers who normally receive gas supply directly from an interstate pipeline, another local distribution company, or a local producer but desire to rely on LG\&E as an alternative or substitute supplier of natural gas.

## Q. Please describe the proposed charges for Rate SGSS.

A. For commercial customers served under Rate SGSS, LG\&E is proposing a Basic

Service Charge of $\$ 335.00$ per month, a Demand Charge of $\$ 7.54$ per Mcf of Monthly Billing Demand, and a Distribution Charge of $\$ 0.4106$ per Mcf. The increase in the revenue for this class corresponds approximately to the increase for Rate CGS. One commercial customer takes service under Rate SGSS.

For industrial customers served under Rate SGSS, LG\&E is proposing a Basic Service Charge of $\$ 750.00$ per month, a Demand Charge of $\$ 10.89$ per Mcf of Monthly Billing Demand, and a Distribution Charge of $\$ 0.3100$ per Mcf. Currently, no industrial customers take service under Rate SGSS.

## I. LOCAL GAS DELIVERY SERVICE (RATE LGDS)

## Q. Please describe Rate LGDS.

A. Rate LGDS is a rate schedule that is available to parties who contract with LG\&E to provide firm transportation service of locally produced gas. Currently, there are no customers served under Rate LGDS.
Q. Please describe the rate components for Rate LGDS and cost basis for the charges.
A. Rate LGDS currently includes an Administrative Charge of $\$ 550.00$ per month, Basic Service Charge of $\$ 750.00$ per month, a Demand Charge of $\$ 4.89$ per Mcf, and a Distribution Charge of $\$ 0.0380$ per Mcf. The Administrative Charge and Basic Service Charge are applied to each customer receipt point. The Demand Charge is applied to the customer's monthly billing demand, which is the greater of the Maximum Daily Quantity (MDQ) or the highest daily volume of gas delivered to the
delivery point during the current or preceding 11 monthly billing periods. The Distribution Charge is applied to the net nominated volumes of gas (Mcf) at the delivery point. LG\&E is proposing the same charges for Rate LGDS as Rate FT as previously described because the type of transportation service provided under these two rate schedules is essentially similar. LG\&E is proposing to increase the Distribution Charge to $\$ 0.0456$ per Mcf and the Demand Charge to $\$ 7.78$ per Mcf of billing demand per month.

## J. DISTRIBUTED GENERATION GAS SERVICE (RATE DGGS)

## Q. Please describe Rate DGGS.

A. Rate DGGS is a rate schedule that is available to parties with customer-owned electric generation facilities who require natural gas service.
Q. Is LG\&E proposing any modifications to the charges for Rate DGGS?
A. Yes. LG\&E is proposing to increase the Distribution Charge from $\$ 0.2992$ to $\$ 0.3100$ per Mcf and to decrease the Demand Charge from $\$ 10.8978$ to $\$ 10.89$.
VI. MISCELLANEOUS SERVICE CHARGES

## A. POLE AND STRUCTURE ATTACHMENT CHARGES (RATE PSA)

Q. Are KU and LG\&E proposing to increase the pole and structure attachment charges set forth in Rate PSA?
A. No. The Companies are proposing to maintain the pole attachment charge applicable
to cable television operators and telecommunication carriers at the current annual levels of $\$ 7.25$ per wireline attachment, $\$ 0.81$ per linear foot of duct, and $\$ 36.25$ per wireless facility located on the top of a pole. Of the three charges, the wireline attachment charge has by far the greatest utilization. Currently, there are minimal wireless and duct attachments.

## Q. Did you validate the reasonableness of the current wireline attachment charge?

A. Yes. When I calculated the wireline attachment charge using forecasted costs based on a revenue requirement reflecting net cost plant (net cost rate base), the analysis resulted in a unit cost for KU and LG\&E of $\$ 7.84$ per attachment. Because the current charge reasonably reflects the updated cost based on forecasted net plant, the Companies decided not to propose a change in the rates at this time.

## Q. Please describe the methodology used to calculate the charges.

A. 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-16 follow the guidelines established in Administrative Case No. 251. In this exhibit, the weighted average carrying costs are calculated for $35-$ - 40- and 45foot 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.

## Q. How are the carrying charges calculated?

A. They are calculated using a standard revenue requirement (cost of service) methodology. The carrying charges include the following cost-of-service 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.
Q. Are the charges based on net depreciated plant?
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 these proceedings. Therefore, the charges shown in Exhibit WSS-16 are reflective of current revenue requirements associated with the cost of providing attachment service.

## B. NON-RESIDENTIAL LATE PAYMENT CHARGES

Q. Are the Companies proposing to modify policies related to their late payment charges?
A. Yes. The Companies are proposing to waive a non-residential customer's late payment charge if the customer requests a waiver and has not incurred a late payment charge in the previous 11 billing cycles. The Companies implemented a similar policy for residential customers in their last rate cases.
Q. Are the Companies making an adjustment to miscellaneous revenues to reflect

## the waiver?

A. No. The Companies will absorb the impact of the waiver until any future rate cases, at which time the impact of the change would be reflected in test year miscellaneous revenues in such future rate cases.

## C. EXCESS FACILITIES CHARGES

## Q. Please describe the Companies' Excess Facilities Rider.

A. The Excess Facilities Rider applies to customer requests for service arrangements requiring equipment and facilities in excess of those the Companies would normally install. Examples of excess facilities include requests for non-standard facilities such as emergency backup feeds, automatic transfer switches, redundant transformer capacity, and duplicate or check meters. Under the rider, customers have the option of either (i) requesting that KU or LG\&E incur the full cost of the equipment (including up-front equipment cost), in which event the monthly excess facilities charge would cover the expected carrying charges on the equipment, the estimated maintenance cost on the equipment, and the estimated cost of replacing the equipment if it fails prior to the service life of the facilities or (ii) making an up-front payment to cover the cost of the facilities, in which event the monthly excess facilities charge would only cover the estimated maintenance cost on the equipment and the estimated cost of replacing the facilities if they fail prior to the expected service life of the equipment. Because estimated failure costs would be included in the charge for either scenario, KU or LG\&E would replace the equipment if it fails prior to the end of the specified service life under either option.

## Q. What are the proposed excess facilities charges?

A. Under the first option, in which the Companies would make the up-front investment, the proposed monthly charges as a percentage of the original cost of the facilities are 1.17 percent for KU, 1.23 percent for LG\&E's electric operations, and 1.15 percent for LG\&E's gas operations. These are slight changes from the current charges of 1.16 percent for KU, 1.22 percent for LG\&E's electric operations, and 1.15 percent for LG\&E's gas operations.

Under the second option, in which the customer makes the initial up-front investment, the proposed monthly charges as a percentage of the original cost of the facilities are 0.47 percent for KU, 0.52 percent for LG\&E's electric operations, and 0.45 percent for LG\&E's gas operations. These are unchanged from the current charges.

## Q. How are the excess facilities charges calculated?

A. For the first option, in which LG\&E makes the up-front investment, the charge includes (i) the levelized carrying charges associated with both the original cost of the facilities and the present value of the expected replacement cost of the facilities, plus (ii) operation and maintenance expenses as a percentage of the original cost of the plant. The levelized carrying charge rate is calculated using an 8.43 percent cost of capital for KU and an 8.38 percent cost of capital for LG\&E for the estimated 30-year recovery period for long-lived distribution property. The present value of the expected replacement costs is determined using an actuarial approach based on Iowa-type survivor curves, which are the survival frequency distributions developed by Iowa State University that are used in depreciation studies for electric and gas utilities throughout the U.S. Specifically, the present value
replacement cost is determined by calculating the replacement cost for each year based on the failure percentage given by a specified survivor curve and adjusted to reflect a three percent inflation factor. A 30-year R-2 Iowa curve is used to determine the annual replacement percentages. This curve is typical of an Iowa curve that might be used for transformers and other distribution facilities.

For the second option, in which the customer makes the initial up-front investment, the charge includes (i) the levelized carrying charges associated with the present value of the expected replacement cost of the facilities, plus (ii) operation and maintenance expenses as a percentage of the original cost of plant. Therefore, under this option, the charge would not include the carrying charges associated with the initial cost of the facilities but would include carrying charges on the present value of the replacement cost.

For both options, the operation and maintenance component is determined by dividing (i) actual operation and maintenance expenses less purchased power expenses during the test year by (ii) electric plant in service as of the end of the test year. Cost support for the proposed excess facilities charges is included in Exhibit WSS-17. The impact on other operating revenues is shown in Exhibit WSS-18.

## D. OTHER MISCELLANEOUS CHARGES

## Q. Are KU and LG\&E proposing changes to any other miscellaneous charges?

A. Yes. LG\&E is proposing to increase its electric and gas disconnect/reconnect service charges from $\$ 28.00$ to $\$ 32.00$, and KU is proposing to increase its
disconnect/reconnect service charge from $\$ 28.00$ to $\$ 37.00$. KU is proposing to increase its returned check charge from $\$ 3.00$ to $\$ 3.50$, and LG\&E proposing to increase its returned check charge from $\$ 3.00$ to $\$ 3.70$. For electric meters, KU and LG\&E are proposing to increase the meter-test charge from $\$ 75.00$ to $\$ 79.00$. For gas meters, LG\&E is proposing to increase its meter-test charge from $\$ 90.00$ to $\$ 101.00$. For gas service, LG\&E is proposing to increase its inspection charge and its additional trip charge from $\$ 150.00$ to $\$ 155.00$.

For electric meters, KU and LG\&E are proposing to decrease the meter pulse relay charge from $\$ 24.00$ to $\$ 21.00$. For gas meters, LG\&E is proposing to increase its meter pulse charge for transportation customers served under FT and TS2 from $\$ 7.17$ to $\$ 8.00$ and from $\$ 24.34$ to $\$ 28.00$ for all other types of customers.

KU is proposing to modify the unauthorized reconnect charges as follows: (i) from $\$ 70.00$ to $\$ 45.00$ for tampering or an unauthorized connection or reconnection that does not require the replacement of the meter; (ii) from $\$ 90.00$ to $\$ 66.00$ for tampering or an unauthorized connection or reconnection that requires the replacement of a single-phase standard meter; (iii) from $\$ 110.00$ to $\$ 87.00$ for tampering or an unauthorized connection or reconnection that requires the replacement of a single-phase Automatic Meter Reading (AMR) meter; (iv) from $\$ 174.00$ to $\$ 149.00$ for tampering or an unauthorized connection or reconnection that requires the replacement of a single-phase Advanced Metering Infrastructure (AMI) meter; and (v) from $\$ 177.00$ to $\$ 154.00$ for tampering or an unauthorized connection or reconnection that requires the replacement of a three-phase meter.

For electric service, LG\&E is proposing to modify the unauthorized reconnect charges as follows: (i) from $\$ 70.00$ to $\$ 49.00$ for tampering or an unauthorized connection or reconnection that does not require the replacement of the meter; (ii) from $\$ 90.00$ to $\$ 70.00$ for tampering or an unauthorized connection or reconnection that requires the replacement of a single-phase standard meter; (iii) from $\$ 110.00$ to $\$ 91.00$ for tampering or an unauthorized connection or reconnection that requires the replacement of a single-phase Automatic Meter Reading (AMR) meter; (iv) from $\$ 174.00$ to $\$ 153.00$ for tampering or an unauthorized connection or reconnection that requires the replacement of a single-phase Advanced Metering Infrastructure (AMI) meter; and (v) from $\$ 177.00$ to $\$ 159.00$ for tampering or an unauthorized connection or reconnection that requires the replacement of a three-phase meter.

For gas service, LG\&E is proposing to modify the unauthorized reconnect charges as follows: (i) from $\$ 70.00$ to $\$ 49.00$ for unauthorized reconnects that do not require the replacement of a meter, and (ii) from $\$ 132.00$ to $\$ 114.00$ for unauthorized reconnects that require the replacement of a meter. The cost support for these charges is shown in Exhibit WSS-19, and the impact on other operating revenues is shown in Exhibit WSS-20.

## Q. Are KU and LG\&E proposing AMI Opt-Out Charges?

A. Yes. Mr. Conroy's testimony explains why the Companies are proposing the charges and when they will apply.

## Q. What are the Companies' proposed AMI Opt-Out Charges?

A. The Companies are also proposing an up-front opt-out setup charge per meter (\$39.00
for KU, $\$ 35.00$ for LG\&E-E, and $\$ 33.00$ for LG\&E-G) and a recurring monthly optout charge per meter ( $\$ 15.00$ for KU, $\$ 12.00$ for LG\&E-E, and $\$ 5.00$ for LG\&E-G) applicable to customers who choose to opt out of the proposed Advanced Metering Infrastructure (AMI) deployment.

## Q. How do the Companies' proposed AMI Opt-Out Charges compare to similar

 charges for other utilities?A. The following table (TABLE 6) shows the AMI opt-out charges for other utilities in the United States:

TABLE 6

| Utility | AMI Opt-out <br> Set-up Fee | Monthly AMI <br> Opt-Out Fee |
| :--- | ---: | ---: |
| Duke Energy Progress (NC) | $\$ 170.00$ | $\$ 14.75$ |
| Duke Energy Progress (SC) | $\$ 170.00$ | $\$ 14.75$ |
| Duke (KY) | $\$ 100.00$ | $\$ 25.00$ |
| Duke Energy (OH) | $\$ 100.00$ | $\$ 30.00$ |
| Duke Energy (FL) | $\$ 96.34$ | $\$ 15.60$ |
| AEP Michigan | $\$ 80.30$ | $\$ 9.75$ |
| Portland General | $\$ 80.00$ | $\$ 17.00$ |
| Duke Energy (IN) | $\$ 75.00$ | $\$ 17.50$ |
| AEP Ohio | $\$ 43.00$ | $\$ 24.00$ |
| Central Maine Power | $\$ 40.00$ | $\$ 16.05$ |

The Companies' proposed AMI opt-out charges are toward the bottom end of the charges assessed by other utilities.

## Q. What costs are recovered through the proposed charges?

A. The one-time charge includes: (i) the cost of creating work orders for meter change-
out and the routing of meter readers, (ii) travel time, transportation cost and direct costs to remove the AMI electric meters or gas modules and replace them with nonAMI meters or gas modules; and (iii) customer service administrative costs.

The recurring charge includes the following costs: (i) costs for meter readers, dispatchers, supervisors, and transportation costs; (ii) costs, including transportation costs, for manual off-cycle meter reads by meter readers and fields services employees necessary to perform meter readings services for non-AMI meters; (iii) on-going maintenance costs related to the incremental mesh network; (iv) the cost of additional relays, access point, and supporting infrastructure related to the AMI mesh network; (v) system updates, staff training, and testing of billing system to handle opt out requests; and (vi) updating the billing system to handle AMI opt out billing, including system testing and training of staff.

Because the vast majority of LG\&E's gas customers also receive electric service from LG\&E, the travel time and cost for manually reading the non-AMI meters were reduced in calculating the cost of the AMI opt-out for gas customers, thus resulting in a lower opt-out charge for LG\&E's gas customers than for its electric customers. These considerations do not impact the one-time charge for gas AMI optout. This ensures that combination gas and electric customers served by LG\&E will not be overcharged. For LG\&E's gas customers not taking electric service from either LG\&E or KU, non-AMI telemetry (one-way AMR telemetry) would be utilized that will allow LG\&E in most cases to avoid manually reading the meters. The cost support for the opt-out charges is shown in Exhibit WSS-19. None of the costs or revenues
from customer opt-outs are included in test-year operating revenues and expenses in these proceedings. Upon implementation of the AMI opt-out charge, it is anticipated that the revenue collected from the charges will offset the cost of any customers that choose to opt out of AMI.

## V. ADVANCED METERING INFRASTRUCTURE (AMI)

## A. PERSONAL EXPERIENCE WITH AMI

Q. Have you worked with utilities that have implemented Advanced Metering Infrastructure (AMI) programs?
A. Yes. Most of my electric cooperative and investor-owned utility clients have implemented AMI.

## Q. Has AMI been useful in performing cost of service studies and in designing rates?

A. Yes. The demand data collected from AMI have improved the accuracy of the cost of service studies. Without AMI, utilities would rely on sampled load data or data for other utilities to develop demand allocators used in cost of service studies. With AMI, utilities have demand data for almost every customer on the system; therefore, demand allocation factors are essentially exact, with very little estimation required to develop the three categories of demand allocation factors typically used in cost of service studies - namely, coincident peak allocators, maximum class demand allocators, and maximum individual customer demand allocators. The availability of this data is also used to develop accurate loss studies for utilities, which are used in cost of service studies.

AMI has also allowed utilities to develop innovative rate designs for a broader group of customers. Specifically, AMI has allowed utilities to develop a multitude of time-of-day rate options for all of their customers, without installing special purpose metering whenever a customer requests a special rate. With the utilities I have worked with, those with AMI can quickly roll out a new time-differentiated or real-time rate to a broad group of customers without installing specialized metering equipment specifically programed for a certain rate structure. With AMI, the meters can be interrogated remotely for application of a specific rate design.

## B. FUTURE RATE OFFERINGS

## Q. Would the Companies be well positioned to offer more time-of-day offerings once

 AMI is implemented?A. Yes. KU and LG\&E currently offer time-of-day offerings to residential customers, but the rate schedules are limited to 500 participants for each company. In these proceedings, the Companies are proposing to offer two optional General Time of Day Services (Rate GTOD-Energy and GTOD-Demand) that would be available to any General Service (Rate GS) customer enrolled in the Advanced Metering Systems Customer Service Offering set forth in the Companies’ Demand-Side Management Cost Recovery Mechanism. The Companies do not currently offer four-part time-of-day rates for Power Service Rate PS customers.

## VII. ELECTRIC COST OF SERVICE STUDIES

Q. Did The Prime Group prepare cost of service studies for KU and for LG\&E's electric operations based on forecasted financial and operating results for the 12 months beginning July 1, 2021 ?
A. Yes. The Prime Group prepared fully allocated embedded cost of service studies based on a forecasted test year beginning July 1, 2021 for KU and for LG\&E's electric operations. The cost of service study for LG\&E's gas operations will be discussed later in my testimony. The cost of service studies correspond to the pro-forma financial exhibits that the Companies are providing to meet the requirements of Section 16(8). The Companies' objectives in performing the electric cost of service studies were to determine the rate of return on rate base the Companies are earning from each customer class, allocate revenue requirements as fairly as possible among all of the classes of customers the Companies serve, and provide the data necessary to develop rate components that more accurately reflect cost causation.
Q. What model was used to perform the cost of service studies?
A. The cost of service studies were performed using an EXCEL ${ }^{\text {TM }}$ spreadsheet model that was developed by The Prime Group and that has been utilized in previous filings by KU and LG\&E to support requests for adjustments in their rates.
Q. What procedure was used in performing the cost of service studies?
A. Regardless of whether a historical 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. The three traditional steps of an embedded cost of service study -
functional assignment, classification, and allocation - were utilized to classify costs. The cost of service studies for KU and LG\&E were 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, demandrelated, or customer-related; and then finally (3) costs were allocated to the rate classes. These steps are depicted in the following diagram (Figure 1).


Figure 1

The following functional groups were identified in the cost of service studies: (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. Because KU operates in multiple jurisdictions, it was 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.

## Q. Did you supervise the preparation of KU's jurisdictional separation study for the forecasted test period?

A. Yes. Because KU operates in three jurisdictions (Kentucky State Jurisdiction, Virginia State Jurisdiction, and FERC Jurisdiction), joint costs incurred to provide service jointly to all three jurisdictions, such as production fixed costs, must be allocated to the jurisdictions based on relative cost responsibility by jurisdiction, and any identifiable direct costs incurred in providing service to a particular jurisdiction must be directly assigned to that jurisdiction. Because production plant, for example, is jointly used by all three jurisdictions to meet each jurisdiction's demand requirements, these joint costs related to production plant must be allocated to the jurisdictions based on the demand responsibility of each jurisdiction relative to the total. On the other hand, distribution plant costs are recorded on KU's accounting records by jurisdiction and can be directly assigned to each jurisdiction. The jurisdictional separation study generated the Kentucky jurisdiction allocation factors shown on Schedule B-7.
Q. How were production fixed costs allocated in the Companies' cost of service studies?
A. KU and LG\&E's production fixed costs were allocated using the Loss of Load Probability (LOLP) methodology, which was filed in the Companies' 2016 and 2018 rate case proceedings. Several intervenors supported the LOLP methodology in the 2016 proceedings.

LOLP represents the probability that a utility system's total demand will exceed its generation capacity during a given hour. LOLP 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 the Companies use to plan their generation resources. Specifically, it is used to evaluate the level of reserve margins 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 the Companies use to plan the system.

For the cost of service studies, LOLP was calculated for each hour of the test year based on the hourly loads for the test year and the characteristics of the Companies' 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:

$$
\overline{P R O D ~ A L L O C A T O R}=\sum_{i=1}^{8784} L O L P_{i} * \overline{L O A D}_{i}
$$

Where: $\overline{P R O D ~ A L L O C A T O R}$ is the allocation vector for production fixed costs in the cost of service study; $L O L P_{i}$ is the Loss of Load Probability for hour i; $\overline{L O A D}_{i}$ is a vector of hourly load (in kW ) for each rate class at hour i ; for example, $\overline{L O A D}_{i}=($ load for Rate RS at hour i, load for Rate GS for hour i, load for Rate PS at hour i, ... ); and $i$ is the hour of the year.

The allocation vector $\overline{P R O D ~ A L L O C A T O R}$ is then used to allocate fixed production costs to the customer classes in the cost of service study.

## Q. Is the LOLP approach a time-differentiated methodology?

A. Yes, and at a fine level of granularity. The LOLP methodology is identified in NARUC's Electric Utility Cost Allocation Manual as a standard methodology for performing time-differentiated cost of service studies. With the LOLP methodology, costs are differentiated for each hour of the test year. The approach can be adapted to
calculate costs for any set of time periods during the test year Exhibit WSS-21 is a summary of the production fixed cost allocators used in the study.

## Q. Was the revenue allocation set forth in the Stipulation in the Companies' last rate cases based on the LOLP methodology?

A. Yes. In its Orders in those rate cases, the Commission directed the Companies to file an alternative production cost allocation methodology along with the LOLP cost of service study.
Q. Are the Companies filing alternative cost of service studies in compliance with the Commission's Orders?
A. Yes. In addition to the LOLP cost of service study, the Companies are also filing the only two alternative methodologies submitted by intervenors in Case Nos. 2018-00294 and 2018-00295: a 12 CP cost of service study, which was proposed by the Kentucky Industrial Utility Customers, Inc.'s ("KIUC's") witness, ${ }^{28}$ and a 6 CP cost of service study, which was proposed by Federal Executive Agencies' ("FEA's") witness. ${ }^{29}$

## Q. Please describe the 12 CP and 6 CP methodologies.

A. The 12 CP methodology allocates production fixed costs on the sum of the monthly coincident peak demands for each rate class. The 6 CP methodology allocates production fixed costs on the sum of the monthly coincident peak demands for each

[^20]rate class during the four summer months of June through September and the two winter months of January and February.

## Q. Do you have a preference between the two alternative methodologies?

A. Yes. The 6 CP methodology more accurately reflects the Companies' generation planning than the 12 CP methodology. The Companies' system is summer peaking but the Companies also have a large winter peak. Therefore, the Companies give considerable attention to the winter peak demands, particularly in selecting the type of generation resources needed to meet both the summer and peak demands. But very little consideration is given to the system peak demands during the spring and fall months. Because the 12 CP methodology includes monthly demands for shoulder months such as March, April, May, October, and November, the methodology gives too much weight to demands for months that play little or no role in planning. By including demands for four summer months and two winter months, the 6 CP gives an appropriate weighting to the allocation of production costs for a summer peaking utility with a winter peak that is nearly as high as the summer peak. For these reasons, I favor the 6 CP over the 12 CP methodology. But a problem with both the 12 CP and 6 CP methodologies is that both methods rely on demands for a limited number of hours during the year. The LOLP methodology is more robust in that it weights all hours by the LOLPs for each hour of the year, which is a key metric in the Companies' generation system planning activities.

## Q. Have you prepared an exhibit that compares the class rates of return for the three methodologies?

A. Yes. Exhibit WSS-22 compares the class rates of return using the LOLP methodology, 12 CP methodology, and the 6 CP methodology. The spreadsheet workpapers for the alternative cost of service studies are being provided electronically.
Q. How were costs classified as energy-related, demand-related or customerrelated?
A. Classification involves utilizing the appropriate cost driver for each functionally assigned cost, which provides a method of arranging costs so that the service 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 demandrelated 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 demandrelated 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.

## 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 customerrelated 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 the studies, 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 and LG\&E have utilized the zero-intercept methodology in determining customerrelated 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 $(\$ / \mathrm{ft})$ or line transformers $(\$ / \mathrm{kVA}$ 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:

$$
y=a+b x
$$

where:
$\mathbf{y}$ is the unit cost of the conductor or transformer,
$\mathbf{x}$ is the size of the conductor (MCM) or transformer (kVA), and
$\mathbf{a}, \mathbf{b}$ 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 and LG\&E's systems 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

$$
\sum_{i} w_{i}\left(y_{i}-\hat{y}_{i}\right)^{2}
$$

is minimized, where $\mathbf{w}$ is the weighting factor for each size of conductor or transformer, and $\mathbf{y}$ is the observed value and $\hat{\mathbf{y}}$ is the predicted value of the dependent variable.

## Q. Has the Commission accepted the use of the zero-intercept methodology?

A. Yes. The Commission found LG\&E's cost of service studies (both electric and gas) submitted in Case No. 2000-080 and 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. 2018-00294 and 201800295, the Companies' last two rate cases.

## Q. Have you prepared exhibits showing the results of the zero-intercept analysis?

A. Yes. For KU, the zero-intercept analyses for overhead conductor, underground conductor, and line transformers are included in Exhibits WSS-23, WSS-24 and WSS25, respectively. For LG\&E, the zero-intercept analyses for overhead conductor, underground conductor, and line transformers are included in Exhibits WSS-26, WSS27 and WSS-28, respectively. For overhead conductor, the LG\&E results were utilized because the weighted regression analysis for KU did not yield statistically valid results.
Q. Have you prepared an exhibit showing the results of the functional assignment, time-differentiation and classification steps of the electric cost of service study?
A. Yes. Exhibit WSS-29 shows the results of the first two steps of the electric cost of service study, namely functional assignment and classification, for KU. Exhibit WSS-

30 shows the same two steps for LG\&E. In the cost of service model used in this study, the calculations for functionally assigning and classifying Companies’ accounting costs are made using what are referred to in the model as "functional vectors". These vectors are multiplied (using scalar multiplication ${ }^{30}$ ) by the dollar amount in the various accounts to simultaneously functionally assign and classify KU and LG\&E's accounting costs. These calculations are made in the portion of the cost of service model included in Exhibits WSS-29 (KU) and WSS-30 (LG\&E). In these exhibits, the Companies' accounting costs are functionally assigned and classified using explicitly determined functional vectors (i.e., "external vectors") and using internally generated functional vectors. The explicitly determined functional vectors, which are primarily used to direct where costs are functionally assigned and classified, are shown on pages 29 and 30 of Exhibits WSS-29 for KU and WSS-30 for LG\&E. Internally generated functional vectors are utilized throughout the study to functionally assign and classify 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 29 and 30 of Exhibits WSS-29 for KU and WSS-30 for LG\&E. 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".

[^21]Q. Please describe how the functionally assigned and classified costs were allocated to the various classes of customers.
A. Exhibits WSS-31 (KU) and WSS-32 (LG\&E) show the allocation of the functionally assigned and classified costs to the various classes of customers that KU and LG\&E serve. 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 historical test year. The following allocation factors were used in the electric cost of service study to allocate the functionally assigned and classified costs:

- $\mathbf{E 0 1}$ - 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.
- LOLP - The cost components of production fixed costs were allocated on the basis of the total sum of each class's contribution to the forecasted loss of load probability during every 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.
- $\quad$ SICD - The demand cost component is allocated on the basis of the sum of individual customer demands for secondary voltage customers.
- C02 - The customer cost component of customer services is allocated on the basis of the average number of customers for the test year.
- C03 - Meter costs were specifically assigned by relating the costs associated with various types of meters to the class of customers for whom these meters were installed.
- Cust04 - Customer-related O\&M costs associated with lighting systems were specifically assigned to the lighting class of customers.
- PCust04 - Customer-related plant and rate base associated with lighting systems were specifically assigned to the lighting class of customers.
- Cust05 and Cust06 - Meter reading, billing costs and
customer service O\&M expenses were allocated on the basis of a customer weighting factor calculated using the 12 month average number of customers for the test year based on discussions with the Companies' meter reading, billing and customer service departments.
- PCust05 and PCust06 - Meter reading, billing costs and customer service plant expenses were allocated on the basis of a customer weighting factor calculated using the 13 month average number of customers for the test year based on discussions with the Companies' meter reading, billing and customer service departments.
- Cust07 - Customer-related O\&M costs for secondaryvoltage distribution facilities are allocated on the basis of the 12 month average number of customers using line transformers and secondary voltage conductor.
- PCust07 - Customer-related plant costs for secondaryvoltage distribution facilities are allocated on the basis of the 13 month average number of customers using line transformers and secondary voltage conductor.
- Cust08 - Customer-related O\&M costs for primary-
voltage distribution facilities are allocated on the basis of the 12 month average number of customers using primary voltage conductor.
- PCust08 - Customer-related plant costs for primaryvoltage distribution facilities are allocated on the basis of the 13 month average number of customers using primary voltage conductor.
- Cust09 - Customer-related O\&M costs for transformers are allocated on the basis of the 12 month average number of customers using distribution transformers.
- PCust09 - Customer-related plant costs for transformers are allocated on the basis of the 13 month average number of customers using distribution transformers.
- GPLOLPDA, NPLOLPDA, RBLOLPDA, POMLOLPDA, PDEPLOLPDA, and PPTLOLPDA
- These allocators are used to specifically assign production-related demand costs associated with the Solar Share and Business Solar programs directly to those respective rate classes. These allocators directly
assign Gross Plant, Net Plant, Net Rate Base, O\&M, Depreciation, and Property Taxes associated with those programs directly to customers participating in those programs.
- MGPA, MNPA, MRBA, MOMA, MDA, and MPTA - These allocators are used to specifically assign customer-related costs associated with the Electric Vehicle Charging programs directly to those respective rate classes. These allocators directly assign Gross Plant, Net Plant, Net Rate Base, O\&M, Depreciation, and Property Taxes associated with those programs directly to customers participating in those programs.


#### Abstract

Q. Once costs are functionally assigned and classified, what calculations are used to allocate these costs to the various customer classes the Companies serve? A. Once costs for all of the major accounts are functionally assigned and classified, 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 and classified costs becoming rows in the transposed matrix which then can be allocated to the various classes of customers. This process is illustrated in Figure 2 below.


| Costs by Account | $\longrightarrow$ | Cost <br> Matrix | $\square$ | Transposed Cost Matrix | $\longrightarrow$ | Allocated Costs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Steps 1, 2 and 3 |  |  | Matrix |  | Step 4 |  |
| Functional |  |  | Transposition |  | Allocation |  |
| Assignment, |  |  |  |  |  |  |
| Classification, and |  |  |  |  |  |  |
| Time |  |  |  |  |  |  |
| Differ | ntiation |  |  | Figure 2 |  |  |

The results of the class allocation step of the cost of service study are included in Exhibits WSS-31 (KU) and WSS-32 (LG\&E). The costs shown in the column labeled "Total System" in Exhibits WSS-29 and WSS-30 were carried forward from the functionally assigned and classified costs shown in Exhibits WSS-31 and WSS-32, respectively. The column labeled "Ref" in Exhibits WSS-31 and WSS-32 provides a reference to the results included in Exhibits WSS-29 and WSS-30, respectively.

## Q. Please summarize the results of the electric cost of service studies.

A. The Current Rate of Return on Rate Base 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 Rate of Return on Rate Base was calculated by dividing the net operating income adjusted for the proposed rate increase by the adjusted net cost rate base. The determination of the actual adjusted and proposed rates of return are shown on pages 25 through 28 and pages 27 through

30, respectively, of Exhibits WSS-31 and WSS-32, for KU and LG\&E, respectively. The rates of return by customer class for the LOLP cost of service study along with the 6-CP and 12-CP methodologies are shown in Exhibit WSS-22

## VIII. GAS COST OF SERVICE STUDY

Q. Did you prepare a cost of service study for LG\&E's gas operations based on financial and operating results for the 12 months beginning July $\mathbf{1 , 2 0 2 1 ?}$
A. Yes. I supervised the preparation of a fully allocated, embedded cost of service study for gas operations for the forecasted test year beginning July 1, 2021, based on LG\&E's forecasted accounting costs. The cost of service study corresponds to the pro-forma financial exhibits included in the testimony of Mr. Garrett. As with the electric cost of service studies, the objective in performing the gas cost of service study is to determine the rate of return on rate base that LG\&E is earning from each customer class, allocate LG\&E's natural gas revenue requirement as fairly as possible to the various classes of customers that LG\&E serves, and provide the data necessary to develop rate components that more accurately reflect cost causation.
Q. Generally, were the procedures used in performing the gas cost of service study the same as those that you described above for the electric cost of service studies?
A. Yes. The gas cost of service study was 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; and then finally (3) costs were allocated to the various natural gas rate classes that

LG\&E serves. These steps are depicted in the following diagram (Figure 3). This is a standard approach utilized in the preparation of embedded cost of service studies for natural gas utilities.


Figure 3
Q. What functional groups were used in the natural gas cost of service study?
A. The following functional groups were identified in the cost of service study: (1) Procurement, (2) Storage, (3) Storage-Related Transmission, (4) Non-Storage-Related Transmission, (5) Distribution Commodity, (6) Distribution Structures and Equipment, (7) Distribution Mains - Low- and Medium-Pressure, (8) Distribution Mains - High-Pressure, (9) Services, (10) Meters, (11) Customer Accounts, and (12) Customer Service Expense.
Q. Please describe the functional assignment of transmission costs.
A. There are two functional groups for transmission costs: Storage-Related Transmission and Non-Storage-Related Transmission. Storage-Related Transmission costs represent the transmission facilities that are used to deliver natural gas from LG\&E's storage fields to the distribution system. The Non-Storage-Related Transmission functional group represents costs of transmission facilities used to deliver gas from interstate pipelines both to the distribution system and directly to customers. It is important to distinguish between the two types of costs because the Non-StorageRelated Transmission facilities are used to serve all customer classes, including both sales and transportation customers, by delivering gas to the distribution system and directly to individual customers, whereas the use of Storage-Related Transmission facilities is limited to delivering storage gas to sales customers and to serving daily imbalances created by transportation customers. Therefore, the use of StorageRelated Transmission facilities to serve customers under Rate FT and any other firm transportation-only service would be limited to their use of daily imbalance service facilitated through storage. Exhibit WSS-33 shows the derivation of the functional assignment for transmission plant.

## Q. How were costs classified as commodity-related, demand-related or customerrelated?

A. Classification involves identifying the appropriate cost driver for each account, which provides a method of arranging costs so that the service characteristics that give rise to the costs can serve as a basis for allocation. Costs classified as commodity-related tend to vary with the quantity of gas delivered, such as gas supply and the operation
of compressors. Since gas supply costs were removed from the cost of service study, it was not necessary to classify gas supply costs. Costs classified as demand-related are costs related to facilities installed to meet design-day usage requirements. Costs classified as customer-related include non-volumetric costs incurred to serve customers that are invariant to either the quantity of gas delivered to the customers or the peak demand requirements of the customers. All transmission plant costs were classified as demand-related. The transmission plant used to deliver natural gas from and to storage is allocated on the same basis as storage. The transmission plant used to deliver gas from the pipelines into LG\&E's distribution system was allocated on design-day demands. Distribution Structures and Equipment costs were classified as demand-related. Costs related to Distribution Mains were functionally assigned as either low- and medium-pressure mains or high-pressure mains and then classified as demand-related and customer-related using the zero-intercept methodology. Services, Meters, Customer Accounts, and Customer Service Expenses were classified as customer-related.

## Q. Explain the zero-intercept methodology that you used to classify the costs of mains between demand-related and customer-related costs.

A. A portion of the cost of mains was classified as demand-related and a portion was classified as customer-related using the zero-intercept methodology, which was described above in connection with the electric cost of service study. The zerointercept analysis is included in Exhibit WSS-34.
Q. How were distribution mains functionally separated between high-, low- and
medium-pressure categories?
A. The feet of high-pressure mains by size of pipe were identified from LG\&E's maps and records. The feet of low- and medium-pressure pipe were determined residually by subtracting the specifically identified high-pressure mains from the total feet for each pipe size. The zero-intercept unit cost of $\$ 10.91$ was then applied to the highpressure mains and to the low- and medium-pressure mains to determine the customerrelated portion of the mains. ${ }^{31}$ By identifying high-pressure mains from LG\&E's maps and records, it was determined that LG\&E's high-pressure distribution mains represent $9.37 \%$ of the total installed cost, with $4.44 \%$ corresponding to customerrelated costs and $4.92 \%$ corresponding to demand-related costs. The low- and medium-pressure pipe make up the remaining $90.63 \%$ of installed cost, with $62.27 \%$ classified as customer-related and $28.36 \%$ classified as demand-related. The breakdown is shown on Exhibit WSS-34. The allocation of the cost to the customer classes is shown on Exhibit WSS-35.

## Q. Was a similar separation made in the electric cost of service studies?

A. Yes. The electric cost of service studies separate distribution conductor between primary voltage conductor and secondary voltage conductor. The functional separation in the gas cost of service study between high-pressure and low- and medium-pressure pipe is analogous to the primary and secondary splits determined in

[^22]the electric cost of service studies. Differences in the pressure in a pipe are often used as an analogy to differences in voltages.

## Q. Have you prepared an exhibit showing the results of the functional assignment and classification steps of the cost of service study?

A. Yes. Exhibit WSS-36 shows the results of the first two steps of the natural gas cost of service study: functional assignment and classification.

## Q. Please describe the allocation factors used in the gas cost of service study.

A. The results of allocating LG\&E's functionally assigned and classified costs to the various classes of customers that LG\&E serves are provided in Exhibit WSS-37. The following allocation factors were used in the gas cost of service study:

- DEM01 is used to allocate procurement demand-related costs; these costs are the procurement-related expenses that are not recovered through LG\&E's Gas Supply Clause.
- DEM02 is used to allocate Storage demand-related costs and represents a composite allocation based on extreme winter season requirements and design-day demands. The class allocation factor is the sum of (a) the volumes (commodity) withdrawn from storage
during the design winter season and (b) the volumes needed in storage to meet the design-day demands. Rate FT is assigned an allocation based on its utilization of balancing service in accordance with the provision set forth in the rate schedule to allow imbalances that do not exceed $\pm 5 \%$ of delivered volumes when an Operational Flow Order ("OFO") has not been issued. The calculation of this allocation factor is shown in Exhibit WSS-38.
- DEM03 is used to allocate Transmission demandrelated costs for the portion of the transmission system that is used to move gas to and from storage. Because this portion of LG\&E's transmission lines is used to either fill the storage fields or remove gas from storage, transmission demand-related costs are allocated on the same basis as storage demand-related costs.
- DEM04 is used to allocate Distribution Structures and Equipment demand-related costs and represents forecasted maximum class demands determined at

LG\&E's $-14^{\circ} \mathrm{F}$ design-day mean temperature.

- DEM05 is used to allocate the demand-related portion of the cost of high-pressure distribution mains and the cost of transmission lines used to move gas from the pipelines to LG\&E's distribution system. It represents maximum class demands determined at the design-day mean temperature of customers served at high-pressure or below. The high-pressure system consists of pipe pressured above 60 psi . All gas delivered into the lowand medium-pressure system must first pass through the high-pressure system. Consequently, all customers utilize the high-pressure system.
- DEM05a is used to allocate the demand-related portion of the cost of low- and medium-pressure distribution mains and represents maximum class demands determined at the design-day mean temperature of customers served at medium pressure or low pressure. The low- and medium- pressure system consists of pipe pressured at 60 psi and below. The demands of
customers served at high pressure are not included in the determination of this allocation factor. The low- and medium-pressure system is not used to provide distribution delivery service to customers served at high pressure.
- COM01 is used to allocate commodity-related procurement expenses and represents annual throughput volumes (including both sales and transportation). Procurement expenses correspond to expenses incurred by LG\&E's gas supply department (including labor), which are not recovered through the Gas Supply Clause. This department not only purchases gas for sales customers but also administers LG\&E's transportation service schedules.
- COM02 is used to allocate Storage commodity-related costs and represents forecasted customer class deliveries during the winter withdrawal season (defined as the months of November through March.)
- COM03 is used to allocate Transmission commodityrelated costs and represents forecasted customer class deliveries during the winter withdrawal season (defined as the months of November through March.)
- COM04 is used to allocate Distribution commodityrelated costs and represents annual throughput volumes (including both sales and transportation.)
- CUSTPT01 is used to allocate the customer-related portion of LG\&E's high-pressure distribution mains and represents the 13-month average number of customers served at high pressure and below.
- CUSTPT01a is used to allocate the customer-related portion of LG\&E's low- and medium-pressure distribution mains and represents the 13-month average number of customers at low and medium pressure. The customers served at high pressure are not included in the determination of this allocation factor because the low- and medium-pressure system is not used to provide
distribution delivery service to customers served at high pressure.
- CUST02 is used to allocate services and is based on the total estimated cost of installing a service line per customer in each customer class weighted by the average number of customers in each class.
- CUST03 is used to allocate meters and is based on the total cost of meters and meter installation costs per customer in each customer class weighted by the average number of customers in each class.
- CUSTPT04 is used to allocate the plant and rate base components of customer accounts expense and represents 13-month average customers.
- CUSTPT05 is used to allocate the plant and rate base components of customer service. It is based on 13month average customers adjusted for weighting factors for each class.
- CUSTOM01 is used to allocate the customer-related
portion of O\&M expenses for high-pressure distribution mains and represents the 12 -month average number of customers served at high pressure and below.
- CUSTOM01a is used to allocate the customer-related portion of O\&M expenses for low- and mediumpressure distribution mains and represents the average number of customers at low and medium pressure. The customers served at high pressure are not included in the determination of this allocation factor because the low- and medium-pressure system is not used to provide distribution delivery service to customers served at high pressure.
- CUSTOM04 is used to allocate customer accounts expenses (Accounts 901 through 905) and represents a composite allocation factor. ${ }^{32}$

[^23]- CUSTOM05 is used to allocate customer service expenses using the same customer-weighting factor used to allocate Accounts 901, 902, 903, and 905 as in the calculation of CUST04.


## Q. Summarize the results of the gas cost of service study.

A. The rates of return shown on net cost rate base for natural gas service for each customer class before and after reflecting the rate adjustments proposed by LG\&E are shown on pages 12 and 13 of Exhibit WSS-37. The current rate of return on net cost rate base 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 forecasted amounts discussed in the testimony of Mr. Garrett. The proposed rate of return on net cost rate base was calculated by dividing the net operating income adjusted for the proposed rate increase by the adjusted net cost rate base. Rate DGGS is not broken out in the cost of service study but is included in Rate IGS. Rate LGDS is not shown in the table because there are currently no customers served under the rate schedule. Currently, there is one commercial customer served under Rate SGSS. However, Rate SGSS is not broken out in the cost of service study but is included in Rate CGS.

## IX. LEAD-LAG STUDIES

Q. Did KU and LG\&E perform a lead lag study in Case Nos. 2018-00294 and 2018$00295 ?$
A. Yes. I supervised the preparation of the lead-lag studies for KU and for LG\&E's electric and gas operations. Mr. Garrett provided the balance sheet analyses used for the study of cash working capital based on amounts from the Companies' forecast. The lead-lag studies used historical payment activity to calculate revenue lag days and expense lead days. Revenue lag days represent the difference between the date when services are rendered by the Companies and the date when revenues for those services are collected from customers. Expense lead days represent the date when expenses are incurred to provide service and the date when those expenses are paid. The net lead-lag days are multiplied by the respective average daily expenses and pass-through items (viz., sales taxes, school taxes, and franchise fees) to determine cash working capital.

## Q. In Kentucky, are utilities required to perform a lead-lag study?

A. No. In the Stipulation Agreement in Case Nos. 2016-00370 and 2016-00371, the Companies agreed to submit lead-lag studies in their next general rate cases. The Companies then filed lead-lag studies in Case Nos. 2018-00294 and 2018-00295. In the current rate cases, KU and LG\&E are updating the revenue lag analysis and balance sheet analysis that were filed in Case Nos. 2018-00294 and 2018-00295. By updating the revenue lag analysis and balance sheet analysis, the Companies are following the practice prescribed by the Virginia State Corporation Commission (VA

SCC) for rate case filings in Virginia, which prescribes that if a lead-lag study is less than five years old then only revenue lags and the balance sheet analysis are updated. ${ }^{33}$

## Q. Based on your experience, is this practice reasonable?

A. Yes. Unless there is a dramatic change in a utility's financial condition, it has been my experience that expense leads do not change significantly within a five-year period. Performing a lead-lag study is a major undertaking. Therefore, it is reasonable to update revenue lags and the balance sheet analysis if the lead-lag study has been performed within the last five years.

## Q. What period was used to perform the revenue lag analysis?

A. The revenue lag analysis was performed using revenue and expense data for the calendar year 2019.

## Q. How were revenue lag days determined?

A. The revenue lag measures the number of days from the date service was rendered by the Companies until the date payment was received from customers and the funds deposited and available to the Companies. In the calculation, the revenue lag consists of four time spans: (1) meter reading lag, which is the time period from the midpoint of the service period to the meter read date; (2) billing lag, which is the period from when the meter is read to the date when the bill is invoiced; (3) collection lag, which is the period from when the bill is invoiced to when the customer payment is received;

[^24]and (4) bank lag, which is the period from when the customer payment is received to when the Companies have access to the funds. The collection lag was determined using the turnover approach, which calculates the collection lag days by dividing the average daily accounts receivable balance by the average daily revenues and passthrough items (viz., sales taxes, gross receipt taxes, and franchise fees). The turn-over method was used in KU-ODP's recent rate case filing in Virginia.
Q. Please summarize the components of the revenue lag for KU and LG\&E's electric and gas operations?
A. The revenue lags by component are summarized below (TABLE 7):

TABLE 7

| Lag Component | Lag Days |  |  |
| :--- | :---: | :---: | :---: |
|  | KU | LG\&E-Elec | LG\&E-Gas |
| Meter Reading Lag | 15.21 | 15.21 | 15.21 |
| Billing Lag | 4.20 | 4.29 | 4.28 |
| Collection Lag | 25.09 | 23.77 | 23.77 |
| Bank Lag | 1.00 | 1.00 | 1.00 |
| Total Revenue Lag | 45.50 | 44.27 | 44.26 |

Q. Do you have an exhibit showing the lead-lag days for each category of revenue and expense?
A. Yes. The lead-lag days used to determine cash working capital are shown on Exhibit WSS-39. As mentioned earlier, the revenue lags have been updated based on an analysis of billings for 2019. The expense leads reflect values that were determined from the lead-lag study submitted in Case Nos. 2018-00294 and 2018-00295.
Q. Does this conclude your testimony?

1 A. Yes, it does.

## VERIFICATION

## STATE OF NORTH CAROLINA

 COUNTY OF BUNCOMBE)
)
)

The undersigned, William Steven Seelye, being duly sworn, deposes and states that he is a Principal of The Prime Group, 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.


Subscribed and sworn to before me, a Notary Public in and before said County and State, this $18^{\text {tr }}$ day of November 2020.

(SEAL)

Notary Public ID No. 201821300096
My Commission Expires:
F/ealwess

## Exhibit WSS-1

## Qualifications

## WILLIAM STEVEN SEELYE

## Summary of Qualifications

Provides consulting services to numerous investor-owned utilities, rural electric cooperatives, municipal utilities, and public service commissions 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. Mr. Seelye has performed or supervised the preparation of cost of service studies and rate design studies for over 150 electric, gas and water utilities.

## 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 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.

Taught advanced placement calculus, linear algebra, pre-calculus, college algebra and differential equations.

Held various positions in the rate department of LG\&E. In December 1990, promoted to Manager of promoted to the position of Manager of Rates and Regulatory Analysis. In May 1994, give additional responsibilities in the marketing area and promoted to Manager of Market Management and Rates.

Instructor in Mathematics
Walden School and Private Instruction (2012-2015)

Manager of Rates and Other Positions Louisville Gas \& Electric Co. (May 1979 to July 1996)

## 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 Proceeding 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.

Submitted expert report in Proceeding No. 19F-0315E before Public Utilities Commission of the State of Colorado, on behalf of San Luis Valley Rural Electric Cooperative in Anne Pace, et al. v. San Luis Valley Rural Electric Cooperative regarding demand charges for residential electric and distributed generation customers.

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: $\quad$ 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.

Submitted direct and cross answering testimony in Cause No. 45125 on behalf of the City of New Haven regarding Fort Wayne's revenue requirement, cost of service study and the apportionment of the water rate increase.

Submitted direct and cross answering testimony in Cause No. 45142 on behalf of the City of Crown Point regarding Indiana-American Water Company's cost of service study, apportionment of the revenue increase, interruptible service rates and transportation service rates.

Submitted direct and cross answering testimony in Cause No. 45235 on behalf of the City of South Bend regarding Indiana-Michigan Power Company's cost of service study, apportionment of the revenue increase and rate design.

Submitted direct and cross answering testimony in Cause No. 45285 on behalf of the City of South Bend regarding Indiana-Michigan Power Company's demand side management (DSM) plan.

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 revenue requirements, 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. 200200430 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 revenue requirements, 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 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.

Submitted direct and rebuttal testimony in Case No. 2016-00370 on behalf of Kentucky Utilities Company and in Case No. 2016-00371 on behalf of Louisville

Gas and Electric Company regarding electric and gas class cost of service studies and proposed rates.

Submitted rebuttal testimony in Case No. 2018-00050 on behalf of South Kentucky Rural Electric Cooperative Corporation regarding the regulatory application of the filed rate doctrine and cost shifts to other electric cooperatives related to a proposed purchased power agreement.

Submitted testimony in Case No. 2018-00044 on behalf of Columbia Gas Company of Kentucky regarding an assessment of its energy efficiency and conservation rider and programs.

Submitted direct and rebuttal testimony in Case No. 2018-00294 on behalf of Kentucky Utilities Company and in Case No. 2018-00295 on behalf of Louisville Gas and Electric Company regarding electric and gas class cost of service studies, apportionment of the revenue increase, pilot school rates, demand ratchets, late payment charges, residential customer charges, excess facilities charges, LED lighting rates, and lead-lag studies.

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, depreciation adjustments, and other 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.

Submitted direct testimony, rebuttal testimony, and testimony in support of an uncontested comprehensive stipulation in Case No. 19-00170-UT on behalf of the New Mexico Public Regulation Commission Utility Division Staff regarding revenue requirements, class cost of service, allocation of the revenue increase, and rate design in a Southwest Power Company rate case.

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, 2022
Rate RS

| Description | Amount |  | Production |  |  |  | TransmissionDemand-Related |  | Distribution |  |  |  | Customer Service Expenses <br> Customer-Related |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Demand-Related |  | Energy-Related |  |  |  | Demand-Related |  | Customer-Related |  |  |  |  |  |
| (1) Rate Base | \$ | 2,457,262,896 | \$ | 1,219,918,258 | \$ | 27,493,896 | \$ | 377,164,232 | \$ | 304,728,690 | \$ | 521,584,458 | \$ | 6,373,362 | \$ | 2,457,262,896 |
| (2) Rate Base Adjustments | \$ | 2,47,26, |  | -219,98, |  | - |  | 77,164, |  | - |  | - |  | - | \$ |  |
| (3) Rate Base as Adjusted | \$ | 2,457,262,896 | \$ | 1,219,918,258 | \$ | 27,493,896 | \$ | 377,164,232 | \$ | 304,728,690 | \$ | 521,584,458 | \$ | 6,373,362 | \$ | 2,457,262,896 |
| (4) Rate of Return |  | 4.74\% |  | 4.74\% |  | 4.74\% |  | 4.74\% |  | 4.74\% |  | 4.74\% |  | 4.74\% |  |  |
| (5) Return | \$ | 116,464,860 | \$ | 57,819,458 | \$ | 1,303,105 | \$ | 17,876,142 | \$ | 14,442,974 | \$ | 24,721,108 | \$ | 302,073 | \$ | 116,464,860 |
| (6) Interest Expenses | \$ | 51,506,086 | \$ | 25,570,408 | \$ | 576,293 | \$ | 7,905,647 | \$ | 6,387,344 | \$ | 10,932,804 | \$ | 133,590 | \$ | 51,506,086 |
| (7) Net Income | \$ | 64,958,773 | \$ | 32,249,050 | \$ | 726,813 | \$ | 9,970,494 | \$ | 8,055,630 | \$ | 13,788,304 | \$ | 168,483 | \$ | 64,958,773 |
| (8) Income Taxes | \$ | 20,618,122 | \$ | 10,235,951 | \$ | 230,693 | \$ | 3,164,667 | \$ | 2,556,883 | \$ | 4,376,452 | \$ | 53,477 | \$ | 20,618,122 |
| (9) Operation and Maintenance Expenses | \$ | 369,164,547 | \$ | 54,624,948 | \$ | 191,795,621 | \$ | 25,536,905 |  | 17,160,390 | \$ | 37,627,884 | \$ | 42,418,799 | \$ | 369,164,547 |
| (10) Depreciation Expenses | \$ | 164,107,492 | s | 118,364,937 | \$ | 19195,62 | \$ | 15,509,606 | s | 11,180,449 | \$ | 19,052,501 | \$ | 4,418,7\% | \$ | 164,107,492 |
| (11) Other Taxes | \$ | 23,280,695 | \$ | 12,676,971 | \$ | - | \$ | 3,123,044 | \$ | 2,765,995 | \$ | 4,714,686 | \$ | - | \$ | 23,280,695 |
| (12) Curtailable Service Credit | \$ | 7,647,274 | \$ | 7,647,274 |  |  |  |  |  |  |  |  |  |  | \$ | $7,647,274$ |
| (13) Expense Adjustments - Prod. Demand | \$ | , | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ |  |
| (14) Expense Adjustments - Energy | \$ | - | S | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| (15) Expense Adjustments - Trans. Demand | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| (16) Expense Adjustments - Distribution | \$ | - | \$ | - | \$ |  | \$ |  | \$ | - | \$ |  | \$ | 1 | \$ | -- |
| (17) Expense Adjustments - Other | \$ | 352,093 | \$ | 174,798 | \$ | 3,940 | \$ | 54,043 | \$ | 43,664 | \$ | 74,736 | \$ | 913 | \$ | 352,093 |
| (18) Revenue Adjustments | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| (19) Expense Adjustments - Total | \$ | 352,093 | \$ | 174,798 | \$ | 3,940 | \$ | 54,043 | \$ | 43,664 | \$ | 74,736 | \$ | 913 | \$ | 352,093 |
| (20) Total Cost of Service | \$ | 701,635,083 | \$ | 261,544,337 | \$ | 193,333,359 | \$ | 65,264,407 | \$ | 48,150,353 | \$ | 90,567,366 | \$ | 42,775,263 | \$ | 701,635,083 |
| (21) Less: Misc Revenue - Prod Demand | \$ | $(583,332)$ | \$ | $(583,332)$ | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | $(583,332)$ |
| (22) Less: Misc Revenue - Energy | \$ | $(3,060,544)$ | \$ | (583,32) | \$ | (3,060,544) | \$ | (11,743, | \$ | - | \$ | - | S | - | \$ | ( $3,060,544)$ |
| (23) Less: Misc Revenue - Transmission | S | (11,743,851) | \$ | - |  | (72, | \$ | (11,743,851) | \$ | - | \$ | , | \$ | , | \$ | $(11,743,851)$ |
| (24) Less: Misc Revenue - Other | \$ | $(6,488,247)$ | \$ | $(3,221,117)$ | \$ | $(72,596)$ | \$ | (995,878) | \$ | $(804,617)$ | \$ | (1,377,211) | \$ | $(16,828)$ | \$ | $(6,488,247)$ |
| (25) Less: Misc Revenue - Total | \$ | $(21,875,974)$ | \$ | $(3,804,449)$ | \$ | (3,133,140) | \$ | (12,739,729) | \$ | (804,617) | \$ | (1,377,211) | \$ | $(16,828)$ | \$ | $(21,875,974)$ |
| (26) Net Cost of Service | \$ | 679,759,110 | \$ | 257,739,888 | \$ | 190,200,219 | \$ | 52,524,678 | \$ | 47,345,737 | \$ | 89,190,155 | \$ | 42,758,434 | \$ | 679,759,110 |
| (27) Billing Units |  |  |  | 5,943,619,831 |  | 5,943,619,831 |  | 5,943,619,831 |  | 5,943,619,831 |  | 5,308,105 |  | 5,308,105 |  |  |
| (28) Unit Costs |  |  |  | 0.043364127 |  | 0.032000738 |  | 0.008837153 |  | 0.007965808 | \$ | 0.55 | \$ | 0.26 | S | 0.82 |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Customer Cost <br> Infrastructure Energy Cost Variable Energy Cost |  | s | 0.82 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$ | 0.06017 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$ | 0.03200 |

## Louisville Gas and Electric Company

Unit Cost of Service Based on the Cost of Service Study
For the 12 Months Ended June 30, 2022

## Rate RS

| Description |  | Amount |  | Production |  |  |  | TransmissionDemand-Related |  | Distribution |  |  |  | Customer Service Expenses <br> Customer-Related |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Demand-Related | Energy-Related |  | Demand-Related |  | Customer-Related |  |  |  |  |  |
| (1) | Rate Base |  |  | \$ | 1,830,420,621 | \$ | 957,680,114 |  |  | \$ | 28,168,165 | \$ | 164,114,791 | \$ | 247,962,447 | \$ | 428,194,391 | \$ | 4,300,712 | \$ | 1,830,420,621 |
|  | Rate Base Adjustments | \$ | -830, | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 1,830, - |
| (3) | Rate Base as Adjusted | \$ | 1,830,420,621 | \$ | 957,680,114 | \$ | 28,168,165 | \$ | 164,114,791 | \$ | 247,962,447 | \$ | 428,194,391 | \$ | 4,300,712 | \$ | 1,830,420,621 |
|  | Rate of Return |  | 2.78\% |  | 2.78\% |  | 2.78\% |  | 2.78\% |  | 2.78\% |  | 2.78\% |  | 2.78\% |  |  |
| (5) | Return | \$ | 50,858,000 | \$ | 26,609,018 | \$ | 782,649 | \$ | 4,559,908 | \$ | 6,889,604 | \$ | 11,897,326 | \$ | 119,495 | \$ | 50,858,000 |
| (6) | Interest Expenses | \$ | 40,093,733 | \$ | 20,977,130 | \$ | 616,999 | \$ | 3,594,788 | \$ | 5,431,396 | \$ | 9,379,217 | \$ | 94,203 | \$ | 40,093,733 |
| (7) | Net Income | \$ | 10,764,267 | \$ | 5,631,888 | \$ | 165,650 | \$ | 965,120 | \$ | 1,458,208 | \$ | 2,518,109 | \$ | 25,291 | \$ | 10,764,267 |
| (8) | Income Taxes | \$ | 10,344,723 | \$ | 5,412,382 | \$ | 159,194 | \$ | 927,504 | \$ | 1,401,373 | \$ | 2,419,964 | \$ | 24,306 | \$ | 10,344,723 |
| (9) | Operation and Maintenance Expenses | \$ | 283,536,077 | \$ | 53,383,070 | \$ | 142,877,811 | \$ | 16,306,536 | \$ | 14,564,398 | \$ | 35,738,396 | \$ | 20,665,865 | \$ | 283,536,077 |
| (10) | Depreciation Expenses |  | 141,321,587 |  | 101,457,547 |  | - |  | 6,895,148 |  | 12,142,048 |  | 20,826,845 |  | - | \$ | 141,321,587 |
| (11) | Other Taxes |  | 22,018,306 |  | 12,011,678 |  | - |  | 1,886,754 |  | 2,989,992 |  | 5,129,882 |  | - | \$ | 22,018,306 |
| (12) | Curtailable Service Rider |  | 1,177,704 |  | 616,178 |  | 18,124 |  | 105,593 |  | 159,541 |  | 275,503 |  | 2,767 | \$ | 1,177,704 |
| (13) | Expense Adjustments - Prod. Demand |  | - |  | - |  | - |  | - |  | - |  | - |  | - | \$ | - |
| (14) | Expense Adjustments - Energy |  | - |  | - |  | - |  | - |  | - |  | - |  | - | \$ | - |
| (15) | Expense Adjustments - Trans. Demand |  | - |  | - |  | - |  | - |  | - |  | - |  | - | \$ | - |
| (16) | Expense Adjustments - Distribution |  | - |  | - |  | - |  | - |  | - |  | - |  | - | \$ | - |
| (17) | Expense Adjustments - Other |  | 203,392 |  | 106,415 |  | 3,130 |  | 18,236 |  | 27,553 |  | 47,580 |  | 478 | \$ | 203,392 |
| (18) | Revenue Adjustments |  | 203,32 |  | 106, |  | , |  | 18,236 |  | 27,5s3 |  | , 8 |  |  | \$ | 203,32 |
| (19) | Proforma Adjustments - Total | \$ | 203,392 | \$ | 106,415 | \$ | 3,130 | \$ | 18,236 | \$ | 27,553 | \$ | 47,580 | \$ | 478 | \$ | 203,392 |
| (20) | Total Cost of Service | \$ | 509,459,788 | \$ | 199,596,287 | \$ | 143,840,907 | \$ | 30,699,678 | \$ | 38,174,510 | \$ | 76,335,495 | \$ | 20,812,911 | \$ | 509,459,788 |
| (21) | Less: Misc Revenue - Prod Demand | \$ | (317,551) | \$ | (317,551) |  |  |  |  |  |  |  |  |  |  | \$ | $(317,551)$ |
| (22) | Less: Misc Revenue - Energy |  | $(12,366,967)$ |  | - |  | $(12,366,967)$ |  | - |  | - |  | - |  | - | \$ | (12,366,967) |
| (23) | Less: Misc Revenue - Transmission |  | $(5,722,158)$ |  | , |  | - |  | $(5,722,158)$ |  | - |  | - |  | - | \$ | $(5,722,158)$ |
| (24) | Less: Misc Revenue - Other |  | $(5,984,316)$ |  | $(3,131,007)$ |  | $(92,092)$ |  | $(536,551)$ |  | $(810,680)$ |  | $(1,399,924)$ |  | $(14,061)$ | \$ | $(5,984,316)$ |
| (25) | Less: Misc Revenue - Total |  | $(24,390,993)$ |  | (3,448,559) |  | $(12,459,059)$ |  | $(6,258,710)$ |  | $(810,680)$ |  | (1,399,924) |  | $(14,061)$ | \$ | $(24,390,993)$ |
| (26) | Net Cost of Service | \$ | 485,068,795 | \$ | 196,147,729 | \$ | 131,381,848 | \$ | 24,440,968 | \$ | 37,363,830 | \$ | 74,935,571 | \$ | 20,798,850 | \$ | 485,068,795 |
| (27) | Billing Units |  |  |  | 4,049,109,440 |  | 4,049, 109,440 |  | 4,049,109,440 |  | 4,049,109,440 |  | 4,530,684 |  | 4,530,684 |  |  |
| (28) | Unit Costs |  |  | \$ | 0.04844 | \$ | 0.03245 | \$ | 0.00604 | \$ | 0.00923 | \$ | 0.54 | \$ | 0.15 | \$ | 0.69 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | omer Cost | \$ | 0.69 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | structure Energy Cost | \$ | $0.06371$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | Var | able Energy Cost | \$ | 0.03245 |

## Exhibit WSS-3

Cost Support for
General Time-of-Date
Service Rates

Kentucky Utilities Company
Louisville Gas and Electric Company
Cost Support of GSTOD

| Infrastructure Cost | Kentucky Utilities Company |  |  |  |  |  | Louisville Gas and Electric Company |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Costs | kWH |  | Unit Cost |  | Costs | kWH |  | Unit Cost |
| Production Peak | \$ | 104,295,799.93 | 334,720,632 | \$ | 0.31159 | \$ | 75,472,056 | 238,769,104 | \$ | 0.31609 |
| Transmission | \$ | 54,584,113.90 | 1,678,149,896 | \$ | 0.03253 | \$ | 43,589,923 | 1,197,088,880 | \$ | 0.03641 |
| Distribution | \$ | 39,953,463.73 | 1,678,149,896 | \$ | 0.02381 | \$ | 39,917,171 | 1,197,088,880 | \$ | 0.03335 |

Total Infrastructure Cost per kWh
Peak
0.10725
0.31159
0.05633

0.09216
0.26776
0.04841
0.13280
0.31609
0.06976

GTOD-E
Proposed GS Infrastructure Charge
0.09216
0.26776

Peak
0.21457

Off-Peak

Proposed Residential Infrastructure Charge
0.06750

Proposed General Service Infrastructure Charge
\$ 0.06750

RTOD
Peak
Base

| $\$$ | 10.37 | $\$$ | 9.43 |
| ---: | ---: | ---: | ---: |
| $\$$ | 4.01 | $\$$ | 4.31 |
| $\$$ | 0.02683 | $\$$ | 0.02095 |

GTOD-D
Peak
Base

| $\$$ | 14.16 |
| :--- | ---: |
| $\$$ | 5.47 |
| $\$$ | 0.03663 |

Infrastructure Energy
0.03663

| $\$$ | 0.07237 |
| :--- | ---: |
| $\$$ | 0.09015 |
|  |  |
| $\$$ | 9.43 |
| $\$$ | 4.31 |
| $\$$ | 0.02095 |
|  |  |
|  |  |
| $\$$ | 11.75 |
| $\$$ | 5.37 |
| $\$$ | 0.02610 |

## Exhibit WSS-4

## Cost Support for LED Fixture and Underground Pole Charges

## Kentucky Utilities Company

Cost Support for LED Fixtures and Underground Poles


## Louisville Gas \& Electric Company

Cost Support for LED Fixtures and Underground Poles


## Exhibit WSS-5

## Cost Support for

## LED Conversion Fee

## Kentucky Utilities Company

Determination of Conversion Fee

Number of Fixtures

2020 Net Book Value

Estimated NBV for Poles
Estimated NBV for Fixtures
NBV per Fixture

5 Year Carrying Charge Rate

| Overall Rate of Return | $7.206 \%$ |
| :--- | ---: |
| Depreciation | $20.000 \%$ |
| Income Taxes | $1.770 \%$ |
| Property Taxes | $1.511 \%$ |
| Carrying Charge Rate | $30.487 \%$ |

Annual Conversion Fee \$ 60.11

Monthly Conversion Fee $\quad 5.01$

| Salvage Portion of Conversion Fee | $\$$ | 3.29 |
| :--- | :--- | :--- |
| Revenue Portion of Conversion Fee | $\$$ | 1.72 |

## Louisville Gas \& Electric Company

Determination of Conversion Fee

| Number of Fixtures | 88,567 |  |  |
| :---: | :---: | :---: | :---: |
| 2020 Net Book Value |  | \$ | 73,065,258 |
| Estimated NBV for Poles | 66.39\% | \$ | 48,506,556 |
| Estimated NBV for Fixtures |  | \$ | 24,558,702 |
| NBV per Fixture |  | \$ | 277.29 |
| 5 Year Carrying Charge Rate |  |  |  |
| Overall Rate of Return |  |  | 7.165\% |
| Depreciation |  |  | 20.000\% |
| Income Taxes |  |  | 1.768\% |
| Property Taxes |  |  | 1.718\% |
| Carrying Charge Rate |  |  | 30.651\% |
| Annual Conversion Fee |  | \$ | 84.99 |
| Monthly Conversion Fee |  | \$ | 7.08 |
| Salvage Portion of Conversion Fee |  | \$ | 4.62 |
| Revenue Portion of Conversion Fee |  | \$ | 2.46 |

## Exhibit WSS-6

Westar's Residential
Distributed Generation Rate

| (Name of Issuing Utility) | Replacing Schedule $\quad$ RS-DG |  |
| :---: | :---: | :---: |
| EVERGY KANSAS CENTRAL RATE AREA |  |  |
| (Territory to which schedule is applicable) | which was filed $\quad$ September 28, 2018 |  |

## RESIDENTIAL STANDARD DISTRIBUTED GENERATION

## AVAILABLE

Electric Service is available under this rate schedule at points on the Company's existing distribution system to customers using electric service for residential purposes. Any customer-generator operating or adding generation under an interconnection agreement connecting to Evergy Kansas Central's distribution system after October 1, 2018 must take service under this rate schedule.

## APPLICABLE

Applicable to residential customers that have dwelling unit(s) each having separate kitchen facilities, sleeping facilities, living facilities and permanent provisions for sanitation. This rate schedule is restricted to residential electric service used principally for domestic purposes in customer's household, home, detached garage on the same premise as customer's home, or place of dwelling for the maintenance or improvement of customer's quality of life. Service to customers in rural areas through a single meter under this schedule may also use electric service in farm buildings for ordinary farm use providing that such buildings are adjacent to the customer's dwelling unit. However, this schedule is not applicable for crop irrigation, commercial dairies, hatcheries, feed lots, feed mills or any other commercial enterprise. This schedule is not applicable to backup, breakdown, standby, supplemental, short term, resale or shared electric service.

## CHARACTER OF SERVICE

Alternating current, 60 hertz, single phase, at nominal voltages of 120 or $120 / 240$ volts.


Darrin Ives, Vice President
$\qquad$
THE STATE CORPORATION COMMISSION OF KANSAS
EVERGY KANSAS CENTRAL, INC. \& EVERGY KANSAS SOUTH, INC., d/b/a EVERGY KANSAS CENTRAL SCHEDULE _ RS-DG

| (Name of Issuing Utility) |  |  |
| :---: | :---: | :---: |
| EVERGY KANSAS CENTRAL RATE AREA |  |  |
|  |  |  |
| (Territory to which schedule is applicable) | which was filed __ Septembe | 2018 |
| No supplement or separate understanding shall modify the tariff as shown hereon | Sheet 2 of 4 She |  |
| RESIDENTIAL STANDARD DISTRIBUTED GENERATION |  |  |
| ELECTRIC SERVICE |  |  |

## NET MONTHLY BILL

BASIC SERVICE FEE
ENERGY CHARGE
DEMAND CHARGE
$\$ 14.50$
4.5840¢ per kWh

Winter Period - Demand set in the billing months of October through May. $\$ 3.00$ per kW

Summer Period - Demand set in the billing months of June through September. $\$ 9.00$ per kW

Plus all applicable adjustments and surcharges.

## MINIMUM MONTHLY BILL

The Basic Service Fee, plus the minimum specified in the Electric Service Agreement, plus all applicable adjustments and surcharges.

## BILLING DEMAND

Customer's average kilowatt load during the 60-minute period of maximum use that occurs in the demand billing period during the month.

## DETERMINATION OF PEAK BILLING PERIOD

For purposes of this rate schedule, the demand billing period shall be daily the hours of 2:00 pm through 7:00 pm Central Time, except for weekends, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.


19-WSEE-474-TAR
$\qquad$
THE STATE CORPORATION COMMISSION OF KANSAS
EVERGY KANSAS CENTRAL, INC. \& EVERGY KANSAS SOUTH, INC., d/b/a EVERGY KANSAS CENTRAL SCHEDULE _ RS-DG
(Name of Issuing Utility)

| (Name of Issuing Utility) | Replacing Schedule $\quad$ RS-DG |  |
| :---: | :---: | :---: |
| EVERGY KANSAS CENTRAL RATE AREA |  | Sheet 3 |
| (Territory to which schedule is applicable) | which was filed $\quad$ September 28, 2018 |  |

## RESIDENTIAL STANDARD DISTRIBUTED GENERATION

## ADJUSTMENTS AND SURCHARGES

The rates hereunder are subject to adjustment as provided in the following schedules:

1. Retail Energy Cost Adjustment
2. Property Tax Surcharge
3. Transmission Delivery Charge
4. Environmental Cost Recovery Rider
5. Renewable Energy Program Rider
6. Energy Efficiency Rider
7. Tax Adjustment

Plus all applicable adjustments and surcharges.

## DEFINITIONS AND CONDITIONS

1. The initial term of service under this rate schedule shall be one year. Company reserves the right to require the customer to execute an Electric Service Agreement with an additional charge, or special minimum and or a longer initial term when additional facilities are required to serve such customer.
2. A Customer-Generator is the owner or operator of a facility which:
a. Is located on premises owned, operated, leased, or otherwise controlled by the Customer-Generator and provides power to a facility located on that same premise;
b. Is interconnected and operates in parallel phase and synchronization with the Company facilities;
c. Is intended primarily to offset part or all of the Customer-Generator's own electrical energy requirements; and
d. Contains a mechanism, approved by the Company that automatically disables the unit and interrupts the flow of electricity back onto the Company's electric lines in the event that service to the Customer-Generator is interrupted.


19-WSEE-474-TAR
$\qquad$
THE STATE CORPORATION COMMISSION OF KANSAS

3. Individual motor units shall not exceed five horsepower, unless otherwise agreed upon prior to installation.
4. Service under this rate schedule is subject to Company's General Terms and Conditions presently on file with the State Corporation Commission of Kansas and any modification subsequently approved.
5. All provisions of this rate schedule are subject to changes made by order of the regulatory authority having jurisdiction.


## Exhibit WSS-7

Kansas Corporation Commission's
Order Regarding Distributed Generation

# BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS 

Before Commissioners: Pat Apple, Chairman<br>Shari Feist Albrecht<br>Jay Scott Emler<br>In the Matter of the General Investigation )<br>to Examine Issues Surrounding Rate Design ) Docket No. 16-GIME-403-GIE for Distributed Generation Customers.

FINAL ORDER

This matter comes before the State Corporation Commission of the State of Kansas (Commission) for consideration and decision. Having reviewed the pleadings and record, the Commission makes the following findings:

## I. Background

1. On July 12, 2016, the Commission issued an Order Opening General Investigation to examine various issues surrounding rate structure for distributed generation (DG) customers. ${ }^{1}$ The Commission stated its intent to have a thorough and thoughtful discussion of the appropriate rate structure for DG including the quantifiable costs and quantifiable benefits of DG. ${ }^{2}$ The Commission named all Kansas electric public utilities, subject to the Commission's jurisdiction over retail rates, ${ }^{3}$ as parties to the docket and also granted parties an opportunity to provide evidence showing that costs and benefits can be quantified and allocated in a manner which will result in just and reasonable rates for DG customers. ${ }^{4}$

[^25]2. On July 14, 2017, the Commission issued orders granting intervention to Cromwell Environmental, Inc. (Cromwell), the Citizens Utility Ratepayer Board (CURB), The Alliance for Solar Choice, Sunflower Electric Power Corporation (Sunflower) and Mid-Kansas Electric Company (Mid-Kansas), and Brightergy, LLC (Brightergy).
3. On September 1, 2016, the Commission issued orders granting intervention to the Kansas Electric Cooperatives, Inc. (KEC), the Climate and Energy Project (CEP), and IBEW Local Union No. 304 (IBEW).
4. On September 29, 2016, the Commission issued an order granting intervention to United Wind, Inc. (United Wind).
5. On February 16, 2017, the Commission issued an Order Setting Procedural

Schedule. The order set a schedule for the parties to file comments, engage in roundtable discussions, and participate in an evidentiary hearing. ${ }^{5}$
6. On March 17, 2017, Midwest Energy, ${ }^{6}$ Southern Pioneer, ${ }^{7}$ which was joined by KEC, Westar, ${ }^{8}$ Brightergy, ${ }^{9}$ CEP, ${ }^{10}$ KCP\&L, ${ }^{11}$ United Wind, ${ }^{12}$ Cromwell, ${ }^{13}$ Sunflower and Mid-

[^26]Kansas, ${ }^{14}$ CURB, ${ }^{15}$ Empire, ${ }^{16}$ and Commission Utilities Staff ${ }^{17}$ (Staff) filed their initial Comments.
7. On May 5, 2017, Southern Pioneer, ${ }^{18}$ Westar, ${ }^{19}$ Midwest, ${ }^{20}$ Staff, ${ }^{21}$ Sunflower and Mid-Kansas, ${ }^{22}$ KCP\&L, ${ }^{23}$ Empire, ${ }^{24}$ Brightergy, ${ }^{25}$ Cromwell, ${ }^{26}$ IBEW 304, ${ }^{27}$ and CEP ${ }^{28}$ filed their reply comments.
8. On June 16, 2017, Staff, Westar, KCP\&L, Sunflower, Mid-Kansas, Southern Pioneer, KEC, Midwest Energy, Empire, Brightergy, United Wind, and IBEW 304 (Joint Movants) filed a Motion to Approve Non-Unanimous Stipulation and Agreement (S\&A).
9. Also on June 16, 2017, the Parties filed a List of Contested Issues.
10. On June 20, 2017, Westar, ${ }^{29} \mathrm{KCP} \& \mathrm{~L},{ }^{30}$ Southern Pioneer and KEC, ${ }^{31}$ and Staff ${ }^{32}$
filed testimony in support of the Non-Unanimous Stipulation and Agreement.

[^27]11. On June 20, 2017, CURB, ${ }^{33}$ Cromwell, ${ }^{34}$ and CEP, ${ }^{35}$ (collectively the Opposing Parties) filed testimony in opposition to the Non-Unanimous Stipulation and Agreement.

## II. Legal Standard

12. Every public utility in Kansas is required to provide reasonably efficient and sufficient service and establish just and reasonable rates. ${ }^{36}$ Just and reasonable rates are those that fall within a "zone of reasonableness," which balances the interests of present and future ratepayers, and the public interest. ${ }^{37}$ The Kansas Supreme Court has recognized that "the touchstone of public utility law is the rule that one class of consumers shall not be burdened with costs created by another class. ${ }^{.338}$ The Commission may in addition to cost-causation, consider matters of public policy, such as gradualism to minimize rate shock, revenue stability for the company, economic development, and energy efficiency. ${ }^{39}$ Both federal and state courts have been clear that rates must be based on costs and supported by substantial competent evidence. ${ }^{40}$ Substantial competent evidence is that which possesses something of substance and relevant consequence, and which furnishes a substantial basis of fact from which the issues can

[^28]reasonably be resolved. ${ }^{41}$ A decision of the Commission is unsupported by substantial competent evidence "only when the evidence shows the [Commission's] determination 'is so wide of the mark as to be outside the realm of fair debate. ${ }^{32}$ The Kansas Supreme Court has also stated that the Commission "is not obligated to render its finding of fact in minute detail ... [h]owever, we require its findings to be specific enough to allow judicial review of the reasonableness of the order. ${ }^{43}$
13. The law generally favors the compromise and settlement of disputes. ${ }^{44}$ However, the Commission must make an independent finding that the settlement is supported by substantial competent evidence in the record as a whole, that the settlement will establish just and reasonable rates, and the settlement is in the public interest. ${ }^{45}$
14. The Commission has established a five-part test to determine the reasonableness of proposed settlement agreements. The five parts are rooted in the Commission's organic statutes, ${ }^{46}$ the Kansas Administrative Procedure Act, ${ }^{47}$ and the Kansas Act for Judicial Review and Civil Enforcement of Agency Actions. ${ }^{48}$ The five parts are:
a. Whether there was an opportunity for the opposing party to be heard on their reasons for opposition to the stipulation and agreement;
b. whether the stipulation and agreement is supported by substantial competent evidence;

[^29]c. whether the stipulation and agreement conforms with applicable law;
d. whether the stipulation and agreement results in just and reasonable rates; e. whether the results of the stipulation and agreement are in the public interest, including the interest of the customers represented by the party not consenting to the agreement. ${ }^{49}$

## III. Findings and Conclusions

15. The Commission finds the intent and purpose of this general investigation has shifted slightly from when it was first opened. Staff initially stated the goal of this generic docket was to determine the appropriate rate structure for DG customers by evaluating the costs and benefits of DG, as well as by examining potential rate design alternatives for DG customers. ${ }^{50}$ Though Staff recommended the Commission not change current rates through this proceeding, Staff did recommend the Commission make its findings in this docket binding, with specific tariff changes to be made in utility-specific docket filings. ${ }^{51}$ However, the testimony in the evidentiary hearing suggested the parties were less interested in binding action by the Commission and more interested in guidance from the Commission regarding the appropriate direction of DG rate design. ${ }^{52}$ This position was later repeated during briefing. ${ }^{53}$

[^30]16. With this request for guidance in mind, the Commission reviews the $\mathrm{S} \& \mathrm{~A}$ utilizing the Commission's five-part question analysis of non-unanimous settlement agreements.

Whether there was an opportunity for the opposing party to be heard on their reasons for opposition to the stipulation and agreement?
17. The Commission finds the Opposing Parties each filed testimony in opposition to the $\mathrm{S} \& \mathrm{~A}^{54}$ and fully participated during the evidentiary hearing, including the cross-examination of the witnesses who testified in support of the S\&A. The Commission finds therefore the Opposing Parties were granted an opportunity for their reasons for opposition to the S\&A to be heard.

Whether the stipulation and agreement is supported by substantial competent evidence?
18. The Commission finds the $S \& A$ is specifically supported by the testimony of five witnesses through pre-filed supporting testimony, ${ }^{55}$ live testimony at the evidentiary hearing, and the sworn pre-filed comments of the supporting parties. ${ }^{56}$ Therefore, the Commission finds there to be sufficient evidence from which to make a decision. ${ }^{57}$
19. The $\mathrm{S} \& \mathrm{~A}$ requests the Commission adopt nine substantive findings, which will be addressed below.

[^31]20. First, the Commission finds DG customers should be uniquely identified within the ratemaking process because of their potentially significant different usage characteristics. ${ }^{58}$ The Commission finds the unique identification of DG customers within a class or sub-class is the key to properly recognizing the cost and quantifiable benefits of DG. ${ }^{59}$ Utilities may create a separate residential class or sub-class for DG customers with their own rate design, which appropriately recovers the fixed costs of providing service to residential private DG customers, or a utility may continue to serve residential private DG customers within an existing residential rate class if the utility determines there are too few DG customers to justify a separate residential private DG class or sub-class or determines other justification exists to retain those customers in the existing rate class. A separate rate class for DG customers is not meant to punish those customers, rather such a class would serve to provide clarity for both utilities and customers.
21. Specific to Westar, the Commission finds Westar's Distributed Generation Residential Rate Schedule implemented in Westar's last rate case shall remain in place and effective for all residential customers installing distributed generation on or after October 28, 2015, and shall be treated as a separate class for purposes of future class cost of service studies and ratemaking generally.
22. Second, the Commission finds the current two-part residential rate design is problematic for utilities and residential private DG customers because DG customers use the

[^32]electric grid as a backup system resulting in their consuming less energy than non-DG customers, which results in DG customers not paying the same proportion of fixed costs as nonDG customers. ${ }^{60}$ The Commission finds DG customers are thus being subsidized by non-DG customers. ${ }^{61}$
23. Third, the Commission finds the following rate design options are appropriate for residential private DG customers, to allow utilities to better recover the costs of providing service to that class or sub-class of customers:
a. A cost of service based three-part rate consisting of a customer charge, demand charge, and energy charge; ${ }^{62}$
b. A grid charge based upon either the DG output or nameplate rating; ${ }^{63}$ or
c. A cost of service-based customer charge that is tiered based upon a customer's capacity requirements. ${ }^{64}$

The Commission finds the above list is not meant to preclude a utility from proposing other appropriate rate designs within that individual utility's rate case proceeding, but rather recognizes that each utility might have different conditions and different needs. ${ }^{65}$ Thus, the Commission finds the $\mathrm{S} \& A$ allows flexibility for a variety of alternatives. ${ }^{66}$
24. The Commission's finding that the above rate designs are appropriate does not serve as a predetermination that the above rate designs will result in just and reasonable rates.

[^33]Rather, based upon the testimony on the record, the Commission interprets the $\mathrm{S} \& \mathrm{~A}$ as requiring the sponsoring utility of a new DG rate design as having the burden to show that any proposed rate design will result in non-discriminatory, just and reasonable rates. ${ }^{67}$
25. Fourth, the Commission finds a customer education program must be implemented whenever new residential private DG rate structures are ordered, and that program should be completed as soon as practical after the Commission approves a new rate design. ${ }^{68}$
26. Fifth, the Commission finds rates for private residential DG customers should be cost-based and any unquantifiable value of resource approach should not be considered when setting rates. This is because cost-based rates are a fundamental attribute of good rate design as they allow the Commission to clearly identify quantifiable costs, which ensures rates for all customers are equitable while encouraging efficient use of resources and minimization of unnecessary cross-subsidization between customers. ${ }^{69}$ This finding is consistent with the Commission's stated preference at the initiation of this investigation. ${ }^{70}$ The Commission finds a class cost of service study provides sufficient support for design of a residential private DG tariff and no further study is necessary for the purpose of this docket because the class cost of service study takes into consideration benefits in the form of avoided costs. ${ }^{71}$ However, this finding does not preclude any party from sponsoring any study it believes necessary to provide an evidentiary basis for its position in a general rate case. As in this docket, any study submitted should include only quantifiable market-based costs and benefits to the utility.

[^34]27. Sixth, the Commission finds that a value of resource study (i.e. cost-benefit analysis) is not required by the Commission at this time because, as testified by Staff, such studies have limited value because they return widely varying results and unnecessarily duplicate information already part of utility-specific class cost of service studies. ${ }^{72}$ However, as indicated above, nothing herein precludes any party from developing any study it believes to be helpful to the Commission in establishing just and reasonable rates.
28. Seventh, the Commission finds DG rate design policy is best determined in this docket in order to provide certainty to all parties for the benefit of the orderly development of the private DG market in Kansas. ${ }^{73}$ Without a determination by this Commission as to what an appropriate DG rate structure is, future rate design proposals will be undermined by the question of whether that particular rate design proposal is appropriate. ${ }^{74}$ However, the Commission finds electric utilities that do not currently have DG tariffs shall have the option to propose DG tariffs consistent with the principles established in this general investigation in subsequent general rate case filings for approval by the Commission.
29. Eight, the Commission finds any DG-specific rate design implemented subsequent to this proceeding to serve residential private DG customers would apply to those customers adding DG systems on or after the effective date of those tariffs. Customers with distributed DG systems implemented and operating prior to that date and served by other rate designs will be allowed to remain on those preexisting rates until January 1, 2030, to the extent permitted by Kansas law. On and after January 1, 2030, all distributed generation customers will be subject to the then current residential DG rate design. The Commission further finds this S\&A

[^35]term to be in the public interest because the term sets clear timeframes for implementation of any new DG structure while providing an important grandfathering period to provide a transition to the new rates, while protecting customers served under the old designs from unanticipated changes. ${ }^{75}$ Likewise, the future closing date of January 1, 2030, is appropriate because it is the date set by statute when methods used to compensate excess generation under net meeting are unified under a single method. ${ }^{76}$
30. Specific to Westar, the Commission finds the settlement approved by the Commission in Westar's last general rate case regarding the creation of the "Residential Standard Distributed Generation" tariff remains in effect and customers who added DG on or after October 28, 2015, will be subject to the rate design change that occurs in future rate case dockets based on the policy established in this docket. The Commission finds this approach is appropriate because Westar's customers on its Residential Standard Distribution Generation tariff have received notice in Docket No. 15-WSEE-115-RTS and through Westar's outreach efforts. ${ }^{77}$
31. Ninth, the Commission finds this $S \& A$ provides guidance to the cooperatives that have elected to be self-regulated pursuant to K.S.A. 66-104d, but such self-regulated cooperatives shall not be bound by the $S \& A$. The Commission finds such non-binding guidance to be in the public interest because it acknowledges that the cooperatives regulatory structure is different from the other public utilities subject to the $\mathrm{S} \& A$, while identifying how the $\mathrm{S} \& A$ impacts them. ${ }^{78}$

[^36]Whether the stipulation and agreement conforms with applicable law?
32. Because of the rationale laid out below in paragraphs 34-37 the Commission concludes the $\mathrm{S} \& \mathrm{~A}$ is in conformance with applicable law.

Whether the stipulation and agreement results in just and reasonable rates?
33. The Commission finds the $\mathrm{S} \& A$ does not change rates or rate design for any customer ${ }^{79}$ and thus the $\mathrm{S} \& \mathrm{~A}$ results in the continuation of existing rates which the Commission has previously found to be just and reasonable.

Whether the results of the stipulation and agreement are in the public interest, including the interest of the customers represented by the party not consenting to the agreement?
34. The Commission interprets the $\mathrm{S} \& \mathrm{~A}$ as a roadmap the electric utilities may pursue in future rate filings. The Commission interprets the $\mathrm{S} \& \mathrm{~A}$ as establishing the following policies:
a. utilities may determine whether a separate rate class is appropriate; ${ }^{80}$
b. utilities may provide cost data for that class through a class cost of service study as required by Commission regulation; ${ }^{81}$
c. utilities are to provide cost data uniformly, excluding non-quantifiable societal benefits and externalities; and ${ }^{82}$
d. utilities may recommend the rate design appropriate for their electric system, service and customer base. ${ }^{83}$

[^37]35. The Commission finds the $\mathrm{S} \& \mathrm{~A}$ is in the public interest because it establishes a policy framework for implementing DG. This framework provides a means through which DG issues as yet undetermined can be addressed in a utility-specific rate case docket.
36. Similarly, though the record evidence supports a finding that DG customers are not paying their full fixed costs ${ }^{84}$ and are thus being cross-subsidized by the other residential customers, ${ }^{85}$ there is not sufficient evidence for the Commission to determine whether that crosssubsidization results in an unduly preferential rate because not all of the utilities provided analysis regarding the extent to which cross-subsidization exists. ${ }^{86}$ The record suggests that information would only be available after the utilities completed a class cost of service study in their next rate case.
37. The Commission finds approving the $\mathrm{S} \& \mathrm{~A}$ is in the public interest because it allows the parties to further develop the necessary facts on a utility by utility basis. Likewise, the Commission believes this course of action allows utilities to propose new DG tariffs consistent with terms of the S\&A and for the Commission to address each proposal individually. The Commission finds the $\mathrm{S} \& \mathrm{~A}$ allows the Commission to do so without negatively impacting any of the parties. The rights and obligations of the parties are the same following this order as they were at the beginning of this docket. Therefore, the Commission finds no party is negatively impacted by the S\&A because it merely shifts the discussion and production of evidence into utility specific dockets, where the burden of proof remains on the utilities to show that their proposed rate design results in non-discriminatory and just and reasonable rates. Therefore, the Commission finds the $S \& A$ is in the public interest.

[^38]
## THEREFORE, THE COMMISSION ORDERS:

A. The Non-Unanimous Stipulation and Agreement is approved.
B. The parties have 15 days from the date this Order was electronically served to petition for reconsideration. ${ }^{87}$
C. The Commission retains jurisdiction over the subject matter and parties for the purpose of entering such further orders as it deems necessary.

BY THE COMMISSION IT IS SO ORDERED.
Apple, Chairman; Albrecht, Commissioner; Emler, Commissioner
Dated:
'SEP 212017

SF


EMAAKLED
SEP 212017

[^39]
## CERTIFICATE OF SERVICE

16-GIME-403-GIE
$I$, the undersigned, certify that the true copy of the attached Order has been served to the following parties by means of Electronic Service on SEP 212017

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## CERTIFICATE OF SERVICE

16-GIME-403-GIE

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## CERTIFICATE OF SERVICE

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## ISI DeeAnn Shupe

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SEP 212017

## Exhibit WSS-8

## Traditional Metering Equipment <br> Required for <br> Four-Part Rates



Exhibit WSS-8
Page 2 of 4


# DEMAND METERS 

TYPES G-9, GS-9, AND GS-12

( ( (a) 9.73



General siol electric


When ordering renewal parts, give quantity, catalog number, description of each item required, and complete nameplate reading.

## Exhibit WSS-9

## Electric Vehicle Ownership by State in U.S.

| Electric Vehicle Registrations in 2018 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| State | EV Registriations | Population | Per Capita Registrations | Registrations per 100,000 Residents |
| California | 256,800 | 39,557,045 | 0.0065 | 649.19 |
| Hawaii | 6,590 | 1,420,491 | 0.0046 | 463.92 |
| Washington | 28,400 | 7,535,591 | 0.0038 | 376.88 |
| Oregon | 12,400 | 4,190,713 | 0.0030 | 295.89 |
| Arizona | 15,000 | 7,171,646 | 0.0021 | 209.16 |
| Colorado | 11,700 | 5,695,564 | 0.0021 | 205.42 |
| Vermont | 1,060 | 626,299 | 0.0017 | 169.25 |
| Utah | 5,220 | 3,161,105 | 0.0017 | 165.13 |
| Nevada | 4,810 | 3,034,392 | 0.0016 | 158.52 |
| Georgia | 15,300 | 10,519,475 | 0.0015 | 145.44 |
| Massachusetts | 9,760 | 6,902,149 | 0.0014 | 141.41 |
| District Of Columb | 970 | 702,455 | 0.0014 | 138.09 |
| New Jersey | 12,100 | 8,908,520 | 0.0014 | 135.83 |
| Maryland | 8,080 | 6,042,718 | 0.0013 | 133.71 |
| Connecticut | 4,450 | 3,572,665 | 0.0012 | 124.56 |
| Florida | 25,200 | 21,299,325 | 0.0012 | 118.31 |
| Virginia | 8,370 | 8,517,685 | 0.0010 | 98.27 |
| Illinois | 12,400 | 12,741,080 | 0.0010 | 97.32 |
| New York | 16,600 | 19,542,209 | 0.0008 | 84.94 |
| Minnesota | 4,740 | 5,611,179 | 0.0008 | 84.47 |
| Oklahoma | 3,290 | 3,943,079 | 0.0008 | 83.44 |
| New Hampshire | 1,120 | 1,356,458 | 0.0008 | 82.57 |
| Texas | 22,600 | 28,701,845 | 0.0008 | 78.74 |
| Delaware | 720 | 967,171 | 0.0007 | 74.44 |
| Alaska | 530 | 737,438 | 0.0007 | 71.87 |
| North Carolina | 7,320 | 10,383,620 | 0.0007 | 70.50 |
| Wisconsin | 3,680 | 5,813,568 | 0.0006 | 63.30 |
| Pennsylvania | 7,990 | 12,807,060 | 0.0006 | 62.39 |
| Idaho | 1,080 | 1,754,208 | 0.0006 | 61.57 |
| New Mexico | 1,260 | 2,095,428 | 0.0006 | 60.13 |
| Tennessee | 3,980 | 6,770,010 | 0.0006 | 58.79 |
| Rhode Island | 600 | 1,057,315 | 0.0006 | 56.75 |
| Missouri | 3,450 | 6,126,452 | 0.0006 | 56.31 |
| Maine | 750 | 1,338,404 | 0.0006 | 56.04 |
| Ohio | 6,510 | 11,689,442 | 0.0006 | 55.69 |
| Kansas | 1,610 | 2,911,505 | 0.0006 | 55.30 |
| Montana | 500 | 1,062,305 | 0.0005 | 47.07 |
| Indiana | 3,030 | 6,691,878 | 0.0005 | 45.28 |
| Nebraska | 850 | 1,929,268 | 0.0004 | 44.06 |
| Michigan | 4,210 | 9,995,915 | 0.0004 | 42.12 |
| South Carolina | 1,950 | 5,084,127 | 0.0004 | 38.35 |
| lowa | 1,090 | 3,156,145 | 0.0003 | 34.54 |
| Alabama | 1,450 | 4,887,871 | 0.0003 | 29.67 |
| South Dakota | 260 | 882,235 | 0.0003 | 29.47 |
| Wyoming | 170 | 577,737 | 0.0003 | 29.43 |
| Kentucky | 1,240 | 4,468,402 | 0.0003 | 27.75 |
| Louisiana | 1,110 | 4,659,978 | 0.0002 | 23.82 |
| North Dakota | 170 | 760,077 | 0.0002 | 22.37 |
| Arkansas | 520 | 3,013,825 | 0.0002 | 17.25 |
| Mississippi | 390 | 2,986,530 | 0.0001 | 13.06 |
| West Virginia | 230 | 1,805,832 | 0.0001 | 12.74 |

Sources: Electric Vehicle Registrations were obtained from a US Department of Energy
https://afdc.energy.gov/data/10962
2018 Population
https://www.census.gov/newsroom/press-kits/2018/pop-estimates-national-state.htm|

Electric Vehicle Registrations by State


## Exhibit WSS-10

## DC Fast Charging Ports <br> Versus

Electric Vehicles by State in U.S.

| Relationship Between Electric Vehicles and DC Fast Charging Stations |  |  |
| :---: | :---: | :---: |
| State | DC Fast Charging Ports | Plug-in Electric Vehicles |
| Alabama | 78 | 1,450 |
| Alaska | 4 | 530 |
| Arizona | 363 | 15,000 |
| Arkansas | 44 | 520 |
| California | 4,679 | 256,800 |
| Colorado | 339 | 11,700 |
| Connecticut | 223 | 4,450 |
| Delaware | 65 | 720 |
| District of Columbia | 20 | 970 |
| Florida | 760 | 25,200 |
| Georgia | 420 | 15,300 |
| Hawaii | 90 | 6,590 |
| Idaho | 75 | 1,080 |
| Illinois | 337 | 12,400 |
| Indiana | 171 | 3,030 |
| lowa | 134 | 1,090 |
| Kansas | 121 | 1,610 |
| Kentucky | 68 | 1,240 |
| Louisiana | 68 | 1,110 |
| Maine | 126 | 750 |
| Maryland | 424 | 8,080 |
| Massachusetts | 329 | 9,760 |
| Michigan | 280 | 4,210 |
| Minnesota | 187 | 4,740 |
| Mississippi | 56 | 390 |
| Missouri | 196 | 3,450 |
| Montana | 96 | 500 |
| Nebraska | 64 | 850 |
| Nevada | 266 | 4,810 |
| New Hampshire | 69 | 1,120 |
| New Jersey | 407 | 12,100 |
| New Mexico | 108 | 1,260 |
| New York | 579 | 16,600 |
| North Carolina | 297 | 7,320 |
| North Dakota | 34 | 170 |
| Ohio | 350 | 6,510 |
| Oklahoma | 328 | 3,290 |
| Oregon | 361 | 12,400 |
| Pennsylvania | 289 | 7,990 |
| Rhode Island | 38 | 600 |
| South Carolina | 100 | 1,950 |
| South Dakota | 54 | 260 |
| Tennessee | 171 | 3,980 |
| Texas | 693 | 22,600 |
| Utah | 186 | 5,220 |
| Vermont | 54 | 1,060 |
| Virginia | 457 | 8,370 |
| Washington | 566 | 28,400 |
| West Virginia | 60 | 230 |
| Wisconsin | 144 | 3,680 |
| Wyoming | 75 | 170 |
| Total | 15,503 | 543,610 |
| Correlation Coefficient |  | 0.9867 |

Relationship of Electric Vehicles to
DC Fast Charging Outlets


## Exhibit WSS-11

## Cost Support for Electric Vehicle Supply Equipment Rate and Rider

## Kentucky Utilities Company

## Derivation of Rates

|  |  | Clipper Creek - Single |  |
| :---: | :---: | :---: | :---: |
| Estimated Investment per Unit |  | \$ | 800.85 |
| Fixed Charges @ | 20.51\% | \$ | 244.30 |
| O\&M (Scheduled/Trouble) |  | \$ | 126.00 |
| Chargepoint Annual Cost |  | \$ | - |
|  |  | \$ | 370.30 |
| Monthly Rate for Equipment Only |  | \$ | 30.86 |
| EVC Rate per Hour for Equipment Only |  |  |  |
| Distribution Energy per kWh per year (Calculated with GS Rate) | \$ 0.12469 | \$ | 623.99 |
| Distribution Energy per kWh per month |  | \$ | 52.00 |
| Distribution Energy per kWh per hour |  |  |  |
| Basic Service Charge |  | \$ | - |
| Fuel Adjustment Clause |  | \$ | - |
| Solar PPA Adjustment Clause |  | \$ | - |
| Economic Recovery Surcredit |  | \$ | - |
| Environmental Surcharge (Level 2) |  | \$ | - |
| Franchise Fee |  | \$ | - |
| School Tax |  | \$ | - |
| State Sales Tax |  | \$ | - |
| EVSE Monthly Rate for Equipment, Energy \& Factors |  | \$ | 82.86 |
| EVC Fee per Hour for Equipment, Energy \& Factors |  |  |  |
| EVSE-R Monthly Rate for Equipment Only |  | \$ | 30.86 |
| EVSE - Company will furnish, own, install, and maintain the charging unit and cable. Customer will furnish, own, and install all duct systems and associated equipment. Customer shall be responsible for the charging equipment installation costs. |  |  |  |
| EVSE-R - Customer installs and owns facilities on its side of the meter to serve Company-provided charging station. |  |  |  |

## Louisville Gas and Electric Company Derivation of Rates

|  |  | Clipper Creek - Single |  |
| :---: | :---: | :---: | :---: |
| Estimated Investment per Unit |  | \$ | 800.85 |
| Fixed Charges @ | 20.70\% | \$ | 245.89 |
| O\&M (Scheduled/Trouble) |  | \$ | 126.00 |
| Chargepoint Annual Cost |  | \$ | - |
|  |  | \$ | 371.89 |
| Monthly Rate for Equipment Only |  | \$ | 30.99 |
| EVC Rate per Hour for Equipment Only |  |  |  |
| Distribution Energy per kWh per year (Calculated with GS Rate) | \$ 0.12355 | \$ | 618.29 |
| Distribution Energy per kWh per month |  | \$ | 51.52 |
| Distribution Energy per kWh per hour |  |  |  |
| Basic Service Charge |  | \$ | - |
| Fuel Adjustment Clause |  | \$ | - |
| Solar PPA Adjustment Clause |  | \$ | - |
| Economic Recovery Surcredit |  | \$ | - |
| Environmental Surcharge (Level 2) |  | \$ | - |
| Franchise Fee |  | \$ | - |
| School Tax |  | \$ | - |
| State Sales Tax |  | \$ | - |
| EVSE Monthly Rate for Equipment, Energy \& Factors |  | \$ | 82.51 |
| EVC Fee per Hour for Equipment, Energy \& Factors |  |  |  |
| EVSE-R Monthly Rate for Equipment Only |  | \$ | 30.99 |
| EVSE - Company will furnish, own, install, and maintain the charging unit and cable. Customer will furnish, own, and install all duct systems and associated equipment. Customer shall be responsible for the charging equipment installation costs. <br> EVSE-R - Customer installs and owns facilities on its side of the meter to serve Company-provided charging station. |  |  |  |

## Exhibit WSS-12

## Cost Support for

 Redundant Capacity Charge
## Kentucky Utilities Company

Derivation of Distribution Demand-Related Cost for Redundant Capacity
Based on the 12 Months Ended June 30, 2022

## Secondary Service

Distribution Demand Costs

| PSS | $\$$ | $4,721,893$ |
| :--- | :---: | :---: |
| TODS | $\$$ | $4,144,728$ |
| Total Cost | $\$$ | $8,866,621$ |

Billing Demand

| PSS | $5,272,876$ |
| :--- | ---: |
| TODS | $6,217,430$ |
| Total Cost | $11,490,306$ |

Unit Cost

Rate Base

| PSS | $\$$ | $49,645,807$ |
| :--- | :--- | :--- |
| TODS | $\$$ | $43,613,366$ |
| Total Cost | $\$$ | $93,259,173$ |

Return \$ 6,770,616

Unit Return
Capacity Charge
$\overline{\underline{\$ \quad 1.36}} / \mathrm{KW}$

## Kentucky Utilities Company

Derivation of Distribution Demand-Related Cost for Redundant Capacity
Based on the 12 Months Ended June 30, 2022

## Primary Service

Distribution Demand Costs

| PSP | $\$$ | 172,706 |
| :--- | ---: | ---: |
| TODP | $\$$ | $5,548,170$ |
| Total Cost | $\$$ | $5,720,876$ |

Billing Demand
PSP
301,512
TODP
Total Cost
$10,620,000$
$10,921,512$

| Unit Cost |  |  | \$ | 0.52 |
| :---: | :---: | :---: | :---: | :---: |
| Rate Base |  |  |  |  |
| PSP | \$ | 1,711,384 |  |  |
| TODP | \$ | 57,382,076 |  |  |
| Total Cost | \$ | 59,093,460 |  |  |
| Return | \$ | 4,290,185 |  |  |
| Unit Return |  |  | \$ | 0.39 |
| Capacity Charge |  |  | \$ | 0.92 |

## Louisville Gas and Electric Company

Derivation of Distribution Demand-Related Cost for Redundant Capacity
Based on the 12 Months Ended June 30, 2022

## Secondary Service

Distribution Demand Costs

| PSS | $\$$ | $5,691,826$ |
| :--- | ---: | ---: |
| TODS |  | $4,551,553$ |
| Total Cost | $\$$ | $10,243,379$ |

Billing Demand

| PSS | $4,277,098$ |
| :--- | ---: |
| TODS | $4,406,484$ |
| Total Cost | $8,683,582$ |


| Unit Cost |  |  |  | \$ | 1.18 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rate Base |  |  |  |  |  |
|  | PSS | \$ | 50,667,367 |  |  |
|  | TODS |  | 40,506,142 |  |  |
|  | Total Cost | \$ | 91,173,509 |  |  |
| Return |  | \$ | 6,546,258 |  |  |
| Unit Return |  |  |  | \$ | 0.75 |
| Capacity Charge |  |  |  | \$ | 1.93 |

## Louisville Gas and Electric Company

Derivation of Distribution Demand-Related Cost for Redundant Capacity
Based on the 12 Months Ended June 30, 2022

## Primary Service

Distribution Demand Costs

| PSP | \$ | 304,138 <br> TODP |
| :--- | ---: | ---: |
| Total Cost |  | $4,601,652$ |

Billing Demand
PSP
340,066
TODP
Total Cost
\$ 0.81
Unit Cost

Rate Base

| PSP | $\$$ | $2,580,628$ |
| :--- | ---: | ---: |
| TODP |  | $36,684,134$ |
| Total cost | $\$$ | $39,264,762$ |

Return \$ 2,819,210

Unit Return
Capacity Charge
$\overline{\underline{\$ 1.31}} / \mathrm{KW}$

## Exhibit WSS-13

## Summary of Class <br> Rates of Returns for Gas <br> Operations

Louisville Gas and Electric Company
Summary of Adjusted Rates of Return by Class

| Rate Class | Revenue | Operating Expenses | Operating Margin | Rate Base | Rate of Return On Rate Base | Rate of Return On Rate Base After Increase |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Residential Service Rate RGS | \$ 160,544,346 | \$ 126,307,888 | \$ 34,236,458 | \$ 741,469,107 | 4.62\% | 6.87\% |
| Commercial Service Rate CGS | 60,474,931 | 42,069,078 | 18,405,853 | 243,310,119 | 7.56\% | 9.08\% |
| Industrial Service Rate IGS | 4,718,125 | 2,739,722 | 1,978,403 | 14,445,380 | 13.70\% | 13.69\% |
| As Available Gas Service Rate AAGS | 224,602 | 287,484 | $(62,883)$ | 1,942,049 | -3.24\% | 0.98\% |
| Firm Transportation Service Rate FT | 6,589,010 | 7,483,056 | $(894,046)$ | 51,183,321 | -1.75\% | 2.10\% |
|  | \$ 232,551,013 | \$ 178,887,228 | \$ 53,663,785 | \$1,052,349,977 | 5.10\% | 7.23\% |

## Exhibit WSS-14

## Analysis of Subsidy Reduction for <br> Gas Operations

Louisville Gas and Electric Company 25\% Subsidy Reduction for Gas Operations

Firm

|  | Total <br> System | Residential <br> (RGS) | Commercial <br> (CGS) | Industrial <br> (IGS) | As Available Gas <br> Service <br> (AAGS) | Transportation <br> Service <br> (FT) |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\$$ | $53,663,785$ | $\$$ | $34,236,458$ | $\$$ | $18,405,853$ | $\$$ | $1,978,403$ | $\$$ |
| $(62,883)$ | $\$$ | $(894,046)$ |  |  |  |  |  |  |
| $\$$ | $29,977,693$ | $\$$ | $22,317,229$ | $\$$ | $4,920,979$ | $\$$ | - | $\$$ |

Adjustment to Forefeited Discounts
Adjustment to Returned Check Fees
Incremental Income Taxes
Incremental Uncollectable Accounts Expense

Incremental Commission Fees
Net Operating Income Adjusted for Increase
Net Cost Rate Base (Same as Above)

| $24.85 \%$ | $\$$ | $7,449,292$ | $\$$ | $5,545,709$ | $\$$ | $1,222,836$ | $\$$ | - | $\$$ | 27,204 | $\$$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $0.203 \%$ | $\$$ | 60,855 | $\$$ | 45,304 | $\$$ | 9,990 | $\$$ | - | $\$$ | 222 | $\$$ |
| $0.20 \%$ | $\$$ | 59,955 | $\$$ | 44,634 | $\$$ | 9,842 | $\$$ | - | $\$$ | 219 | $\$$ |
| $25.25 \%$ |  |  |  |  |  |  |  |  | 5,339 |  |  |
|  | $\$$ | $76,071,376$ | $\$$ | $50,918,040$ | $\$$ | $22,084,164$ | $\$$ | $1,978,403$ | $\$$ | 18,948 | $\$$ |

## Exhibit WSS-15

## Cost Components for Residential Gas Service Rate RGS

# Louisville Gas and Electric Company 

Unit Cost of Service Based on the Cost of Service Study
For the 12 Months Ended June 30, 2022
Rate RGS


## Exhibit WSS-16

## 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, 2022

Pole Description
35' 40'
45'
Total

| Gross Plant |  | \$ | 42,672,814 | \$ | 159,603,939 | \$ | 145,470,993 | \$ | 347,747,746 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Remove Appurtenances |  |  | 15\% |  | 15\% |  | 15\% |  |  |
| Gross Plant less Appurtenances |  | \$ | 36,271,892 | \$ | 135,663,348 | \$ | 123,650,344 | \$ | 295,585,584 |
| Accumulated Depreciation |  |  | $(15,423,131)$ |  | $(57,685,262)$ |  | $(52,577,225)$ |  | $(125,685,618)$ |
| Remove Appurtenances |  |  | 15\% |  | 15\% |  | 15\% |  |  |
| Accumulated Depreciation less Appurtenances |  | \$ | $(13,109,661)$ | \$ | $(49,032,472)$ | \$ | $(44,690,642)$ | \$ | $(106,832,775)$ |
| Net Plant |  | \$ | 23,162,231 | \$ | 86,630,876 | \$ | 78,959,702 | \$ | 188,752,809 |
| Accumulated Deferred Income Taxes |  | \$ | $(5,716,450)$ | \$ | $(21,380,544)$ | \$ | $(19,487,294)$ | \$ | $(46,584,288)$ |
| Cash Working Capital |  |  | 269,597 |  | 1,008,340 |  | 919,052 |  | 2,196,989 |
| Common Plant |  |  | 773,795 |  | 2,894,131 |  | 2,637,856 |  | 6,305,782 |
| Net Cost Rate Base |  | \$ | 18,489,172 | \$ | 69,152,804 | \$ | 63,029,316 | \$ | 150,671,292 |
| Rate of Return |  |  | 7.16\% |  | 7.16\% |  | 7.16\% |  |  |
| Return |  | \$ | 1,324,579 | \$ | 4,954,161 | \$ | 4,515,469 | \$ | 10,794,208 |
| Income Taxes | 24.95\% | \$ | 326,632 | \$ | 1,221,662 | \$ | 1,113,484 | \$ | 2,661,779 |
| Property Taxes |  | \$ | 398,917 | \$ | 1,492,021 | \$ | 1,359,902 | \$ | 3,250,839 |
| Depreciation Expenses |  | \$ | 714,291 | \$ | 2,671,575 | \$ | 2,435,007 | \$ | 5,820,873 |
| Maintenance of Poles |  | \$ | 473,838 | \$ | 1,772,238 | \$ | 1,615,306 | \$ | 3,861,382 |
| Tree Trimming of Poles |  |  | 1,503,856 |  | 5,624,689 |  | 5,126,622 | \$ | 12,255,167 |
| A\&G Expense Allocation to Poles |  |  | 240,950 |  | 901,195 |  | 821,394 | \$ | 1,963,538 |
| Revenue Requirement |  | \$ | 4,983,062 | \$ | 18,637,541 | \$ | 16,987,185 | \$ | 40,607,787 |
| Quantity |  |  | 104,622 |  | 195,898 |  | 92,631 |  | 393,151 |
| Average Installed Cost |  | \$ | 47.63 | \$ | 95.14 | \$ | 183.39 | \$ | 103.29 |
| (1) Amount of Usable Space Occupied (in feet) |  |  | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |
| (2) Total Usable Space (per Order 251) |  |  | 13.17 |  | 13.17 |  | 13.17 |  | 13.17 |
| Space Usage Factor ((1) / (2)) |  |  | 0.0759 |  | 0.0759 |  | 0.0759 |  | 0.0759 |
| Pole Attachment Rate |  | \$ | 3.62 | \$ | 7.22 | \$ | 13.92 | \$ | 7.84 |

## Exhibit WSS-17

## Cost Support for

## Excess Facilities Rider

## Kentucky Utilities

Excess Facilities Charges

|  |  | Assuming Customer Does Not Make Contribution In Aid of Construction | Assuming Customer Makes Contribution In Aid of Construction |
| :---: | :---: | :---: | :---: |
| 1 | Present Value of Replacement Plant as a Percentage of Original Cost | 21.77 | 21.77 |
| 2 | Original Cost Value | 100 | - |
| 3 | Total Present Value of Original and Replacement Cost Value as a Percentage of Original Cost | 121.77 | 21.77 |
| 4 | Monthly Carrying Charge Percentage (Levelized Carrying Charge Rate / 12 months) | 0.00702 | 0.00702 |
| 5 | Applicable Carrying Charge Charge Percentage (Lines $3 \times 5$ ) | 0.86\% | 0.15\% |
| 6 | O\&M Percentage | 0.32\% | 0.32\% |
| 7 | Total Excess Facilities Charge | 1.17\% | 0.47\% |


| Louisville Gas and Electric Company <br> Excess Facilities Charges <br> Electric Service |
| :--- |

## Louisville Gas and Electric Company

Excess Facilities Charges
Gas Service

|  |  | Assuming Customer Does Not Make Contribution In Aid of Construction | Assuming Customer Makes Contribution In Aid of Construction |
| :---: | :---: | :---: | :---: |
| 1 | Present Value of Replacement Plant as a Percentage of Original Cost | 21.77 | 21.77 |
| 2 | Original Cost Value | 100 | - |
| 3 | Total Present Value of Original and Replacement Cost Value as a Percentage of Original Cost | 121.77 | 21.77 |
| 4 | Monthly Carrying Charge Percentage (Levelized Carrying Charge Rate / 12 months) | 0.00699 | 0.00699 |
| 5 | Applicable Carrying Charge Charge Percentage (Lines $3 \times 5$ ) | 0.85\% | 0.15\% |
| 6 | O\&M Percentage | 0.30\% | 0.30\% |
| 7 | Total Excess Facilities Charge | 1.15\% | 0.45\% |

## Exhibit WSS-18

## Change in Other Operating Revenues For Excess Facilities Rider

## Kentucky Utilities Company/Louisville Gas and Electric Company

Excess Facilities Proposed Rate Change and Revenue Impact
Case Nos. 2020-00349 and 2020-00350

|  | Installed Cost of Excess Facilities |  | Current Rate | Forecasted Test Year Revenue at Current Rate |  | $\begin{aligned} & \text { Proposed } \\ & \text { Rate } \end{aligned}$ | Forecasted Test Year Revenue at Proposed Rate |  | $\qquad$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kentucky Utilities Company |  |  |  |  |  |  |  |  |  |  |
| Excess Facilities Percentage With No Contribution-in-Aid-of-Construction | \$ | 9,865,917.88 | 1.16\% | \$ | 1,373,335.77 | 1.17\% | \$ | 1,385,174.87 | \$ | 11,839 |
| Excess Facilities Percentage With Contribution-in-Aid-of-Construction | \$ | 914,769.37 | 0.47\% | \$ | 51,592.99 | 0.47\% | \$ | 51,592.99 | \$ | (0) |
| Total -- KU |  |  |  |  |  |  |  |  | \$ | 11,839 |
| Louisville Gas and Electric Company |  |  |  |  |  |  |  |  |  |  |
| Excess Facilities Percentage With No Contribution-in-Aid-of-Construction | \$ | 4,982,340.73 | 1.22\% | \$ | 729,414.68 | 1.21\% | \$ | 723,435.87 | \$ | $(5,979)$ |
| Excess Facilities Percentage With Contribution-in-Aid-of-Construction | \$ | 1,218,457.13 | 0.52\% | \$ | 76,031.72 | 0.52\% | \$ | 76,031.72 | \$ | (0) |
| Total -- LG\&E |  |  |  |  |  |  |  |  | \$ | $(5,979)$ |

Note: No gas customers are currently taking service under the Excess Facilities Rider and none are projected for the forecasted test year.

## Exhibit WSS-19

## Cost Support for

## Miscellaneous Charges

# Exhibit WSS-19 <br> Page 1 of 18 

## Summary of Increases (Decreases) to Special Charges

Based on the 12 Months Ended July 31, 2020

$$
\begin{array}{llll}
\text { Miscellaneous Charge } & \text { Current Charge } & \text { Actual Cost } & \text { Proposed Charge } \\
\end{array}
$$

LG\&E - Electric

| Disconnect/Reconnect Charge | $\$$ | 28.00 | $\$$ | 32.22 | $\$$ | 32.00 |
| :--- | :--- | ---: | :--- | ---: | ---: | ---: |
| Returned Check Fee | $\$$ | 3.00 | $\$$ | 3.70 | $\$$ | 3.70 |
| Meter-Test Charge | $\$$ | 75.00 | $\$$ | 78.85 | $\$$ | 79.00 |
| Meter Pulse Relaying | $\$$ | 24.00 | $\$$ | 20.76 | $\$$ | 21.00 |
| UAR without meter replacement | $\$$ | 70.00 | $\$$ | 49.13 | $\$$ | 49.00 |
| UAR Charge for 1/0 Standard Meter Replacement | $\$$ | 90.00 | $\$$ | 70.16 | $\$$ | 70.00 |
| UAR Charge for 1/0 AMR Meter Replacement | $\$$ | 110.00 | $\$$ | 90.97 | $\$$ | 91.00 |
| UAR Charge for 1/0 AMS Meter Replacement | $\$$ | 174.00 | $\$$ | 153.39 | $\$$ | 153.00 |
| UAR Charge for 3/0 Standard Meter Replacement | $\$$ | 177.00 | $\$$ | 158.60 | $\$$ | 159.00 |
| AMI Opt-Out Charge -- One-Time Charge |  |  | $\$$ | 34.66 | $\$$ | 35.00 |
| AMI Opt-Out Charge -- Monthly Charge |  | $\$$ | 12.38 | $\$$ | 12.00 |  |

LG\&E - Gas

| Disconnect/Reconnect Charge | $\$$ | 28.00 | $\$$ | 32.22 | $\$$ | 32.00 |
| :--- | :--- | ---: | :--- | ---: | ---: | ---: |
| Returned Check Fee | $\$$ | 3.00 | $\$$ | 3.70 | $\$$ | 3.70 |
| Meter-Test Charge | $\$$ | 90.00 | $\$$ | 101.26 | $\$$ | 101.00 |
| Inspection Charge | $\$$ | 150.00 | $\$$ | 155.23 | $\$$ | 155.00 |
| Meter Pulse Relaying Non-FT Non-TS2 | $\$$ | 24.34 | $\$$ | 27.52 | $\$$ | 28.00 |
| Meter Pulse Relaying - FT/TS2 | 7.17 | $\$$ | 8.19 | $\$$ | 8.00 |  |
| Additional Trip Charge | $\$$ | 150.00 | $\$$ | 155.23 | $\$$ | 155.00 |
| UAR without meter replacement | $\$$ | 70.00 | $\$$ | 49.13 | $\$$ | 49.00 |
| UAR with meter replacement | $\$$ | 132.00 | $\$$ | 113.86 | $\$$ | 114.00 |
| AMI Opt-Out Charge -- One-Time Charge | $\$$ |  | $\$$ | 32.63 | $\$$ | 33.00 |
| AMI Opt-Out Charge -- Monthly Charge |  | $\$$ | 5.17 | $\$$ | 5.00 |  |

## KU

| Disconnect/Reconnect Charge | $\$$ | 28.00 | $\$$ | 37.23 | $\$$ |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Returned Check Fee | $\$$ | 3.00 | $\$$ | 3.48 | $\$$ |
| Meter-Test Charge | $\$$ | 75.00 | $\$$ | 79.49 | $\$$ |
| Meter Pulse Relaying | $\$$ | 24.00 | $\$$ | 20.87 | $\$$ |
| UAR without meter replacement | $\$$ | 70.00 | $\$$ | 44.68 | $\$$ |
| UAR Charge for 1/0 Standard Meter Replacement | $\$$ | 90.00 | $\$$ | 65.72 | $\$$ |
| UAR Charge for 1/0 AMR Meter Replacement | $\$$ | 110.00 | $\$$ | 86 |  |
| UAR Charge for 1/0 AMS Meter Replacement | $\$$ | 174.00 | $\$$ | 148.52 | $\$$ |
| UAR Charge for 3/0 Standard Meter Replacement | $\$$ | 177.00 | $\$$ | 154.15 | $\$$ |
| AMI Opt-Out Charge -- One-Time Charge |  | $\$$ | 38.00 |  |  |
| AMI Opt-Out Charge -- Monthly Charge |  | $\$$ | 14.00 |  |  |

Kentucky Utilities Company
Disconnect/Reconnect
Cost Justification

|  | Cost |  |
| :--- | :---: | ---: |
| Disconnect Service | $\$$ | 18.62 |
| Reconnect Service |  | 18.62 |
|  | $\$$ | 37.23 |

Louisville Gas and Electric Company
Disconnect/Reconnect
Cost Justification

|  | Cost |  |
| :--- | :---: | ---: |
| Disconnect Service | $\$$ | 16.11 |
| Reconnect Service | 16.11 |  |
|  | $\$$ | 32.22 |

Kentucky Utilities Company
Electric Meter Test
Cost Justification

|  | Cost |  |
| :--- | ---: | ---: |
| Labor - One Hour | $\$$ | 74.16 |
| Vehicle - 2/3 Hour |  | 5.32 |
|  | $\$ 9.49$ |  |

Louisville Gas and Electric Company
Electric Meter Test
Cost Justification

|  | Cost |  |
| :--- | ---: | ---: |
| Labor - One Hour | $\$$ | 73.53 |
| Vehicle - 2/3 Hour |  | 5.32 |
|  | $\$ 8.85$ |  |

## Louisville Gas and Electric Company

Gas Meter Test
Cost Justification

|  | Cost |  |
| :--- | :---: | ---: |
| Labor - One and one third hour | $\$$ | 56.38 |
| Meter Test - One hour |  | 44.88 |
|  | $\$ 8102$ |  |

Louisville Gas and Electric Company Gas Inspection Charge/Additional Trip Charge

Cost Justification

|  | Cost |  |
| :--- | ---: | ---: |
| Labor | $\$$ | 146.92 |
| Transportation | 8.32 |  |
|  | $\$$ | 155.23 |

## Louisville Gas and Electric Company <br> Returned Check/ACH <br> Cost Justification

## LG\&E Returned Check/ACH Costs

|  | Returns | Cost | Average |  |
| :---: | :---: | :---: | :---: | :---: |
| US Bank/MUFG | 15,484 | \$ 44,767 | \$ | 3.01 |
| Labor (incl. burdens) | 65 hours $\times \$ 31.55$ (straight time labor with burdens) / total LGE/KU returns |  |  | 0.06 |
| Postage/Material | \$. 47 postage, plus \$. 09 letterhead \& \$. 05 envelope |  |  | 0.63 |
| Total Per Item Cost a | July 31, 2020 |  | \$ | 3.70 |

Kentucky Utilities Company<br>Returned Check/ACH<br>Cost Justification

KU Returned Check/ACH Costs


## Louisville Gas and Electric Company

Meter Pulse - ELECTRIC
Cost Justification

|  | Cost |
| :--- | ---: |
| Equipment Installed Costs: |  |
| Pulse Relay | 57.84 |
| Pulse Initiator Board | 157.76 |
| Relay Enclosure | 89.40 |
| 5 Hours Labor (loaded) | 364.46 |
| Vehicle 2 hours | 12.92 |
| Total Cost at July 31, 2020 | 682.38 |

Charge per pulse per meter per month (5 Year Contract including carrying costs)

## Louisville Gas and Electric Company

Meter Pulse - GAS
Cost Justification

|  | Cost |
| :--- | ---: |
| Non-FT and Non-TS-2 customer without telemetry |  |
| Equipment Installed Costs: |  |
| Equipment Costs | 670.01 |
| 3 Hours Labor (loaded) | 211.50 |
| Vehicle | 22.04 |
| Total Cost at July 31, 2020 | 903.55 |

Charge per pulse per meter per month (5 Year Contract
including carrying costs $\$ 27.52$

FT and TS-2 customer with telemetry
AMI Opt-Out Charge -- One-Time Charge
AMI Opt-Out Charge -- Monthly Charge
Equipment Installed Costs:
Equipment Costs
3 Hours Labor (loaded) 241.40
Vehicle
Total Cost at April 30, $2018 \quad 268.94$
27.54

Charge per pulse per meter per month (5 Year Contract including carrying costs)
\$ 8.19

Kentucky Utilities Company
Meter Pulse
Cost Justification

|  | Cost |
| :--- | ---: |
| Equipment Installed Costs: |  |
| Pulse Relay | 157.85 |
| Pulse Initiator Board | 89.47 |
| Relay Enclosure | 367.64 |
| 5 Hours Labor (loaded) | 15.83 |
| Vehicle 2 hours | 688.49 |

Charge per pulse per meter per month (5 Year Contract including carrying costs)
\$ 20.87

## Louisville Gas and Electric Company <br> Electric Unauthorized Meter Reconnect Charge <br> Cost Justification

Field Services - (1/4 hour)
Transportation - (1/4 hour)
Back Office Admin Labor - (1/2 hour)
Lock Costs
Total Charge without meter replacement at July 31, 2020

| Cost |  |
| :--- | ---: |
| $\$$ | 15.57 |
| $\$$ | 1.57 |
| $\$$ | 20.37 |
| $\$$ | 11.62 |
| $\$$ | 49.13 |

Total Charge if meter replacement necessary:
UAR Charge for $1 / 0$ Standard Meter Replacement
Charge without meter replacement

| $\$$ | 49.07 |
| :--- | :--- |
| $\$$ | 21.09 |
| $\$$ | 70.16 |

UAR Charge for 1/0 AMR Meter Replacement
Charge without meter replacement

| $\$$ | 48.92 |
| :--- | :--- |
| $\$$ | 42.06 |
| $\$$ | 90.97 |

UAR Charge for 1/0 AMS Meter Replacement
Charge without meter replacement

UAR Charge for $3 / 0$ Standard Meter Replacement
Charge without meter replacement


Labor and transportation costs to inspect and lock service, perform back office requirements and meter replacement if necessary.

# Exhibit WSS-19 <br> Page 14 of 18 

Louisville Gas and Electric Company
Gas Unauthorized Meter Reconnect Charge
Cost Justification

|  | Cost |  |
| :---: | :---: | :---: |
| Field Services - (1/4 hour) | \$ | 15.57 |
| Transportation - (1/4 hour) | \$ | 1.57 |
| Back Office Admin Labor - (1/2 hour) | \$ | 20.37 |
| Lock Costs | \$ | 11.62 |
| Total Charge without meter replacement at July 31, 2020 | \$ | 49.13 |
| Total Charge if meter replacement necessary: |  |  |
| UAR Charge for Standard Meter Replacement |  |  |
| Charge without meter replacement | \$ | 48.81 |
| Charge for Standard Meter Replacement | \$ | 65.05 |
|  | \$ | 113.86 |

Labor and transportation costs to inspect and lock service, perform back office requirements and meter replacement if necessary.

# Exhibit WSS-19 <br> Page 15 of 18 

Kentucky Utilities Company<br>Electric Unauthorized Meter Reconnect Charge

Cost Justification

Field Services - (1/4 hour)

| Cost |  |
| :--- | ---: |
| $\$$ | 11.14 |
| $\$$ | 1.57 |
| $\$$ | 20.36 |
| $\$$ | 11.61 |
| $\$$ | 44.68 |

Total Charge if meter replacement necessary:
UAR Charge for 1/0 Standard Meter Replacement
Charge without meter replacement

| $\$$ | 44.63 |
| :--- | :--- |
| $\$$ | 21.09 |
| $\$$ | 65.72 |

UAR Charge for 1/0 AMR Meter Replacement
Charge without meter replacement

| $\$$ | 44.49 |
| :--- | :--- |
| $\$$ | 42.04 |
| $\$$ | 86.52 |

UAR Charge for 1/0 AMS Meter Replacement
Charge without meter replacement


UAR Charge for 3/0 Standard Meter Replacement
Charge without meter replacement


Labor and transportation costs to inspect and lock service, perform back office requirements and meter replacement if necessary.

## LG\&E -- Electric AMI Opt-Out Charge

## One-Time Fee

4. Meter Readers \$ 59,591
5. Field Services \$ 47,136
6. Enrollment $\quad \$ \quad 12,267$
7. One-Time Fee $\quad \$ 118,995$
8. One-Time Fee costs divided by All Opt-Out Contracts \$ 34.66

## One-Time and Recurring Capital Costs

## 15 Year Life

9. Mesh Network \$ 22,281
10. Enrollment, Billing and Reporting \$ 65,174
11. One-Time and Recurring Capital Costs to be recovered \$

| 12. One-Time and Recurring Capital Costs divided by All Opt-Out Contracts | $\$$ | 25.47 |
| :--- | :--- | :--- |
| 13. Monthly Levelized Revenue Requirement Recovery of One-Time and Recurring Capital per Customer ${ }^{1}$ | $\$$ | 0.43 |

## Annual Recurring Costs

| 14. Meter Readers | \$ | 487,965 |
| :---: | :---: | :---: |
| 15. Field Services | \$ | 4,055 |
| 16. Mesh Network | \$ | 326 |
| 17. Annual Recovery of on-going Costs | \$ | 492,346 |
| 18. Monthly Recovery of Recurring Costs per Contract | \$ | 11.95 |
| 19. Total Monthly Fee ( $13+18$ ) | \$ | 12.38 |

## LG\&E -- Gas AMI Opt-Out Charge

| One-Time Fee |  |  |
| :---: | :---: | :---: |
| 4. Meter Readers | \$ | 45,652 |
| 5. Field Services | \$ | 30,776 |
| 6. Enrollment | \$ | 9,398 |
| 7. One-Time Fee | \$ | 85,827 |
| 8. One-Time Fee costs divided by All Opt-Out Contracts | \$ | 32.63 |
| One-Time and Recurring Capital Costs |  |  |
| 15 Year Life |  |  |
| 9. Mesh Network | \$ | 17,065 |
| 10. Enrollment, Billing and Reporting | \$ | 49,915 |
| 11. One-Time and Recurring Capital Costs to be recovered | \$ | 66,980 |
| 12. One-Time and Recurring Capital Costs divided by All Opt-Out Contracts | \$ | 25.47 |
| 13. Monthly Levelized Revenue Requirement Recovery of One-Time and Recurring Capital per Customer ${ }^{1}$ | \$ | 0.43 |
| Annual Recurring Costs |  |  |
| 14. Meter Readers | \$ | 146,300 |
| 15. Field Services | \$ | 3,107 |
| 16. Mesh Network | \$ | 250 |
| 17. Annual Recovery of on-going Costs | \$ | 149,657 |
| 18. Monthly Recovery of Recurring Costs per Contract | \$ | 4.74 |
| 19. Total Monthly Fee ( $13+18$ ) | \$ | 5.17 |

## Kentucky Utilities -- AMI Opt Out Charges

| One-Time Fee |  |  |  |
| :--- | :--- | ---: | ---: |
| 4. | Meter Readers | $\$$ | 74,555 |
| 5. | Field Services | 74,938 |  |
| 6. | Enrollment | $\$$ | 15,176 |
| 7. | One-Time Fee | $\$$ | $\$ 4670$ |
| 8. One-Time Fee costs divided by All Opt-Out Contracts | $\$$ | 38.77 |  |


| One-Time and Recurring Capital Costs |  |  |
| :---: | :---: | :---: |
| 9. Mesh Network | \$ | 27,561 |
| 10. Enrollment, Billing and Reporting | \$ | 80,618 |
| 11. One-Time and Recurring Capital Costs to be recovered | \$ | 108,179 |
| 12. One-Time and Recurring Capital Costs divided by All Opt-Out Contracts | \$ | 25.47 |
| 13. Monthly Levelized Revenue Requirement Recovery of One-Time and Recurring Capital per Customer ${ }^{1}$ | \$ | 0.43 |
| Annual Recurring Costs |  |  |
| 14. Meter Readers | \$ | 722,834 |
| 15. Field Services | \$ | 12,907 |
| 16. Mesh Network | \$ | 403 |
| 17. Annual Recovery of on-going Costs | \$ | 736,144 |
| 18. Monthly Recovery of Recurring Costs per Contract | \$ | 14.44 |
| 19. Total Monthly Fee (13+18) | \$ | 14.87 |

## Exhibit WSS-20

## Change in Other Operating Revenues For Other Miscellaneous Charges

Summary of Increases (Decreases) to Miscellaneous Charges - Current vs. Proposed Based on the 12 Months Ended July 31, 2020

| Miscellaneous Charge | LG\&E - Electric |  | LG\&E - Gas |  | KU |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Disconnect/Reconnect Charge | \$ | 139,956 | \$ | 10,804 | \$ | 384,759 |
| Returned Check Fee* | \$ | 8,457 | \$ | 2,382 | \$ | 10,021 |
| Meter-Test Charge | \$ | 76 | \$ | - | \$ | 168 |
| Meter Pulse Relaying | \$ | $(3,525)$ |  |  | \$ | $(4,122)$ |
| Meter Pulse Relaying Non-FT Non-TS2 |  |  | \$ | 706 |  |  |
| Meter Pulse Relaying - FT/TS2 |  |  | \$ | 46 |  |  |
| Third-Trip Inspection Charge |  |  | \$ | - |  |  |
| Additional Trip Charge |  |  | \$ | - |  |  |
| Unauthorized Reconnect Charge | \$ | $(55,505)$ | \$ | $(4,977)$ | \$ | $(18,399)$ |
| Total | \$ | 89,459 | \$ | 8,962 | \$ | 372,426 |

## Exhibit WSS-21

## LOLP Analysis for Electric Cost of Service Study

## Kentucky Utilities Company

LOLP Fixed Production Cost Allocation Factor
For the 12 Months Ended June 30, 2022

| Rate Class | Weighted LOLP |
| :--- | ---: |
|  | $\sum_{i=1}^{8760} L O L P_{i} * \overline{L O A D}{ }_{i}$ |
|  |  |
| Residential | $1,011,037$ |
| General Service | 272,317 |
| All Electric Schools | 17,474 |
| TOD Secondary | 244,227 |
| TOD Primary | 447,085 |
| PS Secondary | 253,947 |
| PS Primary | 11,033 |
| RTS | 145,533 |
| Outdoor Sports Lighting | 30 |
| EV_Charge | 2 |
| Ind. Service Trans. | 60,265 |
| Unmetered Lighting | 393 |
| Traffic Energy Service | 234 |
| Lighting Energy Service | 14 |

## Louisville Gas \& Electric Company

LOLP Fixed Production Cost Allocation Factor
For the 12 Months Ended June 30, 2022

| Rate Class | Weighted LOLP |
| :--- | ---: |
|  | $\sum_{i=1}^{8784} L O L P_{i} * \overline{L O A D}{ }_{i}$ |
|  |  |
| Residential | 902,573 |
| General Service | 213,017 |
| TOD Secondary | 186,383 |
| TOD Primary | 226,687 |
| PS Secondary | 238,519 |
| PS Primary | 14,423 |
| RTS | 103,765 |
| Spec Contr \#1(LWC) | 5,705 |
| Outdoor School Lighting | 1 |
| EV_Charge | 3 |
| Unmetered Lighting | 317 |
| Traffic Energy Svc | 307 |
| Lighting Energy Svc | 11 |
| Total |  |
|  |  |

## Exhibit WSS-22

## Comparison of LOLP

Class Rates of Return with 12-CP and 6-CP Methodologies

|  | Kentucky Utilities Company |  |  |
| :--- | ---: | ---: | ---: |
|  | LOLP Current <br> Rate of Return <br> on Rate Base | 12CP Current <br> Rate of Return <br> on Rate Base | 6 CP Current <br> Rate of Return <br> on Rate Base |
| Rate Class |  |  |  |
|  | $2.67 \%$ | $2.52 \%$ | $2.14 \%$ |
| Residential Rate RS | $11.05 \%$ | $11.32 \%$ | $11.21 \%$ |
| General Service Rate GS | $5.89 \%$ | $3.17 \%$ | $3.68 \%$ |
| All Electric Schools Rate AES | $10.28 \%$ | $10.07 \%$ | $10.41 \%$ |
| Power Service Rate PS | $3.95 \%$ | $3.93 \%$ | $4.68 \%$ |
| Time of Day Secondary Rate TODS | $3.20 \%$ | $3.78 \%$ | $4.26 \%$ |
| Time of Day Primary Rate TODP | $3.53 \%$ | $3.54 \%$ | $4.65 \%$ |
| Retail Transmission Service Rate RTS | $2.75 \%$ | $4.98 \%$ | $5.40 \%$ |
| Fluctuating Load Service Rate FLS | $12.32 \%$ | $10.41 \%$ | $10.54 \%$ |
| Lighting Rate LS \& RLS | $28.05 \%$ | $9.27 \%$ | $10.03 \%$ |
| Lighting Rate LE | $12.39 \%$ | $12.34 \%$ | $13.18 \%$ |
| Lighting Rate TE | $30.32 \%$ | $30.27 \%$ | $30.28 \%$ |
| Outdoor Sports Lighting Rate OSL | $-27.00 \%$ | $-27.07 \%$ | $-27.07 \%$ |
| Electric Vehicle Charging Rate EV | $-1.31 \%$ | $-1.31 \%$ | $-1.31 \%$ |
| Solar Share Rate SSP | $4.80 \%$ | $4.80 \%$ | $4.80 \%$ |
| Business Solar Rate BS |  |  |  |


|  | Louisville Gas and Electric Company |  |  |
| :--- | ---: | ---: | ---: |
|  | LOLP Current <br> Rate of Return <br> on Rate Base | 12CP Current <br> Rate of Return <br> on Rate Base | 6 CP Current <br> Rate of Return <br> on Rate Base |
| Rate Class |  |  |  |
|  | $0.60 \%$ | $1.75 \%$ | $1.33 \%$ |
| Residential Rate RS | $10.96 \%$ | $9.98 \%$ | $9.67 \%$ |
| General Service Rate GS | $10.53 \%$ | $8.68 \%$ | $9.13 \%$ |
| Power Service Rate PS | $6.45 \%$ | $5.04 \%$ | $6.02 \%$ |
| TOD Rate TOD Primary | $5.33 \%$ | $3.96 \%$ | $4.44 \%$ |
| TOD Rate TOD Secondary | $7.23 \%$ | $3.75 \%$ | $5.76 \%$ |
| Retail Transmission Service Rate RTS | $5.52 \%$ | $2.44 \%$ | $3.29 \%$ |
| Special Contract Customer | $9.74 \%$ | $7.79 \%$ | $8.02 \%$ |
| Lighting Rate RLS \& LS | $31.88 \%$ | $8.24 \%$ | $9.82 \%$ |
| Lighting Rate LE | $15.01 \%$ | $11.82 \%$ | $13.90 \%$ |
| Lighting Rate TE | $89.10 \%$ | $92.28 \%$ | $9.63 \%$ |
| Outdoor Sports Lighting OSL | $-27.07 \%$ | $-27.08 \%$ | $-27.10 \%$ |
| Electric Vehicle Charging EVC | $3.60 \%$ | $3.60 \%$ | $3.60 \%$ |
| Solar Share SS | $-4.38 \%$ | $-4.38 \%$ | $-4.38 \%$ |

## Exhibit WSS-23

## Zero Intercept Analysis

For
Overhead Conductor
(Kentucky Utilities)

Zero Intercept Analysis Account 365 -- Overhead Conductor

July 31, 2020

## Weighted Linear Regression Statistics

|  | Estimate | Standard Error |
| :---: | :---: | :---: |
| Size Coefficient (\$ per MCM) | 0.0041724 | 0.0008336 |
| Zero Intercept (\$ per Unit) | 1.3801706 | 0.2486132 |
| R-Square | 0.8225292 |  |
| Plant Classification |  |  |
| Total Number of Units |  | 99,629,647 |
| Zero Intercept |  | 1.3801706 |
| Zero Intercept Cost |  | 137,505,908 |
| Total Cost of Sample |  | 214,874,064 |
| Percentage of Total |  | 0.639937206 |
| Percentage Classified as Customer-Related |  | 63.99\% |
| Percentage Classified as Demand-Related |  | 36.01\% |

Zero Intercept Analysis Account 365 -- Overhead Conductor

July 31, 2020

| Description | Size |  | Cost | Quantity |
| :--- | ---: | ---: | ---: | ---: |
| \#2 Triplex | 66.369 | $15,319,819.64$ | $9,502,231.00$ | 1.612234 |
| \#4 Aluminum Poly | 41.74 | $128,346.24$ | $27,617.00$ | 4.6473636 |
| \#2 ACSR | 66.36 | $1,404,030.05$ | $183,400.00$ | 7.6555619 |
| 1/0 CONDUCTOR | 105.6 | $4,279,000.42$ | $692,306.00$ | 6.1807935 |
| 1/0 Triplex | 105.6 | $134,027.21$ | $22,210.00$ | 6.0345434 |
| 1/0 Aluminum | 105.6 | $117,488.54$ | $24,884.00$ | 4.7214491 |
| 123,270 ACAR WIRE | 123.27 | $17,139,725.02$ | $9,362,717.00$ | 1.8306358 |
| 195,700 ACAR WIRE | 195.7 | $2,630,925.27$ | $1,873,176.00$ | 1.4045265 |
| 2/0 COPPER CONDUCTOR | 133.1 | $1,346,236.36$ | $532,633.00$ | 2.5275121 |
| 20 M.A.W. MESSENGER WIRE | 20 | $2,855,091.75$ | $1,333,578.00$ | 2.140926 |
| 336,400 19 STR. ALL ALUMINUM | 336.4 | $9,462,230.02$ | $5,646,839.00$ | 1.6756685 |
| 350 MCM COPPER CONDUCTOR | 350 | $2,293,985.20$ | $85,617.00$ | 26.793571 |
| 392,500 24/13 ACAR WIRE | 392.5 | $1,018,369.50$ | $863,538.00$ | 1.179299 |
| 4 COPPER CONDUCTOR | 41.74 | $20,512,898.86$ | $11,855,843.00$ | 1.7301932 |
| 4A COPPER CONDUCTOR | 41.74 | $425,395.34$ | $76,077.00$ | 5.5916419 |
| 6 COPPER CONDUCTOR | 26.25 | $11,935,258.01$ | $15,247,078.00$ | 0.7827899 |
| 6A COPPER CONDUCTOR | 26.25 | $751,476.51$ | $101,690.00$ | 7.3898762 |
| 750 MCM COPPER CONDUCTOR | 750 | $853,486.08$ | $26,479.00$ | 32.232565 |
| 795 MCM ALUMINUM CONDUCTOR | 795 | $52,092,231.22$ | $10,827,908.00$ | 4.810923 |
| 8 COPPER CONDUCTOR | 16.51 | $714,478.51$ | $356,910.00$ | 2.001845 |
| 840,200 24/13 ACAR WIRE | 840.2 | $625,715.08$ | $212,797.00$ | 2.9404319 |
| 1/0 CABLE | 105.6 | $46,299,775.20$ | $21,978,822.00$ | 2.1065631 |
| 101 MCM ACSR CONDUCTOR | 101 | $1,181.18$ | 250.00 | 4.72472 |
| 1272 MCM ACSR CONDUCTOR | 1272 | $79,529.08$ | $30,823.00$ | 2.5801862 |
| 200 MCM CABLE | 200 | $3,238.76$ | 500.00 | 6.47752 |
| 3/0 CONDUCTOR | 167.8 | $6,205,860.32$ | $2,056,133.00$ | 3.0182193 |
| 300 MCM COPPER CONDUCTOR | 300 | $3,564.60$ | 260.00 | 13.71 |
| 4/0 CONDUCTOR | 211.6 | $15,519,658.14$ | $6,550,826.00$ | 2.3691147 |
| 520 MCM CONDUCTOR | 620 | 112.00 | 6.1450893 |  |
| 600 MCM CONDUCTOR | 600 | $105,914.25$ | 16 | $16,060.00$ |
| 636 MCM ALUMINUM CONDUCTOR | 636 | $21,911.09$ | $3,040.00$ | 7.2075954 |
| 7/C CONDUCTOR | 20.92 | $18,059.98$ | $4,050.00$ | 4.4592543 |
| 80 MCM ACSR CONDUCTOR | 80 | $20,945.38$ | $11,500.00$ | 1.8213374 |
| 954 MCM ACSR CONDUCTOR | 954 | $553,522.85$ | $121,743.00$ | 4.5466503 |

Zero Intercept Analysis Account 365 -- Overhead Conductor

July 31, 2020

| n | y | $\mathbf{x}$ | est y | $y^{*} n^{\wedge} .5$ | $\mathrm{n}^{\wedge} .5$ | xn^. 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9,502,231 | 1.61223 | 66.37 | 1.657 | 4969.822299 | 3,082.57 | 204587 |
| 27,617 | 4.64736 | 41.74 | 1.554 | 772.3157654 | 166.18 | 6936.505 |
| 183,400 | 7.65556 | 66.36 | 1.657 | 3278.511696 | 428.25 | 28418.82 |
| 692,306 | 6.18079 | 105.60 | 1.821 | 5142.72476 | 832.05 | 87864.4 |
| 22,210 | 6.03454 | 105.60 | 1.821 | 899.3292067 | 149.03 | 15737.59 |
| 24,884 | 4.72145 | 105.60 | 1.821 | 744.7926988 | 157.75 | 16658.04 |
| 9,362,717 | 1.83064 | 123.27 | 1.895 | 5601.481447 | 3,059.86 | 377188.4 |
| 1,873,176 | 1.40453 | 195.70 | 2.197 | 1922.291387 | 1,368.64 | 267842.9 |
| 532,633 | 2.52751 | 133.10 | 1.936 | 1844.621562 | 729.82 | 97138.66 |
| 1,333,578 | 2.14093 | 20.00 | 1.464 | 2472.355157 | 1,154.81 | 23096.13 |
| 5,646,839 | 1.67567 | 336.40 | 2.784 | 3981.90412 | 2,376.31 | 799390 |
| 85,617 | 26.79357 | 350.00 | 2.841 | 7839.901541 | 292.60 | 102411.3 |
| 863,538 | 1.17930 | 392.50 | 3.018 | 1095.884179 | 929.27 | 364737.5 |
| 11,855,843 | 1.73019 | 41.74 | 1.554 | 5957.455664 | 3,443.23 | 143720.5 |
| 76,077 | 5.59164 | 41.74 | 1.554 | 1542.289987 | 275.82 | 11512.75 |
| 15,247,078 | 0.78279 | 26.25 | 1.490 | 3056.59924 | 3,904.75 | 102499.7 |
| 101,690 | 7.38988 | 26.25 | 1.490 | 2356.547978 | 318.89 | 8370.828 |
| 26,479 | 32.23256 | 750.00 | 4.509 | 5245.001932 | 162.72 | 122042.8 |
| 10,827,908 | 4.81092 | 795.00 | 4.697 | 15830.72049 | 3,290.58 | 2616010 |
| 356,910 | 2.00185 | 16.51 | 1.449 | 1195.941159 | 597.42 | 9863.395 |
| 212,797 | 2.94043 | 840.20 | 4.886 | 1356.419021 | 461.30 | 387583.6 |
| 21,978,822 | 2.10656 | 105.60 | 1.821 | 9875.899834 | 4,688.16 | 495069.4 |
| 250 | 4.72472 | 101.00 | 1.802 | 74.70438253 | 15.81 | 1596.95 |
| 30,823 | 2.58019 | 1,272.00 | 6.687 | 452.9898858 | 175.56 | 223318.4 |
| 500 | 6.47752 | 200.00 | 2.215 | 144.8417505 | 22.36 | 4472.136 |
| 2,056,133 | 3.01822 | 167.80 | 2.080 | 4327.891801 | 1,433.92 | 240612.2 |
| 260 | 13.71000 | 300.00 | 2.632 | 221.0671075 | 16.12 | 4837.355 |
| 6,550,826 | 2.36911 | 211.60 | 2.263 | 6063.649904 | 2,559.46 | 541581.3 |
| 112 | 6.14509 | 520.00 | 3.550 | 65.03351214 | 10.58 | 5503.163 |
| 16,060 | 6.59494 | 600.00 | 3.884 | 835.7640283 | 126.73 | 76036.83 |
| 3,040 | 7.20760 | 636.00 | 4.034 | 397.3993852 | 55.14 | 35066.62 |
| 4,050 | 4.45925 | 20.92 | 1.467 | 283.7852072 | 63.64 | 1331.341 |
| 11,500 | 1.82134 | 80.00 | 1.714 | 195.3166756 | 107.24 | 8579.044 |
| 121,743 | 4.54665 | 954.00 | 5.361 | 1586.403115 | 348.92 | 332866.7 |

## Kentucky Utilities Company

Pri/Sec Splits for Overhead Conductor

## Customer Demand

| Overhead |  | $63.99 \%$ | $36.01 \%$ |
| :--- | :--- | :--- | :--- |
| Primary | $70.54 \%$ | 0.4514 | 0.2540 |
| Secondary | $29.46 \%$ | 0.1885 | 0.1061 |

## Exhibit WSS-24

## Zero Intercept Analysis

For
Underground Conductor
(Kentucky Utilities)

Zero Intercept Analysis

## Account 367 -- Underground Conductor

July 31, 2020

Weighted Linear Regression Statistics

|  |  | Estimate | Standard Error | T-Statistic |
| :---: | :---: | :---: | :---: | :---: |
| Size Coefficient (\$ per MCM) |  | 0.0135482 | 0.0034047 | 3.9792049 |
| Zero Intercept (\$ per Unit) |  | 4.6531902 | 0.5775615 | 8.0566138 |
| R-Square |  | 0.8987417 |  |  |
| Plant Classification |  |  |  |  |
| Total Number of Units |  | 29,539,252 |  |  |
| Zero Intercept |  | 4.6531902 |  |  |
| Zero Intercept Cost | \$ | 137,451,759 |  |  |
| Total Cost of Sample | \$ | 183,565,083 |  |  |
| Percentage of Total |  | 0.748790328 |  |  |
| Percentage Classified as Customer-Related |  | 74.88\% |  |  |
| Percentage Classified as Demand-Related |  | 25.12\% |  |  |

Zero Intercept Analysis Account 367 -- Underground Conductor

July 31, 2020

| Description | Size | Cost | Quantity | Avg Cost |
| :--- | ---: | ---: | ---: | ---: |
| \#12 CABLE | 13.12 | $170,319.13$ | 77,929 | 2.185568017 |
| \#2 Triplex | 66.36 | $88,747,142.22$ | $15,945,949$ | 5.565497683 |
| \#2 ACSR | 66.36 | $1,564,961.37$ | 157,316 | 9.947884322 |
| 1/0 CABLE | 105.6 | $13,237,152.96$ | 949,513 | 13.94099181 |
| 1/0 CONDUCTOR | 105.6 | $4,096,996.41$ | 206,882 | 19.80354216 |
| 1/0 Triplex | 105.6 | $518,357.22$ | 22,986 | 22.55099713 |
| 1000 MCM CONDUCTOR | 1000 | $6,480,812.47$ | 364,678 | 17.77132832 |
| 1500 MCM UGAL CABLE | 1500 | $44,861.19$ | 4,026 | 11.14286885 |
| 2/0 COPPER CONDUCTOR | 133.1 | $35,657,910.66$ | $6,421,560$ | 5.552842403 |
| 20 M.A.W. MESSENGER WIRE | 20 | $1,880.60$ | 2,834 | 0.663585039 |
| 200 MCM CABLE | 200 | $44,255.13$ | 5,194 | 8.520433192 |
| 2000 MCM 1/C 1000V CABLE | 2000 | 501.81 | 578 | 0.868183391 |
| 266 MCM ACSR CONDUCTOR | 266 | $7,717.86$ | 400 | 19.29465 |
| 3/0 CONDUCTOR | 167.8 | $994,247.11$ | 224,357 | 4.431540402 |
| 300 MCM COPPER CONDUCTOR | 300 | $8,963.91$ | 126 | 71.14214286 |
| 350 MCM COPPER CONDUCTOR | 350 | $4,484,214.59$ | 431,382 | 10.39499699 |
| 397 MCM ACSR CONDUCTOR | 397 | $736,737.37$ | 77,390 | 9.51980062 |
| 4 COPPER CONDUCTOR | 41.74 | $361,501.33$ | 44,452 | 8.132397417 |
| 4/0 CONDUCTOR | 211.6 | $22,155,450.85$ | $2,874,908$ | 7.706490382 |
| 4A COPPER CONDUCTOR | 41.74 | $9,810.69$ | 4,140 | 2.369731884 |
| 500 MCM COPPER CONDUCTOR | 500 | $724,136.77$ | 68,224 | 10.61410603 |
| 520 MCM CONDUCTOR | 520 | 751.53 | 75 | 6.0204 |
| 6 COPPER CONDUCTOR | 26.25 | $1,814,646.22$ | $1,251,654$ | 1.449798602 |
| 600 MCM CONDUCTOR | 600 | $76,600.45$ | 3,983 | 19.23184785 |
| 6A COPPER CONDUCTOR | 26.25 | $337,831.10$ | 299328 | 1.128631802 |
| 750 MCM COPPER CONDUCTOR | 750 | $1,248,122.15$ | 96109 | 12.98652728 |
| 795 MCM ALUMINUM CONDUCTOR | 795 | $38,247.86$ | 2606 | 14.67684574 |
| 8 COPPER CONDUCTOR | 795 | $1,252.12$ | 673 | 1.860505201 |

Zero Intercept Analysis Account 367 -- Underground Conductor

July 31, 2020

| n | y | $\mathbf{x}$ | est y | $\mathrm{y}^{*} \mathrm{n}^{\wedge} .5$ | n^. 5 | xn^. 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 77,929 | 2.18557 | 13.12 | 4.831 | 610.1180568 | 279.16 | 3662.548519 |
| 15,945,949 | 5.56550 | 66.36 | 5.552 | 22224.35633 | 3,993.24 | 264991.2677 |
| 157,316 | 9.94788 | 66.36 | 5.552 | 3945.637423 | 396.63 | 26320.4206 |
| 949,513 | 13.94099 | 105.60 | 6.084 | 13584.51475 | 974.43 | 102899.7633 |
| 206,882 | 19.80354 | 105.60 | 6.084 | 9007.499162 | 454.84 | 48031.40285 |
| 22,986 | 22.55100 | 105.60 | 6.084 | 3418.987011 | 151.61 | 16010.15806 |
| 364,678 | 17.77133 | 1,000.00 | 18.201 | 10731.85195 | 603.89 | 603885.7508 |
| 4,026 | 11.14287 | 1,500.00 | 24.975 | 707.0235899 | 63.45 | 95176.15248 |
| 6,421,560 | 5.55284 | 133.10 | 6.456 | 14071.34529 | 2,534.08 | 337286.01 |
| 2,834 | 0.66359 | 20.00 | 4.924 | 35.32616628 | 53.24 | 1064.706532 |
| 5,194 | 8.52043 | 200.00 | 7.363 | 614.0626015 | 72.07 | 14413.8822 |
| 578 | 0.86818 | 2,000.00 | 31.750 | 20.87254435 | 24.04 | 48083.26112 |
| 400 | 19.29465 | 266.00 | 8.257 | 385.893 | 20.00 | 5320 |
| 224,357 | 4.43154 | 167.80 | 6.927 | 2099.058417 | 473.66 | 79480.7156 |
| 126 | 71.14214 | 300.00 | 8.718 | 798.568573 | 11.22 | 3367.491648 |
| 431,382 | 10.39500 | 350.00 | 9.395 | 6827.400468 | 656.80 | 229878.8703 |
| 77,390 | 9.51980 | 397.00 | 10.032 | 2648.318877 | 278.19 | 110441.6611 |
| 44,452 | 8.13240 | 41.74 | 5.219 | 1714.605635 | 210.84 | 8800.312567 |
| 2,874,908 | 7.70649 | 211.60 | 7.520 | 13066.78112 | 1,695.56 | 358779.5155 |
| 4,140 | 2.36973 | 41.74 | 5.219 | 152.47526 | 64.34 | 2685.669798 |
| 68,224 | 10.61411 | 500.00 | 11.427 | 2772.375238 | 261.20 | 130598.6217 |
| 75 | 6.02040 | 520.00 | 11.698 | 52.13819341 | 8.66 | 4503.3321 |
| 1,251,654 | 1.44980 | 26.25 | 5.009 | 1621.996163 | 1,118.77 | 29367.80268 |
| 3,983 | 19.23185 | 600.00 | 12.782 | 1213.741406 | 63.11 | 37866.60798 |
| 299,328 | 1.12863 | 26.25 | 5.009 | 617.4843505 | 547.11 | 14361.60506 |
| 96,109 | 12.98653 | 750.00 | 14.814 | 4026.011965 | 310.01 | 232510.8868 |
| 2,606 | 14.67685 | 795.00 | 15.424 | 749.2382406 | 51.05 | 40583.95188 |
| 673 | 1.86051 | 795.00 | 15.424 | 48.26567903 | 25.94 | 20624.08362 |

## Kentucky Utilities Company

Pri/Sec Splits for Underground Conductor

|  |  | Customer | Demand |
| :--- | ---: | ---: | ---: |
| Underground |  | $74.88 \%$ | $25.12 \%$ |
| Primary | $60.51 \%$ | 0.4531 | 0.1520 |
| Secondary | $39.49 \%$ | 0.2957 | 0.0992 |

## Exhibit WSS-25

## Zero Intercept Analysis

For

## Line Transformers

(Kentucky Utilities)

# Zero Intercept Analysis 

 Account 368 - Line TransformersJuly 31, 2020

## Weighted Linear Regression Statistics

|  |  | Standard <br> Error |  |  | T-Statistic |
| :--- | ---: | ---: | ---: | :---: | :---: |
|  | Estimate |  |  |  |  |
| Size Coefficient (\$ per kVA) |  |  |  |  |  |
| Zero Intercept (\$ per Unit) | 11.7345763 | 0.4657978 | 25.19242516 |  |  |
| R-Square | 461.59 | 63.5020377 | 7.268833323 |  |  |

## Plant Classification

Total Number of Units

Zero Intercept

Zero Intercept Cost

Total Cost of Sample
Percentage of Total
Percentage Classified as Customer-Related
Percentage Classified as Demand-Related

249,063
\$ 461.59
\$ 114,963,926
\$ 253,336,808
0.453798748
45.38\%
$54.62 \%$

# Zero Intercept Analysis Account 368 - Line Transformers 

July 31, 2020

| Description | Size | Cost | Quantity | Avg Cost |
| :---: | :---: | :---: | :---: | :---: |
| TRANSFORMERS - OH 1 P - .6 KVA | 0.6 | 473.46 | 1 | 473.46 |
| TRANSFORMERS - OH 1P-1 KVA | 1 | 14547.14 | 34 | 427.86 |
| TRANSFORMERS - OH $1 \mathrm{P}-1.5 \mathrm{KVA}$ | 1.5 | 111.09 | 1 | 111.09 |
| TRANSFORMERS - OH 1P-10 KVA | 10 | 7656216.94 | 20187 | 379.26 |
| TRANSFORMERS - OH 1P-100 KVA | 100 | 6238699.31 | 4220 | 1478.36 |
| TRANSFORMERS - OH 1P-1250 KVA | 1250 | 148540.75 | 14 | 10610.05 |
| TRANSFORMERS - OH 1P-15 KVA | 15 | 29737938.25 | 55627 | 534.60 |
| TRANSFORMERS - OH 1P-150 KVA | 150 | 1793.73 | 3 | 597.91 |
| TRANSFORMERS - OH 1P-167 KVA | 167 | 4153323.94 | 2190 | 1896.49 |
| TRANSFORMERS - OH 1P-25 KVA | 25 | 42001035.64 | 63554 | 660.87 |
| TRANSFORMERS - OH 1P-250 KVA | 250 | 1019916.05 | 286 | 3566.14 |
| TRANSFORMERS - OH 1P-3 KVA | 3 | 34061.05 | 64 | 532.20 |
| TRANSFORMERS - OH 1P-333 KVA | 333 | 515097.04 | 131 | 3932.04 |
| TRANSFORMERS - OH 1P-37.5 KVA | 37.5 | 25074741.13 | 31674 | 791.65 |
| TRANSFORMERS - OH 1P-5 KVA | 5 | 318277.27 | 1770 | 179.82 |
| TRANSFORMERS - OH 1P-50 KVA | 50 | 19945734.75 | 15726 | 1268.33 |
| TRANSFORMERS - OH 1P-500 KVA | 500 | 1061113.17 | 218 | 4867.49 |
| TRANSFORMERS - OH 1P-667 KVA | 667 | 92692.95 | 17 | 5452.53 |
| TRANSFORMERS - OH $1 \mathrm{P}-7.5 \mathrm{KVA}$ | 7.5 | 946.90 | 2 | 473.45 |
| TRANSFORMERS - OH 1P-75 KVA | 75 | 8415318.29 | 6787 | 1239.92 |
| TRANSFORMERS - OH 1P-833 KVA | 833 | 215904.20 | 19 | 11363.38 |
| TRANSFORMERS - PM 1P-10 KVA | 10 | 114272.74 | 149 | 766.93 |
| TRANSFORMERS - PM 1P-100 KVA | 100 | 2840373.40 | 1485 | 1912.71 |
| TRANSFORMERS - PM 1P-15 KVA | 15 | 2711728.77 | 3007 | 901.81 |
| TRANSFORMERS - PM 1P-150 KVA | 150 | 78245.20 | 16 | 4890.33 |
| TRANSFORMERS - PM 1P-167 KVA | 167 | 2686250.55 | 1087 | 2471.25 |
| TRANSFORMERS - PM 1P-225 KVA | 225 | 27212.10 | 4 | 6803.03 |
| TRANSFORMERS - PM 1P-25 KVA | 25 | 11914778.09 | 11668 | 1021.15 |
| TRANSFORMERS - PM 1P-250 KVA | 250 | 2101925.21 | 527 | 3988.47 |
| TRANSFORMERS - PM 1P-333 KVA | 333 | 3901.90 | 2 | 1950.95 |
| TRANSFORMERS - PM 1P-37.5 KVA | 37.5 | 11062540.89 | 9937 | 1113.27 |
| TRANSFORMERS - PM 1P-50 KVA | 50 | 9958889.97 | 8204 | 1213.91 |
| TRANSFORMERS - PM 1P-75 KVA | 75 | 4866865.69 | 3242 | 1501.19 |
| TRANSFORMERS - PM 3P-1000 KVA | 1000 | 4797246.42 | 382 | 12558.24 |
| TRANSFORMERS - PM 3P-112 KVA | 112 | 72785.98 | 25 | 2911.44 |
| TRANSFORMERS - PM 3P-112.5 KVA | 112.5 | 766431.89 | 213 | 3598.27 |
| TRANSFORMERS - PM 3P-1250 KVA | 1250 | 14355.37 | 2 | 7177.69 |
| TRANSFORMERS - PM 3P-150 KVA | 150 | 4396405.79 | 963 | 4565.32 |
| TRANSFORMERS - PM 3P-1500 KVA | 1500 | 5590700.76 | 315 | 17748.26 |
| TRANSFORMERS - PM 3P-2000 KVA | 2000 | 3328373.35 | 138 | 24118.65 |
| TRANSFORMERS - PM 3P-225 KVA | 225 | 3119782.71 | 626 | 4983.68 |
| TRANSFORMERS - PM 3P - 2500 KVA | 2500 | 3955764.43 | 180 | 21976.47 |
| TRANSFORMERS - PM 3P-300 KVA | 300 | 6384804.22 | 1085 | 5884.61 |
| TRANSFORMERS - PM 3P - 3000 KVA | 3000 | 938652.94 | 25 | 37546.12 |
| TRANSFORMERS - PM 3P-333 KVA | 333 | 117861.40 | 33 | 3571.56 |
| TRANSFORMERS - PM 3P - 45 KVA | 45 | 363190.52 | 114 | 3185.88 |
| TRANSFORMERS - PM 3P-500 KVA | 500 | 8876810.49 | 1098 | 8084.53 |
| TRANSFORMERS - PM 3P-75 KVA | 75 | 3124217.98 | 862 | 3624.38 |
| TRANSFORMERS - PM 3P - 750 KVA | 750 | 12443128.19 | 1143 | 10886.38 |
| TRANSFORMERS - PM 3P - 833 KVA | 833 | 32827.56 | 6 | 5471.26 |

# Zero Intercept Analysis Account 368 - Line Transformers 

## July 31, 2020

| n | y | x | est y | $\mathrm{y}^{*} \mathrm{n}^{\wedge} .5$ | n^. 5 | $\mathrm{xn}^{\wedge} .5$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 473 | 0.60 | 289 | 473.46 | 1.00 | 0.6 |
| 34 | 428 | 1.00 | 473 | 2494.813928 | 5.83 | 5.830951895 |
| 1 | 111 | 1.50 | 704 | 111.09 | 1.00 | 1.5 |
| 20,187 | 379 | 10.00 | 4,628 | 53886.29685 | 142.08 | 1420.809628 |
| 4,220 | 1,478 | 100.00 | 46,170 | 96036.83274 | 64.96 | 6496.152708 |
| 14 | 10,610 | 1,250.00 | 576,994 | 39699.18532 | 3.74 | 4677.071733 |
| 55,627 | 535 | 15.00 | 6,936 | 126086.3393 | 235.85 | 3537.806524 |
| 3 | 598 | 150.00 | 69,250 | 1035.610498 | 1.73 | 259.8076211 |
| 2,190 | 1,896 | 167.00 | 77,097 | 88751.10071 | 46.80 | 7815.171783 |
| 63,554 | 661 | 25.00 | 11,551 | 166605.2008 | 252.10 | 6302.479671 |
| 286 | 3,566 | 250.00 | 115,408 | 60308.90032 | 16.91 | 4227.883631 |
| 64 | 532 | 3.00 | 1,396 | 4257.63125 | 8.00 | 24 |
| 131 | 3,932 | 333.00 | 153,720 | 45004.23734 | 11.45 | 3811.359206 |
| 31,674 | 792 | 37.50 | 17,321 | 140891.5678 | 177.97 | 6673.946546 |
| 1,770 | 180 | 5.00 | 2,320 | 7565.175216 | 42.07 | 210.3568397 |
| 15,726 | 1,268 | 50.00 | 23,091 | 159052.6479 | 125.40 | 6270.167462 |
| 218 | 4,867 | 500.00 | 230,805 | 71867.6523 | 14.76 | 7382.41153 |
| 17 | 5,453 | 667.00 | 307,889 | 22481.34256 | 4.12 | 2750.111452 |
| 2 | 473 | 7.50 | 3,474 | 669.5594111 | 1.41 | 10.60660172 |
| 6,787 | 1,240 | 75.00 | 34,631 | 102148.4126 | 82.38 | 6178.743804 |
| 19 | 11,363 | 833.00 | 384,513 | 49531.82049 | 4.36 | 3630.96282 |
| 149 | 767 | 10.00 | 4,628 | 9361.587625 | 12.21 | 122.0655562 |
| 1,485 | 1,913 | 100.00 | 46,170 | 73707.58976 | 38.54 | 3853.569774 |
| 3,007 | 902 | 15.00 | 6,936 | 49451.50743 | 54.84 | 822.5417923 |
| 16 | 4,890 | 150.00 | 69,250 | 19561.3 | 4.00 | 600 |
| 1,087 | 2,471 | 167.00 | 77,097 | 81476.38382 | 32.97 | 5505.937068 |
| 4 | 6,803 | 225.00 | 103,869 | 13606.05 | 2.00 | 450 |
| 11,668 | 1,021 | 25.00 | 11,551 | 110303.1075 | 108.02 | 2700.462923 |
| 527 | 3,988 | 250.00 | 115,408 | 91561.30026 | 22.96 | 5739.120142 |
| 2 | 1,951 | 333.00 | 153,720 | 2759.05995 | 1.41 | 470.9331163 |
| 9,937 | 1,113 | 37.50 | 17,321 | 110975.5342 | 99.68 | 3738.168836 |
| 8,204 | 1,214 | 50.00 | 23,091 | 109950.7278 | 90.58 | 4528.79675 |
| 3,242 | 1,501 | 75.00 | 34,631 | 85475.73737 | 56.94 | 4270.392254 |
| 382 | 12,558 | 1,000.00 | 461,597 | 245448.4794 | 19.54 | 19544.82029 |
| 25 | 2,911 | 112.00 | 51,709 | 14557.196 | 5.00 | 560 |
| 213 | 3,598 | 112.50 | 51,940 | 52515.04779 | 14.59 | 1641.883446 |
| 2 | 7,178 | 1,250.00 | 576,994 | 10150.77947 | 1.41 | 1767.766953 |
| 963 | 4,565 | 150.00 | 69,250 | 141672.1966 | 31.03 | 4654.836195 |
| 315 | 17,748 | 1,500.00 | 692,390 | 315000.3023 | 17.75 | 26622.35902 |
| 138 | 24,119 | 2,000.00 | 923,183 | 283329.9551 | 11.75 | 23494.68025 |
| 626 | 4,984 | 225.00 | 103,869 | 124691.595 | 25.02 | 5629.498201 |
| 180 | 21,976 | 2,500.00 | 1,153,976 | 294845.2723 | 13.42 | 33541.01966 |
| 1,085 | 5,885 | 300.00 | 138,487 | 193835.2308 | 32.94 | 9881.801455 |
| 25 | 37,546 | 3,000.00 | 1,384,769 | 187730.588 | 5.00 | 15000 |
| 33 | 3,572 | 333.00 | 153,720 | 20517.03624 | 5.74 | 1912.939361 |
| 114 | 3,186 | 45.00 | 20,783 | 34015.90879 | 10.68 | 480.4685213 |
| 1,098 | 8,085 | 500.00 | 230,805 | 267889.5534 | 33.14 | 16568.04153 |
| 862 | 3,624 | 75.00 | 34,631 | 106411.2867 | 29.36 | 2201.987738 |
| 1,143 | 10,886 | 750.00 | 346,201 | 368049.6932 | 33.81 | 25356.21226 |
| 6 | 5,471 | 833.00 | 384,513 | 13401.79525 | 2.45 | 2040.424956 |

## Exhibit WSS-26

## Zero Intercept Analysis

For
Overhead Conductor
(Louisville Gas and Electric Company)

# Louisville Gas and Electric Company 

Zero Intercept Analysis
Account 365 -- Overhead Conductor

July 31, 2020

## Weighted Linear Regression Statistics

|  |  | Estimate |
| :--- | ---: | ---: |
|  | Standard <br> Error |  |
| Size Coefficient (\$ per MCM) | 0.0041724 | 0.0008336 |
| Zero Intercept (\$ per Unit) | 1.3801706 | 0.2486132 |
| R-Square | 0.8225292 |  |
| Plant Classification |  | $99,629,647$ |
| Total Number of Units |  | 1.3801706 |
| Zero Intercept | $\$$ | $137,505,908$ |
| Zero Intercept Cost | $\$$ | $214,874,064$ |
| Total Cost of Sample |  | 0.639937206 |
| Percentage of Total |  |  |
| Percentage Classified as Customer-Related |  |  |
| Percentage Classified as Demand-Related |  |  |

# Louisville Gas and Electric Company 

Exhibit WSS-26
Page 2 of 4
Zero Intercept Analysis
Account 365 -- Overhead Conductor

July 31, 2020

| Description | Size | Cost | Quantity | Avg Cost |
| :--- | ---: | ---: | ---: | ---: |
| \#2 Triplex | 66.369 | $15,319,819.64$ | $9,502,231.00$ | 1.612234 |
| \#4 Aluminum Poly | 41.74 | $128,346.24$ | $27,617.00$ | 4.6473636 |
| \#2 ACSR | 66.36 | $1,404,030.05$ | $183,400.00$ | 7.6555619 |
| 1/0 CONDUCTOR | 105.6 | $4,279,000.42$ | $692,306.00$ | 6.1807935 |
| 1/0 Triplex | 105.6 | $134,027.21$ | $22,210.00$ | 6.0345434 |
| 1/0 Aluminum | 105.6 | $117,488.54$ | $24,884.00$ | 4.7214491 |
| 123,270 ACAR WIRE | 123.27 | $17,139,725.02$ | $9,362,717.00$ | 1.8306358 |
| 195,700 ACAR WIRE | 195.7 | $2,630,925.27$ | $1,873,176.00$ | 1.4045265 |
| 2/0 COPPER CONDUCTOR | 133.1 | $1,346,236.36$ | $532,633.00$ | 2.5275121 |
| 20 M.A.W. MESSENGER WIRE | 20 | $2,855,091.75$ | $1,333,578.00$ | 2.140926 |
| 336,400 19 STR. ALL ALUMINUM | 336.4 | $9,462,230.02$ | $5,646,839.00$ | 1.6756685 |
| 350 MCM COPPER CONDUCTOR | 350 | $2,293,985.20$ | $85,617.00$ | 26.793571 |
| 392,500 24/13 ACAR WIRE | 392.5 | $1,018,369.50$ | $863,538.00$ | 1.179299 |
| 4 COPPER CONDUCTOR | 41.74 | $20,512,898.86$ | $11,855,843.00$ | 1.7301932 |
| 4A COPPER CONDUCTOR | 41.74 | $425,395.34$ | $76,077.00$ | 5.5916419 |
| 6 COPPER CONDUCTOR | 26.25 | $11,935,258.01$ | $15,247,078.00$ | 0.7827899 |
| 6A COPPER CONDUCTOR | 26.25 | $751,476.51$ | $101,690.00$ | 7.3898762 |
| 750 MCM COPPER CONDUCTOR | 750 | $853,486.08$ | $26,479.00$ | 32.232565 |
| 795 MCM ALUMINUM CONDUCTOR | 795 | $52,092,231.22$ | $10,827,908.00$ | 4.810923 |
| 8 COPPER CONDUCTOR | 16.51 | $714,478.51$ | $356,910.00$ | 2.001845 |
| 840,200 24/13 ACAR WIRE | 840.2 | $625,715.08$ | $212,797.00$ | 2.9404319 |
| 1/0 CABLE | 105.6 | $46,299,775.20$ | $21,978,822.00$ | 2.1065631 |
| 101 MCM ACSR CONDUCTOR | 101 | $1,181.18$ | 250.00 | 4.72472 |
| 1272 MCM ACSR CONDUCTOR | 1272 | $79,529.08$ | $30,823.00$ | 2.5801862 |
| 200 MCM CABLE | 200 | $3,238.76$ | 500.00 | 6.47752 |
| 3/0 CONDUCTOR | 167.8 | $6,205,860.32$ | $2,056,133.00$ | 3.0182193 |
| 300 MCM COPPER CONDUCTOR | 300 | $3,564.60$ | 260.00 | 13.71 |
| 4/0 CONDUCTOR | 211.6 | $15,519,658.14$ | $6,550,826.00$ | 2.3691147 |
| 520 MCM CONDUCTOR | 520 | 688.25 | 112.00 | 6.1450893 |
| 600 MCM CONDUCTOR | 600 | $105,914.75$ | $16,060.00$ | 6.5949408 |
| 636 MCM ALUMINUM CONDUCTOR | 636 | $21,911.09$ | $3,040.00$ | 7.2075954 |
| 7/C CONDUCTOR | 20.92 | $18,059.98$ | $4,050.00$ | 4.4592543 |
| 80 MCM ACSR CONDUCTOR | 80 | $20,945.38$ | $11,500.00$ | 1.8213374 |
| 954 MCM ACSR CONDUCTOR | 954 | $553,522.85$ | $121,743.00$ | 4.5466503 |

# Louisville Gas and Electric Company 

Exhibit WSS-26
Page 3 of 4
Zero Intercept Analysis
Account 365 -- Overhead Conductor

July 31, 2020

| n | y | $\mathbf{x}$ | est y | $y^{*} n^{\wedge} .5$ | n^. 5 | xn^. 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9,502,231 | 1.61223 | 66.37 | 1.657 | 4969.822299 | 3,082.57 | 204587 |
| 27,617 | 4.64736 | 41.74 | 1.554 | 772.3157654 | 166.18 | 6936.505 |
| 183,400 | 7.65556 | 66.36 | 1.657 | 3278.511696 | 428.25 | 28418.82 |
| 692,306 | 6.18079 | 105.60 | 1.821 | 5142.72476 | 832.05 | 87864.4 |
| 22,210 | 6.03454 | 105.60 | 1.821 | 899.3292067 | 149.03 | 15737.59 |
| 24,884 | 4.72145 | 105.60 | 1.821 | 744.7926988 | 157.75 | 16658.04 |
| 9,362,717 | 1.83064 | 123.27 | 1.895 | 5601.481447 | 3,059.86 | 377188.4 |
| 1,873,176 | 1.40453 | 195.70 | 2.197 | 1922.291387 | 1,368.64 | 267842.9 |
| 532,633 | 2.52751 | 133.10 | 1.936 | 1844.621562 | 729.82 | 97138.66 |
| 1,333,578 | 2.14093 | 20.00 | 1.464 | 2472.355157 | 1,154.81 | 23096.13 |
| 5,646,839 | 1.67567 | 336.40 | 2.784 | 3981.90412 | 2,376.31 | 799390 |
| 85,617 | 26.79357 | 350.00 | 2.841 | 7839.901541 | 292.60 | 102411.3 |
| 863,538 | 1.17930 | 392.50 | 3.018 | 1095.884179 | 929.27 | 364737.5 |
| 11,855,843 | 1.73019 | 41.74 | 1.554 | 5957.455664 | 3,443.23 | 143720.5 |
| 76,077 | 5.59164 | 41.74 | 1.554 | 1542.289987 | 275.82 | 11512.75 |
| 15,247,078 | 0.78279 | 26.25 | 1.490 | 3056.59924 | 3,904.75 | 102499.7 |
| 101,690 | 7.38988 | 26.25 | 1.490 | 2356.547978 | 318.89 | 8370.828 |
| 26,479 | 32.23256 | 750.00 | 4.509 | 5245.001932 | 162.72 | 122042.8 |
| 10,827,908 | 4.81092 | 795.00 | 4.697 | 15830.72049 | 3,290.58 | 2616010 |
| 356,910 | 2.00185 | 16.51 | 1.449 | 1195.941159 | 597.42 | 9863.395 |
| 212,797 | 2.94043 | 840.20 | 4.886 | 1356.419021 | 461.30 | 387583.6 |
| 21,978,822 | 2.10656 | 105.60 | 1.821 | 9875.899834 | 4,688.16 | 495069.4 |
| 250 | 4.72472 | 101.00 | 1.802 | 74.70438253 | 15.81 | 1596.95 |
| 30,823 | 2.58019 | 1,272.00 | 6.687 | 452.9898858 | 175.56 | 223318.4 |
| 500 | 6.47752 | 200.00 | 2.215 | 144.8417505 | 22.36 | 4472.136 |
| 2,056,133 | 3.01822 | 167.80 | 2.080 | 4327.891801 | 1,433.92 | 240612.2 |
| 260 | 13.71000 | 300.00 | 2.632 | 221.0671075 | 16.12 | 4837.355 |
| 6,550,826 | 2.36911 | 211.60 | 2.263 | 6063.649904 | 2,559.46 | 541581.3 |
| 112 | 6.14509 | 520.00 | 3.550 | 65.03351214 | 10.58 | 5503.163 |
| 16,060 | 6.59494 | 600.00 | 3.884 | 835.7640283 | 126.73 | 76036.83 |
| 3,040 | 7.20760 | 636.00 | 4.034 | 397.3993852 | 55.14 | 35066.62 |
| 4,050 | 4.45925 | 20.92 | 1.467 | 283.7852072 | 63.64 | 1331.341 |
| 11,500 | 1.82134 | 80.00 | 1.714 | 195.3166756 | 107.24 | 8579.044 |
| 121,743 | 4.54665 | 954.00 | 5.361 | 1586.403115 | 348.92 | 332866.7 |

Louisville Gas \& Electric Company
Pri/Sec Splits for Overhead Conductor

## Customer Demand

| Overhead |  | $63.99 \%$ | $36.01 \%$ |
| :--- | ---: | ---: | ---: |
| Primary | $70.52 \%$ | 0.451257 | 0.253943 |
| Secondary | $29.48 \%$ | 0.188643 | 0.106157 |

## Exhibit WSS-27

## Zero Intercept Analysis

For
Underground Conductor
(Louisville Gas and Electric Company)

## Zero Intercept Analysis

Account 367 -- Underground Conductor

July 31, 2020

Weighted Linear Regression Statistics

|  | Estimate | Standard Error | T-Statistic |
| :---: | :---: | :---: | :---: |
| Size Coefficient (\$ per MCM) | 0.0120160 | 0.0020905 | 5.74802331 |
| Zero Intercept (\$ per Unit) | 3.6032354 | 0.6693966 | 5.38281094 |
| R-Square | 0.8880539 |  |  |
| Plant Classification |  |  |  |
| Total Number of Units | 28,418,282 |  |  |
| Zero Intercept | 3.6032354 |  |  |
| Zero Intercept Cost | \$102,397,759 |  |  |
| Total Cost of Sample | 171,072,223 |  |  |
| Percentage of Total | 0.598564498 |  |  |
| Percentage Classified as Customer-Related | 59.86\% |  |  |
| Percentage Classified as Demand-Related | 40.14\% |  |  |

## Zero Intercept Analysis

Account 367 -- Underground Conductor

July 31, 2020

| Description | Size | Cost | Quantity | Avg Cost |
| :--- | ---: | ---: | ---: | ---: |
| \#12 CABLE | 13.12 | $2,112,678.09$ | 745,191 | 2.83508267 |
| \#2 ACSR | 66.36 | $1,557,878.07$ | 156,578 | 9.949533587 |
| 1/0 CONDUCTOR | 105.6 | $7,195,209.68$ | 492,534 | 14.60855429 |
| 1000 MCM CONDUCTOR | 1000 | $31,580,920.64$ | $2,179,943$ | 14.48703963 |
| 2/0 COPPER CONDUCTOR | 133.1 | $3,012,847.79$ | 599,963 | 5.021722656 |
| 200 MCM 1/C 500/600V CABLE | 200 | $28,562.39$ | 1,550 | 18.42734839 |
| 250 MCM COPPER CONDUCTOR | 250 | $161,508.10$ | 111,488 | 1.448659049 |
| 350 MCM COPPER CONDUCTOR | 350 | $16,509,361.29$ | $1,003,510$ | 16.45161612 |
| 4 COPPER CONDUCTOR | 41.74 | $827,737.92$ | 655,174 | 1.263386398 |
| 6 COPPER CONDUCTOR | 26.25 | $1,303,875.94$ | 551,368 | 2.364801621 |
| 750 MCM COPPER CONDUCTOR | 750 | $4,691,977.35$ | 268,440 | 17.47868183 |
| 795 MCM ALUMINUM CONDUCTOR | 795 | $502,850.86$ | 53,029 | 9.482563503 |
| 8 COPPER CONDUCTOR | 16.51 | $26,725.53$ | 18,183 | 1.469808612 |
| \#2 Triplex | 66.36 | $17,758,638.68$ | $3,500,675$ | 5.072918417 |
| 1/0 CABLE | 105.6 | $56,010,718.58$ | $12,543,200$ | 4.465424978 |
| 123,270 ACAR WIRE | 123.27 | $7,397.12$ | 496 | 14.91354839 |
| 195,700 ACAR WIRE | 195.7 | $10,289.60$ | 7,611 | 1.351937984 |
| 3/0 CONDUCTOR | 167.8 | $327,842.85$ | 31,894 | 10.27913871 |
| 336,400 19 STR. ALL ALUMINUM | 336.4 | $95,736.62$ | 2,289 | 41.82464832 |
| 4/0 CONDUCTOR | 211.6 | $27,020,420.38$ | 5440647 | 4.966398368 |
| 600 MCM CONDUCTOR | 600 | $21,636.43$ | 1634 | 13.24138923 |
| 6A COPPER CONDUCTOR | 26.25 | $307,231.56$ | 52777 | 5.821315346 |
| 840,200 24/13 ACAR WIRE | 840.2 | 177.03 | 108 | 1.639166667 |

## Zero Intercept Analysis

 Account 367 -- Underground ConductorJuly 31, 2020

| n | y | $\mathbf{x}$ | est y | $\mathrm{y}^{*} \mathrm{n}^{\wedge} .5$ | n^. 5 | xn^. 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 745,191 | 2.83508 | 13.12 | 3.761 | 2447.369412 | 863.24 | 11325.76733 |
| 156,578 | 9.94953 | 66.36 | 4.401 | 3937.02428 | 395.70 | 26258.61091 |
| 492,534 | 14.60855 | 105.60 | 4.872 | 10252.39539 | 701.81 | 74110.88953 |
| 2,179,943 | 14.48704 | 1,000.00 | 15.619 | 21389.57805 | 1,476.46 | 1476463.003 |
| 599,963 | 5.02172 | 133.10 | 5.203 | 3889.689706 | 774.57 | 103095.6377 |
| 1,550 | 18.42735 | 200.00 | 6.006 | 725.4854315 | 39.37 | 7874.007874 |
| 111,488 | 1.44866 | 250.00 | 6.607 | 483.7046314 | 333.90 | 83474.54702 |
| 1,003,510 | 16.45162 | 350.00 | 7.809 | 16480.46341 | 1,001.75 | 350613.7119 |
| 655,174 | 1.26339 | 41.74 | 4.105 | 1022.62057 | 809.43 | 33785.53279 |
| 551,368 | 2.36480 | 26.25 | 3.919 | 1755.963535 | 742.54 | 19491.71651 |
| 268,440 | 17.47868 | 750.00 | 12.615 | 9055.914048 | 518.11 | 388583.9678 |
| 53,029 | 9.48256 | 795.00 | 13.156 | 2183.647227 | 230.28 | 183072.8099 |
| 18,183 | 1.46981 | 16.51 | 3.802 | 198.1953939 | 134.84 | 2226.280296 |
| 3,500,675 | 5.07292 | 66.36 | 4.401 | 9491.476451 | 1,871.01 | 124160.1629 |
| 12,543,200 | 4.46542 | 105.60 | 4.872 | 15814.91896 | 3,541.64 | 373996.9769 |
| 496 | 14.91355 | 123.27 | 5.084 | 332.1404929 | 22.27 | 2745.353252 |
| 7,611 | 1.35194 | 195.70 | 5.955 | 117.9444831 | 87.24 | 17073.07258 |
| 31,894 | 10.27914 | 167.80 | 5.620 | 1835.740213 | 178.59 | 29967.21967 |
| 2,289 | 41.82465 | 336.40 | 7.645 | 2001.037347 | 47.84 | 16094.55167 |
| 5,440,647 | 4.96640 | 211.60 | 6.146 | 11584.22081 | 2,332.52 | 493561.1163 |
| 1,634 | 13.24139 | 600.00 | 10.813 | 535.2535765 | 40.42 | 24253.65952 |
| 52,777 | 5.82132 | 26.25 | 3.919 | 1337.345055 | 229.73 | 6030.476893 |
| 108 | 1.63917 | 840.20 | 13.699 | 17.03471969 | 10.39 | 8731.614531 |

## Louisville Gas \& Electric Company

Pri/Sec Splits for Underground Conductor

|  |  | Customer | Demand |
| :--- | ---: | ---: | ---: |
| Underground |  | $59.86 \%$ | $40.14 \%$ |
| Primary | $88.07 \%$ | 0.527187 | 0.353513 |
| Secondary | $11.93 \%$ | 0.071413 | 0.047887 |

## Exhibit WSS-28

## Zero Intercept Analysis

For
Line Transformers
(Louisville Gas and Electric Company)

Zero Intercept Analysis

## Account 368 - Line Transformers

July 31, 2020

Weighted Linear Regression Statistics

|  |  | Estimate | Standard Error | T-Statistic |
| :---: | :---: | :---: | :---: | :---: |
| Size Coefficient (\$ per kVA) |  | 17.6357155 | 1.1732790 | 15.03113556 |
| Zero Intercept (\$ per Unit) |  | 771.57 | 239.3973453 | 3.2229544 |
| R-Square |  | 0.9017152 |  |  |
| Plant Classification |  |  |  |  |
| Total Number of Units |  | 36,724 |  |  |
| Zero Intercept | \$ | 771.57 |  |  |
| Zero Intercept Cost | \$ | 28,335,016 |  |  |
| Total Cost of Sample | \$ | 79,168,555 |  |  |
| Percentage of Total |  | 0.357907459 |  |  |
| Percentage Classified as Customer-Related |  | 35.79\% |  |  |
| Percentage Classified as Demand-Related |  | 64.21\% |  |  |

# Zero Intercept Analysis <br> Account 368 - Line Transformers 

July 31, 2020

|  | Size | Cost | Quantity | Avg Cost |
| :---: | :---: | :---: | :---: | :---: |
| TRANSFORMERS - OH 1P-100 KVA | 100 | 1356037.78 | 528 | 2568.25 |
| TRANSFORMERS - OH 1P-1 KVA | 1 | 101798.01 | 191 | 532.97 |
| TRANSFORMERS - OH 1P-15 KVA | 15 | 2829522.18 | 3564 | 793.92 |
| TRANSFORMERS - OH 1P-150 KVA | 150 | 239101.48 | 64 | 3735.96 |
| TRANSFORMERS - OH 1P-167 KVA | 167 | 888091.76 | 327 | 2715.88 |
| TRANSFORMERS - OH 1P-25 KVA | 25 | 6591201.39 | 6546 | 1006.91 |
| TRANSFORMERS - OH 1P-250 KVA | 250 | 143562.02 | 30 | 4785.40 |
| TRANSFORMERS - OH 1P-3 KVA | 3 | 27315.31 | 28 | 975.55 |
| TRANSFORMERS - OH 1P-333 KVA | 333 | 14112.54 | 2 | 7056.27 |
| TRANSFORMERS - OH 1P-37.5 KVA | 37.5 | 6831989.67 | 6068 | 1125.90 |
| TRANSFORMERS - OH 1P-50 KVA | 50 | 5257198.70 | 3367 | 1561.39 |
| TRANSFORMERS - OH 1P-500 KVA | 500 | 379912.35 | 97 | 3916.62 |
| TRANSFORMERS - OH 1P-75 KVA | 75 | 2131164.69 | 1082 | 1969.65 |
| TRANSFORMERS - PM 1P - 100 KVA | 100 | 2358129.09 | 916 | 2574.38 |
| TRANSFORMERS - PM 1P-150 KVA | 150 | 583737.81 | 175 | 3335.64 |
| TRANSFORMERS - PM 1P-225 KVA | 225 | 540183.84 | 104 | 5194.08 |
| TRANSFORMERS - PM 1P-25 KVA | 25 | 2078735.66 | 1992 | 1043.54 |
| TRANSFORMERS - PM 1P-37.5 KVA | 37.5 | 3499914.69 | 2529 | 1383.91 |
| TRANSFORMERS - PM 1P-50 KVA | 50 | 6222858.08 | 3536 | 1759.86 |
| TRANSFORMERS - PM 1P-75 KVA | 75 | 6008078.93 | 2912 | 2063.21 |
| TRANSFORMERS - PM 3P-1000 KVA | 1000 | 6642706.89 | 236 | 28147.06 |
| TRANSFORMERS - PM 3P-150 KVA | 150 | 1474889.68 | 244 | 6044.63 |
| TRANSFORMERS - PM 3P - 1500 KVA | 1500 | 2229052.20 | 106 | 21028.79 |
| TRANSFORMERS - PM 3P-2000 KVA | 2000 | 1608542.18 | 57 | 28220.04 |
| TRANSFORMERS - PM 3P-225 KVA | 225 | 873694.81 | 107 | 8165.37 |
| TRANSFORMERS - PM 3P-2500 KVA | 2500 | 1429641.03 | 45 | 31769.80 |
| TRANSFORMERS - PM 3P-300 KVA | 300 | 3626588.95 | 424 | 8553.28 |
| TRANSFORMERS - PM 3P-3000 KVA | 3000 | 496323.05 | 12 | 41360.25 |
| TRANSFORMERS - PM 3P - 500 KVA | 500 | 4537659.88 | 315 | 14405.27 |
| TRANSFORMERS - OH 1P-7.5 KVA | 7.5 | 2397.60 | 1 | 2397.60 |
| TRANSFORMERS - PM 3P-75 KVA | 75 | 725338.18 | 106 | 6842.81 |
| TRANSFORMERS - PM 3P - 750 KVA | 750 | 4852790.96 | 297 | 16339.36 |
| TRANSFORMERS - OH 1P-10 KVA | 10 | 83109.37 | 125 | 664.87 |
| TRANSFORMERS - PM 1P-15 KVA | 15 | 83044.45 | 112 | 741.47 |
| TRANSFORMERS - PM 1P-167 KVA | 167 | 1404628.80 | 380 | 3696.39 |
| TRANSFORMERS - PM 1P-250 KVA | 250 | 473303.55 | 65 | 7281.59 |
| TRANSFORMERS - PM 1P-500 KVA | 500 | 542197.87 | 34 | 15947.00 |

# Zero Intercept Analysis <br> Account 368 - Line Transformers 

July 31, 2020

| n | y | x | est y | $\mathrm{y}^{*} \mathrm{n}^{\wedge} .5$ | n^. 5 | xn^. 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 528 | 2,568 | 100.00 | 77,174 | 59013.96953 | 22.98 | 2297.825059 |
| 191 | 533 | 1.00 | 789 | 7365.845491 | 13.82 | 13.82027496 |
| 3,564 | 794 | 15.00 | 11,591 | 47396.27983 | 59.70 | 895.4886934 |
| 64 | 3,736 | 150.00 | 115,753 | 29887.685 | 8.00 | 1200 |
| 327 | 2,716 | 167.00 | 128,869 | 49111.58655 | 18.08 | 3019.8846 |
| 6,546 | 1,007 | 25.00 | 19,307 | 81466.03528 | 80.91 | 2022.683861 |
| 30 | 4,785 | 250.00 | 192,909 | 26210.71892 | 5.48 | 1369.306394 |
| 28 | 976 | 3.00 | 2,332 | 5162.108375 | 5.29 | 15.87450787 |
| 2 | 7,056 | 333.00 | 256,949 | 9979.072734 | 1.41 | 470.9331163 |
| 6,068 | 1,126 | 37.50 | 28,951 | 87705.01254 | 77.90 | 2921.151314 |
| 3,367 | 1,561 | 50.00 | 38,596 | 90600.96713 | 58.03 | 2901.292815 |
| 97 | 3,917 | 500.00 | 385,801 | 38574.25477 | 9.85 | 4924.428901 |
| 1,082 | 1,970 | 75.00 | 57,885 | 64789.314 | 32.89 | 2467.032631 |
| 916 | 2,574 | 100.00 | 77,174 | 77914.77825 | 30.27 | 3026.54919 |
| 175 | 3,336 | 150.00 | 115,753 | 44126.43075 | 13.23 | 1984.313483 |
| 104 | 5,194 | 225.00 | 173,620 | 52969.38348 | 10.20 | 2294.558781 |
| 1,992 | 1,044 | 25.00 | 19,307 | 46575.18614 | 44.63 | 1115.79568 |
| 2,529 | 1,384 | 37.50 | 28,951 | 69595.80201 | 50.29 | 1885.843644 |
| 3,536 | 1,760 | 50.00 | 38,596 | 104648.6833 | 59.46 | 2973.213749 |
| 2,912 | 2,063 | 75.00 | 57,885 | 111337.11 | 53.96 | 4047.221269 |
| 236 | 28,147 | 1,000.00 | 771,584 | 432403.388 | 15.36 | 15362.2915 |
| 244 | 6,045 | 150.00 | 115,753 | 94420.13644 | 15.62 | 2343.074903 |
| 106 | 21,029 | 1,500.00 | 1,157,368 | 216504.6888 | 10.30 | 15443.44521 |
| 57 | 28,220 | 2,000.00 | 1,543,151 | 213056.6165 | 7.55 | 15099.66887 |
| 107 | 8,165 | 225.00 | 173,620 | 84463.26531 | 10.34 | 2327.418097 |
| 45 | 31,770 | 2,500.00 | 1,928,934 | 213118.3018 | 6.71 | 16770.50983 |
| 424 | 8,553 | 300.00 | 231,488 | 176122.7288 | 20.59 | 6177.378085 |
| 12 | 41,360 | 3,000.00 | 2,314,718 | 143276.1233 | 3.46 | 10392.30485 |
| 315 | 14,405 | 500.00 | 385,801 | 255668.1703 | 17.75 | 8874.119675 |
| 1 | 2,398 | 7.50 | 5,804 | 2397.6 | 1.00 | 7.5 |
| 106 | 6,843 | 75.00 | 57,885 | 70451.07197 | 10.30 | 772.1722606 |
| 297 | 16,339 | 750.00 | 578,693 | 281587.4917 | 17.23 | 12925.26595 |
| 125 | 665 | 10.00 | 7,733 | 7433.528035 | 11.18 | 111.8033989 |
| 112 | 741 | 15.00 | 11,591 | 7846.962945 | 10.58 | 158.7450787 |
| 380 | 3,696 | 167.00 | 128,869 | 72055.93708 | 19.49 | 3255.429311 |
| 65 | 7,282 | 250.00 | 192,909 | 58706.0802 | 8.06 | 2015.564437 |
| 34 | 15,947 | 500.00 | 385,801 | 92986.16757 | 5.83 | 2915.475947 |

## Exhibit WSS-29

Electric Cost of Service Study
Functional Assignment and
Classification
(Kentucky Utilities)

|  | Name | Functional Vector |  | $\begin{gathered} \text { Total } \\ \text { System } \end{gathered}$ | Production Demand |  | Production Energy |  | TransmissionDemandDemand |  | Distribution Poles |  |  | $\begin{array}{r}\text { Distribution } \\ \text { Substation }\end{array}$General |  | Distribution Primary Lines |  |  |  |  |  | Distribution Sec. Lines |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description |  |  |  |  |  | LOLP |  | Energy |  |  |  | Specific |  |  |  | Specific |  | Demand |  | Customer |  | Demand |  | Customer |
| Plant in Service |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intangible Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 301.00 Organization | P301 | PT\&D | \$ | 41,552 |  | 26,150 |  | - |  | 5,660 |  | - |  | 1,527 |  | - |  | 1,215 |  | 2,361 |  | 547 |  | 1,104 |
| 302.00 Franchise and consents | P301 | PT\&D |  | 144,369 |  | 90,855 |  | - |  | 19,667 |  | - |  | 5,306 |  | - |  | 4,220 |  | 8,202 |  | 1,900 |  | 3,835 |
| 303.00 Software | P302 | PT\&D |  | 105,565,478 |  | 66,435,041 |  | - |  | 14,380,841 |  | - |  | 3,879,489 |  | - |  | 3,085,565 |  | 5,997,613 |  | 1,389,074 |  | 2,804,196 |
| Total Intangible Plant | PINT |  | \$ | 105,751,399 | s | 66,552,045 | \$ | - | \$ | 14,406,168 | s | - | \$ | 3,886,322 | \$ | - | \$ | 3,090,999 | s | 6,008,176 | \$ | 1,391,520 | s | 2,809,134 |
| Steam Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Steam Production Plant | PSTPR | F017 | \$ | 4,761,764,495 |  | 4,761,764,495 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Hydraulic Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Hydraulic Production Plant | PHDPR | F017 | \$ | 45,726,563 |  | 45,726,563 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Other Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Other Production Plant | POTPR | F017 | \$ | 1,044,547,033 |  | 1,044,547,033 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Production Plant | PPRTL |  | \$ | 5,852,038,091 | s | 5,852,038,091 | \$ | - | \$ | - | s | - |  |  | \$ | - | \$ | - |  |  |  |  |  |  |
| Transmission |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| KENTUCKY SYSTEM PROPERTY | P350 | F011 | \$ | 1,258,529,222 |  |  |  | - |  | 1,258,529,222 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| VIRGINIA PROPERTY - 500 KV LINE | P352 | F011 |  | 8,230,429 |  | - |  | - |  | 8,230,429 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Transmission Plant | Ptran |  | \$ | 1,266,759,651 | s | - | \$ | - | s | 1,266,759,651 | s | - | \$ | - | \$ | - | s | - | s | - | \$ | - | \$ | - |
| Distribution |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TOTAL ACCTS 360-362 | P362 | F001 | \$ | 341,731,104 |  | - |  | - |  | - |  | - |  | 341,731,104 |  | - |  |  |  | - |  | - |  | - |
| 364\& 365-OVERHEAD LINES | P365 | F003 |  | 921,791,437 |  | - |  | - |  | - |  | - |  |  |  | - |  | 234,148,428 |  | 416,083,252 |  | 97,788,669 |  | 173,771,089 |
| 366 \& 367-UNDERGROUND LINES | P367 | Fo04 |  | 247,685,955 |  | - |  | - |  | - |  | - |  | - |  | - |  | 37,648,543 |  | 112,226,229 |  | 24,570,169 |  | 73,241,014 |
| 368-TRANSFORMERS - POWER POOL | P368 | Foos |  | 5,363,042 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 368 -TRANSFORMERS - ALL OTHER | ${ }^{\text {P368a }}$ | ${ }^{\text {Fo0s }}$ |  | 321,195,483 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 369-SERVICES | P369 | F006 |  | 124,944,572 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 370-METERS | ${ }_{\text {P370 }}$ | ${ }_{\text {FOOO }}$ |  | 74,150,151 |  | - |  | - |  | - |  | - |  | - |  | : |  | $:$ |  | - |  | $:$ |  | $:$ |
| 371-CUSTOMER INSTALLATION | ${ }_{\text {P371 }}$ | ${ }^{\text {F007 }}$ |  | 159,234 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 373-STREET LIGHTING | P373 | F008 |  | 143,087,299 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Plant | PDIST |  | \$ | 2,180,108,277 | s | - | \$ | - | s | - | s | - | \$ | 341,731,104 | \$ | - | s | 271,796,970 | \$ | 528,309,481 | \$ | 122,358,838 | \$ | 247,012,103 |
| Total Prod, Trans, and Dist Plant | PT\&D |  | \$ | 9,298,906,019 | s | 5,852,038,091 | \$ | - | s | 1,266,759,651 | s |  | \$ | 341,731,104 | \$ | - | s | 271,796,970 | \$ | 528,309,481 | \$ | 122,358,838 | s | 247,012,103 |



| Description | Name | Functional <br> Vector | TotalSystem | Production Demand | Production Energy | $\begin{array}{r} \text { Transmission } \\ \text { Demand } \end{array}$ | Distribution Poles | Distribution Substation | Distribution Primary Lines |  |  | Distribution Sec. Lines |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Energy |  | Specific | General | Specific | Demand | Customer | Demand |  |

## Plant in Service (Continued)

General Plant
Total General Plant
TOTAL COMMON PLANT
105.00 PLANT HELD FOR FUTURE USE - PRODUCTION
150.00 PANANT HED FOR UTURE USE - ISTRIIITION
105.00 PLANT HELD FOR FUTURE USE - GENERAL
OTHER
Total Plant in Service

| PGP |
| :---: |
| PCO |
| P105 |
| P105 |
| P105 |


| $\$$ | $244,918,755$ | $154,133,602$ |
| :--- | :---: | :---: |
| $\$$ | $-i$ | - |
| $\$$ | 290,384 | 290,384 |
| $\$$ | 906,481 | - |
| $\$$ | - | - |
|  | - | - |
| $\$$ | $9,650,773,038$ | $\$$ |
| $6,073,014,123$ | $\$$ |  |

33,364,484

1,314,530,303 s
\$
$354,760,183$ s
$9,000,667$
$\dot{-}$
142,091
-
-
$54,760,183$
7,158,710
.

13,914,852
6,505,915

113,012
219,669
50,876
102,707

282,159,692 $\quad$ \& $548,452,178$ \& $127,023,977$ \$ $256,429,85$
Construction Work in Progress (CWIP)

$$
\begin{aligned}
& \text { CWIP Production } \\
& \text { CWWP Trasmission } \\
& \text { CWIP Distribution Plan } \\
& \text { CWWP General Plant } \\
& \text { RWIP }
\end{aligned}
$$

Total Construction Work in Progress
Total Utility Plant

| CWIP1 | F017 | \$ | 20,992,633 |  | 20,992,633 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CWIP2 | F011 |  | 78,958,656 |  |  |
| cWIP3 | PDIST |  | 26,143,041 |  |  |
| CWIP4 | PT\&D |  | 29,729,390 |  | 18,709,461 |
| CWIP5 | F004 |  |  |  |  |
| TCWIP |  | \$ | 155,823,720 | s | 39,702,094 |
|  |  | \$ | 9,806,596,758 | s | 6,112,716,217 |


|  | $78,958,656$ |  |
| :---: | :---: | :---: |
|  | - |  |
|  | $4,049,938$ |  |
|  | - |  |
| S | $83,008,594$ | S |
| S | $1,397,538,897$ | S |


|  | - |  |
| :---: | :---: | :---: |
|  |  |  |
|  | $4,097,911$ |  |
| $1,092,543$ |  |  |
|  | - |  |
|  | $5,190,455$ | $\$$ |
| $\$$ | $359,950,638$ | $\$$ |


|  | - | - | - | - |
| :---: | :---: | :---: | :---: | :---: |
|  | $3,259,-287$ | $6,335,289$ | $1,467,281$ | $2,962,077$ |
|  | 868,958 | $1,689,050$ |  | 391,192 |
|  | - | - | - | 789,719 |
|  | $4,128,245$ | $\$$ | $8,024,339$ | $\$$ |
|  | $1,858,473$ | $\$$ | $3,751,795$ |  |
| $\$$ | $286,287,937$ | $\$$ | $556,476,517$ | $\$$ |


|  |  | Functional | Distribution Line Trans. | Distribution Services | Distribution Meters | Distribution St. \& Cust. Lighting | Customer Accounts Expense | $\begin{array}{r} \text { Customer } \\ \text { Service \& Info. } \end{array}$ | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Name | Vector | Demand ${ }^{\text {Cus }}$ | ustome |  |  |  |  |  |

## Plant in Service (Continued)

General Plant
Total General Plant
TOTAL COMMON PLANT
05.00 LLANT HELD FRO FUTUEE USE - PRODUCTION
05.00 PLANT HELD FOR FUTURE USE - DISTRIBUTION

| PGP |  |
| :--- | :--- |
| PCOM |  |
| P105 | PRR |
| P105 | PDIS |
| P105 |  |
|  | PDIS |
|  |  |


| $4,697,901$ | $3,903,143$ | $3,290,846$ | $1,957,194$ | $3,768,697$ |
| :---: | :---: | :---: | :---: | :---: |
| - | - | - | - | - |
| 74,164 | $-\quad$ | - | - | - |
| - | - | 51,951 | - | 30,898 |
| - | - | - | - | 59,495 |
|  |  | - |  |  |
| $185,167,208$ | $\$$ | $153,841,916$ | $\$$ | $129,708,296$ |

Construction Work in Progress (CWIP)
CWIP Production
CWIP Transmission
CWIP Distribution Plant
CWIP Seneral Plant
RWIP

Total Construction Work in Progress
Total Utility Plant

| CWIP1 | F017 |  | - |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CWIP2 | F011 |  | - |  | - |  | - |  |  |  | - |  |
| CWIP3 | PDIST |  | 2,138,906 |  | 1,777,061 |  | 1,498,288 |  | 891,090 |  | 1,715,849 |  |
| CWIP4 | PT\&D |  | 570,253 |  | 473,782 |  | 399,458 |  | 237,573 |  | 457,462 |  |
| CWIP5 | F004 |  | - |  | - |  | - |  | - |  | . |  |
| TCWIP |  | s | 2,709,160 | s | 2,250,843 | s | 1,897,747 | \$ | 1,128,664 | s | 2,173,311 | \$ |
|  |  | \$ | 187,876,368 | s | 156,092,759 | \$ | 131,606,043 | s | 78,271,220 | s | 150,716,057 | \$ |


|  |  | Functional Vector |  | $\begin{gathered} \text { Total } \\ \text { System } \end{gathered}$ | Production Demand |  | Production Energy |  | $\begin{array}{\|} \begin{array}{r} \text { Transmission } \\ \text { Demand } \\ \text { Demand } \end{array} \\ \hline \end{array}$ |  | Distribution Poles |  | $\begin{array}{r}\text { Distribution } \\ \text { Substation }\end{array}$General |  |  | Distribution Primary Lines |  |  |  | Customer | Distribution Sec.Lines |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Name |  |  |  |  | LOLP |  | Energy |  |  | Specific |  |  |  |  | Specific |  | Demand |  |  | Demand |  |  | Customer Demand Customer |
| Rate Base |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Utility Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Plant in Service |  |  | \$ | 9,650,773,038 | s | 6,073,014,123 | \$ | - | s | 1,314,530,303 | s |  | \$ | 354,760,183 | \$ | - | s | 282,159,692 | s | 548,452,178 | \$ | 127,023,977 | \$ | 256,429,859 |
| Construction Work in Progress (CWIP) |  |  |  | 155,823,720 |  | 39,702,094.34 |  | - |  | 83,008,593.88 |  |  |  | 5,190,454.54 |  | - |  | 4,128,245.29 |  | 8,024,339.34 |  | 1,858,472.87 |  | 3,751,795.13 |
| Total Utility Plant | TUP |  | \$ | 9,806,596,758 | s | 6,112,716,217 | \$ | - | s | 1,397,538,897 | s |  | \$ | 359,950,638 | \$ | - | \$ | 286,287,937 | s | 556,476,517 | \$ | 128,882,450 | \$ | 260,181,655 |
| Less: Acummulated Provision for Depreciation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Steam Production | ADEPREPA | F017 | \$ | 1,910,902,169 |  | 1,910,902,169 |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  |  |
| Hydralic Production | RWIP | F017 |  | 16,663,604 |  | 16,663,604 |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Other Production |  | F017 |  | 425,504,289 |  | 425,504,289 |  | - |  | - |  |  |  | - |  | - |  | - |  |  |  | - |  |  |
| Transmission - Kentucky System Property | ADEPRTP | ptran |  | 340,091,705 |  | - |  | - |  | 340,091,705 |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Transmission - Virgina Property | ADEPRDI | PTRAN |  | 2,567,091 |  | - |  | - |  | 2,567,091 |  |  |  | - |  | - |  | - |  |  |  |  |  |  |
| Transmission - FERC | ADEPRDD ${ }^{\text {a }}$ | ${ }^{\text {PTRAN }}$ |  | 755,524 |  | - |  | - |  | 755,524 |  |  |  | 108563287 |  | - |  | 8636, ${ }^{72}$ |  |  |  | 8- |  |  |
| Distribution | ADEPRD11 | PDIST |  | 692,590,515 |  | - |  | - |  | - |  |  |  | 108,563,287 |  | - |  | 86,346,172 |  | 167,836,680 |  | 38,871,726 |  | 78,472,359 |
| General Plant | ADEPRD12 | PT\&D |  | 77,429,701 |  | 48,728,480 |  | - |  | 10,547,996 |  |  |  | 2,845,511 |  | - |  | 2,263,186 |  | 4,399,103 |  | 1,018,852 |  | 2,056,809 |
| Intangible Plant | ADEPRGP | PT\&D |  | 49,083,879 |  | 30,889,734 |  | - |  | 6,686,537 |  |  |  | 1,803,813 |  | - |  | 1,434,669 |  | 2,788,659 |  | 645,866 |  | 1,303,843 |
| Total Accumulated Depreciation | TADEPR |  | \$ | 3,515,588,477 | s | 2,432,688,276 | \$ | - | s | 360,648,853 | s |  | \$ | 113,212,611 | \$ |  | s | 90,044,027 | s | 175,024,442 | \$ | 40,536,443 | \$ | 81,833,011 |
| Net Utility Plant | ntplant |  | \$ | 6,291,008,281 | s | 3,680,027,941 | \$ | - | s | 1,036,890,044 | s |  | s | 246,738,027 | \$ | - | s | 196,243,910 | s | 381,452,075 | \$ | 88,346,006 | \$ | 178,348,644 |
| Working Capital |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cash Working Capital - Operation and Maintenance Expenses | cwc | омLPP | \$ | 130,078,093 |  | 19,058,566 |  | 79,624,711 |  | 8,904,127 |  |  |  | 1,431,095 |  | - |  | 1,998,528 |  | 3,667,849 |  | 857,386 |  | 1,599,580 |
| Materials and Supplies | M\&S | TPIS |  | 59,890,781 |  | 37,687,920 |  | - |  | 8,157,714 |  |  |  | 2,201,571 |  | - |  | 1,751,027 |  | 3,403,585 |  | 788,286 |  | 1,591,353 |
| Prepayments | PREPAY | TPIS |  | 19,024,116 |  | 11,971,448 |  | - |  | 2,591,272 |  |  |  | 699,322 |  | - |  | 556,208 |  | 1,081,138 |  | 250,396 |  | 505,488 |
| Fuel Stock |  | F017 |  | 62,536,188 |  | 62,536,188 |  | - |  |  |  |  |  |  |  | - |  |  |  |  |  |  |  |  |
| Total Working Capital | TwC |  | \$ | 271,529,178 | s | 131,254,122 | \$ | 79,624,711 | s | 19,653,112 | s |  | \$ | 4,331,988 | \$ | - | s | 4,305,763 | s | 8,152,572 | \$ | 1,896,068 | \$ | 3,696,420 |
| Emission Allowance | emall | PROFIX |  | - |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Deferred Debits |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Service Pension Cost | penscost | tLb | \$ | - |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Accumulated Deferred Income Tax |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Production Plant | ADITPP | F017 |  | 732,330,105 |  | 732,330,105 |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Transmission Plant | ADITTP | F011 |  | 198,625,100 |  | - |  | - |  | 198,625,100 |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Plant | ADITPP | PDIST |  | 315,220,930 |  | - |  | - |  | - |  |  |  | 49,410,755 |  | - |  | 39,299,009 |  | 76,388,043 |  | 17,691,812 |  | 35,715,375 |
| Total General Plant | ADITGP | PT\&D |  | 35,890,099 |  | 22,586,552 |  | - |  | 4,889,191 |  |  |  | 1,318,947 |  | - |  | 1,049,029 |  | 2,039,066 |  | 472,257 |  | 953,369 |
| Total Accumulated Deferred Income Tax | ADITT |  |  | 1,282,066,235 |  | 754,916,658 |  | - |  | 203,514,291 |  |  |  | 50,729,702 |  | - |  | 40,348,037 |  | 78,427,109 |  | 18,164,069 |  | 36,668,744 |
| Accumulated Deferred Investment Tax Credits |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production | ADITCP | F017 | \$ | 80,926,985 |  | 80,926,985 |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Transmission | Aditct | F011 |  | - |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Transmission VA | aditctva | F011 |  | - |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Distribution VA | aditcdva | PDIST |  | - |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Distribution Plant KY,FERC \& TN | ADITCDKY | PDIST |  | - |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| General | aditcg | PT\&D |  | - |  | - |  | - |  | - |  |  |  | - |  | $\cdot$ |  | - |  | - |  | - |  | - |
| Total Accum. Deferred Investment Tax Credits | Aditctl |  |  | 80,926,985 |  | 80,926,985 |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Deferred Debits |  |  | \$ | 1,362,993,220 | s | 835,843,643 | \$ | - | \$ | 203,514,291 | \$ |  | \$ | 50,729,702 | \$ | - | \$ | 40,348,037 | s | 78,427,109 | \$ | 18,164,069 | \$ | 36,668,744 |
| Less: Customer Advances | CSTDEP | ${ }^{\text {F027 }}$ | \$ | 1,712,216 |  |  |  |  |  | - |  |  |  | - |  | - |  | 397,934 |  | 773,491 |  | 179,144 |  | 361,647 |
| Less: Asset Retirement Obligations |  | ${ }^{\text {F017 }}$ |  |  |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Net Rate Base | RB |  | \$ | 5,197,832,023 | s | 2,975,438,420 | \$ | 79,624,711 | s | 853,028,865 | s |  | \$ | 200,340,313 | \$ | - | s | 159,803,702 | s | 310,404,048 | \$ | 71,898,861 | \$ | 145,014,673 |


| Description | Name | $\begin{aligned} & \text { Functional } \\ & \text { Vector } \end{aligned}$ | Distribution Line Trans. |  |  |  | DistributionServicesCustomer |  | Distribution Meters |  | $\begin{gathered} \text { Distribution St. \& } \\ \text { Cust. Lighting } \end{gathered}$ |  | Customer AccountsExpense |  | $\begin{array}{r} \text { Customer } \\ \text { Service \& Info. } \end{array}$ |  | Sales Expense |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Demand | Customer |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rate Base |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Utility Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Plant in Service |  |  | \$ | 185,167,208 | s | 153,841,916 | \$ | 129,708,296 | s | 77,142,557 | s | 148,542,746 | \$ | - | s | - | \$ | - |
| Construction Work in Progress (CWIP) |  |  |  | 2,709,159.65 |  | 2,250,842.99 |  | 1,897,746.84 |  | 1,128,663.68 |  | 2,173,311.45 |  |  |  |  |  |  |
| Total Utility Plant | TUP |  | \$ | 187,876,368 | § | 156,092,759 | \$ | 131,606,043 | s | 78,271,220 | s | 150,716,057 | \$ | - | \$ | - | \$ | - |
| Less: Acummulated Provision for Depreciation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Steam Production | ADEPREPA | F017 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Hydralic Production | RWIP | ${ }^{\text {F017 }}$ |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Other Production |  | ${ }^{\text {F017 }}$ |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Transmission - Kentucky System Property | ADEPRTP | ptran |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Transmission - Virginia Property | ADEPRDI | ptran |  | - |  | - |  | - |  | - |  | - |  |  |  |  |  |  |
| Transmission - FERC | ADEPRD10 | ptran |  | - |  | - |  |  |  |  |  | - |  | - |  | - |  | - |
| Distribution | ADEPRD11 | PDIST |  | 56,664,648 |  | 47,078,519 |  | 39,693,178 |  | 23,607,073 |  | 45,456,873 |  | - |  | - |  |  |
| General Plant | ADEPRD12 | PT\&D |  | 1,485,215 |  | 1,233,957 |  | 1,040,383 |  | ${ }^{618,756}$ |  | 1,191,453 |  | - |  | - |  | - |
| Intangible Plant | ADEPRGP | PT\&D |  | 941,501 |  | 782,224 |  | 659,515 |  | 392,239 |  | 755,280 |  | - |  | - |  | - |
| Total Accumulated Depreciation | TADEPR |  | \$ | 59,091,364 | s | 49,094,701 | \$ | 41,393,075 | s | 24,618,068 | \$ | 47,403,606 | \$ | - | s | - | \$ | - |
| Net Utility Plant | ntplant |  | \$ | 128,785,004 | s | 106,998,058 | \$ | 90,212,968 | s | 53,653,152 | \$ | 103,312,451 | \$ | - | s | - | \$ | - |
| Working Capital |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cash Working Capital - Operation and Maintenance Expenses | cwc | OMLPP |  | 408,278 |  | 339,209 |  | 279,717 |  | 1,778,647 |  | 320,334 |  | 8,704,114 |  | 1,105,953 |  |  |
| Materials and Supplies | M\&S | TPIS |  | 1,149,111 |  | 954,712 |  | 804,944 |  | 478,731 |  | 921,827 |  | - |  | - |  | - |
| Prepayments | PREPAY | TPIS |  | 365,011 |  | 303,261 |  | 255,688 |  | 152,068 |  | 292,815 |  | - |  | - |  | - |
| Fuel Stock |  | ${ }^{\text {F017 }}$ |  | 1922401 |  | 1.597.182 |  |  |  |  |  |  |  | 8,704,114 |  | 1105953 |  |  |
| Total Working Capital | TwC |  | \$ | 1,922,401 | s | 1,597,182 | \$ | 1,340,349 | s | 2,409,446 | \$ | 1,534,976 | \$ | 8,704,114 | s | 1,105,953 | \$ | - |
| Emission Allowance | emall | Profix |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Deferred Debits |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Service Pension Cost | PENSCOST | тLB |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Accumulated Deferred Income Tax |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Production Plant | ADITPP | F017 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Transmission Plant | ADITTP | F011 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Plant | ADITDP | PDIST |  | 25,789,962 |  | 21,426,997 |  | 18,065,683 |  | 10,744,362 |  | 20,688,932 |  | - |  | - |  | - |
| Total General Plant | ADITGP | PT\&D |  | 688,425 |  | 571,962 |  | 482,237 |  | 286,805 |  | 552,260 |  | - |  | - |  | - |
| Total Accumulated Deferred Income Tax | ADITT |  |  | 26,478,387 |  | 21,998,959 |  | 18,547,919 |  | 11,031,167 |  | 21,241,192 |  | - |  | - |  | - |
| Accumulated Deferred Investment Tax Credits |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production | ADITCP | F017 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Transmission | Aditct | F011 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Transmission VA | aditctva | F011 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Distribution VA | Aditcdia | PDIST |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Distribution Plant KY,FERC \& TN | ADITCDKY | PDIST |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| General | ADITCG | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Accum. Deferred Investment Tax Credits | aditctl |  |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Deferred Debits |  |  | \$ | 26,478,387 | \$ | 21,998,959 | \$ | 18,547,919 | s | 11,031,167 | \$ | 21,241,192 | \$ | - | s | - | \$ | - |
| Less: Customer Advances | CStDep | F027 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Less: Asset Retirement Obligations |  | ${ }^{\text {F017 }}$ |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Net Rate Base | RB |  | \$ | 104,229,018 | s | 86,596,282 | \$ | 73,005,398 | s | 45,031,431 | s | 83,606,234 | \$ | 8,704,114 | s | 1,105,953 | \$ |  |


| Description | Name | Functional <br> Vector | $\begin{gathered} \text { Total } \\ \text { System } \end{gathered}$ | Production Demand | Production Energy | $\begin{gathered} \text { Transmission } \\ \text { Demand } \end{gathered}$ | Distribution Poles | Distribution Substation | istribution Primary Li |  |  | istribution Sec. Lines |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | LOLP | Energy | Demand | Specific | General | Specific | Demand | Customer | Demand |  |

## Operation and Maintenance Expenses

Steam Power Generation Operation Expenses
500 OPERATION SUPERVISION \& ENGINEERING
501 FUEL
501 FUEL
505 ELECTRIIC EXPENSES
506 MISC.
507 RENTS
Total Steam Power Operation Expenses

Steam Power Generation Maintenance Expenses
510 MAINTENANCE SUPERVISION \& ENGINEERING 510 MAINTENANCE SUPERVIIIION \&
511 MAINTENANCE OF STRUCTURES
512 MAINTENANCE OF BOILER PLANT
512 MAINTENANCE OF BOLLER PLANT
513 MAINTENANCE OF ELECTRIC PLANT
514 MAINTENANCE OF MISC STEAM PLANT
Total Steam Power Generation Maintenance Expense
Total Steam Power Generation Expense

| OM500 | LBSUB1 |
| :--- | :--- |
| OM501 | Energy |
| OM502 |  |
| OM55 |  |
| OM506 | PROFIX |
| OM550 | PROFIX |
| OM509 | PROFIX |
|  |  |
|  |  |
| OM510 | LBSUB22 |
| OM511 | PROFIX |
| OM5512 | Eneryy |
| OM513 | Energy |
| OM514 | Energy |


| \$ | 5,418,923 |
| :---: | :---: |
|  | 296,477,275 |
|  | 22,989,772 |
|  | 8,130,854 |
|  | 25,402,796 |
|  | - |
|  |  |


| $4,838,523$ | 580,400 |  |
| :---: | :---: | :---: |
| $9,649,494$ | $296,477,275$ |  |
| $13,30,278$ |  |  |
| $6,673,09$ | $1,457,845$ |  |
| $25,40,796$ | - |  |
| - | - |  |
| $46,563,822$ | $\$$ | $311,855,798$ |


| s | 12,501,304 |  | 1,358,608 |  | 11,142,696 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10,051,562 |  | 10,051,562 |  |  |  |
|  | 48,391,532 |  |  |  | 48,391,532 |  |
|  | 12,209,687 |  | - |  | 12,209,687 |  |
|  | 3,446,376 |  | - |  | 3,446,376 |  |
| \$ | 86,600,461 | s | 11,410,170 | \$ | 75,190,291 | s |
| \$ | 445,020,081 | s | 57,973,993 | \$ | 387,046,088 | s |

Hydraulic Power Generation Operation Expenses
535 OPRRATON SUUERVISION \& ENGINEERING 36 Water for power
37 HYDRAULIC EXPENSES
538 ELECTRIC EXPENSES
59 MISC. HYDRAULIC POWER EXPENSES Rents

| OM535 | L |
| :--- | :--- |
| OM536 | P |
| OM537 | P |
| OM538 | P |
| OM539 | P |
|  |  |
|  |  |

Total Hydraulic Power Operation Expenses
Hydraulic Power Generation Maintenance Expenses
541 MAINTENANCE SUPERVISION \& ENGINEERING
42 MAINTENANCE OF STRUCTURES
53 MAINT. OF RESERVES, DAMS, AND WATERWAYS
S4 MAINTENANCE OF ELECTRIC PLANT
Total Hydraulic Power Generation Maint. Expense
Total Hydraulic Power Generation Expense

Total

gineering
$\qquad$
7 RENTS
9 Allowances

MAINTENANCE OF ELECTRIC PLANT
MAINTENANCE OF MISC STEAM PLAN
MAINTENANCE OF MISC STEAM PLANT
LBSUB3
PRRFIX
PROFIX
PRRFIX
PROFIX
PROFIX

| OM541 | LBSUB4 |
| :--- | :--- |
| OM542 | PROFIX |
| OM543 | PRFFI |
| OM544 | Energy |
| OM545 | Energy |



|  |  | Functional | Distribution Line Trans. | Distribution Services | Distribution Meters | Distribution St. \& Cust. Lighting | Customer Accounts <br> Expense | $\begin{array}{r}\begin{array}{r}\text { Customer } \\ \text { Service \& Info. }\end{array} \\ \hline\end{array}$ | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Name | Vector | Demand ${ }^{\text {Cu}}$ | Customer |  |  |  |  |  |

## Operation and Maintenance Expenses

Steam Power Generation Operation Expenses 500 OPERATION SUPERVISION \& ENGINEERING 501 FUEL
02 STEAM EXPENSES
505 ELECTRIC EXPENSES
506 MISC. STEAM POWER EXPENSES
07 RENTS
507 RENTS
509 ALLOWANCES
Total Steam Power Operation Expenses
Steam Power Generation Maintenance Expenses
510 MAINTENANCE SUPERVISION \& ENGINEERING
10 MAINTENANCE SUPERVISION \&
511 MAINTENANCE OF STRUCTURES
51 MAINTENANCE OF STRUCTURES
513 MAINTENANCE OF ELECTRIC PLANT
514 MAINTENANCE OF MISC STEAM PLANT
Total Steam Power Generation Maintenance Expense
Total Steam Power Generation Expense
Hydraulic Power Generation Operation Expenses
535 OPRATION SUPERVISION \& ENGINEERING 36 WATER FOR POWER
337 HYDRAULIC EXPENSES
38 ELECTRIC EXPENSES
538 ELECTRIC EXPENSES
540 RENTS
Total Hydraulic Power Operation Expenses
Hydraulic Power Generation Maintenance Expenses
541 MAINTENANCE SUPERVISION \& ENGINEERING
542 MAINTENANCE OF STRUCTURES
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS
55 MAINTENANCE OF MISC HYDRAULIC PLAN
Total Hydraulic Power Generation Maint. Expense

| OM500 | LBSUB1 |
| :--- | :--- |
| OM501 | Energy |
| OM550 |  |
| OM505 |  |
| OM506 | PROFIX |
| OM507 | PROFIX <br> OM509 <br> PROFIX |


| OM535 | LBSU |
| :--- | :--- |
| OM536 | PROF |
| OM537 | PRO |
| OM538 |  |


$\begin{array}{ll}\text { OM538 } & \begin{array}{l}\text { PROFI } \\ \text { OM539 }\end{array} \\ \text { Profil }\end{array}$

|  |  |
| :--- | :--- |
| OM510 | LBSUB2 |
| OM511 | PRRFI |
| OM512 | Energy |
| OM513 | Energy |
| OM514 | Energy |

Total Hydraulic Power Generation Expense

| OM541 | LBSUB4 |
| :--- | :--- |
| OM542 | PROFIX |
| OM543 | PROFIX |
| OM544 | Eneryy |
| OM545 | Energy |


| Description | Name | Functional <br> Vector | $\begin{gathered} \text { Total } \\ \text { System } \end{gathered}$ | Production Demand | Production Energy | $\begin{gathered} \text { Transmission } \\ \text { Demand } \end{gathered}$ | Distribution Poles | Distribution Substation | istribution Primary Li |  |  | istribution Sec. Lines |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | LOLP | Energy | Demand | Specific | General | Specific | Demand | Customer | Demand |  |

## Operation and Maintenance Expenses (Continued)

Other Power Generation Operation Expense
546 OPERATION SUPERVISION \& ENGINEERING
547 FUEL

548 GENERATION EXPENSE
548 GENERATION EXPENSE
549 MISC OTHER POWER GENERATION
550 RENTS

| OM546 | LBSUB5 | \$ | 647,260 |  | 647,260 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OM547 | Energy |  | 107,114,208 |  | - |  | 107,114,208 |  |
| OM548 | PROFIX |  | 682,059 |  | 682,059 |  | - |  |
| OM549 | PRoFIX |  | 5,376,587 |  | 5,376,587 |  |  |  |
| OM550 | Profix |  | 9,693 |  | 9,693 |  | - |  |
|  |  | \$ | 113,829,807 | s | 6,715,599 | \$ | 107,114,208 | s |
| OM551 | Profix | \$ | 911,492 |  | 911,492 |  | - |  |
| OM552 | PROFIX |  | 876,396 |  | 876,396 |  | - |  |
| OM553 | Profix |  | 7,236,966 |  | 7,236,966 |  | - |  |
| OM554 | PROFIX |  | 5,979,786 |  | 5,979,786 |  | - |  |
|  |  | \$ | 15,004,640 | s | 15,004,640 | s | - | s |
|  |  | \$ | 128,834,447 | s | 21,720,239 | \$ | 107,114,208 | s |
|  |  | \$ | 574,443,986 | s | 80,013,549 | \$ | 494,430,437 | s |
| OM555 | OMPP | \$ | 48,544,007 |  | 9,572,612 |  | 38,971,395 |  |
| OMO555 | OMPP |  |  |  | - |  | - |  |
| OMB555 | OMPP |  |  |  | - |  | - |  |
| OMM555 | OMPP |  |  |  | - |  | - |  |
| OM556 | Profix |  | 2,300,266 |  | 2,300,266 |  | - |  |
| OM557 | Profix |  | 154,987 |  | 154,987 |  | - |  |
| TPP |  | \$ | 50,999,260 | s | 12,027,865 | \$ | 38,971,395 | s |


| s | - | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - |  | - |  | - |  | - |  | - |  | - |  |
|  | - |  | - |  | - |  |  |  |  |  | - |  |
|  | - |  | - |  | . |  | . |  | . |  | - |  |
| s | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ |
| \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ |
| s | - | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | : |  | - |  | : |  |  |  |  |  | - |  |
|  | - |  | - |  | - |  | - |  | - |  | - |  |
|  | $:$ |  | : |  | : |  | : |  | : |  | - |  |
|  | $:$ |  | $:$ |  | $:$ |  | - |  | $:$ |  | - |  |
| \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - | \$ |
| \$ |  | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ |


|  |  | Functional | Distribution Line Trans. | Distribution Services | Distribution Meters | Distribution St. \& Cust. Lighting | $\begin{array}{\|c} \begin{array}{c} \text { Customer Accounts } \\ \text { Expense } \end{array} \\ \hline \end{array}$ | $\begin{array}{r} \text { Customer } \\ \text { Service \& Info. } \end{array}$ | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Name | Vector | Demand | Cust |  |  |  |  |  |

## Operation and Maintenance Expenses (Continued)

Other Power Generation Operation Expense
546 OPERATION SUPERVISION \& ENGINEERING 544 OPERA
547 FUEL
548 GENER ATION RXPENS
549 MISC OTHER POWER GENERATION
550 RENTS

| OM546 | LBSUB5 |
| :--- | :--- |
| OM547 | Energy |
| OM548 | PROFIX |
| OM549 | PROFIX |
| OM550 | PROFIX |

Other Power Generation Maintenance Expense
551 MAINTENANCE SUPERVISION \& ENGINEERING 551 MAINTENANCE SUPERVIIIION \& E
552 MANTENANCE OF STRUCTURES
553 .
53 MAINTENANCE OF GENERATING \& ELEC PLANT
554 MAINTENANCE OF MISC OTHER POWER GEN PL
Total Other Power Generation Maintenance Expense
Total Other Power Generation Expense
Total Station Expense
Other Power Supply Expenses
555 PURCHASED POWER OPTIONS
55 brokerage fees
555 MISO TRANSMISSION EXPENSES
556 SYSTEM CONTROL AND LOAD DISPATCH 557 OTHER EXPENSES

Total Other Power Supply Expenses
Total Electric Power Generation Expenses


| Description | Name | Functional Vector | Distribution Line Trans. |  | Services | Distribution Meters | Distribution St. \& Cust. Lighting | $\begin{array}{r}\text { Customer Accounts } \\ \text { Expense } \\ \hline\end{array}$ | $\begin{array}{r} \text { Customer } \\ \text { Service \& Info. } \end{array}$ | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Demand |  |  |  |  |  |  |  |

## Operation and Maintenance Expenses (Continued)

## Transmission Expenses 560 OPERATION <br> 1 LOAD DISP SUPERVISION AND ENG

562 STADION EXPENSES
563 OVERHEAD LINE EXPENSES
56 TRANSMISSION OF ELECTRICITY BY OTHERS
566 MISC. TRANSMISSION EXPENSES
567 RENTS
8 MAINTENACE SUPERVIIION AND ENG
569 STRUCTURES
50 MAINT OF STATION EQUIPMENT
571 MAINT OF OVERHEAD LINES
572 UNDERGROUND LINES
575 MISO DAY $1 \& 2$ EXPENSE
Total Transmission Expenses
Distribution Operation Expense
580 OPERATION SUPERVISION AND ENGI 581 LOAD DISPATCHING
82 STATION EXPENSES
584 UNDERGROUND LINE EXPENSES
55 STREET LIGHTING EXPENSE
586 METTR EXPENSES
586 METER EXPENSES - LOAD MANAGEMENT
586 METER EXPENSES - LOAD MANAGEMENT 588 MIICCELLANEOUS DISTRIBUTION EXP 88 MISC DISTR EXP -- MAPPIN
589 RENTS

| OM560 | lbtran |
| :---: | :---: |
| OM561 | Lbtran |
| OM562 | LBTR |
| OM563 | 俍tra |
| OM565 | Lbtran |
| OM566 | ptran |
| OM567 | PtRan |
| OM568 | Lbtran |
| OM569 | LbTRAN |
| OM570 | Lbtran |
| OM571 | Lbtran |
| OM572 | Lbtran |
| OM573 | PTRAN |
| OM575 | PTRAN |

Total Distribution Operation Expense

|  |  |
| :--- | :--- |
| OM580 | LBDO |
| OM581 | P362 |
| OM582 | P362 |
| OM583 | P365 |
| OM584 | P337 |
| OM585 | P373 |
| OM586 | P370 |
| OM588x | F012 |
| OM587 | P371 |
| OM588 | PDIST |
| OM588x | PDIST |
| OM589 | PDIST |
| OMDO |  |

OMDO

## btran <br> RaN ptran LbTran LbTtan LbTran ibtran LBTRAN LbTRAN LBTRAN AN


37,660

| 31,294 | 26,385 | 772,788 | 30,216 |
| :---: | :---: | :---: | :---: |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| $:$ | - | 9,700,980 | - |
| - | - | - |  |
| 577,211 | 486,662 | 289,437 | 557,329 |



|  |  | Functional | Distribution Line Trans. | Distribution Services | Distribution Meters | Distribution St. \& Cust. Lighting | $\begin{array}{\|c} \begin{array}{c} \text { Customer Accounts } \\ \text { Expense } \end{array} \\ \hline \end{array}$ | $\begin{array}{r} \text { Customer } \\ \text { Service \& Info. } \end{array}$ | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Name | Vector | Demand | Cust |  |  |  |  |  |

## Operation and Maintenance Expenses (Continued)

Distribution Maintenance Expense
590 MAINTENANCE SUPERVISION AND EN 591 STRUCTURES
592 MAINTENANCE
592 MAINTENANCE OF STATION EQUIPM
593 MAINTENANCE OF OVERHEAD LINES
595 MAINTENANCE OF LINE TRANSFORME
596 MAINTENANCE OF ST LIGHTS \& SIG SYSTEMS MAITENANCE OF METER
598 MISCELLANEOUS DISTRIBUTION EXPENSES
Total Distribution Maintenance Expense
Total Distribution Operation and Maintenance Expense
Transmission and Distribution Expenses

Production, Transmission and Distribution Expenses

## Customer Accounts Expense <br> 01 SUPERVISION/CUSTOMER ACCTS <br> 2 METER READING EXPENSE <br> 904 UNCOLLECTIBLE ACCOUNT <br> 905 MISC CUST ACCOUNTS

Total Customer Accounts Expense

## Customer Service Expense

908 CUSTOMER ASSISTANCE EXPENSES
908 CUSTOMER ASSISTANCE EXPENSES
09 INFORMATIONAL AND INSTRUCTIONA
09 InForm and instruc -LOAD MgMT 10 MISCELLANEOUS CUSTOMER SERVIC 12 DEMONSTRATION AND SELLING EXP 13 ADVERTIING EXPENSE
916 MISC SALES EXPENSE
Total Customer Service Expense
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service

|  |  |
| :--- | :--- |
| OM590 | LBDM |
| OM591 | P362 |
| OM592 | PP62 |
| OM593 | P365 |
| OM594 | PP67 |
| OM595 | P368 |
| OM596 | P373 |
| OM597 | P370 |
| OM598 | PDIST |
| OMDM |  |

omsub

|  |
| :---: |
|  |  |
|  |
| ом904 |
| ом903 |
| omca |
| OM907 |
| ом908 |
| ом908x |
| OM909 OM909x |
|  |  |
|  |
| ом911 |
| ом912 |
|  |  |
|  |
| омCs |
| OMSUB2 |


|  | 202 |  | 168 |  | 1 |  | 1 |  | 2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - |  | - |  |  |  |  |  |  |  |
|  | - |  | - |  | - |  | - |  | - |  |
|  | - |  | - |  | : |  |  |  |  |  |
|  | 57,943 |  | 48,141 |  | - |  | - |  | - |  |
|  | - |  | - |  | - |  | - |  | - |  |
|  | 47,793 |  | 39,707 |  | 33,478 |  | 19,911 |  | 38,340 |  |
| \$ | 105,938 | s | 88,016 | \$ | 33,480 | s | 19,940 | s | 38,341 | \$ |
|  | 838,347 |  | 696,521 |  | 546,527 |  | 10,783,145 |  | 625,886 |  |
|  | 838,347 |  | 696,521 |  | 546,527 |  | 10,783,145 |  | 625,886 |  |
| \$ | 838,347 | s | 696,521 | \$ | 546,527 | s | 10,783,145 | s | 625,886 | \$ |


| 4,235,757 |  | - |  |
| :---: | :---: | :---: | :---: |
| 9,902,132 |  | - |  |
| 21,487,653 |  | - |  |
| 4,646,049 |  | - |  |
| 165,801 |  | - |  |
| 40,437,392 | s | - | \$ |
| - |  | 368,993 |  |
| - |  | 1,252,447 |  |
| - |  | 677 |  |
| - |  | 1,698,677 |  |
| $:$ |  | 1,818,935 |  |
| - |  |  |  |
| - |  | 121,604 |  |
| - |  | - |  |
| - | s | 5,260,656 | \$ |
| 40,437,392 |  | 5,260,656 |  |



| Description | Name | Functional Vector | Distribution Line Trans. |  |  |  |  | $\begin{gathered} \text { Distribution } \\ \text { Services } \\ \hline \end{gathered}$ | Distribution Meters |  | Distribution St. \& Cust. Lighting |  |  |  | Customer Service \& Info |  | Sales Expense |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Demand Customer |  |  |  | $\frac{\text { Services }}{\text { Customer }}$ |  |  |  |  |  |  |  |  |  |  |  |
| Operation and Maintenance Expenses (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Administrative and General Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 920 ADMIN. \& GEN. SALARIES- | OM920 | LBSUB7 |  | 516,849 |  | 429,412 |  | 362,049 |  | 215,325 |  | 414,621 |  | 5,393,575 |  | 644,026 |  | - |
| 921 OFFICE SUPPLIES AND EXPENSES | OM921 | LBSUB7 |  | 161,517 |  | 134,193 |  | 113,142 |  | 67,290 |  | 129,571 |  | 1,685,513 |  | 201,261 |  |  |
| 922 administrative expenses transferred | OM922 | LBSUB7 |  | $(97,336)$ |  | $(80,869)$ |  | $(68,183)$ |  | $(40,551)$ |  | $(78,084)$ |  | $(1,015,748)$ |  | $(121,287)$ |  | - |
| 923 OUTSIDE SERVICES EMPLOYED | OM923 | LBSUB7 |  | 334,290 |  | 277,737 |  | 234,168 |  | 139,269 |  | 268,170 |  | 3,488,482 |  | 416,546 |  | - |
| 924 Property insurance | OM924 | TUP |  | 167,181 |  | 138,899 |  | 117,109 |  | 69,649 |  | 134,114 |  |  |  | - |  | - |
| 925 injuries and damages - insuran | OM925 | LBSUB7 |  | 74,867 |  | 62,201 |  | 52,444 |  | 31,190 |  | 60,059 |  | 781,272 |  | 93,289 |  | - |
| 926 Employee benefits | Ом926 | LBSUB7 |  | 493,195 |  | 409,760 |  | 345,480 |  | 205,470 |  | 395,646 |  | 5,146,736 |  | 614,552 |  |  |
| 928 Regulatory Commission fees | Ом928 | TUP |  | 16,309 |  | 13,550 |  | 11,425 |  | 6,795 |  | 13,084 |  |  |  | - |  |  |
| 929 duplicate charges | ом929 | LBSUB7 |  | - |  |  |  |  |  |  |  | - |  | - |  | - |  |  |
| 930 miscellaneous general expenses | ом930 | LBSUB7 |  | 51,936 |  | 43,150 |  | 36,381 |  | 21,637 |  | 41,664 |  | 541,981 |  | 64,716 |  | - |
| 931 RENTS AND LEASES | ом931 | PGP |  | 59,061 |  | 49,069 |  | 41,372 |  | 24,605 |  | 47,379 |  | - |  | - |  |  |
| 935 maintenance of general plant | ом935 | PGP |  | 32,078 |  | 26,651 |  | 22,470 |  | 13,364 |  | 25,733 |  | - |  | - |  | - |
| Total Administrative and General Expense | Omag |  | s | 1,809,949 | s | 1,503,754 | \$ | 1,267,856 | s | 754,043 | s | 1,451,957 | \$ | 16,021,811 | s | 1,913,104 | s | - |
| Total Operation and Maintenance Expenses | том |  | s | 2,648,296 | s | 2,200,276 | \$ | 1,814,383 | s | 11,537,188 | s | 2,077,842 | \$ | 56,459,203 | s | 7,173,760 | \$ | - |
| Operation and Maintenance Expenses Less Purchase Power | OMLPP |  | \$ | 2,648,296 | s | 2,200,276 | \$ | 1,814,383 | s | 11,537,188 | s | 2,077,842 | \$ | 56,459,203 | s | 7,173,760 | \$ |  |


| Description | Name | Functional <br> Vector | $\begin{gathered} \text { Total } \\ \text { System } \end{gathered}$ | Production Demand | Production Energy | $\begin{gathered} \text { Transmission } \\ \text { Demand } \end{gathered}$ | Distribution Poles | Distribution Substation | istribution Primary Li |  |  | istribution Sec. Lines |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | LOLP | Energy | Demand | Specific | General | Specific | Demand | Customer | Demand |  |

## Labor Expenses

Steam Power Generation Operation Expenses
500 OPERATION SUPERVIISION \& ENGINEERING
501 FUEL 502 STEAM EXPENSES
505 ELECTRIC EXPENSES
507 RENTS
Total Steam Power Operation Expenses
Steam Power Generation Maintenance Expenses
510 MAINTENANCE SUPERVISION \& ENGINEERING
11 MAINTENANCE OF STRUCTURES
512 MAINTENANCE OF BOILER PLANT
14 MAINTENANCE OF ELECTRIC PLEAM PLANT
Total Steam Power Generation Maintenance Expense
Total Steam Power Generation Expense
Hydraulic Power Generation Operation Expenses

| 35 OPERATION SUPERVISION \& ENGINEERING |
| :--- |
| 36 WATER FOR POWER |

37 HYDRAULIC EXPENSE
538 ELECTRIC EXPENSES
539 MISC. HYDRAULIC POWER EXPENSES
540 Rents
Total Hydrallic Power Operation Expenses
Hydraulic Power Generation Maintenance Expenses
541 MAINTENANCE SUPERVISION \& ENGINEERING 542 MAINTENANCE OF STRUCTURES
543 MAINT. OF RESERVES, DAMS, AND WATERWAY
544 MAINTENANCE OF ELECTRIC PLANT
545 MAINTENANCE OF MISC HYDRAULIC PLANT
Total Hydraulic Power Generation Maint. Expense
Total Hydraulic Power Generation Expense

| LB500 | F019 | \$ | 4,272,282 |  | 3,814,695 |  | 457,587 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LB501 | Energy |  | 2,438,484 |  |  |  | 2,438,484 |  |
| LB502 | PROFIX |  | 9,649,494 |  | 9,649,494 |  | - |  |
| LB505 | Profix |  | 6,673,009 |  | 6,673,009 |  |  |  |
| LB506 | PROFIX |  | 4,006,010 |  | 4,006,010 |  |  |  |
| LB507 | Profix |  |  |  |  |  |  |  |
| LBSUB1 |  | \$ | 27,039,279 | s | 24,143,208 | \$ | 2,896,071 | s |
| LBS10 | F020 | \$ | 11,171,048 |  | 1,214,040 |  | 9,957,008 |  |
| LB511 | Profix |  | 1,477,460 |  | 1,477,460 |  | - |  |
| LB512 | Energy |  | 9,693,149 |  | - |  | 9,693,149 |  |
| LB513 | Energy |  | 1,990,323 |  | - |  | 1,990,323 |  |
| LB514 | Energy |  | 433,991 |  | - |  | 433,991 |  |
| LBSUB2 |  | \$ | 24,765,971 | s | 2,691,500 | \$ | 22,074,471 | s |
|  |  | \$ | 51,805,250 | s | 26,834,707 | \$ | 24,970,543 | s |


| LB535 | F021 |
| :---: | :---: |
| LB536 | PROFIX |
| LB537 | PROFIX |
| LB538 | PROFIX |
| LB539 | PROFIX |
| LB540 | PROFIX |
| LBSUB3 |  |


| LB541 | F022 |
| :--- | :--- |
| LB542 | PROFIX |
| LB543 | PROFIX |
| LB544 | Energy |
| LB545 | Energy |
|  |  |


| \$ | 160,360 |  | 104,960 |  | 55,400 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 43,386 |  | 43,386 |  | - |
|  | 911 |  | 911 |  |  |
|  | 22,712 |  | - |  | 22,712 |
|  | 669 |  | - |  | 669 |
| \$ | 228,038 | s | 149,257 | \$ | 78,781 |


|  |  | Functional | Distribution Line Trans. | Distribution Services | Distribution Meters | Distribution St. \& Cust. Lighting | Customer Accounts Expense | $\begin{array}{r}\begin{array}{r}\text { Customer } \\ \text { Service \& Info. }\end{array} \\ \hline\end{array}$ | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Name | Vector | Demand Cus | Customer |  |  |  |  |  |

## Labor Expenses

Steam Power Generation Operation Expenses
500 OPERATION SUPERVISION \& ENGINEERING
501 FUEL 502 STEAM EXPENSES
505 ELECTRIC EXPENSES
506 MICT STEAM POWER EXPENSES
507 ReNTS
Total Steam Power Operation Expenses
Steam Power Generation Maintenance Expenses
510 MAINTENANCE SUPERVISION \& ENGINEERING 511 MAINTENANCE OF STRUCTURES
12 MAINTENANCE OF STRUCTURES
512 MAINTENANCE OF BOILER PLANT
513 MAINTENANCE OF ELECTRIC PLAN
514 MAINTENANCE OF MISC STEAM PLANT
Total Steam Power Generation Maintenance Expense
Total Steam Power Generation Expense
Hydraulic Power Generation Operation Expenses
535 OPERATION SUPERVISION \& ENGINERING 536 WATER FOR POWER
37 HYDRAULIC EXPENS
538 ELECTRIC EXPENSES
539 MISC. HYDRAULIC POWER EXPENSES
540 Rents
Total Hydrallic Power Operation Expenses
Hydraulic Power Generation Maintenance Expenses
541 MAINTENANCE SUPERVISION \& ENGINEERING 54 MAINTENANCE OF STRUCTURES
43 MAINT. OF RESERVES, DAMS, AND WATERWAYS
544 MAINTENANCE OF ELECTRIC PLANT
545 MAINTENANCE OF MISC HYDRAULLC PLANT
Total Hydraulic Power Generation Maint. Expense
Total Hydraulic Power Generation Expense



| LB535 | F021 |  | - |  | - |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 536 | PROFIX |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LB537 | PROFIX |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 538 | PROFIX |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LB539 | PROFIX |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LB540 | PROFIX |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LBSUB3 |  | \$ |  | s |  | \$ |  | s | s | - | \$ |  | s | - |  |


\section*{${ }_{\text {LB542 }}^{\text {LB54 }}$ <br> | LB543 |
| :--- |
| LBROF |
| PROFIX | <br> | LB544 |  |
| :---: | :---: |
| LB545 | $\begin{array}{c}\text { Energy } \\ \text { Energy }\end{array}$ |}


| Description | Name | Functional <br> Vector | $\begin{gathered} \text { Total } \\ \text { System } \end{gathered}$ | Production Demand | Production Energy | $\begin{array}{r} \text { Transmission } \\ \text { Demand } \end{array}$ | Distribution Poles | Distribution Substation | Distribution Primary Lines |  |  | istribution Sec. Lines |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | LOLP | Energy | Demand | Specific | General | Specific | Demand | Customer | Demand |  |

## Labor Expenses (Continued)

Other Power Generation Operation Expene
546 OPERATION SUPERVISION \& ENGINEERING
547 FUEL
548 GENERATION EXPENSE
549 MISC OTHER POWER GENERATIO
545 RENTS

| LB546 | PROFIX | s | 527,544 |  | 527 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| LB547 | Energy |  | - |  |  |
| LB548 | Profix |  | 383,627 |  | 38 |
| LB549 | Profix |  | 2,757,670 |  | 2,757 |
| LB550 | Profix |  |  |  |  |
| LBSUB5 |  | \$ | 3,668,841 | s | 3,668 |
| ${ }^{\text {LB551 }}$ | Profix | \$ | 732,436 |  | 732 |
| LB552 | Profix |  | 351,927 |  | 351 |
| LB553 | PROFIX |  | 1,277,077 |  | 1,277 |
| LB554 | PROFIX |  | 1,287,143 |  | 1,287 |
| LBSUB6 |  | \$ | 3,648,583 | s | 3,6 |
|  |  | \$ | 7,317,424 | s | 7,317 |
| LPREX |  | \$ | 59,350,712 | s | 34,301 |
| LB555 | OMPP | \$ | - |  |  |
| LB556 | PROFIX | \$ | 2,263,912 |  | 2,26 |
| LB557 | PROFIX | \$ | - |  |  |



## Labor Expenses (Continued)

Other Power Generation Operation Expense
546 OPERATION SUPERVISION \& ENGINEERING
547 FUEL 548 GENERATION EXPENSE
549 MISC OTHER POWER GENERATION
550 Rents

| LB546 | PRC |
| :--- | :--- |
| LB547 | Ene |
| LB548 | PR |
| LB549 | PR0 |
| LB550 | PRC |
| LBSUB5 |  |
|  |  |

PROFIX
Energy
PROFIX

Total O
Other Power Generation Maintenance Expense
551 MAINTENANCE SUPERVISION \& ENGINEERING 551 MAINTENANCE SUPERVISION \& E
552 MANTENANCE OF STRUCTURES
553
553 MAINTENANCE OF GENERATING \& ELEC PLANT
554 MAINTENANCE OF MISC OTHER POWER GLAN PL
Total Other Power Generation Maintenance Expense
Total Other Power Generation Expense
Total Production Expense
Purchased Power
555 PURCHASED POWER
556 SYSTEM CONTROR
556 SYSTEM CONTROL
LB555
LB556 $\begin{aligned} & \text { OMPP } \\ & \text { PROFIX }\end{aligned}$

Total Purchased Power Labo

| Description | Name | Functional Vector |  | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ | Production Demand |  | Production Energy |  | TransmissionDemandDemand | Distribution Poles |  | $\begin{gathered} \text { Distribution } \\ \text { Substation } \end{gathered}$ |  |  | Distribution Primary Lines |  |  |  | Customer |  | Distribution Sec. Lines |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | LOLP | Energy |  |  |  | Specific |  |  |  | Specific |  | Demand |  |  |  | Demand |  | Customer |
| Labor Expenses (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Labor Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 560 OPERATION SUPERVISIION AND ENG | LB560 | Ptran | \$ | 1,591,418 |  |  | - |  | 1,591,418 |  | - |  | - |  | - |  | - |  |  |  |  |  |  |
| 561 LOAD DISPATCHING | ${ }^{\text {LB561 }}$ | PTRAN |  | 4,089,959 |  | - | - |  | 4,089,959 |  | - |  | - |  | - |  | - |  | - |  | - |  |  |
| 562 STATION EXPENSES | ${ }^{\text {LB562 }}$ | PTRAN |  | 424,026 |  | - | - |  | 424,026 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 563 OVERHEAD LINE EXPENSES | ${ }^{\text {LB563 }}$ | PTRAN |  | 45,989 |  | - | - |  | 45,989 |  | - |  | - |  | : |  | : |  |  |  |  |  |  |
| 566 MISC. TRANSMISSION EXPENSES | ${ }^{\text {LBS66 }}$ | PTRAN |  | , |  | - | - |  | , 950 |  | - |  | - |  | - |  | - |  | : |  |  |  |  |
| 568 MAINTENACE SUPERVIIIION AND ENG | LB568 LB570 | PTRAN PTRAN |  | 393,950 |  | - | - |  | 393,950 |  | - |  | - |  | : |  |  |  | - |  |  |  |  |
| 570 MAINT OF STATION EQUIPMENT 571 MAINT OF OVERHEAD LINES | ${ }_{\text {LB571 }}^{\text {LB570 }}$ | PTRAN PTRAN |  | - |  | : | $:$ |  | : |  | : |  | - |  | : |  | - |  | : |  | - |  | $\div$ |
| 572 UNDERGROUND LINES | LB572 | ptran |  | 1,126,679 |  | - | - |  | 1,126,679 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 573 MISC PLANT | LB573 | Ptran |  | 309,102 |  | - | - |  | 309,102 |  | - |  | - |  | - |  | - |  | - |  | - |  |  |
| Total Transmission Labor Expenses | Lbtran |  | \$ | 7,981,123 | s | - \$ | \$ - | \$ | 7,981,123 | s | - | s | - | \$ | - | s | - | s | - | \$ | - | \$ | - |
| Distribution Operation Labor Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 581 LOAD dispatching | ${ }^{\text {LB581 }}$ | ${ }^{\text {P362 }}$ |  | 335,815 |  | - | - |  | - |  | - |  | 335,815 |  | - |  | - |  | - |  | - |  |  |
| 582 STATION EXPENSES | ${ }^{\text {LB582 }}$ | P362 |  | 1,155,025 |  | - | - |  | - |  | - |  | 1,155,025 |  | - |  | - |  | - |  | - |  | - |
| 583 OVERHEAD LINE EXPENSES | ${ }^{\text {LBS53 }}$ | ${ }_{\text {P365 }}$ |  | 3,066,624 |  | - | - |  | - |  | - |  | - |  | - |  | 778,967 |  | 1,384,229 |  | 325,324 |  | 578,103 |
| 584 UNDERGROUND LINE EXPENSES | ${ }^{\text {LB584 }}$ | P367 |  | 28,983 |  |  | - |  | - |  | - |  | - |  | - |  | 4,405 |  | 13,132 |  | 2,875 |  | 8,570 |
| 585 STREET LIGHTING EXPENSE | ${ }^{\text {LB585 }}$ | ${ }^{\text {P3771 }}$ |  | 00 |  | - | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 586 METER EXPENSES | ${ }^{\text {LB586 }}$ | ${ }^{\text {P370 }}$ |  | 5,005,004 |  | - | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 586 METER EXPENSES- LOAD MANAGEMENT 587 CUSTOMER NSTALIATIONS EXPENSE | ${ }_{\text {LB5886 }}$ | $\underset{\text { F012 }}{ }$ |  | - |  | - | : |  | : |  | : |  | - |  | : |  | $:$ |  | $:$ |  | $:$ |  |  |
| 587 CUSTOMER INSTALLATIONS EXPENSE 588 MISCELLANEOUS DISTRIBUTION EXP | LB587 LB588 | ${ }_{\text {P3IIST }}^{\text {P371 }}$ |  | $\underset{3,043,460}{ }$ |  | : | - |  | - |  | $:$ |  | 477,061 |  | - |  | 379,432 |  | 737,527 |  | 170,815 |  | 344,832 |
| 589 Rents | LB589 | PDIST |  | - |  | - | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Operation Labor Expense | LBDO |  | \$ | 13,903,566 | \$ | - \$ | \$ - | \$ | - | s | - | \$ | 2,165,496 | \$ | - | \$ | 1,279,560 | \$ | 2,349,250 | \$ | 549,119 | s | 1,025,037 |


| Description | Name | Functional Vector | Distribution Line Trans. |  |  |  |  | $\begin{gathered} \text { Distribution } \\ \text { Servies } \\ \hline \text { Customer } \end{gathered}$ |  | Distribution Meters | Distribution St. \& Cust. Lighting |  | Customer AccountsExpense |  | $\begin{array}{r} \text { Customer } \\ \text { Service \& Info. } \end{array}$ |  | Sales Expense |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Demand Customer |  |  |  | Customer |  |  |  |  |  |  |  |  |  |  |  |
| Labor Expenses (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Labor Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 560 OPERATION SUPERVISİN 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 SUPERVIIIION 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 | - | \$ |  | s |  | s | - | \$ | - | s | - | \$ |  |
| Distribution Operation Labor Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 580 OPERATION SUPERVISION AND ENGI | LB580 | F023 |  | 25,002 |  | 20,772 |  | 17,514 |  | 512,962 |  | 20,057 |  | - |  | - |  |  |
| 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 |  | - |  | - |  | - |  | 5,005,004 |  | - |  | - |  | - |  |  |
| 586 METER EXPENSES - LOAD MANAGEMENT | LB586x | F012 |  | - |  | - |  | - |  | - |  | - |  |  |  |  |  |  |
| 587 CUSTOMER INSTALLATIONS EXPENSE | LB587 | ${ }_{\text {P371 }}$ |  | 002 |  | 878 |  | , |  | 737 |  | 75 |  | - |  | - |  |  |
| 588 MIISCELLANEOUS DISTRIBUTION EXP | LB588 | PDIST |  | 249,002 |  | 206,878 |  | 174,424 |  | 103,737 |  | 199,752 |  | - |  | - |  | - |
| 589 RENTS | LB589 | PDIST |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Operation Labor Expense | LBDO |  | \$ | 274,004 | s | 227,650 | \$ | 191,938 | s | 5,621,703 | s | 219,809 | \$ | - | s |  | \$ |  |


| Description | Name | Functional <br> Vector | $\begin{gathered} \text { Total } \\ \text { System } \end{gathered}$ | $\frac{\text { Production Demand }}{\text { LoLP }}$ | Production Energy | $\begin{array}{r} \text { Transmission } \\ \text { Demand } \\ \hline \end{array}$ | Distribution Poles | $\begin{array}{r} \text { Distribution } \\ \text { Substation } \end{array}$ | Distribution Primary Lines |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Energy | Demand |  |  | Specific | Demand | Customer | Distribution |  |

## Labor Expenses (Continued)

Distribution Maintenance Labor Expense
590 MAINTENANCE SUPERVIIIION AND EN 591 MAINTENANCE OF STRUCTURES
592 MAINTENANCE OF STATION EQUIPM
593 MAINTENANCE OF OVERHEAD LINES
595 MAINTENANCE OF LINE TRANSFORME
596 MAINTENANCE OF ST LIGHTS \& SIG SYSTEMS 97 MAINTENANCE OF METERS 598 MAINTENANCE OF MISC DISTR PLANT

Total Distribution Maintenance Labor Expense
Total Distribution Operation and Maintenance Labor Expenses
Transmission and Distribution Labor Expense

Production, Transmission and Distribution Labor Expenses

> Customer Accounts Expense 991 SUPRRVIIIONCUSTOMER ACCTS 990 METER READNG EXENES 9903 RECCRDS AND COLLECTION 994 UNCOLECTILE ACCOUNTS 905 MISC CUST ACCOUNTS

Total Customer Accounts Labor Expense
Customer Service Expense
907 SUPERVIIION
907 SUPERVIIION
908 CUSTOMER ASSISTANCE EXP-LOAD MG
909 INFORMATIONAL AND INSTRUCTION
909 INFORM AND INSTRUC -LOAD MGMT
10 MISCELLANEOUS CUSTOMER SERVIC
11 Demonstration and selling exp
913 WATER HEATER - HEAT PUMP PROGRAM
916 MISC SALES EXPENSE
Total Customer Service Labor Expense
Sub-Total Labor Exp

P3920



| Description | Name | Functional <br> Vector | (rytal $\begin{array}{r}\text { Total } \\ \text { System }\end{array}$ |  | Production Energy | $\begin{array}{\|c} \text { Transmission } \\ \text { Demand } \end{array}$ | Distribution Poles | Distribution Substation | Distribution Primary Lines |  | istribution Se. Lines |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Production Demand <br> LoLP | Energy | Demand | Specific | General | Specific | Demand | Customer | Demand C | Customer |

## Labor Expenses (Continued)

| ministrative and General Expen |
| :---: |
| 920 ADMIN, \& GEN. SALARIES- |
| 921 OFFICE SUPPLIES AND EXPEN |
| 922 ADMIN. EXPENSES TRANSFERRED - CRED |
| 923 OUTSIDE SERVICES EMPLOYED |
| 924 PROPERTY INSURANCE |
| 925 InJuries and damages - Insura |
| 926 EmPLOYEE BENEFITS |
| 928 Regulatory Commission fees |
| 929 duplicate charges-cr |
| 930 MISCELLANEOUS GENERAL EXPENSES |
| 931 Rents and Leases |
| 935 MAINTENANCE OF GENERAL PLANT |

Total Administrative and General Expense
Total Operation and Maintenance Expenses
Operation and Maintenance Expenses Less Purchase Power

| LB920 | LBSUB7 | \$ | 32,982,892 |  |
| :---: | :---: | :---: | :---: | :---: |
| LB921 | LBSUB7 |  | 4,507 |  |
| LB922 | LBSUB7 |  | (4,373,143) |  |
| LB923 | LBSUB7 |  | - |  |
| LB924 | TUP |  | - |  |
| LB925 | LBSUB7 |  | 615,769 |  |
| LB926 | LBSUB7 |  | 31,672,892 |  |
| LB928 | TUP |  | - |  |
| LB229 | LBSUB7 |  | - |  |
| LB930 | LBSUB7 |  | 314,464 |  |
| LB931 | PGP |  | 731989 |  |
| LB935 | PGP |  | 731,985 |  |
| lbag |  | \$ | 61,949,366 | s |
| tLb |  | \$ | 173,228,432 | s |
| LBLPP |  | \$ | 173,228,432 | s |





|  |  | Functional | Distribution Line Trans. | Distribution Services | Distribution Meters | Distribution St. \& Cust. Lighting | $\begin{array}{\|r\|} \hline \text { Customer Accounts } \\ \text { Expensse } \\ \hline \end{array}$ | $\begin{array}{r} \text { Customer } \\ \text { Service \& Info. } \end{array}$ | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Name | Vector | Dema |  |  |  |  |  |  |

## Labor Expenses (Continued)

| ministrative and General Expense |
| :---: |
| 920 ADMIN. \& GEN. SALARIES- |
| 922 ADMIN. EXPENSES TRANSFERRED - CREDIT |
| 923 OUTSIDE SERVICES EMPLOYED |
| 924 PROPERTY INSURANCE |
| 925 Injuries and damages |
| 926 Employee benefits |
| 928 REGULATORY COMMISSION FEES |
| 929 DUPLICATE CHARGES-CR |
| 930 MISCELLANEOUS GENERAL EX |
| 931 RENTS AND LEASES |
| 935 MAINTENANCE OF GENERAL PLANT |

Total Operation and Mainerer
Operation and Maintenance Expenses Less Purchase Power

| LB920 | LBSUB7 |
| :---: | :---: |
| LB921 | LBSUB7 |
| LB922 | LBSUB7 |
| LB923 | LBSUB7 |
| LB924 | TUP |
| LB925 | LBSUB7 |
| LB926 | LBSUB7 |
| LB928 | TUP |
| LB929 | LBSUB7 |
| LB930 | LBSUB7 |
| LB931 | PGP |
| LB935 | PGP |
| ${ }_{\text {lbag }}$ |  |
| TLB |  |
| LBLPP |  |


|  | 516,849 |  | 429,412 |  | 362,049 |  | 215,325 |  |  | 414,621 |  | 5,393,574 |  | 644,026 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 71 |  | 59 |  | 49 |  | 29 |  |  | 57 |  | 737 |  | 88 |  |
|  | $(68,528)$ |  | (56,935) |  | $(48,003)$ |  | (28,550) |  |  | (54,974) |  | (715,124) |  | $(85,390)$ |  |
|  | - |  | - |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - |  | - |  | - 75 |  | - |  |  |  |  | $\stackrel{-}{1}$ |  | - |  |
|  | 9,649 |  | 8,017 |  | 6,759 |  | 4,020 |  |  | 7,741 |  | 100,695 |  | 12,024 |  |
|  | 496,321 |  | 412,357 |  | 347,669 |  | 206,772 |  |  | 398,153 |  | 5,179,355 |  | 618,447 |  |
|  | - |  | - |  | - |  | - |  |  | - |  | - |  |  |  |
|  | - |  | - |  | , 52 |  | - |  |  |  |  | , |  | - |  |
|  | 4,928 |  | 4,094 |  | 3,452 |  | 2,053 |  |  | 3,953 |  | 51,423 |  | 6,140 |  |
|  | - |  | - ${ }^{\text {- }}$ - |  |  |  |  |  |  |  |  | - |  |  |  |
|  | 14,041 |  | 11,665 |  | 9,835 |  | 5,849 |  |  | 11,263 |  | - |  | - |  |
| \$ | 973,330 | s | 808,669 | \$ | 681,811 | s | 405,499 |  | s | 780,814 | \$ | 10,010,660 | s | 1,195,335 | \$ |
| \$ | 2,717,098 | s | 2,257,438 | \$ | 1,903,307 | s | 1,131,971 |  | s | 2,179,679 | \$ | 28,207,728 | s | 3,368,178 | \$ |
| \$ | 2,717,098 | s | 2,257,438 | s | 1,903,307 | s | 1,131,971 |  | s | 2,179,679 | \$ | 28,207,728 | s | 3,368,178 | \$ |



| Description | Name | Functional Vector | Distribution Line Trans. |  |  |  |  | $\begin{gathered} \text { Distribution } \\ \text { Services } \\ 1 \end{gathered}$ | Distribution Meters |  | Distribution St. \& Cust. Lighting |  | Customer AccountsExpense |  | $\begin{array}{r}\text { Customer } \\ \text { Service \& Info. }\end{array}$ |  | Sales Expense |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Demand Customer |  |  |  | Sustomer |  |  |  |  |  |  |  |  |  |  |  |
| 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 |  | - |  | - |  | - |  | - |  |  |  | - |  |  |  |  |
| Transmission - Virginia Property | DEPRDP5 | PtRan |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Distribution | DEPRDP6 | PDIST |  | 3,180,176 |  | 2,642,176 |  | 2,227,691 |  | 1,324,894 |  | 2,551,165 |  | - |  | - |  | - |
| General Plant | DEPRDP7 | PGP |  | 264,893 |  | 220,080 |  | 185,555 |  | 110,357 |  | 212,499 |  |  |  | - |  |  |
| Intangible Plant | DEPRDP8 | PNT |  | 393,130 |  | 326,623 |  | 275,385 |  | 163,782 |  | 315,373 |  | - |  |  |  |  |
| Total Depreciation Expense | TDEPR |  |  | 3,838,199 |  | 3,188,880 |  | 2,688,631 |  | 1,599,033 |  | 3,079,037 |  | - |  | - |  | - |
| 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 | - | s | - | \$ | - | s | - | s | - |
| Property Taxes | ptax | TUP |  | 688,061 |  | 571,659 |  | 481,982 |  | 286,653 |  | 551,968 |  | - |  | - |  | - |
| Other Taxes | otax | TUP |  | 261,493 |  | 217,256 |  | 183,174 |  | 108,941 |  | 209,772 |  | - |  | - |  | - |
| Gain Disposition of Allowances | GAIN | F013 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Interest | intlid | TUP |  | 2,100,509 |  | 1,745,160 |  | 1,471,391 |  | 875,094 |  | 1,685,047 |  | - |  | - |  | - |
| Other Expenses | от | TUP |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Other Expenses | тое |  | \$ | 6,888,262 | s | 5,722,954 | \$ | 4,825,178 | s | 2,869,721 | s | 5,525,824 | s | - | s | - | s | - |
| Total Cost of Service (O\&M + Other Expenses) |  |  | \$ | 9,536,558 | s | 7,923,230 | \$ | 6,639,561 | s | 14,406,908 | s | 7,603,667 | \$ | 56,459,203 | s | 7,173,760 | s |  |


| Description | Name | $\begin{aligned} & \text { Functional } \\ & \text { Vector } \end{aligned}$ | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ | $\frac{\text { Production Demand }}{\text { LOLP }}$ | Production Energy | $\begin{array}{r} \text { Transmission } \\ \text { Demand } \\ \hline \text { Demand } \end{array}$ | Distribution Poles | DistributionSubstationGeneral | Distribution Primary Lines |  | Customer | Distribution Sec. Lines |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Energy |  | Specific |  | Specific | Demand |  | Demand | Customer |
| Functional Vectors |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Station Equipment | F001 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 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 | 0.254015 | 0.451385 | 0.106085 | 0.188515 |
| Overhead Conductors and Devices | F003 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.254015 | 0.451385 | 0.106085 | 0.188515 |
| Underground Conductors and Devices | F004 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.152001 | 0.453099 | 0.099199 | 0.295701 |
| Line Transformers | F005 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 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 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Meters | F007 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 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 | 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 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Billing | F010 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Transmission | F011 |  | 1.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 | 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 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Production Plant | F017 |  | 1.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Provar | PROVAR |  | 1.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Fuel | F018 |  | 1.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Steam Generation Operation Labor | F019 |  | 22,766,997 | 20,328,513 | 2,438,484 |  | - |  | - | - | - |  | - |
| PROFIX | PROFIX |  | 1.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Steam Generation Maintenance Labor | F020 |  | 13,594,923 | 1,477,460 | 12,117,463 | - | - |  | - |  |  | - |  |
| Hydraulic Generation Operation Labor | ${ }_{\text {F021 }}$ |  |  |  |  | - | - |  | - | - | - |  |  |
| Hydralic Generation Maintenance Labor | F022 |  | 67,678 | 44,297 | 23,381 |  |  |  | - |  |  |  |  |
| Distribution Operation Labor | F023 |  | 12,634,911 | - | - | $\checkmark$ | - | 1,967,901 | $\checkmark$ | 1,162,805 | 2,134,889 | 499,014 | 931,506 |
| Distribution Maintenance Labor | F024 |  | 7,409,842 | - | O00 | - | - | 622,895 | - | 1,684,710 | 3,039,359 | 712,499 | 1,295,886 |
| Customer Accounts Expense | F025 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 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 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Customer Advances | F027 |  | 1,169,477,392 |  | - | - | - |  | - | 271,796,970 | 528,309,481 | 122,358,838 | 247,012,103 |
| Purchase Power Demand |  | ${ }^{\text {F017 }}$ | 9,604,907 | 9,604,907 | - | - | - | - | - | - | - | - | - |
| Purchase Power Energy |  | F018 | 39, 122,871 | - | 39,102,871 | - | - | - | - | - | - | - | - |
| Purchased Power Expenses | OMPP | F017 | 48,707,778 | 9,604,907 | 39, 102,871 | - | - | - | - | - | - | - | - |
| Gain Disposition of Allowances | F013 |  | 1.00000 | - | 1.000000 | - | - | - | - | - | - | - | - |
| Intallations on Customer Premises - Accum Depr Generators -Energy | F014 |  | 1.00000 | - |  |  |  |  | - |  |  | - |  |
|  | F015 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
|  | Energy |  | 1.000000 | 0.000000 | 1.000000 | 0.000000 | 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 | 1.000000 | 0.629325 | - | 0.136227 | - | 0.036750 | - | 0.029229 | 0.056814 | 0.013158 | 0.026564 |
| Total Distribution Plant |  | PDIST | 1.000000 |  | - |  |  | 0.156750 | - | 0.124671 | 0.242332 | 0.056125 | 0.113303 |
| Total Transmission Plant |  | PTRAN | 1.000000 | - | - | 1.000000 | - |  | - | - | - | - | - |
| Operation and Maintenance Expenses Less Purchase Power |  | OMLPP | 1.000000 | ${ }^{0.146516}$ | 0.612130 | 0.068452 | - | 0.011002 | - | ${ }^{0.0015364}$ | ${ }^{0.0288197}$ | ${ }^{0.006591}$ | ${ }^{0.012297}$ |
| Total Plant in Service |  | TPIS | 1.000000 | 0.629277 | - | 0.136210 | - | 0.036760 | - | 0.029237 | 0.056830 | ${ }^{0.013162}$ | 0.026571 |
| Total Operation and Maintenance Expenses (Labor) |  | ${ }_{\text {TLB }}^{\text {TLS }}$ | 1.000000 | ${ }^{0.329862}$ | ${ }_{0}^{0.224152}$ | 0.071994 0.062459 | - | ${ }^{0.030051}$ | - | ${ }^{0.023901}$ | ${ }^{0.046458}$ | ${ }^{0.0010760}$ | ${ }^{0.021722}$ |
| Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service |  | OMSUB2 | 1.000000 | 0.118003 | 0.683858 | 0.062459 | - | 0.007455 | - | 0.013084 | 0.023629 | 0.005538 | 0.010089 |
| Total Steam Power Operation Expenses (Labor) |  | LBSUB1 | 1.000000 | 0.892894 | 0.107106 | - | - |  | $\checkmark$ | - |  | - | - |
| Total Steam Power Generation Maintenance Expense (Labor) |  | LBSUB2 | 1.000000 | 0.108677 | 0.891323 | - - | - |  | - |  | - | - | - |
| Total Hydraulic Power Operation Expenses (Labor) |  | LBsUB3 | 1.000000 | \#Div/0! | \#Div/0! | \#DIV/0! | \#DIV/0! | \#DIV/0! | \#DIV/0! | \#DIV/0! | \#DIV/0! | \#DIV/0! | \#DIV/0! |
| Total Hydraulic Power Generation Maint. Expense (Labor) |  | LBSUB4 | 1.000000 | ${ }^{0.654526}$ | 0.345474 |  |  |  | - |  | - | - |  |
| Total Other Power Generation Expenses (Labor) |  | LBSUB5 | 1.000000 | 1.000000 | - |  | - |  | - | - | - | - | - |
| Total Transmission Labor Expenses |  | Lbtran | 1.000000 | - | - | 1.0000000 |  | - | - | - | - | - | - |
| Total Distribution Operation Labor Expense |  | LBDO | 1.000000 | - | - | - | - | 0.155751 | - | 0.092031 | 0.168967 | 0.039495 | 0.073725 |
| Total Distribution Maintenance Labor Expense |  | LBDM | 1.000000 |  | - | - | - | 0.084063 | - | 0.227361 | 0.410179 | ${ }^{0.096156}$ | 0.174887 |
| Sub-Total Labor Exp |  | Lbsub7 | 1.000000 | 0.328591 | 0.225104 | ${ }^{0.071722}$ |  | 0.030022 | - | 0.023878 | 0.046414 | ${ }^{0.010750}$ | 0.021701 |
| Total General Plant |  | ${ }_{\text {PGP }}$ | 1.000000 | ${ }^{0.629325}$ | - | 0.136227 | - | 0.036750 | - | 0.029229 | 0.056814 | 0.013158 | 0.026564 |
| Total Production Plant Total Intangible Plant |  | PPRTL PNT | 1.000000 1.000000 | 1.000000 0.629325 | $:$ |  | $:$ |  | $:$ |  |  | ${ }_{0.013158}$ |  |
| Total Intangible Plant |  | PINT | 1.000000 | 0.629325 | - | 0.136227 | - | 0.036750 | - | 0.029229 | 0.056814 | 0.013158 | 0.026564 |


| Description | Name | Functional Vector | Distribution Line Trans. |  | DistributionServicesCustomer | Distribution Meters | $\begin{array}{r} \text { Distribution St. \& } \\ \text { Cust. Lighting } \end{array}$ | $\begin{array}{r}\text { Customer Accounts } \\ \text { Expense } \\ \hline\end{array}$ | $\begin{array}{r} \text { Customer } \\ \text { Service \& Info. } \\ \hline \end{array}$ | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Demand | Customer |  |  |  |  |  |  |
| Functional Vectors |  |  |  |  |  |  |  |  |  |  |
| Station Equipment | F001 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Poles, Towers and Fixtures | F002 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Overhead Conductors and Devices | F003 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Underground Conductors and Devices | F004 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Line Transformers | F005 |  | 0.546201 | 0.453799 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Services | F006 |  | 0.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Meters | F007 |  | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Street Lighting | F008 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 |
| Meter Reading | F009 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 |
| Billing | F010 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 |
| Transmission | F011 |  | 0.000000 | 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 | 1.000000 |
| Production Plant | F017 |  | 0.000000 | 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 | 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 |  | - | - | - | - | - |  | - | - |
| PROFIX | PROFIX |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Steam Generation Maintenance Labor | F020 |  |  | - | - |  |  |  | - | - |
| Hydraulic Generation Operation Labor | F021 |  | - | - | - | - | - |  | - | . |
| Hydralic Generation Maintenance Labor | F022 |  |  |  | - |  |  |  |  |  |
| Distribution Operation Labor | F023 |  | 249,002 | 206,878 | 174,424 | 5,108,741 | 199,752 | - | - | - |
| Distribution Maintenance Labor | F024 |  | 29,461 | 24,477 | 203 | 121 | 232 |  | - | - |
| Customer Accounts Expense | F025 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 |
| Customer Service Expense | F026 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 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 |  | ${ }^{0.000000}$ | ${ }^{0.000000}$ | ${ }^{0.000000}$ | ${ }^{0.000000}$ | ${ }^{0.000000}$ | ${ }^{0.000000}$ | 0.000000 | ${ }^{0.000000}$ |
| , | Energy |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Internally Generated Functional Vectors |  |  |  |  |  |  |  |  |  |  |
| Total Prod, Trans, and Dist Plant |  | PT\&D | 0.019181 | ${ }^{0.015936}$ | 0.013436 | ${ }^{0.007991}$ | 0.015388 |  |  |  |
| Total Distribution Plant |  | PDIST | 0.081816 | 0.067975 | 0.057311 | 0.034085 | 0.065633 | - | - |  |
| Total Transmission Plant |  | PTRAN |  |  |  |  |  |  | 0 |  |
| Operation and Maintenance Expenses Less Purchase Power |  | OMLPP | ${ }^{0.003139}$ | ${ }^{0.002608}$ | 0.002150 | 0.013674 | 0.002463 | 0.066915 | 0.008502 | - |
| Total Plant in Service |  | ${ }_{\text {TPIS }}$ | ${ }^{0} 0.019187$ | ${ }^{0.0159411}$ | ${ }^{0.013440}$ | ${ }^{0.007993}$ | ${ }^{0.015392}$ | 0162835 | 944 |  |
| Total Operation and Maintenance Expenses (Labor) |  | TLB | 0.015685 | ${ }^{0.013032}$ | 0.010987 | ${ }^{0.006535}$ | ${ }^{0.012583}$ | ${ }^{0.162835}$ | ${ }^{0.019444}$ |  |
| Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service |  | OMSUB2 | 0.001075 | ${ }^{0.000893}$ | 0.000701 | ${ }^{0.013825}$ | 0.000802 | 0.051844 | ${ }^{0.006745}$ |  |
| Total Steam Power Operation Expenses (Labor) |  | ${ }^{\text {Lbsubi }}$ | - | - | - | - | - | - | - | - |
| 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! | \#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 | 0.019707 | 0.016374 | 0.013805 | 0.404335 | 0.015810 | - | - | - |
| Total Distribution Maintenance Labor Expense |  | LBDM | 0.003976 | 0.003303 | 0.000027 | 0.000016 | 0.000031 | - | - | - |
| Sub-Total Labor Exp |  | LBSUB7 | 0.015670 | 0.013019 | 0.010977 | ${ }^{0.006528}$ | 0.012571 | 0.163526 | 0.019526 |  |
| Total General Plant |  | PGP | 0.019181 | 0.015936 | 0.013436 | 0.007991 | 0.015388 | - | - | . |
| Total Production Plant |  | ${ }^{\text {PRRTL }}$ |  |  |  |  |  | - | - | - |
| Total Intangible Plant |  | PINT | 0.019181 | ${ }^{0.015936}$ | 0.013436 | 0.007991 | 0.015388 |  |  |  |

## Exhibit WSS-30

Electric Cost of Service Study
Functional Assignment and
Classification
(Louisville Gas and Electric Company)

| Description | Name | Functional Vector | Total System |  | 12 Months Ended June 30, 2022 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | ProductionDemand |  |  |  | $\begin{array}{r} \text { Transmission } \\ \text { Demand } \\ \hline \text { Demand } \\ \hline \end{array}$ |  | DistributionSubstation |  | Distribution Primary Lines |  |  |  |  |  | Distribution Sec. Lines |  |  |  |
|  |  |  |  |  |  | LOLP |  |  | General | Specific |  | Demand |  |  | Customer | Demand |  |  | Customer |
| Plant in Service |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intangible Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 301.00 ORGANIZATION | P301 | PT\&D | \$ | 2,240 |  | 1,368 |  | - |  |  |  | 210 |  | 83 |  | - |  | 127 |  | 208 |  | 35 |  | 60 |
| 302.00 FRANCHISE AND CONSENTS | P301 | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  |  |  |  |
| 303.00 SOFTWARE - COMMON | P302 | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 301.00 ORGANIZATION - COMMON | P301 | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 302.00 FRANCHISE AND CONSENTS - COMMON | P301 | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Intangible Plant | PINT |  | \$ | 2,240 | \$ | 1,368 | \$ | - | \$ | 210 | \$ | 83 | \$ | - | \$ | 127 | \$ | 208 | \$ | 35 | \$ | 60 |
| Steam Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Steam Production Plant | PSTPR | F017 |  | 3,109,195,352 |  | 3,109,195,352 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Hydraulic Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Hydraulic Production Plant | PHDPR | F017 | \$ | 159,587,945 |  | 159,587,945 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Other Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Other Production Plant | POTPR | F017 | \$ | 418,289,975 |  | 418,289,975 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Production Plant | PPRTL |  | \$ | 3,687,073,272 | \$ | 3,687,073,272 | \$ | - | \$ | - |  |  | \$ | - | \$ | - |  |  |  |  |  |  |
| Transmission |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Transmission Plant | PTRAN | F011 | \$ | 566,296,585 |  | - |  | - |  | 566,296,585 |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Transmission Plant | PTRTL |  | \$ | 566,296,585 | \$ | - | \$ | - | \$ | 566,296,585 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TOTAL ACCTS 360-362 | P362 | F001 | \$ | 222,802,329 |  | - |  | - |  | - |  | 222,802,329 |  | - |  | - |  | - |  | - |  | - |
| 364 \& 365-OVERHEAD LINES | P365 | F003 |  | 684,235,593 |  | - |  | - |  | - |  |  |  | - |  | 173,756,511 |  | 308,766,430 |  | 72,636,726 |  | 129,075,927 |
| 366 \& 367-UNDERGROUND LINES | P367 | F004 |  | 476,035,911 |  | - |  | - |  | - |  | - |  | - |  | 168,284,874 |  | 250,959,953 |  | 22,795,941 |  | 33,995,143 |
| 368 -TRANSFORMERS | P368 | F005 |  | 182,077, 170 |  | - |  | - |  | - |  | - |  | - |  |  |  | - |  | - |  | , |
| 369-SERVICES | P369 | F006 |  | 41,665,746 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 370-METERS | P370 | F007 |  | 42,308,485 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 371-CUSTOMER INSTALLATION | P371 | F007 |  | 183,388 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 373-STREET LIGHTING | P373 | ${ }^{\text {F008 }}$ |  | 137,373,834 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 374-ASSET RETIRE OBLIGATIONS DIST PLANT | P374 | F003 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Plant | PDIST |  |  | 1,786,682,455 | \$ | - | \$ | - | \$ | - | \$ | 222,802,329 | \$ |  | \$ | 342,041,384 | \$ | 559,726,383 | \$ | 95,432,668 | \$ | 163,071,070 |
| Total Prod, Trans, and Dist Plant | PT\&D |  |  | 6,040,052,312 | \$ | 3,687,073,272 | \$ | - | \$ | 566,296,585 | \$ | 222,802,329 | \$ | - | \$ | 342,041,384 | \$ | 559,726,383 | \$ | 95,432,668 | \$ | 163,071,070 |


| Description | Name | Functional Vector | 12 Months Ended June 30, 2022 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Distribution Line Trans. |  |  |  | $\begin{array}{r} \text { Distribution } \\ \text { Services } \end{array}$ |  | Distribution Meters |  | Distribution St. \& Cust. Lighting |  |  | $\begin{gathered} \hline \text { Customer } \\ \text { Accounts } \\ \text { Expense } \end{gathered}$ | Customer Service \& Info. |  | Sales Expense |
|  |  |  |  | Demand |  | Customer |  | Customer |  |  |  |  |  |  |  |  |  |
| Plant in Service |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intangible Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 301.00 ORGANIZATION | P301 | PT\&D |  | 43 |  | 24 |  | 15 |  | 16 |  | 51 |  | - | - |  | - |
| 302.00 FRANCHISE AND CONSENTS | P301 | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - | - |  | - |
| 303.00 SOFTWARE - COMMON | P302 | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - | - |  | - |
| 301.00 ORGANIZATION - COMMON | P301 | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - | - |  |  |
| 302.00 FRANCHISE AND CONSENTS - COMMON | P301 | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - | - |  | - |
| Total Intangible Plant | PINT |  | \$ | 43 | \$ | 24 | \$ | 15 | \$ | 16 | \$ | 51 | \$ | - | \$ | \$ | - |
| 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Transmission Plant | PTRAN | F011 |  | - |  | - |  | - |  | - |  | - |  | - | - |  | - |
| Total Transmission Plant | PTRTL |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | \$ | - |
| Distribution |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TOTAL ACCTS 360-362 | P362 | F001 |  | - |  | - |  | - |  | - |  | - |  | - | - |  | - |
| 364 \& 365-OVERHEAD LINES | P365 | F003 |  | - |  | - |  | - |  | - |  | - |  | - | - |  | - |
| 366 \& 367-UNDERGROUND LINES | P367 | F004 |  | - |  | - |  | - |  | - |  | - |  | - | - |  | - |
| 368-TRANSFORMERS | P368 | F005 |  | 116,910,393 |  | 65,166,777 |  | - |  | - |  | - |  | - | - |  | - |
| 369-SERVICES | P369 | F006 |  | - |  | - |  | 41,665,746 |  | - |  | - |  | - | - |  | - |
| 370-METERS | P370 | F007 |  | - |  | - |  |  |  | 42,308,485 |  | - |  | - | - |  | - |
| 371-CUSTOMER INSTALLATION | P371 | F007 |  | - |  | - |  | - |  | 183,388 |  | - |  | - | - |  | - |
| 373-STREET LIGHTING | P373 | F008 |  | - |  | - |  | - |  | - |  | 137,373,834 |  | - | - |  | - |
| 374-ASSET RETIRE OBLIGATIONS DIST PLANT | P374 | F003 |  | - |  | - |  | - |  | - |  | , |  | - | - |  | - |
| Total Distribution Plant | PDIST |  | \$ | 116,910,393 | \$ | 65,166,777 | \$ | 41,665,746 | \$ | 42,491,872 | \$ | 137,373,834 | \$ | - | \$ | \$ | - |
| Total Prod, Trans, and Dist Plant | PT\&D |  | \$ | 116,910,393 | \$ | 65,166,777 | \$ | 41,665,746 | \$ | 42,491,872 | \$ | 137,373,834 | \$ | - | \$ | \$ | - |


| Description | Name | Functional Vector | $\begin{array}{r} \text { Total } \\ \text { System } \\ \hline \end{array}$ |  | 12 Months Ended June 30, 2022 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Production Demand |  | Production Energy |  | TransmissionDemandDemand |  |  | Distribution Primary Lines |  |  |  |  |  | Distribution Sec. Lines |  |  |  |
|  |  |  |  |  |  | LOLP |  | Energy |  |  |  |  |  | Specific | Demand |  | Customer |  | Demand |  |  | Customer |
| Plant in Service (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total General Plant | PGP | PT\&D | \$ | 21,026,365 |  | 12,835,277 |  | - |  | 1,971,367 |  | 775,610 |  | - |  | 1,190,699 |  | 1,948,495 |  | 332,216 |  | 567,676 |
| TOTAL COMMON PLANT | Рсом | PT\&D | \$ | 231,173,767 |  | 141,117,092 |  | - |  | 21,674,136 |  | 8,527,418 |  | - |  | 13,091,111 |  | 21,422,671 |  | 3,652,539 |  | 6,241,296 |
| 106.00 COMPLETED CONSTR NOT CLASSIFIED | P106 | PT\&D |  |  |  |  |  | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 105.00 PLANT HELD FOR FUTURE USE - DIST | P105 | PDIST |  | 2,908,740 |  | - |  | - |  | - |  | 362,725 |  | - |  | 556,847 |  | 911,241 |  | 155,366 |  | 265,482 |
| 105.00 PLANT HELD FOR FUTURE USE - PROD | P105 | F017 |  | 211,410 |  | 211,410 |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |
| PROPERTY HELD UNDER CAPITAL LEASE |  | F017 |  |  |  |  |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| OTHER |  | PDIST | \$ | - |  |  |  | - |  | - |  | - |  | - |  | - |  |  |  | - |  | - |
| Total Plant in Service | TPIS |  | \$ | 6,295,374,834 | \$ | 3,841,238,419 | \$ |  | \$ | 589,942,298 | \$ | 232,468,164 | \$ |  | \$ | 356,880,169 | \$ | 584,008,998 | \$ | 99,572,824 |  | 170,145,583 |
| Construction Work in Progress (CWIP) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CWIP Production | CWIP1 | F017 | \$ | 17,402,861 |  | 17,402,861 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| CWIP Transmission | CWIP2 | F011 |  | 21,580,855 |  | - |  | - |  | 21,580,855 |  | - |  | - |  | - |  | - |  | - |  | - |
| CWIP Distribution | CWIP3 | PDIST |  | 16,836,832 |  | - |  | - |  | - |  | 2,099,581 |  | - |  | 3,223,233 |  | 5,274,591 |  | 899,311 |  | 1,536,703 |
| CWIP General \& Common | CWIP4 | PT\&D |  | 11,356,326 |  | 6,932,325 |  | - |  | 1,064,734 |  | 418,906 |  | - |  | 643,096 |  | 1,052,381 |  | 179,430 |  | 306,601 |
| Total Construction Work in Progress | TCWIP |  | \$ | 67,176,874 | \$ | 24,335,186 | \$ | - | \$ | 22,645,589 | \$ | 2,518,488 | \$ | - | \$ | 3,866,329 | \$ | 6,326,972 | \$ | 1,078,741 | \$ | 1,843,304 |
| Total Utility Plant |  |  | \$ | 6,362,551,708 | \$ | 3,865,573,604 | \$ | - | \$ | 612,587,887 | \$ | 234,986,652 | \$ |  | \$ | 360,746,498 | \$ | 590,335,970 | \$ | 100,651,565 | \$ | 171,988,888 |


| Assignment and Cl12 Months EndedJune 30, 2022 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Functional | Distribution Line Trans. | $\begin{array}{r} \text { Distribution } \\ \text { Services } \\ \hline \end{array}$ | $\begin{array}{r} \text { Distribution } \\ \text { Meters } \end{array}$ | $\begin{array}{r} \text { Distribution St. \& } \\ \text { Cust. Lighting } \\ \hline \end{array}$ | $\begin{gathered} \hline \text { Customer } \\ \text { Accounts } \\ \text { Expense } \\ \hline \end{gathered}$ | $\begin{array}{r} \text { Customer } \\ \text { Service \& Info. } \end{array}$ | Sales Expense |
| Description | Name | Vector | Demand Cust | Customer |  |  |  |  |  |

Plant in Service (Continued)
General Plant
Total General Plant
TOTAL COMMON PLAN
06.00 COMPLETED CONSTR NOT CLASSIFIED
05.00 PLANT HELD FOR FUTURE USE - DIST
05.00 PLANT HELD FOR FUTURE USE - PROD PROPERTY HELD UNDER CAPITAL LEASE OTHER

Total Plant in Service

| PGP | PT\&D |
| :--- | :--- |
| PCOM | PT\&D |
| P106 | PT\&D |
| P105 | PDIS |
| P105 | F017 |
|  | F017 |
|  | PDIS |
| TPIS |  |

Construction Work in Progress (CWIP)

## CWIP Production

CWIP Transmission
CWIP Distribution
CWIP General \& Common
Total Construction Work in Progress
Total Utility Plant



## Rate Base

$\frac{\text { Utility Plant }}{\text { Plant in Service }}$
Construction Work in Progress (CWIP)
Total Utility Plant
Less: Accumulated Provision for Depreciation and RWIP

## Production Transmission

Distribution
General \& Common Plant
Intangible Plant
RWIP
Total Accumulated Depreciation

## Net Utility Plant

Cash Working Capital - Operation and Maintenance Expenses Materials and Supplies
Prepayments
Total Working Capital
Deferred Debits
Service Pension Cos
Other Deferred Debits
Total Deferred Debits
Less: Customer Advances
Accumulated Deferred Income Taxes
Accumulated Deferred Income Taxes
FAS 109 Deferred Income Taxes
Asset Retirement Obligation-Net Assets
Asset Retirement Obligation-Regulatory Liabilities
Total Accumulated Deferred Income Tax

## Investment Tax Credits <br> Total Production Plant

otal Transmission Plant
Total Distribution Pla
Total General Plant
Total Investment Tax Credi

## Net Rate Base

$\left.\begin{array}{lrlrl}\$ & 589,942,298 & \$ & 232,468,164 & \$ \\ 22,645,588.93\end{array}\right)$

| - |  | 180,532,195 |  | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - |  | - |  | 73,039,921 |  |
| - |  | 9,806,141 |  | 3,858,104 |  |
| - |  |  |  |  |  |
| - | \$ | 190,338,336 | \$ | 76,898,025 | \$ |
| - | \$ | 422,249,551 | \$ | 158,088,627 | \$ |
| ,365,699 |  | 7,147,160 |  | 1,674,372 |  |
| - |  | 4,135,173 |  | 1,629,475 |  |
| - |  | 1,376,410 |  | 542,378 |  |
| - ${ }^{-}$ | \$ | 12,658,743 | \$ | 3,846,224 |  |


| $\$$ | $124,454,261$ | $18,304,703$ | $78,365,699$ | $7,147,160$ | $1,674,372$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $44,127,133$ | $26,924,979$ | - | $4,135,173$ | $1,629,475$ |  |
|  | $14,687,906$ | $8,962,095$ | - | $1,376,410$ | 542,378 |  |
|  | $33,96,476$ | $33,96,476$ | - | - |  |  |
| $\$$ | $216,465,777$ | $\$$ | $87,388,254$ | $\$$ | $78,365,699$ | $\$$ |
|  |  |  | $12,658,743$ | $\$$ | $3,846,224$ | $\$$ |


53,253,094 87,144,899 14,858,099 25,388,855


|  |  |
| :--- | :--- |
| DIT | F017 |
| DIT | PTRAN |
| DIT | PDIST |
| DIT | PT\&D |


| \$ | 6,295,374,834 | \$ | 3,841,238,419 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 67,176,874 |  | 24,335,185.61 |  |
| \$ | 6,362,551,708 | \$ | 3,865,573,604 |  |


| ADEPREPA | F017 | $\$ 1,306,343,857$ | $1,306,343,857$ |  |
| :--- | :--- | ---: | :---: | :---: |
| ADEPRTP | PRAN | $180,532,195$ | - |  |
| ADEPRD11 | PDIST | $585,711,151$ | - |  |
| ADEPRD12 | PT\&D | $104,591,141$ | $63,846,335$ |  |
| ADEPRGP | PR\&D | - | - |  |
| RWIP | PT\&D | - | - |  |
| TADEPR |  | $\$ 2,177,184,344$ | $\$ 1,370,190,192$ | $\$$ |
| NTPLANT |  | $\$ 4,185,367,364$ | $\$ 2,495,383,413$ | $\$$ |


| CWC | OMLPP |
| :--- | :--- |
| M\&S | TPIS |
| PREPAY | TPIS |
|  | F017 |

Twc
PENSCOST TLB
DDEBPP
$\$ 939,385,87$
$\$$
TUP
CSTDEP F027 \$

PDIST
PT\&D


| Description | Name | Functional Vector | 12 Months Ended <br> June 30, 2022 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Distribution Line Trans. |  |  |  | DistributionServices |  | DistributionMeters |  | Distribution St. \&Cust. Lighting |  | Customer <br> Accounts <br> Expense |  | $\begin{array}{r} \text { Customer } \\ \text { Service \& Info. } \end{array}$ |  | Sales Expense |  |
|  |  |  |  | Demand |  | Customer |  | Customer |  |  |  |  |  |  |  |  |  |  |
| Rate Base |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Utility Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Plant in Service |  |  | \$ | 121,982,317 | \$ | 67,993,908 | \$ | 43,473,331 | \$ | 44,335,297 | \$ | 143,333,524 | \$ | - | \$ | - | \$ | - |
| Construction Work in Progress (CWIP) |  |  |  | 1,321,518.47 |  | 736,624.84 |  | 470,976.54 |  | 480,314.82 |  | 1,552,830.80 |  |  |  |  |  | - |
| Total Utility Plant | TUP |  | \$ | 123,303,836 | \$ | 68,730,533 | \$ | 43,944,308 | \$ | 44,815,612 | \$ | 144,886,355 | \$ | - | \$ | - - | \$ |  |


| Production | ADEPREPA | F017 |  | - |  | - |  | - |  | - |  | - |  |  |  |  |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Transmission | ADEPRTP | PTRAN |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Distribution | ADEPRD11 | PDIST |  | 38,326,017 |  | 21,363,225 |  | 13,659,026 |  | 13,929,850 |  | 45,034,421 |  | - |  | - |  |  |
| General \& Common Plant | ADEPRD12 | PT\&D |  | 2,024,451 |  | 1,128,445 |  | 721,495 |  | 735,800 |  | 2,378,802 |  | - |  | - |  | - |
| Intangible Plant | ADEPRGP | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| RWIP | RWIP | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Accumulated Depreciation | TADEPR |  | \$ | 40,350,468 | \$ | 22,491,670 | \$ | 14,380,521 | \$ | 14,665,650 | \$ | 47,413,223 | \$ | - | \$ | - | \$ | - |
| Net Utility Plant | NTPLANT |  | \$ | 82,953,368 | \$ | 46,238,863 | \$ | 29,563,787 | \$ | 30,149,962 | \$ | 97,473,132 | \$ | - | \$ | - | \$ | - |
| Working Capital |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cash Working Capital - Operation and Maintenance Expenses | cwc | OMLPP |  | 231,637 |  | 129,116 |  | 69,036 |  | 2,886,220 |  | 347,121 |  | 4,604,270 |  | 1,013,761 |  | - |
| Materials and Supplies | M\&S | TPIS |  | 855,029 |  | 476,600 |  | 304,724 |  | 310,766 |  | 1,004,690 |  | - |  | - |  | - |
| Prepayments | PREPAY | TPIS |  | 284,600 |  | 158,638 |  | 101,429 |  | 103,440 |  | 334,415 |  | - |  | - |  | - |
| Fuel Stock |  | F017 |  |  |  |  |  |  |  |  |  |  |  | - |  | - |  |  |
| Total Working Capital | TWC |  | \$ | 1,371,266 | \$ | 764,355 | \$ | 475,189 | \$ | 3,300,426 | \$ | 1,686,226 | \$ | 4,604,270 | \$ | 1,013,761 | \$ | - |
| Deferred Debits |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Service Pension Cost | PENSCOST | TLB |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Other Deferred Debits | DDEBPP | OMSUB2 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Deferred Debits |  |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Less: Customer Advances | CSTDEP | F027 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Accumulated Deferred Income Taxes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Accumulated Deferred Income Taxes | DIT | TPIS |  | 18,202,008 |  | 10,145,943 |  | 6,487,022 |  | 6,615,643 |  | 21,388,002 |  | - |  | - |  | - |
| FAS 109 Deferred Income Taxes | DIT | TPIS |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Asset Retirement Obligation-Net Assets | DIT | TPIS |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Asset Retirement Obligation-Regulatory Liabilities | DIT | TPIS |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Accumulated Deferred Income Tax |  |  | \$ | 18,202,008 | \$ | 10,145,943 | \$ | 6,487,022 |  | 6,615,643 | \$ | 21,388,002 | \$ | - | \$ | - | \$ | - |
| Investment Tax Credits |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Production Plant | DIT | F017 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Transmission Plant | DIT | PTRAN |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Plant | DIT | PDIST |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total General Plant | DIT | PT\&D |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Investment Tax Credit |  |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Net Rate Base | RB |  | \$ | 66,122,625 | \$ | 36,857,274 | \$ | 23,551,954 | \$ | 26,834,745 | \$ | 77,771,357 | \$ | 4,604,270 | \$ | 1,013,761 | \$ | - |



## Operation and Maintenance Expenses

## Steam Power Generation Operation Expenses

500 OPERATION SUPERVISION \& ENGINEERING 501 FUEL

STEAM EXPENSES
STEAM TRANSFER EXPENSES
55 ELECTRIC EXPENSES
506 MISC. STEAM POWER EXPENSES
507 RENTS
509 ALLOWANCES

|  |  |
| :--- | :--- |
| OM500 | LBSUB1 |
| OM501 | Energy |
| OM502 | PROFIX |
| OM504 | PROFIX |
| OM505 | PROFIX |
| OM506 | PROFIX |
| OM507 | PROFIX |
| OM509 | PROFIX |

Total Steam Power Operation Expenses
Steam Power Generation Maintenance Expenses
510 MAINTENANCE SUPERVISION \& ENGINEERING
511 MAINTENANCE OF STRUCTURES
12 MAINTENANCE OF BOILER PLANT
514 MAINTENANCE OF MLECTRIC PLANT

| OM510 | LBSUB2 |
| :--- | :--- |
| OM111 | PROFIX |
| OM512 | Energy |
| OM553 | Energy |
| OM514 | Energy |


| \$ | 5,359,919 | 4,681,925 | 677,994 |
| :---: | :---: | :---: | :---: |
|  | 254,165,772 | - | 254,165,772 |
|  | 18,685,164 | 18,685,164 | - |
|  | - | - | - |
|  | 2,353,024 | 2,353,024 |  |
|  | 16,437,786 | 16,437,786 | - |
|  | - | - | - |
|  | - | - | - |

Total Steam Power Generation Maintenance Expense
Total Steam Power Generation Expense
Hydraulic Power Generation Operation Expenses
535 OPERATION SUPERVISION \& ENGINEERING
536 WATER FOR POWER
537 HYDRAULIC EXPENSES
538 ELECTRIC EXPENSES
539 MISC. HYDRAULIC POWER EXPENSES

Total Hydraulic Power Operation Expenses
Hydraulic Power Generation Maintenance Expenses
541 MAINTENANCE SUPERVISION \& ENGINEERING
541 MAINTENANCE SUPERVISION \& ENGINEERING
542 MAINTENANCE OF STRUCTURES
42 MAINTENANCE OF STRUCTURES
MAINT. OF RESERV EI, DAMS, AND WATERWAYS
545 MAINTENANCE OF MISC HYDRAULIC PLANT
Total Hydraulic Power Generation Maint. Expense
Total Hydraulic Power Generation Expense
Other Power Generation Operation Expense 546 OPERATION SUPERVISION \& ENGINEERING 547 FUEL
548 GENERATION EXPENS
549 MISC OTHER POWER GENERATION 550 RENTS

Total Other Power Generation Expenses

| \$ | 8,141,536 |  | 31,953 |  | 8,109,583 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3,444,669 |  | 3,444,669 |  |  |  |
|  | 34,342,497 |  | - |  | 34,342,497 |  |
|  | 14,018,415 |  | - |  | 14,018,415 |  |
|  | 1,551,793 |  | - |  | 1,551,793 |  |
| \$ | 61,498,910 | \$ | 3,476,622 | \$ | 58,022,288 | \$ |
| \$ | 358,500,575 | \$ | 45,634,521 | \$ | 312,866,054 | \$ |教

\$ 297,001,665 \$ 42,157,899 \$ 254,843,766 \$ $\quad$ - \$

| $\$$ | 116,778 | 116,778 |
| ---: | ---: | ---: |
|  | 43,212 | 43,212 |
|  | - | - |
|  | 324,155 | 324,155 |
|  | 213,613 | 213,613 |
|  | 568,902 | 568,902 |
|  |  |  |
|  | 1266,660 |  |
|  |  |  |

\$
$\$$

| \$ | - |  | - |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 323,993 |  | 323,993 |  | - |
|  | 222,489 |  | 222,489 |  | - |
|  | 327,894 |  |  |  | 327,894 |
|  | 56,196 |  | - |  | 56,196 |
| \$ | 930,572 | \$ | 546,482 | \$ | 384,090 |
|  | 2,197,232 | \$ | 1,813,142 | \$ | 384,090 |
| \$ | 187,484 |  | 187,484 |  | - |
|  | 43,921,446 |  | - |  | 43,921,446 |
|  | 300,829 |  | 300,829 |  | - |
|  | 1,742,424 |  | 1,742,424 |  | - |


|  |
| :---: |
|  |


| $\$$ | 187,484 | 187,484 | - | $43,921,446$ |
| :--- | ---: | ---: | :---: | :---: |
|  | $43,921,446$ | 300,829 | - |  |
|  | 300,829 | $1,742,424$ | $1,742,424$ | - |
|  | 11,652 |  | 11,652 | - |
|  | $\$$ | $46,163,835$ | $\$$ | $2,242,389$ |
|  | $\$$ | $43,921,446$ | $\$$ |  |

## 12 Months Ended

June 30, 2022

|  |  | Functional | Distribution Line Trans. | Distribution Services | Distribution Meters | $\begin{array}{r}\text { Distribution St. \& } \\ \text { Cust. Lighting } \\ \hline\end{array}$ | Customer <br> Accounts <br> Expense | Customer Service \& Info | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Name | Vector | Demand Cust | Customer |  |  |  |  |  |

## Operation and Maintenance Expenses

Steam Power Generation Operation Expenses
500 OPRERATION SUPERVISION \& ENGINEERING
501 FUEL
502 STEAM EXPENSES
504 STEAM TRANSFER EXPENSES
505 ELECTRIC EXPENSES
506 MISC. STEAM POWER EXPENSES
507 RENTS
509 ALLOWANCES
Total Steam Power Operation Expenses
Steam Power Generation Maintenance Expenses
510
511 MAINTENANCE SUPERVIIINN \& ENGINEERING
512 MAINTENNCE OF STRUCTURES
513 MANTENANE OF BOILER PLANT
514 MAINTENANE OF EEECTRIC PLANT
Total Steam Power Generation Maintenance Expense
Total Steam Power Generation Expense

Hydraulic Power Generation Operation Expenses
535 OPERATION SUPERVISION \& ENGINEERIN 536 WATER FOR POWER
537 HYDRAULIC EXPENSES
538 ELECTRIC EXPENSES
539 MISC. HYDRAULIC POWER EXPENSES 540 RENTS

Total Hydraulic Power Operation Expenses
Hydraulic Power Generation Maintenance Expenses
541 MAINTENANCE SUPERVISION \& ENGINEERING
542 MAINTENANCE OF STRUCTURES
43 MAINT. OF RESER
545 MAINTENANCE OF MISC HYDRAULIC PLANT

|  |  |
| :--- | :--- |
| OM550 | LBSUB1 |
| OM501 | Energy |
| OM502 | PROFIX |
| OM504 | PROFIX |
| OM505 | PROFIX |
| OM5506 | PROFFX |
| OM507 | PROFIX |
| OM509 | PROFIX |
|  |  |
|  |  |
|  |  |
| OM510 | LBSUB2 |
| OM551 | PROFF |
| OM512 | Energy |
| OM513 | Energy |
| OM514 | Energy |

Total Hydraulic Power Generation Maint. Expense
Total Hydraulic Power Generation Expense
Other Power Generation Operation Expense 546 OPERATION SUPERVISION \& ENGINEERING 547 FUEL
548 GENERATION EXPENS
49 MISC OTHER POWER GENERATION 550 RENTS

Total Other Power Generation Expenses


## Operation and Maintenance Expenses (Continued)

Other Power Generation Maintenance Expense
551 MAINTENANCE SUPERVISION \& ENGINEERING
552 MAINTENANCE OF STRUCTURES
553 MAINTENNCE OF GENERATING \& ELEC PLANT
554 MAINTENANCE OF MISC OTHER POWER GEN PL

| OM551 | PROFIX |
| :--- | :--- |
| OM552 | PROFIX |
| OM553 | PROFIX |
| OM554 | PROFIX |

Total Other Power Generation Maintenance Expense
Total Other Power Generation Expense

## Total Station Expense

Other Power Supply Expenses
555 PURCHASED POWER
555 PURCHASED POWER OPTIONS
555 BROKERAGE FEES
556 SYSTEM CONTROL AND LOAD DISPATCH 557 OTHER EXPENSES
558 DUPLICATE CHARGES
Total Other Power Supply Expenses
Total Electric Power Generation Expenses
Transmission Expenses
560 OPERATION SUPERVISION AND ENG
561 LOAD DISPATCHING
562 STATION EXPENSES
563 OVERHEAD LINE EXPENSES
565 TRANSMISSION OF ELECTRICITY BY OTHERS
566 MISC. TRANSMISSION EXPENSES
567 RENTS
568 MAINTENACE SUPERVISION AND ENG
569 STRUCTURES
570 MAINT OF STATION EQUIPMENT
571 MAINT OF OVERHEAD LINES
573 MISC PLANT
575 MISO DAY 1 \& 2 EXPENSES

|  |  |
| :--- | :--- |
| OM555 | OMPP |
| OMO555 | OMPP |
| OMB55 | OMPP |
| OMM555 | OMPP |
| OM56 | PROFIX |
| OM557 | PROFIX |
| OM558 | Energy |
| TPP |  |


| $\$$ | 272,764 |  |
| :--- | ---: | ---: |
|  | 2055,911 |  |
|  | $3,098,761$ |  |
|  | $1,896,209$ |  |
| $\$$ | $5,503,645$ | $\$$ |
| $\$$ | $51,667,480$ | $\$$ |
| $\$$ | $412,365,288$ | $\$$ |


| 272,764 | - |  |
| :---: | ---: | ---: |
| 2755,911 | - |  |
| $3,098,761$ | - |  |
| $1,896,209$ |  | - |
|  | $5,503,645$ | $\$$ |
|  | $7,746,034$ | $\$$ |
|  | $55,193,697$ | $\$$ |

\$ 43,276,6
19,589,961

Total Transmission Expenses

| OM560 | LBTRAN |
| :--- | :--- |
| OM561 | LBTRAN |
| OM562 | LBTRAN |
| OM563 | LBTRAN |
| OM565 | LBTRAN |
| OM566 | PTRAN |
| OM567 | PTRAN |
| OM568 | LBTRAN |
| OM569 | LBTRAN |
| OM570 | LBTRAN |
| OM571 | LBTRAN |
| OM572 | LBTRAN |
| OM573 | PTRAN |
| OM575 | LBTRAN |



12 Months Ended
June 30, 2022

|  |  | Functional | Distribution Line Trans. | Distribution Services | Distribution Meters | Distribution St. \& Cust. Lighting |  | Customer Service \& Info. | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Name | Vector | Demand Cust | Customer |  |  |  |  |  |

Operation and Maintenance Expenses (Continued)
Other Power Generation Maintenance Expense
551 MAINTENANCE SUPERVISION \& ENGINEERING
552 MAANTENANCE OF STRUCTURES
553 MAINTNANCE OF GENERATING \& ELEC PLANT
554 MAINTENANCE OF MISC OTHER POWER GEN PL
Total Other Power Generation Maintenance Expense
Total Other Power Generation Expense
Total Station Expense

Other Power Supply Expenses
555 PURCHASED POWER
555 PURCHASED POWER OPTIONS
555 BROKERAGE FEES
556 SYSTEM CONTROL AND LOAD DISPATCH 557 OTHER EXPENSES
558 DUPLICATE CHARGES
Total Other Power Supply Expenses
Total Electric Power Generation Expenses

## Transmission Expenses

560 OPERATION SUPERVISION AND ENG
561 LOAD DISPATCHING
562 STATION EXPENSES
563 OVERHEAD LINE EXPENSES
565 TRANSMISSION OF ELECTRICITY BY OTHERS
566 MISC. TRANSMISSION EXPENSES
567 RENTS
568 MAINTENACE SUPERVISION AND ENG
569 STRUCTURES
570 MAINT OF STATION EQUIPMENT
571 MAINT OF OVERHEAD LINES
573 MISC PLANT
575 MISO DAY 1 \& 2 EXPENSES
Total Transmission Expenses

| Description | Name | Functional Vector |  | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ | 12 Months Ended June 30, 2022 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | ProductionDemand |  |  | Production Energy |  | $\begin{array}{r} \begin{array}{r} \text { Transmission } \\ \text { Demand } \end{array} \\ \hline \text { Demand } \end{array}$ |  |  |  | Distribution Primary Lines |  |  |  |  |  | Distribution Sec. Lines |  |  |
|  |  |  |  |  |  | LOLP |  | Energy |  |  |  | General |  | Specific |  | Demand |  | Customer |  | Demand |  | Customer |
| Operation and Maintenance Expenses (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Distribution Operation Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 580 OPERATION SUPERVISION AND ENGI | OM580 | LBDO | \$ | 2,397,039 |  | - |  | - |  | - |  | 355,547 |  |  |  | 283,565 |  | 481,036 |  | 95,932 |  | 167,375 |
| 581 LOAD DISPATCHING | OM581 | P362 |  | 292,953 |  | - |  | - |  | - |  | 292,953 |  | - |  | - |  | - |  | - |  | - |
| 582 STATION EXPENSES | OM582 | P362 |  | 1,764,640 |  |  |  | - |  |  |  | 1,764,640 |  |  |  | - |  |  |  |  |  | -- |
| 583 OVERHEAD LINE EXPENSES | OM583 | P365 |  | 5,783,700 |  | - |  | - |  | - |  | - |  | - |  | 1,468,727 |  | 2,609,938 |  | 613,983 |  | 1,091,052 |
| 584 UNDERGROUND LINE EXPENSES | OM584 | P367 |  | 6,320,821 |  |  |  | . |  | - |  | - |  | - |  | 2,234,492 |  | 3,332,255 |  | 302,685 |  | 451,389 |
| 585 STREET LIGHTING EXPENSE | Ом585 | P373 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 586 METER EXPENSES | Ом586 | P370 |  | 7,932,375 |  | - |  | - |  | - |  |  |  | - |  | - |  |  |  |  |  |  |
| 586 METER EXPENSES - LOAD MANAGEMENT | OM586x | F012 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  |  |
| 587 CUSTOMER INSTALLATIONS EXPENSE | OM587 | PDIST |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 588 MISCELLANEOUS DISTRIBUTION EXP | OM588 | PDIST |  | 7,395,817 |  | - |  | - |  | - |  | 922,271 |  | - |  | 1,415,851 |  | 2,316,939 |  | 395,035 |  | 675,019 |
| 588 MISC DISTR EXP -- MAPPIN | OM588x | PDIST |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 589 RENTS | OM589 | PDIST |  | 35,725 |  | - |  | - |  | - |  | 4,455 |  | - |  | 6,839 |  | 11,192 |  | 1,908 |  | 3,261 |
| Total Distribution Operation Expense | OMDO |  | \$ | 31,923,070 | \$ | - | \$ | - | \$ | - | \$ | 3,339,866 | \$ | - | \$ | 5,409,474 | \$ | 8,751,359 | \$ | 1,409,543 | \$ | 2,388,094 |
| Distribution Maintenance Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 590 MAINTENANCE SUPERVISION AND EN | OM590 | LBDM | \$ | 47,090 |  | - |  | - |  | - |  | 6,498 |  | - |  | 11,032 |  | 18,519 |  | 3,538 |  | 6,141 |
| 591 STRUCTURES | OM591 | P362 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  |  |  | - |
| 592 MAINTENANCE OF STATION EQUIPME | Ом592 | P362 |  | 1,865,977 |  | - |  | - |  | - |  | 1,865,977 |  | - |  | - |  | - |  | - |  | - |
| 593 MAINTENANCE OF OVERHEAD LINES | OM593 | P365 |  | 15,769,154 |  |  |  | - |  |  |  | - |  | - |  | 4,004,459 |  | 7,115,949 |  | 1,674,014 |  | 2,974,733 |
| 594 MAINTENANCE OF UNDERGROUND LIN | Ом594 | P367 |  | 1,854,313 |  | - |  | - |  | - |  | - |  | - |  | 655,524 |  | 977,570 |  | 88,798 |  | 132,422 |
| 595 MAINTENANCE OF LINE TRANSFORME | OM595 | P368 |  | 185,535 |  | - |  | - |  | - |  | - |  | - |  | - |  |  |  |  |  | - |
| 596 MAINTENANCE OF ST LIGHTS \& SIG SYSTEMS | Ом596 | P373 |  | 568,134 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 597 MAINTENANCE OF METERS | OM597 | P370 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 598 MISCELLANEOUS DISTRIBUTION EXPENSES | OM598 | PDIST |  | 870,332 |  | - |  | - |  | - |  | 108,532 |  | - |  | 166,616 |  | 272,655 |  | 46,487 |  | 79,435 |
| Total Distribution Maintenance Expense | OMDM |  | \$ | 21,160,535 | \$ | - | \$ | - | \$ | - | \$ | 1,981,006 | \$ | - | \$ | 4,837,630 | \$ | 8,384,692 | \$ | 1,812,837 | \$ | 3,192,731 |
| Total Distribution Operation and Maintenance Expenses |  |  | \$ | 53,083,605 |  | - |  | - |  | - |  | 5,320,872 |  | - |  | 10,247,105 |  | 17,136,051 |  | 3,222,380 |  | 5,580,825 |
| Transmission and Distribution Expenses |  |  | \$ | 80,857,178 |  | - |  | - |  | 27,773,573 |  | 5,320,872 |  | - |  | 10,247,105 |  | 17,136,051 |  | 3,222,380 |  | 5,580,825 |
| Production, Transmission and Distribution Expenses | omsub |  | \$ | 538,397,683 | \$ | 80,778,954 | \$ | 376,761,551 | \$ | 27,773,573 | \$ | 5,320,872 | \$ | - | \$ | 10,247,105 | \$ | 17,136,051 | \$ | 3,222,380 | \$ | 5,580,825 |


|  | 12 Months Ended June 30, 2022 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Functional | Distribution L | rans. | $\begin{array}{r} \text { Distribution } \\ \text { Services } \end{array}$ | $\begin{array}{r} \text { Distribution } \\ \text { Meters } \end{array}$ | Distribution St. \& Cust. Lighting | Customer Accounts Expense | Customer Service \& Info. | Sales Expense |
| Description | Name | Vector | Demand | Cust | Customer |  |  |  |  |  |

## Operation and Maintenance Expenses (Continued)

Distribution Operation Expense
580 OPERATION SUPERVISION AND ENGI
581 LOAD DISPATCHING
582 STATION EXPENSE
583 OVERHEAD LINE EXPENSES
584 UNDERGROUND LINE EXPENSES
585 STREET LIGHTING EXPENSE
586 METER EXPENSES
586 METER EXPENES - LOAD MANAGEMENT
587 CUSTOMER INSTALLATIONS EXPENSE
588 MISCELLANEOUS DSTRBUTON EXP
588 MISC DISTR EXP -- MAPPIN
589 RENTS

|  |  |
| :--- | :--- |
| OM580 | LBDO |
| OM581 | P362 |
| OM582 | P362 |
| OM583 | P365 |
| OM584 | P367 |
| OM555 | P337 |
| OM586 | P370 |
| OM586x | F012 |
| OM587 | PDIST |
| OM588 | PDIST |
| OM558x | PDIST |
| OM589 | PDIST |
| OMDO |  |


| 28,597 | 15,940 |  |
| :---: | :---: | :---: |
| - | - |  |
| - | - |  |
| - | - |  |
| - | - |  |
|  | - | - |
|  | - |  |
|  | 483,940 | 269,752 |
| $2,-338$ | 1,303 |  |
|  | 514,875 | $\$$ |
|  | 286,995 | $\$$ |


| 10,192 | 925,254 | 33,602 |
| :---: | :---: | :---: |
| - | - | - |
| - | - | - |
| - | - | - |
| - | $7,932,375$ | - |
| - | - | - |
| - | 175,891 | 568,647 |
| 172,472 | - | -740 |
| 833 | 2,747 |  |
| 183,497 | $9,034,370$ | $\$$ |
|  | 604,996 | $\$$ |


|  |  |
| :--- | :--- |
| OM590 | LBDM |
| OM591 | P362 |
| OM592 | P362 |
| OM593 | P365 |
| OM594 | P367 |
| OM595 | P368 |
| OM596 | P373 |
| OM597 | P370 |
| OM598 | PDIST |
|  |  |

808
-
-
-
119,131
-
56,950
176,889



| 104 | - | - |  |
| :---: | :---: | :---: | :---: |
| - | - | - |  |
| - | - | - |  |
| - | - | - |  |
| - | - | - |  |
| 568,134 | - | - |  |
| 66,918 | - | - |  |
| $635,155 \$$ | - | $\$$ | - |

Total Distribution Operation and Maintenance Expenses
Transmission and Distribution Expenses
Production, Transmission and Distribution Expenses
591 STRUCTURES

592 MAINTENANCE OF STATION EQUIPME
593 MAINTENANCE OF OVERHEAD LINES
595 MAINTENANCE OF UNDERGROUNDLIN
596 MAINTENANCE OF ST LIGHTS \& SIG SYSTEMS
597 MAINTENANCE OF METERS
598 MISCELLANEOUS DISTRIBUTION EXPENSES
Total Distribution Maintenance Expense
OMDM

| 176,889 | \$ | 98,599 | \$ | 20,296 | \$ | 20,699 | \$ | 635,155 | \$ | - | \$ | - | \$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 691,764 |  | 385,595 |  | 203,793 |  | 9,055,069 |  | 1,240,152 |  | - |  | - |  |
| 691,764 |  | 385,595 |  | 203,793 |  | 9,055,069 |  | 1,240,152 |  | - |  | - |  |
| 691,764 | \$ | 385,595 | \$ | 203,793 | \$ | 9,055,069 | \$ | 1,240,152 | \$ | - | \$ | - | \$ |

## 12 Months Ended

June 30, 2022


## Operation and Maintenance Expenses (Continued)

| Customer Accounts Expense |  |
| :---: | :---: |
| 901 SUPERVISION/CUSTOMER ACCTS | Ом901 |
| 902 METER READING EXPENSES | Ом902 |
| 903 RECORDS AND COLLECTION | ом903 |
| 904 UNCOLLECTIBLE ACCOUNTS | ОМ904 |
| 905 MISC CUST ACCOUNTS | ом903 |
| Total Customer Accounts Expense | OMCA |
| Customer Service Expense |  |
| 907 SUPERVISION | OM907 |
| 908 CUSTOMER ASSISTANCE EXPENSES | Ом908 |
| 908 CUSTOMER ASSISTANCE EXP-INCENTIVES | OM908x |
| 909 INFORMATIONAL AND INSTRUCTIONA | ОМ909 |
| 909 INFORM AND INSTRUC -LOAD MGMT | ом909x |
| 910 MISCELLANEOUS CUSTOMER SERVICE | OM910 |
| 911 DEMONSTRATION AND SELLING EXP | OM911 |
| 912 DEMONSTRATION AND SELLING EXP | OM912 |
| 913 ADVERTISING EXPENSES | OM913 |
| 916 MISC SALES EXPENSE | Ом916 |
| Total Customer Service Expense | OMCS |
| Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service | OMSU |


|  |  |
| :--- | :--- |
| M901 | FO25 |
| M902 | FO25 |
| M9904 | FO25 |
| OM903 | FO25 |
| OMCA |  |
|  |  |
| OM907 | F02 |
| OM908 | FO26 |
| OM908x | FO2 |
| OM909 | FO26 |
| OM909x | FO26 |
| OM910 | FO2 |
| OM911 | FO26 |
| OM912 | FO2 |
| OM913 | FO |
| OM916 | FO26 |
| OMCS |  |



$\begin{array}{lllll}557,295,500 & 80,778,954 & 376,761,551 & 27,773,573 & 5,320,872\end{array}$

$$
10,247,10
$$

17,136,051
3,222,380

|  | 12 Months Ended June 30, 2022 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Functional Vector | Distribution Line Trans. |  | $\begin{array}{r} \text { Distribution } \\ \text { Services } \end{array}$ | Distribution Meters | Distribution St. \& Cust. Lighting | Customer <br> Accounts <br> Expense | Customer Service \& Info. | Sales Expense |
| Description | Name |  | Demand | Cust | Customer |  |  |  |  |  |

## Operation and Maintenance Expenses (Continued)

Customer Accounts Expense
901 SUPERVIION/CUSTOMER ACCTS
902 METER READING EXPENSES
903 RECORDS AND COLLECTION
904 UNCOLLECTIBLE ACCOUNTS
905 MISC CUST ACCOUNTS
Total Customer Accounts Expense
Customer Service Expens
907 SUPERVISION
908 CUSTOMER ASSISTANCE EXPENSES
908 CUSTOMER ASSISTANCE EXP-INCENTIVES
909 INFORMATIONAL AND INSTRUCTIONA
909 INFORM AND INSTRUC -LOAD MGMT
910 MISCELLANEOUS CUSTOMER SERVIC
911 DEMONSTRATION AND SELLING EXP
912 DEMONSTRATION AND SELLING EXP
916 MISC SALES EXPENSE
Total Customer Service Expense
Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service

| OM901 | FO25 |
| :--- | :--- |
| OM902 | FO25 |
| OM903 | FO25 |
| OM904 | FO25 |
| OM903 | F025 |
| OMCA |  |
|  |  |
|  |  |
| OM907 | F026 |
| OM908 | FO26 |
| OM908x | FO26 |
| OM909 | FO26 |
| OM909x | FO26 |
| OM910 | FO26 |
| OM911 | FO26 |
| OM912 | FO26 |
| OM913 | FO26 |
| OM916 | FO26 |
| OMCS |  |
|  |  |

OMSUB2


| Description | Name | Functional Vector |  | $\begin{array}{r} \text { Total } \\ \text { System } \\ \hline \end{array}$ | $\begin{array}{r} \text { Production } \\ \text { Demand } \end{array}$ |  |  | ProductionEnergy $\|$ | TransmissionDemandDemand |  |  | Distribution <br> Substation <br> General | Distribution Primary Lines |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Specific |  |  | Demand |  | Customer | Distribution Sec. LinesDemandCustomer |  |  |  |
| Operation and Maintenance Expenses (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Administrative and General Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 920 ADMIN. \& GEN. SALARIES- | OM920 | LBSUB7 | \$ | 25,891,027 |  | 8,431,182 |  | 7,150,540 |  | 1,943,054 |  | 808,693 |  |  |  | 802,104 |  | 1,355,414 |  | 266,150 |  | 463,477 |
| 921 OFFICE SUPPLIES AND EXPENSES | OM921 | LBSUB7 |  | 7,802,685 |  | 2,540,875 |  | 2,154,932 |  | 585,571 |  | 243,713 |  | - |  | 241,727 |  | 408,476 |  | 80,209 |  | 139,676 |
| 922 ADMIIISTRATIVE EXPENSES TRANSFERRED | OM922 | LBSUB7 |  | $(5,240,118)$ |  | $(1,706,398)$ |  | $(1,447,207)$ |  | $(393,257)$ |  | $(163,672)$ |  |  |  | $(162,339)$ |  | (274,324) |  | $(53,866)$ |  | $(93,804)$ |
| 923 OUTSIDE SERVICES EMPLOYED | ом923 | LBSUB7 |  | 17,066,021 |  | 5,557,397 |  | 4,713,264 |  | 1,280,760 |  | 533,049 |  | - |  | 528,706 |  | 893,419 |  | 175,432 |  | 305,500 |
| 924 PROPERTY INSURANCE | OM924 | TUP |  | 7,218,578 |  | 4,385,653 |  |  |  | 695,006 |  | 266,602 |  |  |  | 409,282 |  | 669,761 |  | 114,193 |  | 195,128 |
| 925 INJURIES AND DAMAGES | OM925 | LBSUB7 |  | 3,235,548 |  | 1,053,627 |  | 893,588 |  | 242,819 |  | 101,061 |  |  |  | 100,237 |  | 169,383 |  | 33,260 |  | 57,920 |
| 926 EMPLOYEE BENEFITS | OM926 | LBSUB7 |  | 23,981,335 |  | 7,809,308 |  | 6,623,124 |  | 1,799,737 |  | 749,045 |  | - |  | 742,942 |  | 1,255,440 |  | 246,519 |  | 429,291 |
| 927 FRANCHISE REQUIREMENTS | OM927 | TUP |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 928 REGULATORY COMMISSION FEES | OM928 | TUP |  | 984,809 |  | 598,322 |  |  |  | 94,818 |  | 36,372 |  |  |  | 55,837 |  | 91,373 |  | 15,579 |  | 26,621 |
| 929 DUPLICATE CHARGES-CR | OM929 | LBSUB7 |  | $(216,193)$ |  | (70,401) |  | (59,708) |  | $(16,225)$ |  | $(6,753)$ |  | - |  | $(6,698)$ |  | $(11,318)$ |  | $(2,222)$ |  | $(3,870)$ |
| 930 MISCELLANEOUS GENERAL EXPENSES | ом930 | LBSUB7 |  | 2,554,270 |  | 831,775 |  | 705,434 |  | 191,691 |  | 79,781 |  | - |  | 79,131 |  | 133,718 |  | 26,257 |  | 45,724 |
| 931 RENTS AND LEASES | OM931 | PGP |  | 1,807,941 |  | 1,103,635 |  | - |  | 169,507 |  | 66,690 |  | - |  | 102,382 |  | 167,540 |  | 28,565 |  | 48,811 |
| 935 MAINTENANCE OF GENERAL PLANT | OM935 | PGP |  | 1,055,259 |  | 644,170 |  | - |  | 98,938 |  | 38,926 |  | - |  | 59,758 |  | 97,790 |  | 16,673 |  | 28,490 |
| Total Administrative and General Expense | OMAG |  | \$ | 86,141,161 | \$ | 31,179,144 | \$ | 20,733,968 | \$ | 6,692,420 | \$ | 2,753,507 | \$ | - | \$ | 2,953,070 | \$ | 4,956,673 | \$ | 946,748 | \$ | 1,642,966 |
| Total Operation and Maintenance Expenses | том |  | \$ | 643,436,661 | \$ | 111,958,098 | \$ | 397,495,519 | \$ | 34,465,993 | \$ | 8,074,379 | \$ | - | \$ | 13,200,175 | \$ | 22,092,724 | \$ | 4,169,129 | \$ | 7,223,791 |
| Operation and Maintenance Expenses Less Purchase Power | OMLPP |  | \$ | 600,159,990 | \$ | 88,271,387 | \$ | 377,905,558 | \$ | 34,465,993 | \$ | 8,074,379 | \$ | - | \$ | 13,200,175 | \$ | 22,092,724 | \$ | 4,169,129 | \$ | 7,223,791 |

## 12 Months Ended

June 30, 2022

| Description |  | Functional Vector | Distribution Line Trans. |  | $\begin{array}{r} \text { Distribution } \\ \text { Services } \\ \hline \end{array}$ | Distribution Meters | Distribution St. \& Cust. Lighting | Customer <br> Accounts <br> Expense | $\begin{array}{\|r\|r\|} \text { Customer } \\ \hline \text { Service \& Info. } \\ \hline \end{array}$ | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Name |  | Demand | Cust | Customer |  |  |  |  |  |

Operation and Maintenance Expenses (Continued)
Administrative and General Expense
920 ADMIN. \& GEN. SALARIES-
921 OFFICE SUPPLIES AND EXPENSES
922 ADMINISTRATIVE EXPENSES TRANSFERRE
923 OUTSIDE SERVICES EMPLOYED
924 PROPERTY INSURANCE
925 INJURIES AND DAMAGES
926 EMPLOYE EENEFITS
927 FRANCHISE REQUREMENTS
928 REGULATORY COMMISSION FEES
929 DUPLLCATE CHRAGES-CR
930 MISCELLANEOUS GENERAL EXPENSES
931 RENTS AND LEASES
935 MAINTENANCE OF GENERAL PLANT

Total Administrative and Geneat

Total Operation and Maintenance Expenses
Operation and Maintenance Expenses Less Purchase Power
OM920
OM921
OM922
OM923
OM924
OM925
OM926
OM927
OM928
OM929
OM930
OM931
OM935
OMAG
TOM
OMLP

| LBSUB7 |  | 72,722 |  | 40,536 |  | 18,178 |  | 1,650,318 |  | 62,718 |  | 2,320,423 |  | 505,519 |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LBSUB7 |  | 21,916 |  | 12,216 |  | 5,478 |  | 497,350 |  | 18,901 |  | 699,297 |  | 152,346 |  |  |
| LBSUB7 |  | $(14,718)$ |  | $(8,204)$ |  | $(3,679)$ |  | $(334,010)$ |  | $(12,694)$ |  | $(469,633)$ |  | $(102,313)$ |  |  |
| LBSUB7 |  | 47,935 |  | 26,719 |  | 11,982 |  | 1,087,804 |  | 41,340 |  | 1,529,502 |  | 333,212 |  | - |
| TUP |  | 139,893 |  | 77,978 |  | 49,857 |  | 50,845 |  | 164,380 |  | - |  | - |  |  |
| LBSUB7 |  | 9,088 |  | 5,066 |  | 2,272 |  | 206,237 |  | 7,838 |  | 289,978 |  | 63,174 |  | - |
| LBSUB7 |  | 67,358 |  | 37,546 |  | 16,837 |  | 1,528,592 |  | 58,092 |  | 2,149,271 |  | 468,232 |  |  |
| TUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TUP |  | 19,085 |  | 10,638 |  | 6,802 |  | 6,937 |  | 22,426 |  | - |  | - |  |  |
| LBSUB7 |  | (607) |  | (338) |  | (152) |  | $(13,780)$ |  | (524) |  | $(19,376)$ |  | $(4,221)$ |  |  |
| LBSUB7 |  | 7,174 |  | 3,999 |  | 1,793 |  | 162,811 |  | 6,187 |  | 228,920 |  | 49,872 |  |  |
| PGP |  | 34,994 |  | 19,506 |  | 12,472 |  | 12,719 |  | 41,119 |  | - |  | - |  | - |
| PGP |  | 20,425 |  | 11,385 |  | 7,279 |  | 7,424 |  | 24,001 |  | - |  | - |  | - |
|  | \$ | 425,266 | \$ | 237,046 | \$ | 129,120 | \$ | 4,863,247 | \$ | 433,784 | \$ | 6,728,383 | \$ | 1,465,821 | \$ | - |
|  | \$ | 1,117,029 | \$ | 622,641 | \$ | 332,913 | \$ | 13,918,315 | \$ | 1,673,935 | \$ | 22,203,328 | \$ | 4,888,693 | \$ | - |
|  | \$ | 1,117,029 | \$ | 622,641 | \$ | 332,913 | \$ | 13,918,315 | \$ | 1,673,935 | \$ | 22,203,328 | \$ | 4,888,693 | \$ | - |
|  |  |  |  |  |  |  | \$ | 70,751,095 |  |  |  |  |  |  |  |  |



| Description | Name | Functional Vector | Distribution Line Trans. |  | Distribution Services | $\begin{aligned} & \text { Distribution } \\ & \text { Meters } \end{aligned}$ | Distribution St. \&Cust. Lighting | Customer <br> Accounts <br> Expense | $\begin{array}{\|r\|r\|} \text { Customer } \\ \text { Service \& Info. } \end{array}$ | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Demand | Cust | Customer |  |  |  |  |  |

Steam Power Generation Operation Expenses
500 OPERATION SUPERVISION \& ENGINEERING
501 FUEL
502 STEAM EXPENSES
04 STEAM TRANSFER EXPENSES
506 MISC. STEAM POWER EXPENSES
507 RENTS
Total Steam Power Operation Expenses
Steam Power Generation Maintenance Expenses
IT MAINTENANCE SUPERVISION \& ENGINEERING
12 MAINTENANCE OF STRUCTURES
513 MAINTENANCE OF ELECTRIC PLANT
514 MAINTENANCE OF MISC STEAM PLANT
Total Steam Power Generation Maintenance Expense
Total Steam Power Generation Expense

LB500 F019
LB501
LB5019
Energy

B502 LB506
LB507
LB507
PROFIX
PROFIX
LB510 F020

| LB510 | F020 |
| :--- | :--- |
| LB511 | PROFIX |
| LL512 | Energy |
| LB513 | Energy |
| LB514 | Energy |

LBSUB2
nergy
OFIX

\$

- $\$$
\$
\$

Hydraulic Power Generation Operation Expenses
535 OPERATION SUPERVISION \& ENGINEERING WATER FOR POWER
337 HYDRAULIC EXPENSES
539 MISC. HYDRAULIC POWER EXPENSES
540 RENTS
Total Hydraulic Power Operation Expenses
Hydraulic Power Generation Maintenance Expense 541 MAINTENANCE SUPERVISION \& ENGINEERING 542 MAINTENANCE OF STRUCTURES
543 MAINT. OF RESERVES, DAMS, AND WATERWAYS 544 MAINTENANCE OF ELECTRIC PLAN 545 MAINTENANCE OF MISC HYDRAULIC PLANT Total Hydraulic Power Generation Maint. Expense Total Hydraulic Power Generation Expense

| LB535 | F021 |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LB536 | PROFIX |  | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LB537 | PROFIX |  | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LB538 | PROFIX |  | - |  |  |  | - |  |  |  | - |  | - |  | - |  | - |
| LB539 | PROFIX |  | - |  |  |  | - |  |  |  |  |  |  |  |  |  |  |
|  | PROFIX |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| LBSUB3 |  | \$ | - | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| LB541 | F022 |  | - |  |  |  |  |  |  |  | - |  | - |  | - |  |  |
| LB542 | PROFIX |  | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LB543 | PROFIX |  | - |  |  |  |  |  | - |  | - |  |  |  |  |  |  |
| LB544 | Energy |  | - |  |  |  | - |  | - |  | - |  | - |  |  |  |  |
| LB545 | Energy |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| LBSUB4 |  | \$ | - | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
|  |  | \$ |  | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |



## Labor Expenses (Continued)

Other Power Generation Operation Expense
546 OPERATION SUPERVISION \& ENGINEERING
547 FUEL
548 GENERATION EXPENSE
549 MISC OTHER POWER GENERATION
550 RENTS
Total Other Power Generation Expenses

Other Power Generation Maintenance Expense
551 MAINTENANCE SUPERVISION \& ENGINEERING
552 MAINTENANCE OF STRUCTURES
553 MAINTENANCE OF GENERATING \& ELEC PLANT
ota Other Power Geration Total Other Power Generation Expense

Total Production Expense
Purchased Power
555 PURCHASED POWER
557 OTHER EXPENSES
Total Purchased Power Labor

| LB546 | PROFIX |
| :--- | :--- |
| LB547 | Energy |
| LB548 | PROFIX |
| LB549 | PROFIX |
| LB550 | PROFIX |
| LBSUB5 |  |
|  |  |
| LB551 | PROFIX |
| LB552 | PROIX |
| LB553 | PROFIX |
| LB554 | PROFIX |
| LBSUB6 |  |
|  |  |
|  |  |
| LPREX |  |
|  |  |
| LB555 | OMPP |
| LB556 | PROFIX |
| LB557 | PROFIX |
| LBPP |  |




## Labor Expenses (Continued)

Other Power Generation Operation Expense
546 OPERATION SUPERVISION \& ENGINEERING
544 FUEL
548 GENERATION EXPENSE
549 MISC OTHER POWER GENERATION
550 RENTS
Total Other Power Generation Expenses

Other Power Generation Maintenance Expense
551 MAINTENANCE SUPERVISION \& ENGINEERING 552 MAINTENANCE OF STRUCTURES
553 MAINTENANCE OF GENERATING \& ELEC PLANT
Th O MSC OTHER POWER GENPLT
Total Other Power Generation Maintenance Expense Total Other Power Generation Expense

Total Production Expense

| LB546 | PROFIX |
| :--- | :--- |
| LB547 | Energy |
| LB548 | PROFIX |
| LB549 | PROFIX |
| LB550 | PROFIX |
| LBSUB5 |  |
|  |  |

## LB551 PROFIX <br> LB552 <br> PROFIX PROFII

LB553
LB554
PROFIX
原

LPREX
Purchased Power
555 PURCHASED POWER
CONTROL AND LOAD DISPATCH 557 OTHER EXPENSES

Total Purchased Power Labor
$\begin{array}{ll}\text { LB555 OMPP } \\ \text { LB556 } & \text { PROFIX }\end{array}$
B557 PROFIX
LBPP
PROFIX

| Description | Name | Functional Vector | $\begin{array}{r} \text { Total } \\ \text { System } \\ \hline \end{array}$ |  |  | $\begin{array}{r} \text { Production } \\ \text { Demand } \\ \hline \text { LOLP } \\ \hline \end{array}$ |  | $\begin{array}{r}\text { Production } \\ \text { Energy } \\ \hline \text { Energy }\end{array}$ | TransmissionDemandDemand |  | $\begin{array}{r} \begin{array}{r} \text { Distribution } \\ \text { Substation } \end{array} \\ \hline \text { General } \end{array}$ |  | Distribution Primary Lines |  |  |  |  |  |  | Distribution Sec. Lines |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  | Specific |  | Demand |  | Customer |  | Demand |  | Customer |
| Labor Expenses (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Labor Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 560 OPERATION SUPERVISION AND ENG | LB560 | PTRAN | \$ | 884,644 |  | - |  | - |  | 884,644 |  |  |  | - |  |  |  | - |  | - |  | - |  |  |
| 561 LOAD DISPATCHING | LB561 | PTRAN |  | 1,915,335 |  | - |  | - |  | 1,915,335 |  | - |  | - |  | - |  | - |  | - |  | - |
| 562 STATION EXPENSES | LB562 | PTRAN |  | 390,519 |  | - |  | - |  | 390,519 |  | - |  | - |  | - |  | - |  | - |  |  |
| 563 OVERHEAD LINE EXPENSES | LB563 | PTRAN |  | 12,872 |  | - |  | - |  | 12,872 |  | - |  | - |  | - |  |  |  |  |  |  |
| 566 MISC. TRANSMISSION EXPENSES | LB566 | PTRAN |  | 110,681 |  | - |  | - |  | 110,681 |  | - |  | - |  | - |  | - |  | - |  | - |
| 569 MAINTENACE OF STRUCTURES | LB569 | PTRAN |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  |  |
| 570 MAINT OF STATION EQUIPMENT | LB570 | PTRAN |  | 687,585 |  | - |  | - |  | 687,585 |  | - |  | - |  | - |  | - |  | - |  | - |
| 571 MAINT OF OVERHEAD LINES | LB571 | PTRAN |  | 170,496 |  | - |  | - |  | 170,496 |  | - |  | - |  | - |  |  |  |  |  |  |
| 573 MAINT OF MISC. TRANSMISSION PLANT | LB573 | PTRAN |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Transmission Labor Expenses | LBTRAN |  | \$ | 4,172,132 | \$ | - | \$ | - | \$ | 4,172,132 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Operation Labor Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 580 OPERATION SUPERVISION AND ENGI | LB580 | F023 | \$ | 951,702 |  | - |  | - |  | - |  | 141,164 |  | - |  | 112,584 |  | 190,987 |  | 38,088 |  | 66,453 |
| 581 LOAD DISPATCHING | LB581 | P362 |  | 147,043 |  | - |  | - |  | - |  | 147,043 |  | - |  | - |  |  |  |  |  |  |
| 582 STATION EXPENSES | LB582 | P362 |  | 886,395 |  | - |  | - |  | - |  | 886,395 |  | - |  | 8 |  | 441 |  | 117 |  | 697 |
| 583 OVERHEAD LINE EXPENSES | LB583 | P365 |  | 2,177,118 |  | - |  | - |  | - |  | - |  | - |  | 552,863 |  | 982,441 |  | 231,117 |  | 410,697 |
| 584 UNDERGROUND LINE EXPENSES | LB584 | P367 |  | 377,223 |  | - |  | - |  | - |  | - |  | - |  | 133,353 |  | 198,867 |  | 18,064 |  | 26,939 |
| 585 STREET LIGHTING EXPENSE | LB585 | P373 |  | 53 |  | - |  | - |  | - |  | - |  | - |  | - |  |  |  |  |  |  |
| 586 METER EXPENSES | LB586 | P370 |  | 3,140,532 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 586 METER EXPENSES - LOAD MANAGEMENT | LB586x | F012 |  |  |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 587 CUSTOMER INSTALLATIONS EXPENSE | LB587 | P371 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 588 MISCELLANEOUS DISTRIBUTION EXP | LB588 | PDIST |  | 1,500,244 |  | - |  | - |  | - |  | 187,083 |  | - |  | 287,206 |  | 469,992 |  | 80,133 |  | 136,928 |
| 589 RENTS | LB589 | PDIST |  |  |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Operation Labor Expense | LBDO |  | \$ | 9,180,257 | \$ | - | \$ | - | \$ | - | \$ | 1,361,685 | \$ | - | \$ | 1,086,006 | \$ | 1,842,286 | \$ | 367,402 | \$ | 641,017 |

## 12 Months Ended

June 30, 2022

|  |  | Functional | Distribution Line Trans. | Distribution Services | Distribution Meters | Distribution St. \& Cust. Lighting | Customer <br> Accounts <br> Expense | Customer Service \& Info. | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Name | Vector | Demand Cust |  |  |  |  |  |  |

Labor Expenses (Continued)
Transmission Labor Expenses
560 OPERATION SUPERVISION AND ENG
561 LOAD DISPATCHING
562 STATION EXPENSES
563 OVERHEAD LINE EXPENSES
566 MISC. TRANSMISSION EXPENSES
569 MAITENACE OF STRUCTURES
570 MAINT OF STATION EQUIPMENT
571 MAINT OF OVERHEAD LINES
573 MAINT OF MISC. TRANSMISSION PLANT

Total Transmission Labor Expenses
Distribution Operation Labor Expense
580 OPERATION SUPERVISION AND ENGI
581 LOAD DISPATCHING
583 OVERHEAD LINE EXPENSES
584 UNDERGROUND LINE EXPENSE
585 STREET LIGHTING EXPENSE
586 METER EXPENSES
586 METER EXPENSES - LOAD MANAGEMENT 587 CUSTOMER INSTALLATIONS EXPENSE 88 MIISCELLANEOUS DISTRIBUTION EXP

| LB560 | PTRAN |
| :--- | :--- |
| LB561 | PTRAN |
| LB562 | PRRAN |
| LB563 | PTRAN |
| LB566 | PRAN |
| LB569 | PTRAN |
| LB570 | PTRAN |
| LB571 | PTRAN |
| LB573 | PTRAN |
|  |  |
| LBTRAN |  |


| LB580 | F023 |  | 11,354 |  | 6,329 |  | 4,046 |  | 367,356 |  | 13,341 |  | - |  | - |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LB581 | P362 |  | - |  | - |  |  |  | - |  | - |  |  |  |  |  |  |
| LB582 | P362 |  | - |  | - |  |  |  |  |  | - |  |  |  |  |  |  |
| LB583 | P365 |  | - |  | - |  | - |  | - |  | - |  |  |  |  |  |  |
| LB584 | P367 |  | - |  | - |  | - |  | - |  | - |  | - |  |  |  |  |
| LB585 | P373 |  | - |  | - |  | - |  | - |  | - |  | - |  |  |  |  |
| LB586 | P370 |  |  |  |  |  | - |  | 3,140,532 |  |  |  |  |  |  |  |  |
| LB586x | F012 |  | - |  | - |  | - |  | - |  | - |  |  |  |  |  |  |
| LB587 | P371 |  | - |  | - |  | - |  | - |  | - |  |  |  |  |  |  |
| LB588 | PDIST |  | 98,167 |  | 54,719 |  | 34,986 |  | 35,680 |  | 115,350 |  | - |  |  |  |  |
| LB589 | PDIST |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| LBDO |  | \$ | 109,521 | \$ | 61,048 | \$ | 39,032 | \$ | 3,543,567 | \$ | 128,691 | \$ | - | \$ | - | \$ | - |


| Description | Name | Functional Vector |  | $\begin{array}{r} \text { Total } \\ \text { System } \\ \hline \end{array}$ |  | $\begin{array}{r} \begin{array}{r} \text { Production } \\ \text { Demand } \end{array} \\ \hline \text { LOLP } \end{array}$ |  | $\begin{array}{r} \text { Production } \\ \text { Energy } \\ \hline \end{array}$ |  | $\substack{\text { Transmission } \\ \text { Demand } \\ \text { Demand }}$ | $\begin{array}{r} \begin{array}{r} \text { Distribution } \\ \text { Substation } \end{array} \\ \hline \text { General } \\ \hline \end{array}$ |  |  | Distribution Primary Lines |  |  |  |  | Distribution Sec. Lines |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | Energy |  |  |  |  |  | Specific |  | Demand |  | Customer |  | 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 |  | 374,744 |  | - |  | - |  | - |  | 374,744 |  | - |  | - |  | - |  | - |  | - |
| 593 MAINTENANCE OF OVERHEAD LINES | LB593 | P365 |  | 1,642,806 |  | - |  | - |  | - |  | - |  | - |  | 417,178 |  | 741,328 |  | 174,396 |  | 309,903 |
| 594 MAINTENANCE OF UNDERGROUND LIN | LB594 | P367 |  | 619,769 |  | - |  | - |  | - |  | - |  | - |  | 219,096 |  | 326,734 |  | 29,679 |  | 44,260 |
| 595 MAINTENANCE OF LINE TRANSFORME | LB595 | P368 |  | 72,618 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 596 MAINTENANCE OF ST LIGHTS \& SIG SYSTEMS | LB596 | P373 |  | 5,976 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 597 MAINTENANCE OF METERS | LB597 | P370 |  | - |  | - |  | - |  | - |  | - |  |  |  | - |  |  |  |  |  |  |
| 598 MAINTENANCE OF MISC DISTR PLANT | LB598 | PDIST |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Maintenance Labor Expense | LBDM |  | \$ | 2,715,913 | \$ | - | \$ | - | \$ | - | \$ | 374,744 | \$ | - | \$ | 636,275 | \$ | 1,068,063 | \$ | 204,075 | \$ | 354,163 |
| Total Distribution Operation and Maintenance Labor Expenses |  | PDIST | \$ | 11,896,170 |  | - |  | - |  | - |  | 1,736,429 |  | - |  | 1,722,281 |  | 2,910,349 |  | 571,478 |  | 995,179 |
| Transmission and Distribution Labor Expenses |  |  | \$ | 16,068,302 |  | - |  | - |  | 4,172,132 |  | 1,736,429 |  | - |  | 1,722,281 |  | 2,910,349 |  | 571,478 |  | 995,179 |
| Production, Transmission and Distribution Labor Expenses | LBSUB |  | \$ | 49,525,423 | \$ | 18,103,460 | \$ | 15,353,661 | \$ | 4,172,132 | \$ | 1,736,429 | \$ | - | \$ | 1,722,281 | \$ | 2,910,349 | \$ | 571,478 | \$ | 995,179 |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 901 SUPERVISION/CUSTOMER ACCTS | LB901 | F025 | \$ | 1,093,166 |  | - |  | - |  | - |  | - |  | - |  | - |  |  |  |  |  |  |
| 902 METER READING EXPENSES | LB902 | F025 |  | 370,757 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 903 RECORDS AND COLLECTION | LB903 | F025 |  | 3,518,496 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 904 UNCOLLECTIBLE ACCOUNTS | LB904 | F025 |  |  |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 905 MISC CUST ACCOUNTS | LB903 | F025 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Customer Accounts Labor Expense | LBCA |  | \$ | 4,982,419 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Service Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 907 SUPERVISION | LB907 | F026 | \$ | 145,428 |  | - |  | - |  | - |  |  |  | - |  | - |  |  |  |  |  |  |
| 908 CUSTOMER ASSISTANCE EXPENSES | LB908 | F026 |  | 617,471 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 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 |  | 322,553 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 911 DEMONSTRATION AND SELLING EXP | L8911 | ${ }^{\text {F026 }}$ |  |  |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  |  |
| 912 DEMONSTRATION AND SELLING EXP | LB912 | F026 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 913 WATER HEATER - HEAT PUMP PROGRAM | LB913 | F026 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  |  |
| 915 MDSE-JOBBING-CONTRACT | LB915 | F026 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 916 MISC SALES EXPENSE | LB916 | F026 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Customer Service Labor Expense | LBCS |  | \$ | 1,085,452 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Sub-Total Labor Exp | LBSUB7 |  | \$ | 55,593,293 |  | 18,103,460 |  | 15,353,661 |  | 4,172,132 |  | 1,736,429 |  | - |  | 1,722,281 |  | 2,910,349 |  | 571,478 |  | 995,179 |

## 12 Months Ended

June 30, 2022


## Labor Expenses (Continued)

Distribution Maintenance Labor Expense
590 MAINTENANCE SUPRVVIION AND EN
591 MAINTENANCE OF STRUCTURES
592 MAITENANCE OF STATTON EQUIPME
593 MAINTENANCE OF OVERHEAD LINES
594 MAINTENANCE OF UNDERGROUND LIN
595 MANTENANCE OF LINE TRANSFORME
596 MAINTENANCE OF ST LIGHTS \& SIG SYSTEMS
597 MAITENANCE OF METERS
598 MAINTENANCE OF MISC DISTR PLANT

Total Distribution Maintenance Labor Expense
Total Distribution Operation and Maintenance Labor Expenses

Transmission and Distribution Labor Expenses
Production, Transmission and Distribution Labor Expenses

901 SUPERVISION/CUSTOMER ACCTS
902 METER READING EXPENSES
33 RECORDS AND COLLECTION 905 MISC CUST ACCOUNTS

Total Customer Accounts Labor Expense
Customer Service Expens
907 SUPERVISION
8 CUSTOMER ASSISTANCE EXPENSES
09 INFORMATIONAL AND INSTRUCTIONA
09 INFORM AND INSTRUC -LOAD MGMT
910 MISCELLANEOUS CUSTOMER SERVIC
911 DEMONSTRATION AND SELLING EXP
913 WATER HEATER - HEAT PUMP PROGRAM 915 MDSE-JOBBING-CONTRACT
916 MISC SALES EXPENSE
Total Customer Service Labor Expense
Sub-Total Labor Exp

LBSUB

LB901
 3595

M
sub

LB904
LB903
LBCA

## LB907

LB908x
LB908x
LB909
LB909x
LB909x
LB910
LB911
LB912 LB913
LB915 LB916
LBCS
LBSUB7

F024



P365
P367
P367
P368
P373
P373
P370
PDIST
PDIST

PDIST

F025
F025
F025
Fo25

F026





$\square$ - $\quad 1,093,166$ $1,093,166$
370,757 3,518,496

4,982,419 \$ - \$


- $\$$ $\square$

$\qquad$

$$
\begin{array}{cc}
- & 145,428 \\
- & 617,471 \\
- & -
\end{array}
$$

--

156,149 87,039

## 12 Months Ended

June 30, 2022


## 12 Months Ended

June 30, 2022

| Description | Name | Functional Vector | Distribution Line Trans. |  |  |  | DistributionServices |  |  | Distribution Meters | Distribution St. \& Cust. Lighting |  |  | Customer Expense | Customer Service \& Info. |  | Sales Expense |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Demand |  | Customer |  |  |  |  |  |  |  |  |  |  |  |  |
| Labor Expenses (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Administrative and General Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 920 ADMIN. \& GEN. SALARIES- | LB920 | LBSUB7 |  | 56,177 |  | 31,313 |  | 14,042 |  | 1,274,847 |  | 48,448 |  | 1,792,494 |  | 390,506 |  | - |
| 921 OFFICE SUPPLIES AND EXPENSES | LB920 | LBSUB7 |  | - |  |  |  |  |  |  |  |  |  |  |  | - |  | - |
| 922 ADMIN. EXPENSES TRANSFERRED - CREDIT | LB922 | LBSUB7 |  | $(8,125)$ |  | $(4,529)$ |  | $(2,031)$ |  | $(184,393)$ |  | $(7,008)$ |  | $(259,265)$ |  | $(56,483)$ |  | - |
| 923 OUTSIDE SERVICES EMPLOYED | LB923 | LBSUB7 |  | - |  | - |  | - |  | - |  | - |  | - |  |  |  |  |
| 924 PROPERTY INSURANCE | LB924 | TUP |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 925 INJURIES AND DAMAGES | LB925 | LBSUB7 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 926 EMPLOYEE BENEFITS | LB926 | LBSUB7 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 928 REGULATORY COMMISSION FEES | LB928 | TUP |  | - |  | - |  |  |  | - |  | - |  |  |  |  |  |  |
| 929 DUPLICATE CHARGES-CR | LB929 | LBSUB7 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  |  |
| 930 MISCELLANEOUS GENERAL EXPENSES | LB930 | LBSUB7 |  | 465 |  | 259 |  | 116 |  | 10,543 |  | 401 |  | 14,824 |  | 3,229 |  | - |
| 931 RENTS AND LEASES | LB931 | PGP |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 935 MAINTENANCE OF GENERAL PLANT | LB932 | PGP |  | 9,721 |  | 5,419 |  | 3,465 |  | 3,533 |  | 11,423 |  | - |  |  |  |  |
| Total Administrative and General Expense | LBAG |  | \$ | 58,237 | \$ | 32,462 | \$ | 15,592 | \$ | 1,104,530 |  | \$ 53,265 | \$ | 1,548,053 | \$ | 337,253 | \$ | - |
| Total Operation and Maintenance Expenses | tLB |  | \$ | 214,386 | \$ | 119,501 | \$ | 54,624 | \$ | 4,648,098 | \$ | \$ 187,932 | \$ | 6,530,471 | \$ | 1,422,705 | \$ | - |
| Operation and Maintenance Expenses Less Purchase Power | LBLPP |  | \$ | 214,386 | \$ | 119,501 | \$ | 54,624 | \$ | 4,648,098 | \$ | \$ 187,932 | \$ | 6,530,471 | \$ | 1,422,705 | \$ | - |


| Description |  | FunctionalVector | Total | Production Demand | Production Energy | Transmission Demand | Distribution Substation | Distribution Primary Lines |  |  | Distribution Sec. Lines |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Name |  |  | LOLP | Energy | Demand | General | Specific | Demand | Customer | Demand | Cust |

## Other Expenses

## Depreciation Expense

Steam Production
Hydraulic Productio
ransmission - Kentucky System Property
Transmission - Virginia Property
General \& Common Plant
Intangible Plant
Total Depreciation Expense
Regulatory Credits
Production
Transmission
Distribution
Distribution
Common
Accretion Expense
Production
Transmission
Distribution
comm
Property Taxes \& Other
Amortization of Investment Tax Credit
Gain on Disposition of Allowances
Interest
Other Deductions
Total Other Expenses
Total Cost of Service (O\&M + Other Expenses)

|  |  |
| :--- | :--- |
| DEPRTP | PPRTL |
| DEPRDP1 | PPRTL |
| DEPRDP2 | PPRLL |
| DEPRDP3 | PTRAN |
| DEPRDP4 | PTRAN |
| DEPRDP5 | PDIST |
| DEPRDP6 | PGP |
| DEPRDP7 | PINT |
| TDEPR |  |
|  |  |
| RCTNP | F017 |
| RCTNT | PTRAN |
| RDTND | PDIST |
| RCTNC | PGP |
| TRCTN |  |
|  |  |
| ACRTNP | F017 |
| ACRTNT | PTRAN |
| ACRTND | PDIST |
| ACRTNC | PGP |
| TACRTN |  |
| PTAX | TUP |
| OTAX | TUP |
| OT | TUP |
| INTLTD | TUP |
| DEDUCT | TUP |
| TOE |  |


| \$ | 179,722,988 |  | 179,722,988 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5,725,980 |  | 5,725,980 |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |
|  | 12,399,786 |  | 12,399,786 |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |
|  | 12,287,717 |  | - |  | - |  | 12,287,717 |  | - |  |  |  | - |  | - |  | - |  | - |
|  | - |  | - |  | - |  | - |  |  |  |  |  | - |  |  |  |  |  | - |
|  | 42,603,324 |  | - |  | - |  | - |  | 5,312,707 |  |  |  | 8,155,954 |  | 13,346,638 |  | 2,275,586 |  | 3,888,419 |
|  | 24,383,040 |  | 14,884,317 |  | - |  | 2,286,078 |  | 899,429 |  |  |  | 1,380,784 |  | 2,259,555 |  | 385,251 |  | 658,300 |
|  |  |  | - |  | - |  | - |  |  |  |  |  |  |  |  |  |  |  | - |
| \$ | 277,122,836 |  | 212,733,072 |  | - |  | 14,573,795 |  | 6,212,136 |  | - |  | 9,536,738 |  | 15,606,193 |  | 2,660,837 |  | 4,546,719 |
| \$ | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | - |  | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| \$ | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | - |  | - |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |
|  | - |  | - |  | - |  | - |  | - |  |  |  | - |  | - |  | - |  | - |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| \$ | 42,336,722 |  | 25,721,711 |  | - |  | 4,076,189 |  | 1,563,612 |  | - |  | 2,400,424 |  | 3,928,124 |  | 669,740 |  | 1,144,422 |
| \$ | $(916,996)$ |  | $(557,122)$ |  | - |  | $(88,289)$ |  | $(33,867)$ |  | - |  | $(51,992)$ |  | $(85,082)$ |  | $(14,506)$ |  | $(24,788)$ |
| \$ | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| \$ | 75,433,705 |  | 45,829,811 |  | - |  | 7,262,774 |  | 2,785,976 |  | - |  | 4,276,970 |  | 6,998,958 |  | 1,193,314 |  | 2,039,081 |
| \$ | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| \$ | 393,976,267 | \$ | 283,727,472 | \$ | - | \$ | 25,824,469 | \$ | 10,527,856 | \$ | - | \$ | 16,162,141 | \$ | 26,448,193 | \$ | 4,509,385 | \$ | 7,705,435 |
| \$ | 1,037,412,928 | \$ | 395,685,570 | \$ | 397,495,519 | \$ | 60,290,462 | \$ | 18,602,235 | \$ | - | \$ | 29,362,316 | \$ | 48,540,917 | \$ | 8,678,514 | \$ | 14,929,226 |



| Description | Name | Functional Vector | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ |  | $\begin{array}{r} \text { Production } \\ \text { Energy } \\ \hline \text { Energy } \\ \hline \end{array}$ | $\begin{array}{r} \text { Transmission } \\ \text { Demand } \end{array}$ | $\begin{array}{r} \begin{array}{r} \text { Distribution } \\ \text { Substation } \end{array} \\ \hline \text { General } \end{array}$ | Distribution Primary Lines |  |  | Distribution Sec. Lines |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | Specific | Demand | Customer | Demand | Customer |
| External Functional Vectors |  |  |  |  |  |  |  |  |  |  |  |  |
| Station Equipment | F001 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 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 | 0.253943 | 0.451257 | 0.106157 | 0.188643 |
| Overhead Conductors and Devices | F003 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.253943 | 0.451257 | 0.106157 | 0.188643 |
| Underground Conductors and Devices | F004 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.353513 | 0.527187 | 0.047887 | 0.071413 |
| Line Transformers | F005 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 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 | 0.000000 | 0.000000 | 0.000000 |
| Meters | F007 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 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 | 0.000000 | 0.000000 | 0.000000 |
| Meter Reading | F009 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 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 | 0.000000 | 0.000000 | 0.000000 |
| Transmission | F011 |  | 1.000000 | 0.000000 | 0.000000 | 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 | 0.000000 | 0.000000 | 0.000000 |
| Production Plant | F017 |  | 1.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Provar | PROVAR |  | 1.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Fuel | F018 |  | 1.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Steam Generation Operation Labor | F019 |  | 12,601,985 | 11,007,917 | 1,594,068 |  |  |  |  |  |  |  |
| PROFIX | PROFIX |  | 1.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Steam Generation Maintenance Labor | F020 |  | 7,744,702 | 30,396 | 7,714,306 | - | - | - | - | - | - | - |
| Hydraulic Generation Operation Labor | F021 |  | 262,377 | 262,377 | - | - | - | - | - | - | - |  |
| Hydraulic Generation Maintenance Labor | F022 |  | 158,283 | 86,045 | 72,238 |  |  |  |  |  |  |  |
| Distribution Operation Labor | F023 |  | 8,228,555 | - | - | - | 1,220,520.97 | - | 973,421.84 | 1,651,299.68 | 329,314.48 | 574,563.39 |
| Distribution Maintenance Labor | F024 |  | 2,715,913 | - | - | - | 374,744.00 | - | 636,274.68 | 1,068,062.67 | 204,075.04 | 354,162.61 |
| Customer Accounts Expense | F025 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 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 | 0.000000 | 0.000000 | 0.000000 |
| Customer Advances | F027 |  | 1,160,271,505 | - | - | - | - | - | 342,041,384 | 559,726,383 | 95,432,668 | 163,071,070 |
| Purchase Power Demand |  | F017 | 27,272,357 | 27,272,357 | - | - | - | - | - | - | - | - |
| Purchase Power Energy |  | F018 | 22,555,449 | 7, ${ }^{\text {- }}$ | 22,555,449 | - | - | - | - | - | - | - |
| Purchased Power Expenses | OMPP |  | 49,827,806 | 27,272,357 | 22,555,449 | - | - | - | - |  | - |  |
| Intallations on Customer Premises - Plant in Service | F013 |  | 1.00000 | - | - | - | - | - | - | - | - | - |
| Intallations on Customer Premises - Accum Depr | F014 |  | 1.00000 | - | - | - | - | - | - | - | - |  |
| Generators -Energy | F015 |  | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Generators - Demand | F016 |  | 1.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
|  | Energy |  | 1.000000 | 0.000000 | 1.000000 | 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 | 1.000000 | 0.610437 | - | 0.093757 | 0.036887 | - | 0.056629 | 0.092669 | 0.015800 | 0.026998 |
| Total Distribution Plant |  | PDIST | 1.000000 | - | - | - | 0.124702 | - | 0.191439 | 0.313277 | 0.053413 | 0.091270 |
| Total Transmission Plant |  | PTRAN | 1.000000 | - | - | 1.000000 | - | - | - | - | - | - |
| Operation and Maintenance Expenses Less Purchase Power |  | OMLPP | 1.000000 | 0.147080 | 0.629675 | 0.057428 | 0.013454 | - | 0.021994 | 0.036811 | 0.006947 | 0.012036 |
| Total Plant in Service |  | TPIS | 1.000000 | 0.610168 |  | 0.093710 | 0.036927 |  | 0.056689 | 0.092768 | 0.015817 | 0.027027 |
| Total Operation and Maintenance Expenses (Labor) |  | TLB | 1.000000 | 0.327591 | 0.274288 | 0.075175 | 0.031273 | - | 0.031156 | 0.052627 | 0.010317 | 0.017963 |
| Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service |  | OMSUB2 | 1.000000 | 0.144948 | 0.676053 | 0.049836 | 0.009548 | - | 0.018387 | 0.030749 | 0.005782 | 0.010014 |
| Total Steam Power Operation Expenses (Labor) |  | LBSUB1 | 1.000000 | 0.873507 | 0.126493 |  |  |  |  |  |  |  |
| Total Steam Power Generation Maintenance Expense (Labor) |  | LBSUB2 | 1.000000 | 0.003925 | 0.996075 | - | - | - | - | - | - | - |
| Total Hydraulic Power Operation Expenses (Labor) |  | LBSUB3 | 1.000000 | 1.000000 | - | - | - | - | - | - | - | - |
| Total Hydraulic Power Generation Maint. Expense (Labor) |  | LBSUB4 | 1.000000 | 0.543615 | 0.456385 | - | - | - | - | - | - | - |
| Total Other Power Generation Expenses (Labor) |  | LBSUB5 | 1.000000 | 1.000000 | - | -000 | - | - | - | - | - | - |
| Total Transmission Labor Expenses |  | LBTRAN | 1.000000 | - | - | 1.0000000 |  | - | - |  | - |  |
| Total Distribution Operation Labor Expense |  | LBDO | 1.000000 | - | - | - | 0.148327 | - | 0.118298 | 0.200679 | 0.040021 | 0.069826 |
| Total Distribution Maintenance Labor Expense |  | LBDM | 1.000000 | - | - | - | 0.137981 | - | 0.234277 | 0.393261 | 0.075140 | 0.130403 |
| Sub-Total Labor Exp |  | LBSUB7 | 1.000000 | 0.325641 | 0.276178 | 0.075047 | 0.031234 |  | 0.030980 | 0.052351 | 0.010280 | 0.017901 |
| Total General Plant |  | PGP | 1.000000 | 0.610437 | - | 0.093757 | 0.036887 | - | 0.056629 | 0.092669 | 0.015800 | 0.026998 |
| Total Production Plant |  | PPRTL | 1.000000 | 1.000000 | - | - | - | - | - | - | - | - |
| Total Intangible Plant |  | PINT | 1.000000 | 0.610437 | - | 0.093757 | 0.036887 | - | 0.056629 | 0.092669 | 0.015800 | 0.026998 |


| Description | Name | Functional Vector | Distribution Line Trans. |  | $\begin{array}{r}\text { Distribution } \\ \text { Services }\end{array}$Customer | DistributionMeters | $\begin{array}{\|} \begin{array}{r} \text { Distribution St. \& } \\ \text { Cust. Lighting } \end{array} \\ \hline \end{array}$ | Customer <br> Accounts <br> Expense | Customer Service \& Info. | Sales Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Demand | Customer |  |  |  |  |  |  |
| External Functional Vectors |  |  |  |  |  |  |  |  |  |  |
| Station Equipment | F001 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Poles, Towers and Fixtures | F002 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Overhead Conductors and Devices | F003 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Underground Conductors and Devices | F004 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Line Transformers | F005 |  | 0.642093 | 0.357907 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Services | F006 |  | 0.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Meters | F007 |  | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Street Lighting | F008 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 | 0.000000 |
| Meter Reading | F009 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 |
| Billing | F010 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 |
| Transmission | F011 |  | 0.000000 | 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 | 1.000000 |
| Production Plant | F017 |  | 0.000000 | 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 | 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 |  |  |  |  |  |  |  |  |  |
| PROFIX | PROFIX |  | 0.000000 | 0.000000 | 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 |  | 98,167.48 | 54,719.33 | 34,985.95 | 3,176,211.63 | 115,350.25 | - | - | - |
| Distribution Maintenance Labor | F024 |  | 46,627.48 | 25,990.52 | - | - | 5,976.00 | - | - | - |
| Customer Accounts Expense | F025 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 | 0.000000 |
| Customer Service Expense | F026 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 1.000000 | 0.000000 |
| Customer Advances | F027 |  | - | - | - | - | - | - | - | - |
| Purchase Power Demand |  | F017 | - | - | - | - | - | - | - |  |
| Purchase Power Energy |  | F018 | - | - |  | - | - | - | - | - |
| Purchased Power Expenses | OMPP |  | - | - |  | - | - | - | - | - |
| Intallations on Customer Premises - Plant in Service | F013 |  | - | - | - | - | - | 1.00000 | - | - |
| Intallations on Customer Premises - Accum Depr | F014 |  | - |  |  |  | - | 1.00000 | - |  |
| Generators -Energy | F015 |  | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| Generators - Demand | F016 |  | 0.000000 | 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 | 0.000000 |
| Internally Generated Functional Vectors |  |  |  |  |  |  |  |  |  |  |
| Total Prod, Trans, and Dist Plant |  | PT\&D | 0.019356 | 0.010789 | 0.006898 | 0.007035 | 0.022744 | - | - | - |
| Total Distribution Plant |  | PDIST | 0.065434 | 0.036474 | 0.023320 | 0.023783 | 0.076888 | - | - | - |
| Total Transmission Plant |  | PTRAN | - | - | - | - | - | - | - | - |
| Operation and Maintenance Expenses Less Purchase Power |  | OMLPP | 0.001861 | 0.001037 | 0.000555 | 0.023191 | 0.002789 | 0.036996 | 0.008146 | - |
| Total Plant in Service |  | TPIS | 0.019376 | 0.010801 | 0.006906 | 0.007043 | 0.022768 |  | - | - |
| Total Operation and Maintenance Expenses (Labor) |  | TLB | 0.002922 | 0.001629 | 0.000745 | 0.063353 | 0.002561 | 0.089009 | 0.019391 | - |
| Sub-Total Prod, Trans, Dist, Cust Acct and Cust Service |  | OMSUB2 | 0.001241 | 0.000692 | 0.000366 | 0.016248 | 0.002225 | 0.027768 | 0.006142 |  |
| Total Steam Power Operation Expenses (Labor) |  | LBSUB1 | - | - | - | - | . | . |  | - |
| Total Steam Power Generation Maintenance Expense (Labor) |  | LBSUB2 | - | - | - | - | - | - | - | - |
| Total Hydraulic Power Operation Expenses (Labor) |  | LBSUB3 | - | - | - | - | - | - | - | - |
| 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 | 0.011930 | 0.006650 | 0.004252 | 0.385999 | 0.014018 | - | - | - |
| Total Distribution Maintenance Labor Expense |  | LBDM | 0.017168 | 0.009570 | 70 | 74 | 0.002200 |  | 5 | - |
| Sub-Total Labor Exp |  | LBSUB7 | 0.002809 | 0.001566 | 0.000702 | 0.063741 | 0.002422 | 0.089623 | 0.019525 | - |
| Total General Plant |  | PGP | 0.019356 | 0.010789 | 0.006898 | 0.007035 | 0.022744 | - | - | - |
| Total Production Plant |  | PPRTL |  |  |  |  |  | - | - | - |
| Total Intangible Plant |  | PINT | 0.019356 | 0.010789 | 0.006898 | 0.007035 | 0.022744 | - | - | - |

## Exhibit WSS-31

Electric Cost of Service Study
Class Allocation
(Kentucky Utilities)

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Description \& \& Name \& \begin{tabular}{l}
Allocation \\
Vector
\end{tabular} \& \& \[
\begin{array}{r}
\text { Total } \\
\text { System } \\
\hline
\end{array}
\] \& \& Residential Rate RS \& \multicolumn{2}{|r|}{\[
\begin{gathered}
\text { General Service } \\
\text { GS } \\
\hline
\end{gathered}
\]} \& \multicolumn{2}{|r|}{\[
\begin{gathered}
\text { All Electric Schools } \\
\text { AES } \\
\hline
\end{gathered}
\]} \& \multicolumn{2}{|r|}{Power Service PS-Secondary} \& \multicolumn{2}{|r|}{Power Service PS-Primary} \& \multicolumn{2}{|r|}{Time of Day
TOD-Secondary} \& \multicolumn{2}{|r|}{Time of Day TOD-Primary} \\
\hline \multicolumn{20}{|l|}{Plant in Service} \\
\hline \multicolumn{20}{|l|}{Power Production Plant} \\
\hline Production Demand - LOLP \& TPIS \& PLPPDB \& GPLOLPDA \& s \& 6,073,014,123 \& \$ \& 2,490,784,384 \& \$ \& 670,878,802 \& \$ \& 43,048,460 \& \$ \& 625,621,337 \& \$ \& 27,180,233 \& \$ \& 601,676,613 \& \$ \& 1,101,435,630 \\
\hline Production Energy \& TPIS \& PLPPEB \& E01 \& \& \& \$ \& \& \$ \& \& \$ \& \& \$ \& \& \$ \& \& \$ \& \& \$ \& \\
\hline Total Power Production Plant \& \& PLPPT \& \& s \& 6,073,014,123 \& \$ \& 2,490,784,384 \& S \& 670,878,802 \& \$ \& 43,048,460 \& \$ \& 625,621,337 \& \$ \& 27,180,233 \& \$ \& 601,676,613 \& \$ \& 1,101,435,630 \\
\hline \multicolumn{20}{|l|}{Transmission Plant} \\
\hline Transmission Demand \& TPIS \& PLTRB \& NCPT \& s \& 1,314,530,303 \& \$ \& 581,215,750 \& \$ \& 149,186,114 \& \$ \& 15,268,347 \& \$ \& 133,087,047 \& S \& 5,718,859 \& \$ \& 117,737,434 \& \$ \& 191,751,289 \\
\hline \multicolumn{20}{|l|}{Distribution Poles} \\
\hline Specific \& TPIS \& PLDPS \& NCPP \& s \& - \& \$ \& - \& \$ \& - \& \$ \& - \& \$ \& - \& \$ \& - \& \$ \& - \& \$ \& - \\
\hline \multicolumn{20}{|l|}{Distribution Substation} \\
\hline General \& TPIS \& PLDSG \& NCPP \& s \& 354,760,183 \& \$ \& 171,330,235 \& \$ \& 43,976,943 \& \$ \& 4,500,789 \& \$ \& 39,231,275 \& \$ \& 1,685,800 \& \$ \& 34,706,531 \& \$ \& 56,524,266 \\
\hline \multicolumn{20}{|l|}{Distribution Primary \& Secondary Lines} \\
\hline Primary Specific \& TPIS \& PLDPLS \& NCPP \& s \& \& \$ \& \& \$ \& \& \$ \& \& \$ \& \& \$ \& - \& \$ \& 27,603, \({ }^{-}\) \& \$ \& - \\
\hline Primary Demand \& TPIS \& PLDPLD \& NCPP \& \& 282,159,692 \& \$ \& 136,268,073 \& \$ \& 34,977,208 \& \$ \& 3,579,718 \& \$ \& 31,202,725 \& \$ \& 1,340,807 \& \$ \& 27,603,955 \& \$ \& 44,956,763 \\
\hline Primary Customer \& TPIS \& PLDPLC \& PCust08 \& \& 548,452,178 \& \$ \& 440,598,864 \& \$ \& 82,429,964 \& \$ \& 422,398 \& \$ \& 4,425,216 \& \$ \& 203,229 \& \$ \& 762,109 \& \$ \& 255,033 \\
\hline Secondary Demand \& TPIS \& PLDSLD \& SICD \& \& 127,023,977 \& \$ \& 105,210,533 \& \$ \& 19,625,864 \& \$ \& 1,422,586 \& \$ \& - \& \$ \& - \& \$ \& \& \$ \& - \\
\hline Secondary Customer \& TPIS \& Pldstc \& PCust07 \& \& 256,429,859 \& \$ \& 208,143,126 \& s \& 38,940,705 \& \$ \& 199,545 \& \$ \& - - \& s \& - \& \$ \& - \& \$ \& - \\
\hline Total Distribution Primary \& \& Lines \& PLDLT \& \& s \& 1,214,065,706 \& \$ \& 890,220,596 \& \$ \& 175,973,741 \& \$ \& 5,624,246 \& \$ \& 35,627,941 \& s \& 1,544,036 \& \$ \& 28,366,064 \& \$ \& 45,211,795 \\
\hline \multicolumn{20}{|l|}{Distribution Line Transformers} \\
\hline Demand \& TPIS \& PLDLTD \& SICDT \& s \& 185,167,208 \& \$ \& 126,572,323 \& s \& 23,610,670 \& \$ \& 1,711,426 \& \$ \& 17,444,145 \& \$ \& - \& \$ \& 14,887,651 \& \$ \& - \\
\hline Customer

Tostamer \& TPIS \& ${ }^{\text {PLDLLTC }}$ \& PCust09 \& \& $153,841,916$
399009 \& \$ \& 123,622,201 \& \$ \& ${ }_{2}^{23,141,103}$ \& \$ \& 111,583 \& s \& $1,242,320$
18,68465 \& \$ \& - \& \$ \& ${ }_{1}^{215,10,503}$ \& \$ \& - <br>
\hline Total Line Transformers \& \& PLDLTT \& \& s \& 339,009,124 \& \$ \& 250,264,524 \& s \& 46,751,773 \& \$ \& 1,830,008 \& \$ \& 18,686,465 \& \$ \& - \& \$ \& 15,101,603 \& \$ \& - <br>
\hline \multicolumn{20}{|l|}{Distribution Services} <br>
\hline Customer \& TPIS \& PLDSC \& C02 \& \$ \& 129,708,296 \& \$ \& 102,581,566 \& \$ \& 23,061,068 \& \$ \& 208,650 \& \$ \& 2,996,910 \& \$ \& - \& \$ \& 857,403 \& \$ \& - <br>
\hline \multicolumn{19}{|l|}{Distribution Meters} \& <br>
\hline Customer \& TPIS \& PLDMC \& MGPA \& s \& 77,142,557 \& \$ \& 46,508,310 \& \$ \& 18,767,490 \& \$ \& 383,084 \& \$ \& 5,867,892 \& \$ \& 1,147,531 \& \$ \& 1,049,543 \& \$ \& 2,032,818 <br>
\hline \multicolumn{20}{|l|}{Distribution Street \& Customer Lighting} <br>
\hline Customer \& TPIS \& PLDSCL \& PCust04 \& s \& 148,542,746 \& \$ \& - \& s \& - \& \$ \& - \& \$ \& - \& \$ \& - \& \$ \& - \& \$ \& - <br>
\hline \multicolumn{20}{|l|}{Customer Accounts Expense} <br>
\hline \multicolumn{18}{|l|}{Customer Service \& Info.} \& \& - <br>
\hline \multicolumn{20}{|l|}{Sales Expense} <br>
\hline \multicolumn{2}{|l|}{Total} \& PLT \& \& s \& 9,650,773,038 \& \$ \& 4,532,905, 364 \& S \& 1,128,595,931 \& \$ \& 70,863,586 \& \$ \& 861,118,868 \& \$ \& 37,276,458 \& \$ \& 799,495,189 \& \$ \& 1,396,955,797 <br>
\hline
\end{tabular}








12 Months Ended June 30, 2022


| Description |  | Name | Allocation Vector |  | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ |  | Residential Rate RS |  | $\begin{gathered} \text { General Service } \\ \text { GS } \\ \hline \end{gathered}$ |  | All Electric Schools AES |  | Power Service PS-Secondary |  | Power Service PS-Primary |  | Time of Day TOD-Secondary |  | Time of Day TOD-Primary |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Labor Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand - LOLP | TLB | LBPPDB | LOLP | \$ | 57,141,438 | \$ | 23,450,372 | \$ | 6,316,226 | \$ | 405,295 | \$ | 5,890,134 | \$ | 255,898 | \$ | 5,664,698 | \$ | 10,369,856 |
| Production Energy | TLB | LBPPEB | E01 |  | 38,829,580 | \$ | 13,407,602 | \$ | 3,785,566 | \$ | 289,980 | \$ | 3,833,036 | \$ | 173,227 | \$ | 4,024,799 | \$ | 8,696,200 |
| Total Power Production Plant |  | LBPPT |  | s | 95,971,017 | \$ | 36,857,973 | \$ | 10,101,792 | \$ | 695,275 | \$ | 9,723,169 | \$ | 429,125 | \$ | 9,689,497 | \$ | 19,066,056 |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | TLB | LBTRB | NCPT | s | 12,471,453 | \$ | 5,514,217 | \$ | 1,415,386 | \$ | 144,857 | \$ | 1,262,648 | \$ | 54,257 | \$ | 1,117,020 | \$ | 1,819,218 |
| Distribution PolesSpecific |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Distribution Substation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General | TLB | LBDSG | NCPP | s | 5,205,663 | \$ | 2,514,057 | s | 645,307 | \$ | 66,043 | \$ | 575,670 | \$ | 24,737 | \$ | 509,275 | \$ | 829,423 |
| Distribution Primary \& Secondary Lines |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | TLB | LBDPLS | NCPP | s |  | \$ |  | s |  | \$ | 5 - | \$ |  | s |  | \$ | - | \$ |  |
| Primary Demand | TLB | LBDPLD | NCPP |  | 4,140,341 | \$ | 1,999,564 | \$ | 513,247 | \$ | 52,528 | \$ | 457,861 | \$ | 19,675 | \$ | 405,054 | \$ | 659,684 |
| Primary Customer | TLB | LBDPLC | Cust08 |  | 8,047,851 | \$ | 6,464,957 | \$ | 1,209,912 | \$ | 6,197 | \$ | 64,907 | S | 2,982 | \$ | 11,195 | \$ | 3,742 |
| Secondary Demand | TLB | LBDSLD | SICD |  | 1,863,918 | \$ | 1,543,833 | \$ | 287,985 | \$ | 20,875 | \$ | - | \$ | - | \$ |  | \$ | - |
| Secondary Customer | TLB | LBDSLC | Cust07 |  | 3,762,788 | \$ | 3,025,230 | \$ | 566,170 | \$ | 2,900 | \$ | 30,373 | s | - | \$ | 5,239 | \$ | - |
| Total Distribution Primary \& S | Lines | LBDLT |  | s | 17,814,899 | \$ | 13,033,584 | \$ | 2,577,314 | \$ | 82,499 | \$ | 553,140 | \$ | 22,656 | \$ | 421,488 | \$ | 663,426 |
| Distribution Line Transformers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | TLB | LbDLTD | SICDT | \$ | 2,717,098 | \$ | 1,857,291 | s | 346,457 | \$ | 25,113 | \$ | 255,971 | \$ | - | \$ | 218,458 | \$ | - |
| Customer | TLB | LbDLTC | Cust09 |  | 2,257,438 | \$ | 1,814,949 | \$ | 339,667 | \$ | 1,740 | \$ | 18,222 | s | - | \$ | 3,143 | \$ | - |
| Total Line Transformers |  | LBDLTT |  | s | 4,974,536 | \$ | 3,672,240 | s | 686,124 | \$ | 26,853 | \$ | 274,193 | \$ | - | \$ | 221,601 | \$ | - |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TLB | LBDSC | C02 | s | 1,903,307 | \$ | 1,505,256 | \$ | 338,392 | \$ | 3,062 | \$ | 43,976 | S | - | \$ | 12,581 | \$ | - |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TLB | LBDMC | C03 | s | 1,131,971 | \$ | 683,863 | \$ | 275,959 | \$ | 5,633 | \$ | 86,282 | \$ | 16,873 | \$ | 15,433 | \$ | 29,891 |
| Distribution Street \& Customer Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TLB | LBDSCL | C04 | s | 2,179,679 | \$ | - | S | - | \$ | 5 - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Service \& Info. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TLB | LBCSI | C05 | s | 3,368,178 | \$ | 2,188,017 | \$ | 818,972 | \$ | 20,973 | \$ | 109,836 | \$ | 5,045 | \$ | 94,724 | \$ | 31,657 |
| Sales Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TLB | LBSEC | C06 | \$ |  | \$ |  | s | - | \$ | 5 - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total |  | LBT |  | s | 173,228,432 | \$ | 84,293,357 | S | 23,717,949 | \$ | 1,220,838 | \$ | 13,548,762 | \$ | 594,947 | \$ | 12,874,913 | \$ | 22,704,793 |

12 Months Ended June 30, 2022



12 Months Ended June 30, 2022


12 Months Ended June 30, 2022

| Description | Ref | Name | Allocation Vector |  | $\begin{array}{r} \text { Tota } \\ \text { System } \end{array}$ |  | Residential Rate RS |  |  | General Service GS |  | All Electric Sc AES |  |  | Power Service PS-Secondary |  | Power Service PS-Primary |  | Time of Day TOD-Secondary |  |  | $\begin{gathered} \text { Time of Day } \\ \text { TOD-Primary } \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accretion Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand - LOLP | TACRT | ACPPDB | LOLP | \$ | - | \$ |  | - | \$ | - |  |  | - | \$ |  | \$ | - |  |  | - | \$ |  | - |
| Production Energy | TACRT | ACPPEB | E01 |  | - | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  |  |
| Total Power Production Plant |  | ACPPT |  | \$ |  | \$ |  | - | \$ |  | \$ |  | - | \$ |  | \$ |  | \$ |  | - | \$ |  |  |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | TACRT | ACTRB | NCPT | s | - | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  | - |
| Distribution Poles |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Specific | TACRT | ACDPS | NCPP | s | - | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  | - |
| Distribution Substation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General | TACRT | ACDSG | NCPP | \$ | - | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  | - |
| Distribution Primary \& Seco |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | TACRT | ACDPLS | NCPP | s |  | \$ |  | - | \$ |  | \$ |  | - | \$ |  | \$ |  | \$ |  | - | \$ |  |  |
| Primary Demand | TACRT | ACDPLD | NCPP |  | - | \$ |  | - | \$ |  | \$ |  | - | \$ |  | \$ |  | \$ |  | - | \$ |  |  |
| Primary Customer | TACRT | ACDPLC | Cust08 |  |  | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ |  | \$ |  | - | \$ |  |  |
| Secondary Demand | TACRT | ACDSLD | SICD |  |  | \$ |  |  | \$ | - | \$ |  | - | \$ |  | \$ |  | \$ |  | - | \$ |  |  |
| Secondary Customer | TACRT | ACDSLC | Cust07 |  |  | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ |  | \$ |  | - | \$ |  |  |
| Total Distribution Primary \& | Lines | ACDLT |  | s |  | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  |  |
| Distribution Line Transform |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | TACRT | ACDLTD | SICDT | \$ | - | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  |  |
| Customer | TACRT | ACDLTC | Cust09 |  |  | \$ |  |  | \$ |  | \$ |  | - | \$ |  | \$ |  | \$ |  | - | \$ |  |  |
| Total Line Transformers |  | ACDLTT |  | s |  | \$ |  | - | s | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  |  |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TACRT | ACDSC | C02 | s | - | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  | - |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TACRT | ACDMC | C03 | s |  | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  | - |
| Distribution Street \& Custon |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TACRT | ACDSCL | C04 | s | - | \$ |  | - | s | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  |  |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TACRT | ACCAE | C05 | s |  | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  | - |
| Customer Service \& Info. Customer | TACRT | ACCSI | C05 | s | - | \$ |  | - | \$ | - | \$ |  | - | \$ | - | \$ | - | \$ |  | - | \$ |  | - |
| Sales Expense |  |  | C06 | s |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | TACRT | DESEC |  |  |  |  |  |  |  |  | s |  | - | \$ |  | s |  | s |  | - | s |  |  |
| Total |  | ACT |  | s | - | \$ |  | - | \$ | - | \$ |  | - | \$ |  | \$ | - | \$ |  | - | \$ |  | - |

12 Months Ended June 30, 2022

| Description | Ref | Name | Allocation Vector |  | Retail Transmission Service <br> RTS - Transmission |  | Fluctuating Load Service <br> FLS - Transmission |  | Outdoor Lighting LS \& RLS |  | Lighting Energy LE |  | Traffic Energy TE |  | Outdoor Sports Lighting OSL |  | Electric Vehicle Charging EV |  | $\begin{gathered} \text { Solar Share } \\ \text { SSP } \\ \hline \end{gathered}$ |  | $\begin{gathered} \text { Business Solar } \\ \text { BS } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accretion Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand - LoLP | TACRT | ACPPDB | LOLP | \$ | - | \$ | - | \$ | - | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Production Energy | TACRT | ACPPEB | E01 | s |  | \$ | - | \$ | - | \$ |  | \$ | - | s | - | \$ | - | \$ |  | s |  |
| Total Power Production Plant |  | ACPPT |  | s | - | \$ | - | \$ | - | \$ |  | \$ | - | s | - | \$ | - | \$ |  | \$ | - |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | TACRT | ACTRB | NCPT | s | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| $\underset{\substack{\text { Distribution Poles } \\ \text { Specific }}}{\text { ceme }}$ | TACRT | ACDPS | NCPP | s | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - | s | - | \$ |  | s | - |
| Distribution Substation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General | TACRT | ACDSG | NCPP | s | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Primary \& Secondary Lines |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | TACRT | ACDPLS | NCPP | s | - | \$ | - | \$ | - | s | - | \$ | - | s | - | s | - | \$ |  | \$ | - |
| ${ }^{\text {Primary }}$ Demand | ${ }_{\text {TACRT }}$ | ${ }^{\text {ACDPLD }}$ | ${ }^{\text {NCPP }}$ | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |  | - |
| Primary Customer Secondary Demand | $\xrightarrow{\text { TACRT }}$ | ACDPLC ACDSLD | ${ }_{\text {Cust08 }}^{\text {SICD }}$ | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Secondary Customer | TACRT | ACDSLC | Cust07 | \$ | - |  | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - |
| Total Distribution Primary \& S | Lines | ACDLT |  | s | - | \$ | - | \$ | - | s |  | \$ | - | s | - | \$ | - | \$ | - | \$ | - |
| Distribution Line Transformers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | TACRT | ACDLTD | SICDT | \$ | - | \$ | - | s | - | \$ |  | \$ | - | \$ | - | \$ | - | \$ |  | \$ | - |
| Customer Total Line Transformers | TACRT | ${ }_{\text {ACDLTC }}^{\text {ACDLTT }}$ | Cust09 | \$ | - | \$ | : | \$ | - | \$ | : | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TACRT | ACDSC | C02 | s | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | tacrt | ACDMC | C03 | s | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - |
| Distribution Street \& Customer Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TACRT | ACDSCL | C04 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TACRT | ACCAE | C05 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Service \& Info. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sales Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TACRT | DESEC | C06 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total |  | ACT |  | s | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - |



12 Months Ended June 30, 2022


12 Months Ended June 30, 2022


12 Months Ended June 30, 2022


12 Months Ended June 30, 2022


12 Months Ended June 30, 2022

| Description | Ref | Name | Allocation Vector |  | Retail Transmission Service <br> RTS - Transmission |  | Fluctuating Load Service <br> FLS - Transmission |  | Outdoor Lighting LS \& RLS |  | Lighting Energy LE |  | Traffic Energy TE |  | Outdoor Sports Lighting OSL |  | Electric Vehicle Charging EV |  | Solar Share SSP |  | $\begin{gathered} \text { Business Solar } \\ \text { BS } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gain Disposition of Allowances |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand - LOLP | GAIN | OTPPDB | LOLP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Production Energy | GAIN | OTPPEB | E01 | s | - | \$ | - | \$ | - | \$ |  | \$ | - | s | - | \$ | - | \$ | - | s |  |
| Total Power Production Plant |  | OTPPT |  | s | - | \$ | - | \$ | - | \$ |  | \$ | - | s | - | \$ | - | \$ | - | \$ | - |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | GAIN | OtTRB | NCPT | s | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Poles |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Specific | GAIN | OTDPS | NCPP | s | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - |
| Distribution Primary \& Secondary Lines |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | GAIN | OTDPLS | NCPP | s | - | \$ | - | \$ | - | s | - | \$ | - | s | - | s | - | \$ | - | \$ | - |
| Primary Demand | GAIN | OTDPLD | NCPP | s | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - | \$ |  |
| Primary Customer | GAIN | OTDPLC | Cust08 | s | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Secondary Demand | GAIN | OTDSLD | SICD | s | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - | \$ | - |
| Secondary Customer | GAIN | OTDSLC | Cust07 | s | - | \$ | - | s | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - | \$ |  |
| Total Distribution Primary \& S | Lines | OTDLT |  | s | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - | \$ | - |
| Distribution Line Transformers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | GAIN | OTDLTD | SICDT | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer | GAIN | OTDLTC | Cust09 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - |
| Total Line Transformers |  | otdlt |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - | s | - |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | GAIN | OTDSC | C02 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - | \$ | - |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | GAIN | Oṫm | C03 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - | \$ | - |
| Distribution Street \& Customer Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | GAIN | OTDSCL | C04 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - | \$ | - |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | GAIN | OTCAE | C05 | s | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Service \& Info. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sales Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | GAIN | OTSEC | C06 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - | \$ | - |
| Total |  | отт |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |

12 Months Ended June 30, 2022


12 Months Ended June 30, 2022



|  |  |  | Allocation | Retail Transmission Service | Fluctuating Load Service | Outdoor Lighting | Lighting Energy | Traffic Energy | Outdoor Sports Lighting | Electric Vehicle Charging | Solar Share | Business Solar |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Vector | RTS - Transmission | FLS - Transmission | LS \& RLS | LE | TE | OSL | EV | SSP | BS |


| Operating Revenues |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales | REVUC | R01 | s | 82,247,981 | \$ | 32,956,814 | \$ | 30,555,893 | \$ | 307,246 | \$ | 271,291 | s | 92,320 | \$ | 1,533 | \$ | 162,504 | \$ | 38,355 |
| Sales for Resale |  | Energy |  | 690,878 |  | 298,012 |  | 61,868 |  | 2,251 |  | 1,232 |  | 168 |  | 6 |  |  |  |  |
| Curtailable Service Rider |  |  |  | $(3,386,120)$ |  | $(14,215,494)$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Late payment charges |  | ${ }_{\text {LPAY }}$ |  | 848 |  | 42 |  | 3,262 |  | - |  | - |  | - |  | - |  | - |  | - |
| RECONNECT CHARGES OTHER SERVICE CHARGES |  | ${ }_{\text {MISCSER }}$ |  | 13 214 |  | 11 |  | 193 474 |  | - |  | - |  | - |  | - |  | - |  | - |
| RENT FROM ELEC PROPERTY |  | RFEP |  | 127,744 |  | 59,097 |  | 64,194 |  | 226 |  | 349 |  | 99 |  |  |  |  |  |  |
| TRANSMISSION SERVICE |  | PLTRT |  | 1,343,580 |  | 900,302 |  | 181,331 |  | 6,597 |  | 1,777 |  | 2,503 |  | 16 |  |  |  | - |
| ANCILLARY SER VICES |  | LOLP |  | 83,967 |  | 34,771 |  | 227 |  | 8 |  | 135 |  | 17 |  | 1 |  |  |  |  |
| TAX REMITTANCE COMPENSATION |  | MISCSERV |  | 1 |  | 0 |  | 3 |  |  |  |  |  |  |  |  |  |  |  | - |
| SOLAR REC |  | ENERGY |  | 7,053 |  | 3,042 |  | ${ }^{632}$ |  | 23 |  | 13 |  | 2 |  | 0 |  | - |  | - |
| RETURN CHECK CHARGES |  | RETURN |  | ${ }^{2}$ |  | ${ }^{0}$ |  | 18 |  |  |  |  |  | - |  |  |  |  |  | - |
| OTHER MISC REVENUES |  | MISCSERV |  | 380 |  | 19 |  | 841 |  |  |  |  |  |  |  |  |  |  |  |  |
| EXCESS FACILITIES CHARGES |  | MISCSERV |  | 70 |  | 4 |  | 156 |  | - |  |  |  | - |  | - |  |  |  |  |
| REFINED COAL LICENSE FEES EV CHARGING STATION RENTAL |  | LOLP |  | - |  | - |  | - |  | - |  | - |  | - |  | 5,191 |  | - |  | - |
| Total Operating Revenues | TOR |  | s | 81,116,612 | \$ | 20,036,620 | \$ | 30,869,092 | \$ | 316,351 | \$ | 274,796 | s | 95,109 | \$ | 6,746 | \$ | 162,504 | \$ | 38,355 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operation and Maintenance Expenses Depreciation and Amortization Expenses |  |  | \$ | 54,272,685 18,833,077 | \$ | $\begin{array}{r} 23,902,778 \\ 8,245,658 \end{array}$ | \$ | $\begin{aligned} & 9,699,480 \\ & 4,191,495 \end{aligned}$ | \$ | $\begin{array}{r} 167,482 \\ 15,849 \end{array}$ | \$ | $\begin{gathered} 140,707 \\ 39,221 \end{gathered}$ | s | $\begin{gathered} 22,991 \\ 8,924 \end{gathered}$ | \$ | $\begin{aligned} & 21,464 \\ & 16,555 \end{aligned}$ | \$ | $\begin{array}{r} 91,514 \\ 106.487 \end{array}$ | s | 7,000 14,444 |
| Regulatory Credits and Accretion Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Property Taxes |  | NPT |  | 1,584,815 |  | 721,230 |  | 738,731 |  | 2,381 |  | 4,173 |  | 1,132 |  | 2,076 |  | 4,039 |  | 569 |
| Other Taxes |  |  |  | 602,412 |  | 274,142 |  | 280,751 |  | 905 |  | 1,587 |  | 430 |  | 34 |  | - |  |  |
| Gain Disposition of Allowances |  |  |  | - |  |  |  |  |  |  |  |  |  |  |  | - |  | (5,737) |  | - |
| State and Federal Income Taxes |  | TAXINC | \$ | 142,880 | \$ | $(2,221,620)$ | \$ | 1,988,583 | \$ | 17,772 | \$ | 11,081 | s | 8,443 | \$ | $(4,883)$ | \$ | $(5,737)$ | \$ | 2,371 |
| Total Operating Expenses | TOE |  | s | 75,435,869 | \$ | 30,922,189 | \$ | 16,899,039 | \$ | 204,388 | \$ | 196,768 | s | 41,919 | s | 35,245 | \$ | 196,303 | \$ | 24,385 |
| Net Operating Income (Unadjusted) | том |  | \$ | 5,680,743 | \$ | (10,885,569) | \$ | 13,970,052 | \$ | 111,963 | \$ | 78,028 | S | 53,190 | S | $(28,498)$ | \$ | $(33,799)$ | S | 13,970 |
| Net Cost Rate Base |  |  | s | 225,552,349 | \$ | 104,343,933 | \$ | 113,343,713 | \$ | 398,777 | \$ | 615,338 | \$ | 174,679 | \$ | 105,539 | \$ | 2,576,969 | \$ | 290,934 |
| Taxable Income Unadjusted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Operating Revenue |  |  | s | 81,116,612 | \$ | 20,036,620 | \$ | 30,869,092 | \$ | 316,351 | \$ | 274,796 | S | 95,109 | \$ | 6,746 | \$ | 162,504 | \$ | 38,355 |
| Operating Expenses |  |  | s | 75,292,989 | \$ | 33,143,809 | \$ | 14,910,456 | \$ | 186,617 | \$ | 185,688 | s | 33,476 | \$ | 40,128 | \$ | 202,040 | \$ | 22,013 |
| Interst Expense | INTEXP |  | s | 4,839,028 | \$ | 2,202,118 | \$ | 2,255,198 | S | 7,269 | \$ | 12,751 | S | 3,455 | S | 269 | \$ | - | S | - |
| Taxable Income | TAXINC |  | S | 984,595 | \$ | $(15,309,306)$ | \$ | 13,703,437 | \$ | 122,466 | \$ | 76,358 | \$ | 58,178 | \$ | (33,651) | \$ | (39,536) | \$ | 16,342 |



| Description Ref | Name | Allocation Vector | Retail Transmission Service |  | $\begin{gathered} \text { Fluctuating Load } \\ \text { Service } \\ \text { FLS - Transmission } \end{gathered}$ |  | Outdoor Lighting LS \& RLS |  | $\underset{\text { LE }}{\text { Lighting Energy }}$ |  | Traffic Energy TE |  | Outdoor Sports Lighting OSL |  | Electric Vehicle Charging EV |  | $\begin{gathered} \text { Solar Share } \\ \text { SSP } \\ \hline \end{gathered}$ |  | Business SolarBS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cost of Service Summary -- Pro-Forma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operating Revenues |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Pro-Forma Operating Revenue |  |  | s | 81,116,612 | \$ | 20,036,620 | \$ | 30,869,092 | \$ | 316,351 | \$ | 274,796 | s | 95,109 | \$ | 6,746 | \$ | 162,504 | \$ | 38,355 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operation and Maintenance Expenses |  |  | s | 54,272,685 | \$ | 23,902,778 | \$ | 9,699,480 | s | 167,482 | \$ | 140,707 | s | 22,991 | s | 21,464 | \$ | 91,514 | \$ | 7,000 |
| Depreciation and Amortization Expenses |  |  |  | 18,833,077 |  | 8,245,658 |  | 4,191,495 |  | 15,849 |  | 39,221 |  | 8,924 |  | 16,555 |  | 106,487 |  | 14,444 |
| Regulatory Credits and Accretion Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Property Taxes |  | NPT |  | 1,584,815 |  | 721,230 |  | 738,731 |  | 2,381 |  | 4,173 |  | 1,132 |  | 2,076 |  | 4,039 |  | 569 |
| Other Taxes |  |  |  | 602,412 |  | 274,142 |  | 280,751 |  | 905 |  | 1,587 |  | 430 |  | 34 |  | - |  | - |
| Gain Disposition of Allowances |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| State and Federal Income Taxes <br> Specific Assignment of Curtailable Service Rider Credit |  | TAXINC | \$ | $\begin{gathered} 142,880 \\ (3,386,120) \end{gathered}$ | \$ | $\begin{array}{r} (2,221,620) \\ (14,215,494) \end{array}$ | \$ | 1,988,583 | \$ | 17,772 | \$ | 11,081 | s | 8,443 | s | $(4,883)$ | \$ | (5,737) | \$ | $\stackrel{2,371}{ }$ |
| Total Operating Expenses | тоE |  | s | 73,150,529 | \$ | 17,162,527 | \$ | 16,902,010 | \$ | 204,496 | \$ | 198,536 | \$ | 42,146 | S | 35,245 | \$ | 196,303 | \$ | 24,385 |
| Net Operating Income (Adjusted) |  |  | s | 7,966,082 | \$ | 2,874,093 | \$ | 13,967,081 | \$ | 111,854 | \$ | 76,260 | S | 52,963 | S | $(28,498)$ | \$ | $(33,799)$ | \$ | 13,970 |
| Adjusted Net Cost Rate Base |  |  | s | 225,552,349 | \$ | 104,343,933 | \$ | 113,343,713 | \$ | 398,777 | \$ | 615,338 | s | 174,679 | S | 105,539 | \$ | 2,576,969 | \$ | 290,934 |
| Rate of Return |  |  |  | 3.53\% |  | 2.75\% |  | 12.32\% |  | 28.05\% |  | 12.39\% |  | 30.32\% |  | -27.00\% |  | -1.31\% |  | 4.80\% |
| Taxable Income Pro-Forma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Operating Revenue |  |  | s | 81,116,612 | \$ | 20,036,620 | \$ | 30,869,092 | \$ | 316,351 | \$ | 274,796 | \$ | 95,109 | s | 6,746 | \$ | 162,504 | s | 38,355 |
| Operating Expenses |  |  | s | 73,007,649 | \$ | 19,384,147 | \$ | 14,913,427 | s | 186,725 | \$ | 187,455 | s | 33,704 | s | 40,128 | \$ | 202,040 | s | 22,013 |
| Interest Expense | INTEXP |  | \$ | 4,839,028 | \$ | 2,202,118 | \$ | 2,255,198 | \$ | 7,269 | \$ | 12,751 | S | 3,455 | \$ | 269 | \$ | - | s | - |
| Interest Syncronization Adjustment |  | INTEXP | s | 275,579 | \$ | 125,409 | \$ | 128,432 | S | 414 | \$ | 726 | S | 197 | S | 15 | \$ | - | s | - |
| Taxable Income | TXINCPF |  | s | 2,994,356 | \$ | $(1,675,053)$ | \$ | 13,572,034 | \$ | 121,944 | \$ | 73,864 | \$ | 57,754 | \$ | $(33,666)$ | \$ | $(39,536)$ | \$ | 16,342 |


| Description | Ref | Name | Allocation Vector |  | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ |  | Residential Rate RS | General Service GS |  | All Electric Schools AES |  | Power Service PS-Secondary |  | Power Service PS-Primary |  | Time of Day TOD-Secondary |  | Time of Day TOD-Primary |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cost of Service Summary -- Adjusted for P | opos | crease |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operating Revenue |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Operating Revenue |  |  |  | s | 1,586,186,238 | \$ | 633,400,015 | \$ | 229,949,160 | \$ | 12,341,223 | \$ | 174,079,627 | \$ | 9,618,615 | \$ | 137,919,298 | \$ | 255,962,116 |
| Proposed Increase |  |  |  | s | 169,747,179 | \$ | 68,196,266 | \$ | 26,734,943 | \$ | 1,453,830 | \$ | 18,553,034 | \$ | 1,039,687 | \$ | 14,530,948 | \$ | 26,942,083 |
| Revenue Adjustment for Solar Share and EV |  |  |  | S | 353,856 | \$ |  | \$ |  | \$ | , | \$ | - | \$ |  | \$ |  | \$ |  |
| Changes to EVSE-R |  |  |  |  |  | \$ | - | s | - | \$ | - | \$ | - | s | - | \$ | - | \$ | - |
| Changes in Other Service Revenues |  |  | MISCSERV | s | 366,528 | \$ | 38,188 | \$ | 71,491 | \$ | 17,684 | \$ | 185,297 | \$ | 8,503 | \$ | 31,975 | \$ | 10,663 |
| Changes in Miscellaneous Charges |  |  | MISCSERV | s | 5,899 | \$ | 615 | \$ | 1,151 | \$ | 285 | \$ | 2,982 | \$ | 137 | \$ | 515 | \$ | 172 |
| Total Pro-Forma Operating Revenue |  |  |  | \$ | 1,756,659,700 | \$ | 701,635,083 | \$ | 256,756,745 | \$ | 13,813,022 | \$ | 192,820,941 | \$ | 10,666,942 | \$ | 152,482,735 | \$ | 282,915,033 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Operating Expenses |  |  |  | s | 1,336,211,708 | \$ | 567,877,412 | \$ | 162,506,339 | \$ | 10,060,573 | \$ | 128,433,409 | \$ | 6,055,835 | \$ | 121,127,446 | \$ | 232,234,517 |
| Pro-Forma Adjustments |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Increase in Uncollectible Expense |  |  | 0.316\% | s | 538,696 | \$ | 215,623 | \$ | ${ }_{5}^{84,712}$ | \$ | 4,651 | \$ | 59,223 | \$ | 3,313 | \$ | 46,020 | \$ | ${ }^{85,171}$ |
| Increase in PSC Fees |  |  | 0.200\% | s | 340,947 | \$ | 136,470 | \$ | 53,615 | \$ | 2,944 | \$ | 37,483 | \$ | 2,097 | \$ | 29,127 | \$ | 53,906 |
| Incremental Income Taxes |  |  | 24.83\% | \$ | 42,323,441 | \$ | 16,940,718 | S | 6,655,518 | \$ | 365,403 | \$ | 4,652,905 | \$ | 260,268 | \$ | 3,615,664 | \$ | 6,691,600 |
| Total Pro-Forma Operating Expenses |  |  |  | S | 1,379,414,792 | \$ | 585,170,224 | \$ | 169,300,185 | \$ | 10,433,571 | \$ | 133,183,019 | S | 6,321,512 | \$ | 124,818,257 | \$ | 239,065,194 |
| Net Operating Income |  |  |  | s | 377,244,908 | \$ | 116,464,860 | \$ | 87,456,560 | \$ | 3,379,451 | \$ | 59,637,921 | \$ | 4,345,430 | \$ | 27,664,478 | \$ | 43,849,839 |
| Net Cost Rate Base |  |  |  | s | 5,197,832,023 | \$ | 2,457,262,896 | \$ | 610,215,074 | \$ | 38,745,077 | \$ | 458,917,674 | \$ | 19,889,476 | \$ | 424,876,670 | \$ | 740,522,922 |
| Kate orketurn |  |  |  |  | 7.26\% |  | 4.74\% |  | 14.33\% |  | 8.72\% |  | 13.00\% |  | 21.85\% |  | 6.51\% |  | 5.92\% |



12 Months Ended June 30, 2022

| Description Ref | Name | Allocation Vector | $\begin{array}{r} \text { Total } \\ \text { System } \\ \hline \end{array}$ | Residential <br> Rate RS | $\begin{gathered} \text { General Service } \\ \text { GS } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { All Electric Schools } \\ & \text { AES } \\ & \hline \end{aligned}$ | Power Service PS-Secondary | Power Service PS-Primary | $\begin{gathered} \text { Time of Day } \\ \text { TOD-Secondary } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Time of Day } \\ \text { TOD-Primary } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Allocation Factors |  |  |  |  |  |  |  |  |  |  |
| Energy Allocation Factors Energy Usage by Class | E01 | Energy | 1.000000 | 0.345294 | 0.097492 | 0.007468 | 0.098714 | 0.004461 | 0.103653 | 0.223958 |
| Customer Allocation Factors |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Customer Services -- Weighted cost of Services | $\mathrm{CO}_{0}$ |  | 1.000000 | 0.790864 | 0.177792 | ${ }^{0.0001609}$ | ${ }^{0.023105}$ | - ${ }^{-1}$ | ${ }^{0.006610}$ |  |
| Meter Costs -- Weighted Cost of Meters | C03 |  | 1.000000 | 0.604135 | 0.243786 | 0.004976 | 0.076223 | 0.014906 | 0.013633 | 0.026406 |
| Lighting Systems -- Lighting Customers | C04 | Cust04 | 1.000000 |  |  |  |  |  |  |  |
| Meter Reading and Billing -- Weighted Cost | c05 | Cust05 | 1.000000 | 0.64961 | 0.24315 | 0.00623 | ${ }^{0.03261}$ | 0.00150 | ${ }^{0.02812}$ | 0.00940 |
| Marketing/Economic Development | C06 | Cust06 | 1.000000 | 0.80328 | 0.15033 | 0.00077 | 0.00806 | 0.00037 | 0.00139 | 0.00046 |
| Total billed revenue per Billing Determinants | R01 |  | 1,558,608,458 | 611,492,797 | 224,799,513 | 11,901,436 | 169,760,857 | 9,429,915 | 134,172,118 | 250,417,886 |
| Energy (at the Meter) |  |  | 17,402,124,383 | 5,943,619,831 | 1,678,149,896 | 128,548,999 | 1,699,193,305 | 78,721,459 | 1,784,202,424 | 3,951,918,371 |
| Energy (Loss Adjusted)(at Source) | Energy |  | 18,429,987,351 | 6,363,754,932 | 1,796,772,839 | 137,635,708 | 1,819,303,738 | 82,219,916 | 1,910,321,874 | 4,127,545,429 |
| O\&M Customer Allocators |  |  |  |  |  |  |  |  |  |  |
| Customers (Monthly Bills) |  |  | 8,471,803 | 5,308,105 | 993,413 | 5,086 | 53,288 | 2,445 | 9,195 | 3,066 |
| Average Customers (Bills 12) |  |  | 705,984 | 442,342 | 82,784 | 424 | 4,441 | 204 | 766 | 256 |
| Average Customers (Lighting $=$ Lights) |  |  | 705,984 | 442,342 | 82,784 | 424 | 4,441 | 204 | 766 | 256 |
| Weighted Average Customers (Lighting $=9$ Lights per Cu | Cust05 |  | 680,930 | 442,342 | 165,568 | 4,240 | 22,205 | 1,020 | 19,150 | 6,400 |
| Street Lighting | Cust04 |  | 143,087,299 |  |  |  |  |  |  |  |
| Average Customers | Cust01 |  | 705,984 | 442,342 | 82,784 | 424 | 4,441 | 204 | 766 | ${ }_{256}$ |
| Average Customers (Lighting = 9 Lights per Cust) | Cust06 |  | 550,667 50,186 | 442,342 | 82,784 | 424 | 4,441 | 204 | 776 | 256 |
| Average Secondary Customers | Cust07 |  | 550,186 | 442,342 | 82,784 | 424 | 4,441 |  | 766 |  |
| Average Primary Customers | Cust08 |  | 550,646 | 442,342 | 82,784 | 424 | 4,441 | 204 | 766 | 256 |
| Average Transformer Customers | Cust09 |  | 550,186 | 442,342 | 82,784 | 424 | 4,441 | - | 766 | - |
| Plant Customer Allocators |  |  |  |  |  |  |  |  |  |  |
| Average Customers |  |  | 705,871 | 442,270 | 82,743 | 424 | 4,442 | 204 | 765 | 256 |
| Average Customers (Lighting $=$ Lights) ${ }^{\text {a }}$ ( ${ }^{\text {a }}$ |  |  | 705, 771 | 442,270 | 82,743 | 424 | 4,442 | 204 | 765 | 256 |
| Weighted Average Customers (Lighting $=9$ Lights per Cu Street Lighting | PCust05 |  | 680,755 | 442,270 | 165,485 | 4,240 | 22,210 | 1,020 | 19,125 | 6,400 |
| Street Lighting Average Customers | PCust04 PCust01 |  | $143,087,299$ 705,871 | 442,270 | 82,743 | 424 | 4,442 | 204 | 765 | 256 |
| Average Customers (Lighting $=9$ Lights per Cust) | PCustu6 |  | 550,553 | 442,270 | 82,743 | 424 | 4,442 | 204 | 765 | 256 |
| Average Secondary Customers | PCust07 |  | 544,871 | 442,270 | 82,743 | 424 |  |  |  |  |
| Average Primary Customers | PCust08 |  | 550,532 | 442,270 | 82,743 | 424 | 4,442 | 204 | 765 | 256 |
| Average Transformer Customers | PCust09 |  | 550,072 | 442,270 | 82,743 | 424 | 4,442 | - | 765 | - |
| Demand Allocators |  |  |  |  |  |  |  |  |  |  |
| Maximum Class Non-Coincident Peak Demands (Transm | NCPT |  | 4,393,697 | 1,942,660 | 498,641 | 51,033 | 444,831 | 19,115 | 393,527 | 640,911 |
| Maximum Class Non-Coincident Peak Demands (Primary | NCPP |  | 4,022,516 | 1,942,660 | 498,641 | 51,033 | 444,831 | 19,115 | 393,527 | 640,911 |
| Sum of the Individual Customer Demands (Transformer) | SICDT |  | 6,314,351 | 4,316,218 | 805,143 805,143 | 58,361 | 594,859 | - | 507,681 | - |
| LOLP Demand Allocator | LOLP |  | 2,463,591 | 1,011,037 | 272,317 | 17,474 | 253,947 | 11,033 | 244,227 | 447,085 |

12 Months Ended June 30, 2022

|  |  |  | Allocation | Retail Transmission Service | Fluctuating Load Service | Outdoor Lighting | Lighting Energy | Traffic Energy | Outdoor Sports Lighting | Electric Vehicle Charging | Solar Share | Business Solar |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Vector | RTS - Transmission | FLS - Transmission | LS \& RLS | LE | TE | OSL | EV | SSP | BS |

## Allocation Factors

| Energv Allocation Factors |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Energy Usage by Class | E01 | Energy | 0.077946 | 0.033622 | 0.006980 | 0.000254 | 0.000139 | 0.000019 | 0.000001 | - | - |
| Customer Allocation Factors |  |  |  |  |  |  |  |  |  |  |  |
| Primary Distribution Plant -- Average Number of Custom |  | Cust08 | - |  | 0.03497 | 0.00002 | 0.00027 | 0.00001 | 0.00002 |  |  |
| Customer Services -- Weighted cost of Services | C02 |  | - $\square^{-1309}$ |  |  |  |  | 0.000021 |  |  |  |
| Meter Costs -- Weighted Cost of Meters | ${ }^{\text {co3 }}$ |  | 0.013092 | 0.000808 | - | 0.000148 | 0.001818 | 0.000069 | - |  |  |
| Lighting Systems -- Lighting Customers | C04 | Cust04 | 7073 |  | 1.00000 |  |  | 00003 | 003 |  |  |
| Meter Reading and Billing -- Weighted Cost | C05 | Cust05 | 0.00073 | 0.00007 | 0.02828 | 0.00002 | 0.00022 | 0.00003 | 0.00003 |  |  |
| Marketing Economic Development | C06 | Cust06 | 0.00004 | 0.00000 | 0.03497 | 0.00002 | 0.00027 | 0.00001 | 0.00002 |  | - |
| Total billed revenue per Billing Determinants | R01 |  | 82,247,981 | 32,956,814 | 30,555,893 | 307,246 | 271,291 | 92,320 | 1,533 | 162,504 | 38,355 |
| Energy (at the Meter) ${ }_{\text {Energy }}$ (Loss Adjusted)(at Source) |  |  | $1,404,629,847$ $1,436,535,296$ | $605,890,405$ 619652896 | ${ }_{1}^{120,148,466}$ | 4,371,371 | $\stackrel{\text { 2,392,654 }}{2,561783}$ | 326,405 | 10,950 |  | - |
| Energy (Loss Adjusted)(at Source) | Energy |  | 1,436,535,296 | 619,652,896 | 128,641,369 | 4,680,369 | 2,561,783 | 349,478 | 11,724 |  | - |
| O\&M Customer Allocators |  |  |  |  |  |  |  |  |  |  |  |
| Customers (Monthly Bills) |  |  | 240 | 12 | 2,079,516 | 1,296 | 15,972 | 48 | 120 |  |  |
| Average Customers (Bills/12) |  |  | 20 | 1 | 173,293 | 108 | 1,331 | 4 | 10 |  | - |
| Average Customers (Lighting $=$ Lights) |  |  | 20 | 1 | 173,293 19255 | 108 | 1,331 | 20 | 10 |  |  |
| Average Customers | Cust01 |  | 20 | 1 | 173,293 | 108 | 1,331 | 4 | 10 |  |  |
| Average Customers (Lighting $=9$ Lights per Cust) | Cust06 |  | 20 | 1 | 19,255 | 12 | 148 | 4 | 10 |  |  |
| Average Secondary Customers | Cust07 |  |  | - | 19,255 | 12 | 148 | 4 | 10 |  |  |
| Average Primary Customers | Cust08 |  | - |  | 19,255 | 12 | 148 | 4 | 10 |  |  |
| Average Transformer Customers | Cust09 |  | - |  | 19,255 | 12 | 148 | 4 | 10 |  |  |
| Plant Customer Allocators |  |  |  |  |  |  |  |  |  |  |  |
| Average Customers |  |  | 20 | 1 | 173,293 | 108 | 1,331 | 4 | 10 |  |  |
| Average Customers (Lighting $=$ Lights) Weighted Average Customers (Lighting $=9$ Lights per Cu | PCust05 |  | 20 500 | 1 50 | 173,293 19,255 | 108 12 | 1,331 148 | 4 20 | 10 20 | - | - |
| Street Lighting | PCust04 |  |  |  | 143,087,299 |  |  |  |  |  |  |
| Average Customers | PCust01 |  | 20 | 1 | 173,293 | 108 | 1,331 | 4 | 10 |  |  |
| Average Customers (Lighting $=9$ Lights per Cust) | PCust06 |  | 20 | 1 | 19,255 | 12 | 148 | 4 | 10 |  |  |
| Average Secondary Customers | ${ }^{\text {PCust07 }}$ |  |  |  | 19,255 | 12 | 148 |  | 20 |  |  |
| Average Primary Customers | PCust08 |  |  |  | 19,255 | 12 | 148 | 4 | 10 |  |  |
| Average Transformer Customers | PCust09 |  | - | - | 19,255 | 12 | 148 | 4 | 10 | - | - |
| Demand Allocators |  |  |  |  |  |  |  |  |  |  |  |
| Maximum Class Non-Coincident Peak Demands (Transm | NCPT |  | 222,254 | 148,927 | 29,996 29996 | 1,091 | 294 | 414 414 | 3 |  |  |
| Maximum Class Non-Coincident Peak Demands (Primary | NCPP |  | - | - | 29,996 29,996 | 1,091 1,091 | 294 | 414 | 3 3 | $\div$ | $:$ |
| Sum of the Individual Customer Demands (Secondary) | SICD |  | -- |  | 29,996 | 1,091 | 294 | - | 3 | - | - |
| LOLP Demand Allocator | LOLP |  | 145,533 | 60,265 | 393 | 14 | 234 | 30 | 2 | - | - |

12 Months Ended June 30, 2022


| Description Ref |  Allocation <br> Name <br> Vector  |  | Retail Transmission Service <br> RTS - Transmission |  | Fluctuating Load Service <br> FLS - Transmission |  | Outdoor Lighting LS \& RLS |  | Lighting Energy LE |  | Traffic Energy TE |  | Outdoor Sports Lighting OSL |  | Electric Vehicle Charging EV |  | $\begin{aligned} & \text { Solar Share } \\ & \text { SSP } \\ & \hline \end{aligned}$ |  | Business Solar BS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Production Demand Cost Allocation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gross Plant Production Residual LOLP Demand Allocato | GPPLOLPDRA |  | 145,533 |  | 60,265 |  | 393 |  | 14 |  | 234 |  | 30 |  | 2 |  | - |  | - |
| Gross Plant Production LOLP Demand Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$ | 3,325,058 | \$ | 403,543 |
| Gross Plant Production LOLP Demand Residual | GPPLOLPDRA | s | 358,533,878 | \$ | 148,468,386 | \$ | 967,726 | \$ | 35,209 | \$ | 575,745 | s | 74,108 | \$ | 5,011 | \$ |  | \$ |  |
| Gross Plant Production LOLP Demand Total | GPPLOLPDT | \$ | 358,533,878 | \$ | 148,468,386 | \$ | 967,726 | \$ | 35,209 | \$ | 575,745 | S | 74,108 | \$ | 5,011 | \$ | 3,325,058 |  | 403,543 |
| Gross Plant Production LOLP Demand Allocator | GPLOLPDA GPPLOLPDT |  | 0.05904 |  | 0.02445 |  | 0.00016 |  | 0.00001 |  | 0.00009 |  | 0.00001 |  | 0.00000 |  | 0.00055 |  | 0.00007 |
| Net Production Residual LOLP Demand Allocator | NPPLOLPDRA |  | 145,533 |  | 60,265 |  | 393 |  | 14 |  | 234 |  | 30 |  | 2 |  |  |  |  |
| Net Production LOLP Demand Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$ | 3,141,953 | \$ | 371,427 |
| Net Production LOLP Demand Residual | NPPLOLPDRA | \$ | 217,184,547 | \$ | 89,935,822 | \$ | 586,207 | \$ | 21,328 | \$ | 348,762 | \$ | 44,892 | \$ | 3,036 | \$ |  |  |  |
| Net Production LOLP Demand Total | NPPLOLPDT | \$ | 217,184,547 | \$ | 89,935,822 | \$ | 586,207 | \$ | 21,328 | \$ | 348,762 | S | 44,892 | \$ | 3,036 | \$ | 3,141,953 | \$ | 371,427 |
| Net Production LOLP Demand Allocator | NPLOLPDA NPPLOLPDT |  | 0.05902 |  | 0.02444 |  | 0.00016 |  | 0.00001 |  | 0.00009 |  | 0.00001 |  | 0.00000 |  | 0.00085 |  | 0.00010 |
| Rate Base Production Residual LoLP Demand Allocator | Rblolpdra |  | 145,533 |  | 60,265 |  | 393 |  | 14 |  | 234 |  | 30 |  | 2 |  |  |  | - |
| Rate Base Production LOLP Demand Costs Customer Specific Assignment |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$ | 2,576,969 | \$ | 290,934 |
| Rate Base Production LOLP Demand Residual | RBLOLPDRA | s | 175,600,115 | \$ | 72,715,766 | \$ | 473,966 | \$ | 17,244 | \$ | 281,984 | \$ | 36,296 | \$ | 2,454 | \$ |  | \$ |  |
| Rate Base Production LOLP Demand Total | RBLOLPDT | s | 175,600,115 | \$ | 72,715,766 | \$ | 473,966 | \$ | 17,244 | \$ | 281,984 | S | 36,296 | S | 2,454 | \$ | 2,576,969 | \$ | 290,934 |
| Rate Base Production LOLP Demand Allocator | RBLOLPDA RBLOLPDT |  | 0.05902 |  | 0.02444 |  | 0.00016 |  | 0.00001 |  | 0.00009 |  | 0.00001 |  | 0.00000 |  | 0.00087 |  |  |
| Production O\&M Residual LOLP Demand Allocator | POMLOLPDRA |  | 145,533 |  | 60,265 |  | 393 |  | 14 |  | 234 |  | 30 |  | 2 |  |  |  |  |
| Production O\&M LOLP Demand Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Customer Specific Assignment |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$ | 91,514 |  |  |
| Production O\&M LOLP Demand Residual | POMLOLPDRA | \$ | 7,862,942 | \$ | 3,256,034 | \$ | 21,223 | s | 772 | \$ | 12,627 | s | 1,625 | \$ | 110 | \$ |  | \$ |  |
| Production O\&M LOLP Demand Total | POMLOLPDT | s | 7,862,942 | \$ | 3,256,034 | \$ | 21,223 | \$ | 772 | \$ | 12,627 | s | 1,625 | \$ | 110 | \$ | 91,514 | \$ | - |
| Production O\&M LOLP Demand Allocator | POMLOLPD $/$ POMLOLPDT |  | 0.05903 |  | 0.02445 |  | 0.00016 |  | 0.00001 |  | 0.00009 |  | 0.00001 |  | 0.00000 |  | 0.00069 |  | - |
| Production Depreciation Residual LOLP Demand Allocat | PDEPLOLPDRA |  | 145,533 |  | 60,265 |  | 393 |  | 14 |  | 234 |  | 30 |  | 2 |  | - |  | - |
| Production Depreciation LOLP Demand Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$ | 106,487 | \$ | 14,444 |
| Production Depreciation LOLP Demand Residual | PDEPLOLPDRA | s | 17,037,942 | \$ | 7,055,388 | \$ | 45,987 | \$ | 1,673 | \$ | 27,360 | s | 3,522 | \$ | 238 | \$ |  |  |  |
| Production Depreciation LOLP Demand Total | PUEPLOLPDT | s | 17,037,942 | \$ | 7,055,388 | \$ | 45,987 | \$ | 1,673 | \$ | 27,360 | s | 3,522 | \$ | 238 | \$ | 106,487 | \$ | 14,444 |
| Production Depreciation LOLP Demand Allocator | PDEPLOLPD PDEPLOLPDT |  | 0.05905 |  | 0.02445 |  | 0.00016 |  | 0.00001 |  | 0.00009 |  | 0.00001 |  | 0.00000 |  | 0.00037 |  | 0.00005 |
| Production Prop Tax Residual LOLP Demand Allocator | PPTLOLPDRA |  | 145,533 |  | 60,265 |  | 393 |  | 14 |  | 234 |  | 30 |  | 2 |  | - |  |  |
| Production Prop Tax LOLP Demand Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Customer Specitic Assignment |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$ | 4,039 | \$ | 569 |
| Production Prop Tax LOLP Demand Residual | PPTLOLPDRA | s | 1,322,185 | \$ | 547,515 | \$ | 3,569 | \$ | 130 | \$ | 2,123 | \$ | 273 | \$ | 18 | \$ |  | \$ |  |
| Production Prop Tax LOLP Demand Total | PPTLOLPDT | s | 1,322,185 | \$ | 547,515 | \$ | 3,569 | s | 130 | \$ | 2,123 | \$ | 273 | \$ | 18 | \$ | 4,039 | \$ | 569 |
| Production Prop Tax LOLP Demand Allocator | PPTLOLPDA PPTLOLPDT |  | 0.05906 |  | 0.02446 |  | 0.00016 |  | 0.00001 |  | 0.00009 |  | 0.00001 |  | 0.00000 |  | 0.00018 |  | 0.00003 |


| Description | Ref | Name | Allocation Vector |  | $\begin{array}{r} \text { Total } \\ \text { System } \\ \hline \end{array}$ |  | Residential Rate RS |  | General Service GS |  | All Electric Schools AES |  | Power Service PS-Secondary |  | Power Service PS-Primary |  | Time of Day TOD-Secondary |  | Time of Day TOD-Primary |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Meter Cost Allocation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meters Gross Plant Residual Allocator Meters Giross Plant Costs |  | MGPRA |  | s | $\begin{aligned} & 49,194,750 \\ & 77,142,557 \end{aligned}$ |  | 29,720,264 |  | 11,993,013 |  | 244,803 |  | 3,749,767 |  | 733,308 |  | 670,691 |  | 1,299,034 |
| Customer Specific Assignment |  |  |  | s | 159,234 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meters Gross Plant Residual |  |  | MGPRA | s | 76,983,323 | \$ | 46,508,310 | s | 18,767,490 | \$ | 383,084 | \$ | 5,867,892 | \$ | 1,147,531 | \$ | 1,049,543 | \$ | 2,032,818 |
| Meters Gross Plant Total |  | MGPT |  | \$ | 77,142,557 | \$ | 46,508,310 | \$ | 18,767,490 | \$ | 383,084 | \$ | 5,867,892 | \$ | 1,147,531 | \$ | 1,049,543 | \$ | 2,032,818 |
| Meters Gross Plant Allocator |  | MGPA | MGPT |  | 1.000000 |  | 0.60289 |  | 0.24328 |  | 0.00497 |  | 0.07607 |  | 0.01488 |  | 0.01361 |  | 0.02635 |
| Meters Net Plant Residual Allocator |  | MNPRA |  |  | 49,194,750 |  | 29,720,264 |  | 11,993,013 |  | 244,803 |  | 3,749,767 |  | 733,308 |  | 670,691 |  | 1,299,034 |
| Meters Net Plant Costs ${ }_{\text {coser }}$ |  |  |  | s | 53,653,152 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Speciific Assignment |  |  |  | \$ | ${ }_{5}^{120,013}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meters Net Plant Residual |  |  | MNPRA | \$ | 53,533,140 | \$ | 32,341,236 | \$ | 13,050,653 | \$ | 266,391 | \$ | 4,080,451 | \$ | 797,977 | \$ | 729,838 | \$ | 1,413,594 |
| Meters Net Plant Total |  | MNPT |  | s | 53,653,152 | \$ | 32,341,236 | S | 13,050,653 | \$ | 266,391 | \$ | 4,080,451 | \$ | 797,977 | \$ | 729,838 | \$ | 1,413,594 |
| Meters Net Plant Allocator |  | MNPA | MNPT |  | 1.000000 |  | 0.60278 |  | 0.24324 |  | 0.00497 |  | 0.07605 |  | 0.01487 |  | 0.01360 |  | 0.02635 |
| Meters Rate Base Residual Allocator |  | MRBRA |  |  | 49,194,750 |  | 29,720,264 |  | 11,993,013 |  | 244,803 |  | 3,749,767 |  | 733,308 |  | 670,691 |  | 1,299,034 |
| Meters Rate Base Costs |  |  |  | \$ | 45,031,431 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | s | 89,399 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meters Rate Base Residual |  |  | MRBRA | s | 44,942,032 | \$ | 27,151,049 | s | 10,956,258 | \$ | 223,640 | \$ | 3,425,612 | \$ | 669,916 | \$ | 612,712 | \$ | 1,186,737 |
| Meters Rate Base Total |  | MRBT |  | s | 45,031,431 | \$ | 27,151,049 | s | 10,956,258 | \$ | 223,640 | \$ | 3,425,612 | S | 669,916 | \$ | 612,712 | \$ | 1,186,737 |
| Meters Rate Base Allocator |  | MRBA | MRBT |  | 1.000000 |  | 0.60294 |  | 0.24330 |  | 0.00497 |  | 0.07607 |  | 0.01488 |  | 0.01361 |  | 0.02635 |
| Meters O\&M Residual Allocator |  | MOMRA |  |  | 49,194,750 |  | 29,720,264 |  | 11,993,013 |  | 244,803 |  | 3,749,767 |  | 733,308 |  | 670,691 |  | 1,299,034 |
| Meters O\&M Costs |  |  |  | \$ | 11,537,188 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | s |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meters O\&M Residual |  |  | MOMRA | \$ | 11,537,188 | \$ | 6,970,017 | \$ | 2,812,610 | \$ | 57,411 | \$ | 879,398 | \$ | 171,976 | \$ | 157,291 | \$ | 304,650 |
| Meters O\&M Total |  | MOMT |  | s | 11,537,188 | \$ | 6,970,017 | \$ | 2,812,610 | \$ | 57,411 | \$ | 879,398 | \$ | 171,976 | \$ | 157,291 | \$ | 304,650 |
| Meters O\&M Allocator |  | moma | момт |  | 1.000000 |  | 0.60413 |  | 0.24379 |  | 0.00498 |  | 0.07622 |  | 0.01491 |  | 0.01363 |  | 0.02641 |
| Meters Depreciation Residual Allocator |  | MDRA |  |  | 49,194,750 |  | 29,720,264 |  | 11,993,013 |  | 244,803 |  | 3,749,767 |  | 733,308 |  | 670,691 |  | 1,299,034 |
| Meters Depreciation Costs |  |  |  | s | 1,599,033 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | \$ | 15,923 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meters Depreciation Residual Meters Depreciation Total |  |  | MDRA | S | $1,583,110$ $1,599,033$ | \$ | ${ }_{9}^{956,412}$ | \$ | 385,941 385,941 | \$ | 7,878 7,878 | \$ | 120,669 120,669 | \$ | 23,598 | \$ | ${ }_{21,583}^{21,583}$ | \$ | 41,804 41,804 |
| Meters Deprecelation Iotal Meters Depreciation Allocator |  | MDA | MDT | $s$ | 1.000000 |  | 0.59812 |  | 0.24136 |  | 0.00493 |  | 0.07546 |  | 0.01476 |  | 0.01350 |  | 0.02614 |
| Meters Prop Tax Residual Allocator |  | MPTRA |  |  | 49,194,750 |  | 29,720,264 |  | 11,993,013 |  | 244,803 |  | 3,749,767 |  | 733,308 |  | 670,691 |  | 1,299,034 |
| Meters Prop Tax Costs |  |  |  | \$ | 286,653 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | s | 1,987 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meters Prop Tax Residual |  |  | MPTRA | s | 284,666 | \$ | 171,977 | \$ | 69,398 | \$ | 1,417 | \$ | 21,698 | \$ | 4,243 | \$ | 3,881 | \$ | 7,517 |
| Meters Prop Tax Total |  | ${ }_{\text {MPTT }}$ |  | \$ | 286,653 | \$ | 171,977 | \$ | 69,398 | \$ | 1,417 | \$ | ${ }^{21,698}$ | \$ | 4,243 | \$ | ${ }^{3,881}$ | \$ | 7,517 |
| Meters Prop Tax Allocator |  | MPTA | MPTT |  | 1.000000 |  | 0.59995 |  | 0.24210 |  | 0.00494 |  | 0.07569 |  | 0.01480 |  | 0.01354 |  | 0.02622 |
| Customer Service O\&M Cost Allocation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Service Residual Allocator |  | CSRA |  |  | 550,667 |  | 442,342 |  | 82,784 |  | 424 |  | 4,441 |  | 204 |  | 766 |  | 256 |
| Customer Service O\&M Costs |  |  |  | s | 7,173,760 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | s | 25,500 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Service O\&M Residual |  |  | CSRA | s | 7,148,260 | \$ | 5,742,083 | \$ | 1,074,627 | \$ | 5,504 | \$ | 57,649 | \$ | 2,648 | \$ | 9,944 | \$ | 3,323 |
| Customer Service O\&M Total |  | CSOT |  | s | 7,173,760 | \$ | 5,742,083 | S | 1,074,627 | \$ | 5,504 | \$ | 57,649 | \$ | 2,648 | \$ | 9,944 | \$ | 3,323 |
| Customer Service O\&M Allocator |  | C10 | CSOT |  | 1.000000 |  | 0.80043 |  | 0.14980 |  | 0.00077 |  | 0.00804 |  | 0.00037 |  | 0.00139 |  | 0.00046 |

12 Months Ended June 30, 2022


12 Months Ended June 30, 2022

| Description | Ref | Name | Allocation Vector |  | $\begin{array}{r} \text { Total } \\ \text { System } \\ \hline \end{array}$ | Residential Rate RS | $\begin{gathered} \text { General Service } \\ \text { GS } \\ \hline \end{gathered}$ | $\begin{gathered} \text { All Electric Schools } \\ \text { AES } \\ \hline \end{gathered}$ | Power Service <br> PS-Secondary | Power Service PS-Primary | Time of Day TOD-Secondary | $\begin{aligned} & \text { Time of Day } \\ & \text { TOD-Primary } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue Adjustment Allocators |  |  |  |  |  |  |  |  |  |  |  |  |
| Late Payment Revenue |  | LPAY |  |  | 3,985,852 | 3,094,551 | 620,986 | 18,514 | 193,986 | 8,902 | 33,474 | 11,163 |
| Misc Service Revenue Allocator |  | MISCSERV |  |  | 1,671,784 | 174,180 | 326,081 | 80,661 | 845,167 | 38,783 | 145,842 | 48,635 |
| Reconnect Charges |  | RECON |  |  | 1,827,840 | 1,740,900 | 83,412 | 233 | 2,442 | 112 | 421 | 140 |
| Return Check Charges |  | RETURN |  |  | 86,978 | 81,062 | 5,025 | 60 | 629 | 29 | 109 | 36 |
| Rent From Electric Property |  | RFEP |  |  | 5,194,858,581 | 2,457,262,896 | 610,215,074 | 38,745,077 | 458,917,674 | 19,889,476 | 424,876,670 | 740,522,922 |
| Interuptible Credit Allocator |  | INTCRE |  |  | 6,069,280,510 | 2,490,784,384 | 670,878,802 | 43,048,460 | 625,621,337 | 27,180,233 | 601,676,613 | 1,101,435,630 |
| Base Rate Revenue |  |  |  |  | 1,558,570,103 | 611,492,797 | 224,799,513 | 11,901,436 | 169,760,857 | 9,429,915 | 134,172,118 | 250,417,886 |
| Operation and Maintenance Less Fuel |  | OMLF |  |  | 336,831,286 | 177,368,926 | 48,629,289 | 2,429,334 | 25,390,922 | 1,221,079 | 22,575,247 | 36,974,577 |
| CSR Avoided Cost |  |  |  |  |  |  |  |  |  |  |  |  |
| Interruptible Demand |  |  |  |  | 3,184,853 |  |  |  |  |  |  | ${ }^{201,529}$ |
| Avoided Cost per kW Avoided Cost |  |  |  |  |  |  |  |  |  |  |  | ${ }_{(1,032,456)}^{(5.12)}$ |
| Avoided Cost |  |  |  | s | (18,634,070) |  |  |  |  |  |  | $(1,032,456)$ |

12 Months Ended June 30, 2022


## Exhibit WSS-32

Electric Cost of Service Study
Class Allocation
(Louisville Gas and Electric Company)



|  |  |  | 2 |  | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Allocation <br> Vector | $\begin{aligned} & \text { Total } \\ & \text { System } \end{aligned}$ | Residential Rate RS | General Service Rate GS | Rate PS <br> Primary | Rate PS Secondary | Rate TOD Primary | Rate TOD Secondary | Rate RTS <br> Transmission | Special Contract Customer |

## Net Utility Plant

| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Production Demand - LOLP | NTPLANT | UPPPLOLP | NPLOLPDA | \$ | 2,495,383,413 | \$ | 1,189,374,765 | \$ | 280,705,913 | \$ | 19,006,428 | \$ | 314,311,316 | \$ | 298,719,616 | \$ | 245,608,030 | \$ | 136,737,701 | \$ | 7,518,447 |
| Production Energy | NTPLANT | UPPPEB | E01 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  |  |  | - |
| Total Power Production Plant |  | UPPPT |  | \$ | 2,495,383,413 | \$ | 1,189,374,765 | \$ | 280,705,913 | \$ | 19,006,428 | \$ | 314,311,316 | \$ | 298,719,616 | \$ | 245,608,030 | \$ | 136,737,701 | \$ | 7,518,447 |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | NTPLANT | UPTRB | NCPT | \$ | 422,249,551 | \$ | 199,774,530 | \$ | 48,798,564 | \$ | 3,203,291 | \$ | 54,297,755 | \$ | 45,535,407 | \$ | 43,110,172 | \$ | 22,481,197 | \$ | 1,444,657 |
| Distribution Poles |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Specific | NTPLANT | UPDPS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Substation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General | NTPLANT | UPDSG | NCPP | \$ | 158,088,627 | \$ | 79,000,953 | \$ | 19,297,421 | \$ | 1,266,743 | \$ | 21,472,079 | \$ | 18,007,003 | \$ | 17,047,943 | \$ | - | \$ | 571,291 |
| Distribution Primary \& Secondary Lines |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | NTPLANT | UPDPLS | NCPP | \$ | - | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Primary Demand | NTPLANT | UPDPLD | NCPP |  | 242,694,290 |  | 121,280,579 |  | 29,624,989 |  | 1,944,677 |  | 32,963,477 |  | 27,643,967 |  | 26,171,638 |  | - |  | 877,033 |
| Primary Customer | NTPLANT | UPDPLC | PCust08 |  | 397,151,933 |  | 344,214,691 |  | 41,328,701 |  | 63,818 |  | 2,537,231 |  | 120,343 |  | 460,403 |  | 11,852 |  | 1,823 |
| Secondary Demand | NTPLANT | UPDSLD | SICD |  | 67,713,921 |  | 51,327,269 |  | 8,203,043 |  | - |  | 7,769,425 |  | - |  | - |  | - |  | - |
| Secondary Customer | NTPLANT | UPDSLC | PCust07 |  | 115,706,517 |  | 101,050,166 |  | 12,132,754 |  | 18,735 |  | - |  | 35,329 |  | - |  | - |  | - |
| Total Distribution Primary \& Secondary Lines |  | UPDLT |  | \$ | 823,266,661 | \$ | 617,872,706 | \$ | 91,289,486 | \$ | 2,027,230 | \$ | 43,270,134 | \$ | 27,799,639 | \$ | 26,632,041 | \$ | 11,852 | \$ | 878,857 |
| Distribution Line Transformers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | NTPLANT | UPDLTD | SICDT | \$ | 82,953,368 | \$ | 57,386,324 | \$ | 9,171,391 | \$ | - | \$ | 8,686,587 | \$ | - | \$ | 7,245,988 | \$ | - | \$ | - |
| Customer | NTPLANT | UPDLTC | PCust09 |  | 46,238,863 |  | 40,095,558 |  | 4,814,139 |  | - |  | 295,547 |  | - |  | 53,630 |  | - |  | - |
| Total Distribution Line Transformers |  | UPDLTT |  | \$ | 129,192,231 | \$ | 97,481,882 | \$ | 13,985,530 | \$ | - | \$ | 8,982,134 | \$ | - | \$ | 7,299,618 | \$ | - | \$ | - |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | NTPLANT | UPDSC | C02 | \$ | 29,563,787 | \$ | 25,463,932 | \$ | 3,626,678 | \$ | - | \$ | 373,036 | \$ | - | \$ | 100,007 | \$ | - | \$ | - |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | NTPLANT | UPDMC | MNPA | \$ | 30,149,962 | \$ | 20,513,748 | \$ | 6,373,699 | \$ | 208,332 | \$ | 1,782,389 | \$ | 416,122 | \$ | 352,367 | \$ | 294,071 | \$ | 6,324 |
| Distribution Street \& Customer Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | NTPLANT | UPDSCL | PCust04 | \$ | 97,473,132 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | NTPLANT | UPCAE | PCust05 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Service \& Info. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | NTPLANT | UPCSI | PCust06 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Sales Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | NTPLANT | UPSEC | PCust06 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total |  | UPT |  | \$ | 4,185,367,364 | \$ | 2,229,482,516 | \$ | 464,077,292 | \$ | 25,712,025 | \$ | 444,488,843 | \$ | 390,477,788 | \$ | 340,150,178 | \$ | 159,524,821 | \$ | 10,419,576 |


| Description | Ref | Name |  | Street Lighting Rate RLS, LS |  |  | 13 <br> Street Lighting Rate LE | Traffic Street Lighting Rate TLE |  |  | Lighting Rate OSL | 16 Electric Vehicle Charging Rate EV |  |  | Solar Share Rate SSP | 18 <br> Business Solar Rate BS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net Utility Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand - LOLP | NTPLANT | UPPPLOLP | NPLOLPDA | \$ | 417,308 | \$ | 14,535 | \$ | 404,956 | \$ | 963 | \$ | 4,371 | \$ | 2,486,734 | \$ | 72,329 |
| Production Energy | NTPLANT | UPPPEB | E01 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Power Production Plant |  | UPPPT |  | \$ | 417,308 | \$ | 14,535 | \$ | 404,956 | \$ | 963 | \$ | 4,371 | \$ | 2,486,734 | \$ | 72,329 |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | NTPLANT | UPTRB | NCPT | \$ | 3,423,449 | \$ | 119,239 | \$ | 54,736 | \$ | 5,957 | \$ | 596 | \$ | - | \$ | - |
| Distribution Poles |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Specific | NTPLANT | UPDPS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Substation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General | NTPLANT | UPDSG | NCPP | \$ | 1,353,805 | \$ | 47,153 | \$ | 21,645 | \$ | 2,356 | \$ | 236 | \$ | - | \$ | - |
| Distribution Primary \& Secondary Lines |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | NTPLANT | UPDPLS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Primary Demand | NTPLANT | UPDPLD | NCPP |  | 2,078,332 |  | 72,388 |  | 33,230 |  | 3,616 |  | 362 |  | - |  | - |
| Primary Customer | NTPLANT | UPDPLC | PCust08 |  | 8,297,193 |  | 14,678 |  | 91,169 |  | 912 |  | 9,117 |  | - |  | - |
| Secondary Demand | NTPLANT | UPDSLD | SICD |  | 393,437 |  | 13,703 |  | 6,291 |  | 685 |  | 69 |  | - |  | - |
| Secondary Customer | NTPLANT | UPDSLC | PCust07 |  | 2,435,784 |  | 4,309 |  | 26,764 |  | - |  | 2,676 |  | - |  | - |
| Total Distribution Primary \& Secondary Lines |  | UPDLT |  | \$ | 13,204,747 | \$ | 105,079 | \$ | 157,453 | \$ | 5,213 | \$ | 12,224 | \$ | - | \$ |  |
| Distribution Line Transformers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | NTPLANT | UPDLTD | SICDT | \$ | 439,882 | \$ | 15,321 | \$ | 7,033 | \$ | 765 | \$ | 77 | \$ | - | \$ | - |
| Customer | NTPLANT | UPDLTC | PCust09 |  | 966,492 |  | 1,710 |  | 10,620 |  | 106 |  | 1,062 |  | - |  |  |
| Total Distribution Line Transformers |  | UPDLTT |  | \$ | 1,406,373 | \$ | 17,031 | \$ | 17,653 | \$ | 872 | \$ | 1,139 | \$ | - | \$ | - |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | NTPLANT | UPDSC | C02 | \$ | - | \$ | - | \$ | - | \$ | 134 | \$ | - | \$ | - | \$ |  |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | NTPLANT | UPDMC | MNPA | \$ | - | \$ | 8,747 | \$ | 54,327 | \$ | 641 | \$ | 139,194 | \$ | - | \$ | - |
| Distribution Street \& Customer Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | NTPLANT | UPCAE | PCust05 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Service \& Info. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | NTPLANT | UPCSI | PCust06 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Sales Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | NTPLANT | UPSEC | PCust06 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total |  | UPT |  | \$ | 117,278,814 | \$ | 311,783 | \$ | 710,771 | \$ | 16,135 | \$ | 157,760 | \$ | 2,486,734 | \$ | 72,329 |



| Description | Ref |  | Name | Allocation Vector |  |  | 13 <br> Street Lighting Rate LE |  | 14 <br> Traffic Street Lighting Rate TLE |  |  |  | 16 <br> Electric Vehicle Charging Rate EV |  |  | 17 <br> Solar Share Rate SSP | 18 <br> Business Solar Rate BS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net Cost Rate Base |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand - LOLP | RB |  | RBPPLOLP | RBLOLPDA | \$ | 336,015 | \$ | 11,703 | \$ | 326,069 | \$ | 776 | \$ | 3,520 | \$ | 2,314,622 | \$ | 60,677 |
| Production Energy | RB |  | RBPPEB | E01 |  | 688,717 |  | 23,988 |  | 22,371 |  | 80 |  | 127 |  | - |  | - |
| Total Power Production Plant |  |  | RBPPT |  | \$ | 1,024,731 | \$ | 35,691 | \$ | 348,440 | \$ | 856 | \$ | 3,646 | \$ | 2,314,622 | \$ | 60,677 |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | RB |  | RBTRB | NCPT | \$ | 2,812,363 | \$ | 97,955 | \$ | 44,966 | \$ | 4,893 | \$ | 490 | \$ | - | \$ | - |
| Distribution Poles |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Specific | RB |  | RBDPS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Substation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General | RB |  | RBDSG | NCPP | \$ | 1,089,684 | \$ | 37,954 | \$ | 17,423 | \$ | 1,896 | \$ | 190 | \$ | - | \$ | - |
| Distribution Primary \& Secondary Lines |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | RB |  | RBDPLS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Primary Demand | RB |  | RBDPLD | NCPP |  | 1,668,307 |  | 58,107 |  | 26,674 |  | 2,903 |  | 291 |  | - |  | - |
| Primary Customer | RB |  | RBDPLC | PCust08 |  | 6,662,406 |  | 11,786 |  | 73,206 |  | 732 |  | 7,321 |  | - |  | - |
| Secondary Demand | RB |  | RBDSLD | SICD |  | 316,403 |  | 11,020 |  | 5,059 |  | 551 |  | 55 |  | - |  | - |
| Secondary Customer | RB |  | RBDSLC | PCust07 |  | 1,959,301 |  | 3,466 |  | 21,529 |  | - |  | 2,153 |  | - |  | - |
| Total Distribution Primary \& Secondary Lines |  |  | RBDLT |  | \$ | 10,606,417 | \$ | 84,380 | \$ | 126,467 | \$ | 4,185 | \$ | 9,819 | \$ | - | \$ |  |
| Distribution Line Transformers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | RB |  | RBDLTD | SICDT | \$ | 350,632 | \$ | 12,213 | \$ | 5,606 | \$ | 610 | \$ | 61 | \$ | - | \$ | - |
| Customer | RB |  | RBDLTC | PCust09 |  | 770,396 |  | 1,363 |  | 8,465 |  | 85 |  | 847 |  | - |  |  |
| Total Distribution Line Transformers |  |  | RBDLTT |  | \$ | 1,121,028 | \$ | 13,575 | \$ | 14,071 | \$ | 695 | \$ | 908 | \$ | - | \$ | - |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | RB |  | RBDSC | C02 | \$ | - | \$ | - | \$ | - | \$ | 107 | \$ | - | \$ | - | \$ |  |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | RB |  | RBDMC | MRBA | \$ | - | \$ | 7,790 | \$ | 48,387 | \$ | 571 | \$ | 105,259 | \$ | - | \$ | - |
| Distribution Street \& Customer Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | RB |  | RBCAE | PCust05 | \$ | 82,488 | \$ | 146 | \$ | 906 | \$ | 45 | \$ | 181 | \$ | - | \$ | - |
| Customer Service \& Info. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | RB |  | RBCSI | PCust06 | \$ | 21,179 | \$ | 37 | \$ | 233 | \$ | 2 | \$ | 23 | \$ | - | \$ | - |
| Sales Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | RB |  | RBSEC | PCust06 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total |  |  | RBT |  | \$ | 94,529,248 | \$ | 277,529 | \$ | 600,893 | \$ | 13,251 | \$ | 120,516 | \$ | 2,314,622 | \$ | 60,677 |







| Description | Ref | Name |  |  | $\begin{gathered} 12 \\ \begin{array}{c} \text { Street Lighting } \\ \text { Rate RLS, LS } \end{array} \end{gathered}$ |  | 13 <br> Street Lighting Rate LE |  | Lighting Rate TLE |  | $\begin{array}{r} 15 \\ \text { Outdoor Sports } \\ \text { Lighting } \\ \text { Rate OSL } \end{array}$ | 16 <br> Electric Vehicle Charging Rate EV |  |  | 17 <br> Solar Share Rate SSP | 18 <br> Business Solar Rate BS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Depreciation Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand - LOLP | TDEPR | DEPPLOLP | PDEPLOLPDA | \$ | 35,598 | \$ | 1,240 | \$ | 34,544 | \$ | 82 | \$ | 373 | \$ | 83,870 | \$ | 3,154 |
| Production Energy | TDEPR | DEPPEB | E01 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Power Production Plant |  | DEPPT |  | \$ | 35,598 | \$ | 1,240 | \$ | 34,544 | \$ | 82 | \$ | 373 | \$ | 83,870 | \$ | 3,154 |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | TDEPR | DETRB | NCPT | \$ | 118,159 | \$ | 4,115 | \$ | 1,889 | \$ | 206 | \$ | 21 | \$ | - | \$ | - |
| Distribution Poles |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Specific | TDEPR | DEDPS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Substation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General | TDEPR | DEDSG | NCPP | \$ | 53,198 | \$ | 1,853 | \$ | 851 | \$ | 93 | \$ | 9 | \$ | - | \$ | - |
| Distribution Primary \& Secondary Lines |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | TDEPR | DEDPLS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Primary Demand | TDEPR | DEDPLD | NCPP |  | 81,669 |  | 2,845 |  | 1,306 |  | 142 |  | 14 |  | - |  | - |
| Primary Customer | TDEPR | DEDPLC | Cust08 |  | 361,372 |  | 639 |  | 3,971 |  | 36 |  | 357 |  | - |  | - |
| Secondary Demand | TDEPR | DEDSLD | SICD |  | 15,460 |  | 538 |  | 247 |  | 27 |  | 3 |  | - |  | - |
| Secondary Customer | TDEPR | DEDSLC | Cust07 |  | 106,131 |  | 188 |  | 1,166 |  | - |  | 105 |  | - |  | - |
| Total Distribution Primary \& Secondary Lines |  | DEDLT |  | \$ | 564,632 | \$ | 4,210 | \$ | 6,690 | \$ | 205 | \$ | 479 | \$ | - | \$ | - |
| Distribution Line Transformers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | TDEPR | DEDLTD | SICDT | \$ | 17,285 | \$ | 602 | \$ | 276 | \$ | 30 | \$ | 3 | \$ | - | \$ | - |
| Customer | TDEPR | DEDLTC | Cust09 |  | 42,093 |  | 74 |  | 463 |  | 4 |  | 42 |  | - |  | - |
| Total Distribution Line Transformers |  | DEDLTT |  | \$ | 59,378 | \$ | 677 | \$ | 739 | \$ | 34 | \$ | 45 | \$ | - | \$ | - |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TDEPR | DEDSC | C02 | \$ | - | \$ | - | \$ | - | \$ | 5 | \$ | - | \$ | - | \$ |  |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TDEPR | DEDMC | MDT | \$ | - | \$ | 340 | \$ | 2,111 | \$ | 25 | \$ | 18,339 | \$ | - | \$ | - |
| Distribution Street \& Customer Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TDEPR | DECAE | C05 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Service \& Info. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TDEPR | DECSI | C05 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Sales Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TDEPR | DESEC | C06 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total |  | DET |  | \$ | 4,661,198 | \$ | 12,435 | \$ | 46,824 | \$ | 649 | \$ | 19,265 | \$ | 83,870 | \$ | 3,154 |


|  |  | 1 | 2 |  |  |  | 4 |  | 5 |  |  |  | 7 |  | 8 |  | 9 |  | 10 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Allocation Vector |  | $\begin{array}{r} \text { Total } \\ \text { System } \\ \hline \end{array}$ |  | $\begin{gathered} \text { Residential } \\ \text { Rate RS } \end{gathered}$ |  | General Service Rate GS |  | Rate PS <br> Primary |  | Rate PS Secondary |  | Rate TOD Primary |  | Rate TOD Secondary |  | $\begin{array}{r} \text { Rate RTS } \\ \text { Transmission } \\ \hline \end{array}$ |  | tract omer |
| Regulatory Credits |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand - LOLP | TRCTN | RCPLOLP | LOLP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Production Energy | TRCTN | RCPEB | E01 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Power Production Plant |  | RCPT |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | TRCTN | RCRB | NCPT | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Poles |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Specific | TRCTN | RCPS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Substation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General | TRCTN | RCSG | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Primary \& Secondary Lines |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | TRCTN | RCPLS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Primary Demand | TRCTN | RCPLD | NCPP |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Primary Customer | TRCTN | RCPLC | Cust08 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Secondary Demand | TRCTN | RCSLD | SICD |  | - |  | - |  | - |  | - |  |  |  |  |  |  |  |  |  | - |
| Secondary Customer | TRCTN | RCSLC | Cust07 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Primary \& Secondary Lines |  | RCLT |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Line Transformers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | TRCTN | RCLTD | SICDT | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer | TRCTN | ${ }_{\text {RCLTC }}$ | Cust09 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Line Transformers |  | RCLTT |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TRCTN | RCSC | C02 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TRCTN | RCMC | C03 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Street \& Customer Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TRCTN | RCCAE | C05 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Service \& Info. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TRCTN | RCCSI | C05 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Sales Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TRCTN | RCSEC | C06 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total |  | RCT |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |


| Description | Ref | Name | Allocation Vector |  | 12 <br> Street Lighting Rate RLS, LS |  | 13 <br> Street Lighting Rate LE |  | 14 <br> Traffic Street Lightin Rate TL |  | 15 <br> Outdoor Sports Lighting Rate OSL |  | 16 <br> Electric Vehicl Charging Rate EV |  | $17$ <br> Solar Share Rate SSP |  | 18 <br> Business Solar Rate BS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Regulatory Credits |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand - LOLP | TRCTN | RCPLOLP | LOLP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Production Energy | TRCTN | RCPEB | E01 |  | - |  | - |  | - |  | - |  | - |  | - |  |  |
| Total Power Production Plant |  | RCPT |  | \$ |  | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | TRCTN | RCRB | NCPT | \$ |  | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Poles |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Specific | TRCTN | RCPS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ |  |
| Distribution Substation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General | TRCTN | RCSG | NCPP | \$ | - | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Primary \& Secondary Lines |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | TRCTN | RCPLS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Primary Demand | TRCTN | RCPLD | NCPP |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Primary Customer | TRCTN | RCPLC | Cust08 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Secondary Demand | TRCTN | RCSLD | SICD |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Secondary Customer | TRCTN | RCSLC | Cust07 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Primary \& Secondary Lines |  | RCLT |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Line Transformers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | TRCTN | RCLTD | SICDT | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer | TRCTN | RCLTC | Cust09 |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Total Distribution Line Transformers |  | RCLTT |  | \$ |  | \$ |  | \$ |  | \$ |  | \$ | - | \$ | - | \$ |  |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TRCTN | RCSC | C02 | \$ | - | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ |  |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TRCTN | RCMC | C03 | \$ |  | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Street \& Customer Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TRCTN | RCSCL | C04 | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TRCTN | RCCAE | C05 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Service \& Info. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TRCTN | RCCSI | C05 | \$ |  | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Sales Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | TRCTN | RCSEC | C06 | \$ |  | \$ |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total |  | RCT |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |


|  |  |  | 2 |  | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Allocation Vector | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ | Residential Rate RS | General Service Rate GS | Rate PS Primary | Rate PS Secondary | Rate TOD Primary | Rate TOD Secondary | Rate RTS Transmission | Special Contract Customer |

## Accretion Expenses







| Description | Ref | Name |  | 12 <br> Street Lighting Rate RLS, LS |  | 13 <br> Street Lighting Rate LE |  |  | 14 <br> Traffic Street Lighting Rate TLE |  | $\begin{array}{r} 15 \\ \text { Outdoor Sports } \\ \text { Lighting } \\ \text { Rate OSL } \end{array}$ | 16 Electric Vehicle Charging Rate EV |  |  | 17 <br> Solar Share Rate SSP | Business SolarRate BS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Amortization of ITC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand - LOLP | OTAX | OTPPLOLP | PITCLOLPDA | \$ | (91) | \$ | (3) | \$ | (88) | \$ | (0) | \$ | (1) | \$ | $(13,728)$ | \$ | (399) |
| Production Energy | OTAX | OTPPEB | E01 |  |  |  | - |  |  |  |  |  |  |  | - |  | - |
| Total Power Production Plant |  | OTPPT |  | \$ | (91) | \$ | (3) | \$ | (88) | \$ | (0) | \$ | (1) | \$ | $(13,728)$ | \$ | (399) |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | OTAX | OTTRB | NCPT | \$ | (716) | \$ | (25) | \$ | (11) | \$ | (1) | \$ | (0) | \$ | - | \$ | - |
| Distribution Poles |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Specific | OTAX | OTDPS | NCPP | \$ | - | \$ | - | \$ |  | \$ |  | \$ |  | \$ | - | \$ | - |
| Distribution Substation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General | OTAX | OTDSG | NCPP | \$ | (290) | \$ | (10) | \$ | (5) | \$ | (1) | \$ | (0) | \$ | - | \$ | - |
| Distribution Primary \& Secondary Lines |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | OTAX | OTDPLS | NCPP | \$ | - | \$ | - | \$ |  | \$ |  | \$ |  | \$ | - | \$ | - |
| Primary Demand | OTAX | OTDPLD | NCPP |  | (445) |  | (16) |  | (7) |  | (1) |  | (0) |  | - |  | - |
| Primary Customer | OTAX | OTDPLC | Cust08 |  | $(1,970)$ |  | (3) |  | (22) |  | (0) |  | (2) |  | - |  | - |
| Secondary Demand | OTAX | OTDSLD | SICD |  | (84) |  | (3) |  | (1) |  | (0) |  | (0) |  | - |  |  |
| Secondary Customer | OTAX | OTDSLC | Cust07 |  | (579) |  | (1) |  | (6) |  |  |  | (1) |  | - |  | - |
| Total Distribution Primary \& Secondary Lines |  | OTDLT |  | \$ | $(3,078)$ | \$ | (23) | \$ | (36) | \$ | (1) | \$ | (3) | \$ | - | \$ | - |
| Distribution Line Transformers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | otax | OTDLTD | SICDT | \$ | (94) | \$ | (3) | \$ | (2) | \$ | (0) | \$ | (0) | \$ | - | \$ | - |
| Customer | OTAX | OTDLTC | Cust09 |  | (229) |  | (0) |  | (3) |  | (0) |  | (0) |  | - |  | - |
| Total Distribution Line Transformers |  | OTDLTT |  | \$ | (324) | \$ | (4) | \$ | (4) | \$ | (0) | \$ | (0) | \$ | - | \$ | - |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | OTAX | OTDSC | C02 | \$ | - | \$ | - | \$ |  | \$ | (0) | \$ |  | \$ | - | \$ | - |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | otax | OTDMC | C03 | \$ | - | \$ | (2) | \$ | (12) | \$ | (0) | \$ |  | \$ | - | \$ | - |
| Distribution Street \& Customer Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | OTAX | OTDSCL | C04 | \$ | $(20,882)$ | \$ |  | \$ | - | \$ |  | \$ |  | \$ | - | \$ | - |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | OTAX | OTCAE | C05 | \$ | - | \$ | - | \$ | - | \$ |  | \$ |  |  | - | \$ | - |
| Customer Service \& Info. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | OTAX | OTCSI | C05 | \$ | - | \$ | - | \$ |  | \$ |  | \$ | - | \$ | - | \$ | - |
| Sales Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | OtAX | OTSEC | C06 | \$ | - | \$ |  | \$ |  | \$ |  | \$ |  | \$ | - | \$ | - |
| Total |  | отT |  | \$ | $(25,380)$ | \$ | (67) | \$ | (156) | \$ | (3) | \$ | (4) |  | $(13,728)$ | \$ | (399) |


|  |  |  | 2 |  | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Allocation Vector | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ | Residential Rate RS | General Service Rate GS | Rate PS Primary | Rate PS Secondary | Rate TOD Primary | Rate TOD Secondary | Rate RTS Transmission | Special Contract Customer |

Other Expenses



|  |  | 1 | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 |  | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Allocation Vector |  | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ |  | $\begin{array}{r} \text { Residential } \\ \text { Rate RS } \\ \hline \end{array}$ |  | General Service Rate GS |  | Rate PS <br> Primary |  | Rate PS Secondary |  | Rate TOD Primary |  | $\begin{array}{r} \text { Rate TOD } \\ \text { Secondary } \\ \hline \end{array}$ |  | Rate RTS <br> Transmission |  | Special Contract Customer |
| Interest Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power Production Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand - LOLP | INTLTD | INTPLOLP | LOLP | \$ | 45,829,811 | \$ | 21,866,290 | \$ | 5,160,692 | \$ | 349,427 | \$ | 5,778,517 | \$ | 5,491,868 | \$ | 4,515,428 | \$ | 2,513,881 | \$ | 138,224 |
| Production Energy | INTLTD | INTPEB | E01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Power Production Plant |  | INTPT |  | \$ | 45,829,811 | \$ | 21,866,290 | \$ | 5,160,692 | \$ | 349,427 | \$ | 5,778,517 | \$ | 5,491,868 | \$ | 4,515,428 | \$ | 2,513,881 | \$ | 138,224 |
| Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Transmission Demand | INTLTD | INTTRB | NCPT | \$ | 7,262,774 | \$ | 3,436,160 | \$ | 839,345 | \$ | 55,097 | \$ | 933,932 | \$ | 783,218 | \$ | 741,503 | \$ | 386,681 | \$ | 24,848 |
| Distribution Poles |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Specific | INTLTD | INTDPS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Distribution Substation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General | INTLTD | INTDSG | NCPP | \$ | 2,785,976 | \$ | 1,392,224 | \$ | 340,076 | \$ | 22,324 | \$ | 378,400 | \$ | 317,335 | \$ | 300,434 | \$ | - | \$ | 10,068 |
| Distribution Primary \& Secondary Lines |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Primary Specific | INTLTD | INDPLS | NCPP | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Primary Demand | INTLTD | INDPLD | NCPP |  | 4,276,970 |  | 2,137,312 |  | 522,077 |  | 34,271 |  | 580,911 |  | 487,166 |  | 461,219 |  | - |  | 15,456 |
| Primary Customer | INTLTD | INDPLC | Cust08 |  | 6,998,958 |  | 6,051,730 |  | 726,968 |  | 1,122 |  | 44,593 |  | 2,109 |  | 8,094 |  | - |  | 32 |
| Secondary Demand | INTLTD | INDSLD | SICD |  | 1,193,314 |  | 904,534 |  | 144,561 |  | - |  | 136,920 |  | - |  | - |  | - |  | - |
| Secondary Customer | INTLTD | INDSLC | Cust07 |  | 2,039,081 |  | 1,777,327 |  | 213,503 |  | - |  |  |  | - |  | - |  | - |  | - |
| Total Distribution Primary \& Secondary Lines |  | INDLT |  | \$ | 14,508,323 | \$ | 10,870,903 | \$ | 1,607,110 | \$ | 35,393 | \$ | 762,424 | \$ | 489,275 | \$ | 469,313 | \$ | - | \$ | 15,488 |
| Distribution Line Transformers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Demand | INTLTD | INDLTD | SICDT | \$ | 1,461,877 | \$ | 1,011,312 | \$ | 161,626 | \$ | - | \$ | 153,083 | \$ | - | \$ | 127,695 | \$ | - | \$ | - |
| Customer | INTLTD | INDLTC | Cust09 |  | 814,862 |  | 704,908 |  | 84,678 |  | - |  | 5,194 |  | - |  | 943 |  | - |  | - |
| Total Distribution Line Transformers |  | INDLTT |  | \$ | 2,276,738 | \$ | 1,716,220 | \$ | 246,304 | \$ | - | \$ | 158,277 | \$ | - | \$ | 128,638 | \$ | - | \$ | - |
| Distribution Services |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | INTLTD | INDSC | C02 | \$ | 520,999 | \$ | 448,748 | \$ | 63,912 | \$ | - | \$ | 6,574 | \$ | - | \$ | 1,762 | \$ | - | \$ | - |
| Distribution Meters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | INTLTD | INDMC | C03 | \$ | 531,329 | \$ | 363,188 | \$ | 112,844 | \$ | 3,688 | \$ | 31,557 | \$ | 7,367 | \$ | 6,239 | \$ | 5,206 | \$ | 112 |
| Distribution Street \& Customer Lighting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | INTLTD | INDSCL | C04 | \$ | 1,717,757 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Accounts Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | INTLTD | INCAE | C05 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Customer Service \& Info. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | INTLTD | INCSI | C05 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Sales Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer | INTLTD | INSEC | C06 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Total |  | INTT |  | \$ | 75,433,705 | \$ | 40,093,733 | \$ | 8,370,283 | \$ | 465,929 | \$ | 8,049,680 | \$ | 7,089,064 | \$ | 6,163,317 | \$ | 2,905,768 | \$ | 188,740 |



|  |  |  | 2 |  | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Allocation Vector | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ | $\begin{gathered} \text { Residential } \\ \text { Rate RS } \end{gathered}$ | General Service Rate GS | Rate PS Primary | Rate PS Secondary | Rate TOD Primary | Rate TOD Secondary | Rate RTS <br> Transmission | Special Contract Customer |

## Cost of Service Summary -- Unadjusted

Operating Revenues
Sales to Ulttimate Consumers
Sales for Resale
Transmission Revenue
Ancillary Services
Curtailable Service Rider
Forfeited Discounts
Misc Service Revenues
Rent From Electric Property
Other Electric Revenue
Electric Vehicle Charging Fees
tal Operating Revenues

## perating Expenses

Operation and Maintenance Expenses
Depreciation Expenses
Regulatory Credits
Accretion Expense
Depreciation for Asset Retirement Costs
Amortization Expense
Amortization of Investment Tax Credit
Other Expenses

| REVUC | R01 <br> Energy |
| :--- | :--- |
|  | PLTRT |
|  | LOLP |

TOR

| \$ | 1,066,653,012 | \$ | 431,824,736 | \$ | 148,100,588 | \$ | 10,054,862 | \$ | 147,448,878 | \$ | 136,688,085 | \$ | 101,626,163 | \$ | 64,286,867 | \$ | 3,635,160 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 34,405,720 |  | 12,366,967 |  | 3,656,201 |  | 309,759 |  | 4,608,468 |  | 5,957,248 |  | 3,934,269 |  | 3,081,524 |  | 168,465 |
|  | 12,094,529 |  | 5,722,158 |  | 1,397,741 |  | 91,752 |  | 1,555,255 |  | 1,304,274 |  | 1,234,808 |  | 643,931 |  | 41,379 |
|  | 665,560 |  | 317,551 |  | 74,946 |  | 5,075 |  | 83,918 |  | 79,755 |  | 65,575 |  | 36,508 |  | 2,007 |
|  | $(2,468,360)$ |  |  |  |  |  |  |  |  |  | $(142,467)$ |  |  |  | $(2,325,893)$ |  |  |
|  | 2,706,693 |  | 2,147,240 |  | 209,025 |  | 7,005 |  | 278,420 |  | 13,168 |  | 50,533 |  | 1,301 |  |  |
|  | 1,545,789 |  | 1,474,975 |  | 58,585 |  | 244 |  | 9,717 |  | 460 |  | 1,764 |  | 45 |  |  |
|  | 3,799,537 |  | 2,011,449 |  | 421,907 |  | 23,601 |  | 405,923 |  | 361,224 |  | 311,611 |  | 149,299 |  | 9,665 |
|  | 662,367 |  | 350,653 |  | 73,550 |  | 4,114 |  | 70,764 |  | 62,972 |  | 54,323 |  | 26,027 |  | 1,685 |
|  | 11,088 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \$ | 1,120,075,935 | \$ | 456,215,729 | \$ | 153,992,543 | \$ | 10,496,412 | \$ | 154,461,344 | \$ | 144,324,718 | \$ | 107,279,046 | \$ | 65,899,608 | \$ | 3,858,362 |
| \$ | 643,436,661 | \$ | 283,536,077 | \$ | 72,621,803 | \$ | 4,979,918 | \$ | 76,879,988 | \$ | 88,717,355 | \$ | 63,134,706 | \$ | 43,724,366 | \$ | 2,482,051 |
|  | 277,122,836 |  | 141,321,587 |  | 30,910,647 |  | 1,868,663 |  | 31,666,501 |  | 28,868,139 |  | 24,459,931 |  | 12,451,532 |  | 748,439 |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | - |  | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - - |  | - - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | $\begin{array}{r} 42,336,722 \\ (916,996) \end{array}$ |  | $22,498,958$ |  | $4,696,829$ $(100,161)$ |  | $261,456$ |  | $\begin{gathered} 4,517,259 \\ (96,073) \end{gathered}$ |  | $3,978,262$ $(84,484)$ |  | $\begin{aligned} & 3,458,769 \\ & \hline \end{aligned}$ |  | $\begin{aligned} & 1,630,638 \\ & \hline 141549) \end{aligned}$ |  | $\begin{array}{r} 105,919 \\ (2) \end{array}$ |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | 7,757,584 |  | $(2,886,134)$ |  | 3,518,578 |  | 274,593 |  | 3,138,581 |  | 1,478,672 |  | 951,208 |  | 490,049 |  | 31,482 |

Total Operating Expenses TOE
Utility Operating Income TOM
Net Cost Rate Base
Taxable Income Unadjusted
Total Operating Revenue
Operating Expenses
Interest Expense
TAXINC

## 12 Months Ended

June 30, 2022

| Description | Ref | Name |  | Street Lighting Rate RLS, LS |  | Street LightingRate LE |  | Traffic Street Lighting Rate TLE |  |  | 15 <br> Outdoor Sports Lighting Rate OSL | 16 <br> Electric Vehicle Charging Rate EV | Charging Rate EV |  | Solar Share Rate SSP | 18 <br> Business Solar Rate BS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cost of Service Summary -- Unadjusted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operating Revenues |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sales to Ultimate Consumers |  | REVUC | R01 | \$ | 22,160,940 | \$ | 243,959 | \$ | 318,742 | \$ | 15,468 | \$ | 1,533 | \$ | 237,096 | \$ | 9,936 |
| Sales for Resale |  |  | Energy |  | 302,375 |  | 10,532 |  | 9,822 |  | 35 |  | 56 |  | - |  | - |
| Transmission Revenue |  |  | PLTRT |  | 98,058 |  | 3,415 |  | 1,568 |  | 171 |  | 17 |  | - |  | - |
| Ancillary Services |  |  | LOLP |  | 111 |  | 4 |  | 108 |  | 0 |  | 1 |  | - |  | - |
| Curtailable Service Rider |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Forfeited Discounts |  | FORDIS | FDIS |  | 0 |  | - |  |  |  |  |  |  |  | - |  |  |
| Misc Service Revenues |  | REVMISC | MISCR |  | - |  |  |  |  |  |  |  |  |  | - |  |  |
| Rent From Electric Property |  |  | RFEP |  | 103,878 |  | 305 |  | 660 |  | 15 |  |  |  |  |  |  |
| Other Electric Revenue |  |  | OER |  | 18,109 |  | 53 |  | 115 |  | 3 |  | - |  | - |  | - |
| Electric Vehicle Charging Fees |  |  |  |  |  |  |  |  |  |  |  |  | 11,088 |  | - |  | - |
| Total Operating Revenues |  | TOR |  | \$ | 22,683,471 | \$ | 258,268 | \$ | 331,014 | \$ | 15,692 | \$ | 12,695 | \$ | 237,096 | \$ | 9,936 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operation and Maintenance Expenses |  |  |  | \$ | 6,925,874 | \$ | 145,720 | \$ | 178,418 | \$ | 1,886 | \$ | 26,596 | \$ | 71,903 | \$ | 10,000 |
| Depreciation Expenses |  |  |  |  | 4,661,198 |  | 12,435 |  | 46,824 |  | 649 |  | 19,265 |  | 83,870 |  | 3,154 |
| Regulatory Credits |  |  |  |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Accretion Expense |  |  |  |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Depreciation for Asset Retirement Costs |  |  | DET |  | - |  | - |  |  |  | - |  | - |  |  |  |  |
| Amortization Expense |  |  | DET |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Property and Other Taxes <br> Amortization of Investment Tax Credit |  |  | NPT |  | $\begin{gathered} 1,171,890 \\ (25,380) \end{gathered}$ |  | $\begin{gathered} 3,083 \\ (67) \end{gathered}$ |  | $\begin{gathered} 7,325 \\ (156) \end{gathered}$ |  | $\begin{gathered} 159 \\ (3) \end{gathered}$ |  | $\begin{array}{r} 2,875 \\ (4) \end{array}$ |  | $\begin{gathered} 3,190 \\ (13,728) \end{gathered}$ |  | $\begin{gathered} 111 \\ (399) \end{gathered}$ |
| Other Expenses |  |  |  |  | - |  | (6) |  | (1) |  | - |  | - |  | - |  | - |
| State and Federal Income Taxes |  |  | TAXINC |  | 737,804 |  | 8,596 |  | 8,028 |  | 1,194 |  | $(3,413)$ |  | 8,621 |  | (275) |
| Total Operating Expenses |  | TOE |  | \$ | 13,471,385 | \$ | 169,768 | \$ | 240,439 | \$ | 3,884 | \$ | 45,319 | \$ | 153,856 | \$ | 12,591 |
| Utility Operating Income |  | том |  | \$ | 9,212,086 | \$ | 88,500 | \$ | 90,576 | \$ | 11,807 | \$ | $(32,624)$ | \$ | 83,240 | \$ | $(2,655)$ |
| Net Cost Rate Base |  |  |  | \$ | 94,529,248 | \$ | 277,529 | \$ | 600,893 | \$ | 13,251 | \$ | 120,516 | \$ | 2,314,622 | \$ | 60,677 |
| Taxable Income Unadjusted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Operating Revenue |  |  |  | \$ | 22,683,471 | \$ | 258,268 | \$ | 331,014 | \$ | 15,692 | \$ | 12,695 | \$ | 237,096 | \$ | 9,936 |
| Operating Expenses |  |  |  | \$ | 12,733,581 | \$ | 161,171 | \$ | 232,411 | \$ | 2,691 | \$ | 48,732 | \$ | 145,235 | \$ | 12,866 |
| Interest Expense |  | intexp |  | \$ | 2,088,022 | \$ | 5,495 | \$ | 13,061 | \$ | 283 | \$ | 330 | \$ | - | \$ | - |
| Taxable Income |  | TAXINC |  | \$ | 7,861,868 | \$ | 91,601 | \$ | 85,542 | \$ | 12,718 | \$ | $(36,366)$ | \$ | 91,861 | \$ | $(2,930)$ |


|  |  |  | 2 |  | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Allocation Vector | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ | Residential Rate RS | General Service Rate GS | Rate PS <br> Primary | Rate PS Secondary | Rate TOD Primary | Rate TOD Secondary | Rate RTS <br> Transmission | Special Contract Customer |

## Cost of Service Summary -- Pro-Form

## Operating Revenues

| Total Pro-Forma Operating Revenue |  |  | \$ | 1,120,075,935 | \$ | 456,215,729 | \$ | 153,992,543 | \$ | 10,496,412 | \$ | 154,461,344 | \$ | 144,324,718 | \$ | 107,279,046 | \$ | 65,899,608 | \$ | 3,858,362 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operation and Maintenance Expenses |  |  | \$ | 643,436,661 | \$ | 283,536,077 | \$ | 72,621,803 | \$ | 4,979,918 | \$ | 76,879,988 | \$ | 88,717,355 | \$ | 63,134,706 | \$ | 43,724,366 |  | 2,482,051 |
| Depreciation and Amortization Expenses |  |  |  | 277,122,836 |  | 141,321,587 |  | 30,910,647 |  | 1,868,663 |  | 31,666,501 |  | 28,868,139 |  | 24,459,931 |  | 12,451,532 |  | 748,439 |
| Property and Other Taxes |  | NPT |  | 42,336,722 |  | 22,498,958 |  | 4,696,829 |  | 261,456 |  | 4,517,259 |  | 3,978,262 |  | 3,458,769 |  | 1,630,638 |  | 105,919 |
| Amortization of Investment Tax Credit |  |  |  | $(916,996)$ |  | $(480,652)$ |  | $(100,161)$ |  | $(5,556)$ |  | $(96,073)$ |  | $(84,484)$ |  | $(73,531)$ |  | $(34,549)$ |  | $(2,252)$ |
| State and Federal Income Taxes |  | TAXINC |  | 7,757,584 |  | $(2,886,134)$ |  | 3,518,578 |  | 274,593 |  | 3,138,581 |  | 1,478,672 |  | 951,208 |  | 490,049 |  | 31,482 |
| Specific Assignment of Interruptible Credit |  |  |  | $(2,468,360)$ |  | - |  | - |  | - |  | - |  | $(142,467)$ |  | - |  | $(2,325,893)$ |  | - |
| Allocation of Interruptible Credits |  | INTCRE |  | 2,468,360 |  | 1,177,704 |  | 277,952 |  | 18,820 |  | 311,227 |  | 295,789 |  | 243,198 |  | 135,396 |  | 7,445 |
| Total Operating Expenses | toe |  | \$ | 969,736,807 | \$ | 445,167,540 | \$ | 111,925,647 | \$ | 7,397,894 | \$ | 116,417,484 | \$ | 123,111,266 | \$ | 92,174,281 | \$ | 56,071,540 | \$ | 3,373,084 |
| Net Operating Income -- Pro-Forma |  |  | \$ | 150,339,128 | \$ | 11,048,190 | \$ | 42,066,897 | \$ | 3,098,518 | \$ | 38,043,860 | \$ | 21,213,452 | \$ | 15,104,765 | \$ | 9,828,068 | \$ | 485,278 |
| Cost of Service Summary -- Pro-Forma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Operating Income -- Pro-Forma |  |  | \$ | 150,339,128 | \$ | 11,048,190 | \$ | 42,066,897 | \$ | 3,098,518 | \$ | 38,043,860 | \$ | 21,213,452 | \$ | 15,104,765 | \$ | 9,828,068 | \$ | 485,278 |
| Adjusted Net Cost Rate Base |  |  | \$ | 3,460,077,816 | \$ | 1,830,420,621 | \$ | 383,935,310 | \$ | 21,476,777 | \$ | 369,390,342 | \$ | 328,714,071 | \$ | 283,566,435 | \$ | 135,862,169 |  | 8,795,357 |
| Rate of Return |  |  |  | 4.34\% |  | 0.60\% |  | 10.96\% |  | 14.43\% |  | 10.30\% |  | 6.45\% |  | 5.33\% |  | 7.23\% |  | 5.52\% |

## Taxable Income Pro-Forma

Total Operating Revenue
Operating Expenses
Interest Expense INTEXP
Interest Syncronization Adjustment INTEXP
Taxable Income

| $\$$ | $1,120,075,935$ | $\$$ | $456,215,729$ | $\$$ | $153,992,543$ | $\$$ | $10,496,412$ | $\$$ | $154,461,344$ | $\$$ | $144,324,718$ | $\$$ | $107,279,046$ | $\$$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\$$ | $961,979,223$ | $\$$ | $448,053,674$ | $\$$ | $108,407,069$ | $\$$ | $7,123,301$ | $\$$ | $113,278,903$ | $\$$ | $121,632,594$ | $\$$ | $91,223,073$ | $\$$ |
| $\$$ | $75,433,705$ | $\$$ | $40,093,733$ | $\$$ | $8,370,283$ | $\$$ | 465,929 | $\$$ | $8,049,680$ | $\$$ | $7,089,064$ | $\$$ | $6,163,317$ | $\$$ |
|  | $6,215,728$ | $\$$ | $3,303,719$ | $\$$ | 689,710 | $\$$ | 38,393 | $\$$ | 663,293 | $\$$ | 584,138 | $\$$ | 507,858 | $\$$ |
| $\$$ | $76,447,279$ | $\$$ | $(35,235,396)$ | $\$$ | $36,525,482$ | $\$$ | $2,868,789$ | $\$$ | $32,469,469$ | $\$$ | $15,018,922$ | $\$$ | $9,384,800$ | $\$$ |

## 12 Months Ended

June 30, 2022

|  |  |  | 2 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ref | Name | Allocation Vector | Street Lighting Rate RLS, LS | Street Lighting | Traffic Street Lighting Rate TLE | Outdoor Sports Lighting Rate OSL | Electric Vehicle Charging Rate EV | Solar Share Rate SSP | Business Solar Rate BS |
| Description | Ref | Name |  |  |  |  |  |  |  |  |

## Cost of Service Summary -- Pro-Forma

## Operating Revenues

| Total Pro-Forma Operating Revenue |  |  | \$ | 22,683,471 | \$ | 258,268 | \$ | 331,014 | \$ | 15,692 | \$ | 12,695 | \$ | 237,096 | \$ | 9,936 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operation and Maintenance Expenses |  |  | \$ | 6,925,874 | \$ | 145,720 | \$ | 178,418 | \$ | 1,886 | \$ | 26,596 | \$ | 71,903 | \$ | 10,000 |
| Depreciation and Amortization Expenses |  |  |  | 4,661,198 |  | 12,435 |  | 46,824 |  | 649 |  | 19,265 |  | 83,870 |  | 3,154 |
| Property and Other Taxes |  | NPT |  | 1,171,890 |  | 3,083 |  | 7,325 |  | 159 |  | 2,875 |  | 3,190 |  | 111 |
| Amortization of Investment Tax Credit |  |  |  | $(25,380)$ |  | (67) |  | (156) |  | (3) |  | (4) |  | $(13,728)$ |  | (399) |
| State and Federal Income Taxes |  | TAXINC |  | 737,804 |  | 8,596 |  | 8,028 |  | 1,194 |  | $(3,413)$ |  | 8,621 |  | (275) |
| Specific Assignment of Interruptible Credit |  |  |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Allocation of Interruptible Credits |  | INTCRE |  | 413 |  | 14 |  | 401 |  | 1 |  | - |  | - |  |  |
| Total Operating Expenses | toe |  | \$ | 13,471,798 | \$ | 169,782 | \$ | 240,840 | \$ | 3,885 | \$ | 45,319 | \$ | 153,856 | \$ | 12,591 |
| Net Operating Income -- Pro-Forma |  |  | \$ | 9,211,673 | \$ | 88,486 | \$ | 90,175 | \$ | 11,806 | \$ | $(32,624)$ | \$ | 83,240 | \$ | $(2,655)$ |
| Cost of Service Summary -- Pro-Forma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Operating Income -- Pro-Forma |  |  | \$ | 9,211,673 | \$ | 88,486 | \$ | 90,175 | \$ | 11,806 | \$ | $(32,624)$ | \$ | 83,240 | \$ | $(2,655)$ |
| Adjusted Net Cost Rate Base |  |  | \$ | 94,529,248 | \$ | 277,529 | \$ | 600,893 | \$ | 13,251 | \$ | 120,516 | \$ | 2,314,622 | \$ | 60,677 |
| Rate of Return |  |  |  | 9.74\% |  | 31.88\% |  | 15.01\% |  | 89.10\% |  | -27.07\% |  | 3.60\% |  | -4.38\% |
| Taxable Income Pro-Forma |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Operating Revenue |  |  | \$ | 22,683,471 | \$ | 258,268 | \$ | 331,014 | \$ | 15,692 | \$ | 12,695 | \$ | 237,096 | \$ | 9,936 |
| Operating Expenses |  |  | \$ | 12,733,994 | \$ | 161,186 | \$ | 232,812 | \$ | 2,692 | \$ | 48,732 | \$ | 145,235 | \$ | 12,866 |
| Interest Expense | INTEXP |  | \$ | 2,088,022 | \$ | 5,495 | \$ | 13,061 | \$ | 283 | \$ | 330 | \$ | - | \$ | - |
| Interest Syncronization Adjustment |  | INTEXP | \$ | 172,053 | \$ | 453 | \$ | 1,076 | \$ | 23 | \$ | 27 | \$ | - | \$ | - |
| Taxable Income | TXINCPF |  | \$ | 7,689,402 | \$ | 91,134 | \$ | 84,065 | \$ | 12,694 | \$ | $(36,394)$ | \$ | 91,861 | \$ | $(2,930)$ |


|  |  |  | 2 |  | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Allocation Vector | $\begin{aligned} & \text { Total } \\ & \text { System } \end{aligned}$ | $\begin{gathered} \text { Residential } \\ \text { Rate RS } \\ \hline \end{gathered}$ | General Service Rate GS | Rate PS <br> Primary | Rate PS Secondary | Rate TOD Primary | Rate TOD <br> Secondary | Rate RTS <br> Transmission | Special Contract <br> Customer |

## Cost of Service Summary -- Pro-Forma (Adjusted for Proposed Increase)

## Operating Revenues

Total Operating Revenue -- Actual
Pro-Forma Adjustments
Proposed Increase
evenue Adjustment for Solar Share and EV
hanges in Late Payment Fees
Changes in Rent on Electric Property
Changes in Miscellaneous Charges
Total Pro-Forma Operating Revenue
FDIS

RFEP
MISCR
$\begin{array}{lllllllllllll}\$ 1,120,075,935 & \$ 456,215,729 & \$ & 153,992,543 & \$ 10,496,412 & \$ & 154,461,344 & \$ 144,324,718 & \$ & 107,279,046 & \$ & 65,899,608 & \$\end{array}$

## Operating Expenses

Total Operating Expenses

| 0.182\% |  | 238,844 |  | 96,904 |  | 34,780 |  | 2,231 |  | 32,612 |  | 29,779 |  | 22,235 |  | 13,997 |  | 792 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.200\% |  | 262,466 |  | 106,488 |  | 38,220 |  | 2,451 |  | 35,837 |  | 32,724 |  | 24,434 |  | 15,381 |  | 870 |
| 24.85\% |  | 32,610,703 |  | 13,230,857 |  | 4,748,676 |  | 304,567 |  | 4,452,645 |  | 4,065,891 |  | 3,035,874 |  | 1,911,066 |  | 108,125 |
|  | \$ | 1,002,848,820 | \$ | 458,601,789 | \$ | 116,747,322 | \$ | 7,707,143 | \$ | 120,938,578 | \$ | 127,239,660 | \$ | 95,256,824 | \$ | 58,011,984 | \$ | 3,482,872 |
|  | \$ | 248,460,201 | \$ | 50,858,000 | \$ | 56,355,002 | \$ | 4,014,916 | \$ | 51,441,252 | \$ | 33,447,152 | \$ | 24,239,288 | \$ | 15,578,200 | \$ | 810,612 |
|  | \$ | 3,460,077,816 | \$ | 1,830,420,621 | \$ | 383,935,310 | \$ | 21,476,777 | \$ | 369,390,342 | \$ | 328,714,071 | \$ | 283,566,435 | \$ | 135,862,169 | \$ | 8,795,357 |
|  |  | 7.18\% |  | 2.78\% |  | 14.68\%\| |  | 18.69\% |  | 13.93\% |  | 10.18\% |  | 8.55\% |  | 11.47\% |  | 9.22\% |

## 12 Months Ende

June 30, 2022

|  |  |  | 2 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Allocation Vector | Street Lighting Rate RLS, LS | Street Lighting | Traffic Street Lighting Rate TLE | Outdoor Sports Lighting Rate OSL | Electric Vehicle Charging Rate EV | Solar Share | Business Solar Rate BS |

## Cost of Service Summary -- Pro-Forma (Adjusted for Proposed Increase)

## Operating Revenues

| Total Operating Revenue -- Actual |  |  | \$ | 22,683,471 | \$ | 258,268 | \$ | 331,014 | \$ | 15,692 | \$ | 12,695 | \$ | 237,096 | \$ | 9,936 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pro-Forma Adjustments: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proposed Increase |  |  | \$ | 2,856,239 | \$ | 3 | \$ | (14) | \$ | $(1,638)$ | \$ | - | \$ | - | \$ | - |
| Revenue Adjustment for Solar Share and EV |  |  | \$ | - | \$ | - | \$ |  | \$ | - | \$ | 55,206 | \$ | 110,942 | \$ | 9,378 |
| Changes in Late Payment Fees | FDIS |  | \$ | - | \$ |  | \$ |  | \$ | - | \$ | - |  | - | \$ |  |
| Changes to EVSE-R |  |  | \$ |  | \$ |  | \$ |  | \$ | - | \$ |  |  | - | \$ |  |
| Changes in Rent on Electric Property | RFEP |  | \$ | 140 | \$ | 0 | \$ | 1 | \$ | 0 | \$ | - | \$ | - | \$ | - |
| Changes in Miscellaneous Charges | MISCR |  | \$ | - | \$ |  | \$ |  | \$ |  | \$ | - |  | - | \$ | - |
| Total Pro-Forma Operating Revenue |  |  | \$ | 25,539,850 | \$ | 258,271 | \$ | 331,001 | \$ | 14,054 | \$ | 67,901 | \$ | 348,038 | \$ | 19,314 |
| Operating Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Operating Expenses |  |  | \$ | 13,471,798 | \$ | 169,782 | \$ | 240,840 | \$ | 3,885 | \$ | 45,319 | \$ | 153,856 | \$ | 12,591 |
| Total Pro-Forma Adjustments |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Incremental Uncollectible Accounts Expense |  | 0.182\% |  | 5,199 |  | 0 |  | (0) |  | (3) |  | 100 |  | 202 |  | 17 |
| Incremental Commission Fees |  | 0.200\% |  | 5,713 |  | 0 |  | (0) |  | (3) |  | 110 |  | 222 |  | 19 |
| Incremental Income Taxes |  | 24.85\% |  | 709,794 |  | 1 |  | (3) |  | (407) |  | 13,718 |  | 27,568 |  | 2,330 |
| Total Pro-forma Operating Expenses |  |  | \$ | 14,192,504 | \$ | 169,783 | \$ | 240,836 | \$ | 3,472 | \$ | 59,248 | \$ | 181,848 | \$ | 14,957 |
| Net Operating Income -- Pro-Forma |  |  | \$ | 11,347,346 | \$ | 88,488 | \$ | 90,165 | \$ | 10,582 | \$ | 8,653 | \$ | 166,190 | \$ | 4,357 |
| Net Cost Rate Base |  |  | \$ | 94,529,248 | \$ | 277,529 | \$ | 600,893 | \$ | 13,251 | \$ | 120,516 | \$ | 2,314,622 | \$ | 60,677 |
| Rate of Return |  |  |  | 12.00\% |  | 31.88\% |  | 15.01\% |  | 79.86\% |  | 7.18\% |  | 7.18\% |  | 7.18\% |


|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description Ref | Name | Allocation Vector | $\begin{array}{r} \text { Total } \\ \text { System } \\ \hline \end{array}$ | $\begin{array}{r} \text { Residential } \\ \text { Rate RS } \\ \hline \end{array}$ | General Service Rate GS | Rate PS <br> Primary | Rate PS Secondary | Rate TOD Primary | Rate TOD Secondary | $\begin{array}{r} \text { Rate RTS } \\ \text { Transmission } \\ \hline \end{array}$ | Special Contract $\qquad$ |
| Allocation Factors |  |  |  |  |  |  |  |  |  |  |  |
| Energy Allocation Factors |  |  |  |  |  |  |  |  |  |  |  |
| Energy Usage by Class | E01 | Energy | 1.000000 | 0.359445 | 0.106267 | 0.009003 | 0.133945 | 0.173147 | 0.114349 | 0.089564 | 0.004896 |
| Customer Allocation Factors |  |  |  |  |  |  |  |  |  |  |  |
| Primary Distribution Plant -- Average Number of Customers | C01 | Cust08 | 1.000000 | 0.86466 | 0.10387 | 0.00016 | 0.00637 | 0.00030 | 0.00116 | - | 0.00000 |
| Customer Services -- Weighted cost of Services | C02 |  | 1.000000 | 0.86132 | 0.12267 | - | 0.01262 | - | 0.00338 | - | - |
| Meter Costs -- Weighted Cost of Meters | C03 |  | 1.000000 | 0.68355 | 0.21238 | 0.00694 | 0.05939 | 0.01387 | 0.01174 | 0.00980 | 0.00021 |
| Lighting Systems -- Lighting Customers | C04 | Cust04 | 1.000000 |  |  |  |  | - | - | - | - |
| Meter Reading and Billing -- Weighted Cost | C05 | Cust05 | 1.000000 | 0.74171 | 0.17820 | 0.00069 | 0.02733 | 0.00646 | 0.02480 | 0.00064 | 0.00002 |
| Marketing/Economic Development | C06 | Cust06 | 1.000000 | 0.86464 | 0.10386 | 0.00016 | 0.00637 | 0.00030 | 0.00116 | 0.00003 | 0.00000 |
| Revenue per Billing Determinants | R01 |  | 1,066,653,012 | 431,824,736 | 148,100,588 | 10,054,862 | 147,448,878 | 136,688,085 | 101,626,163 | 64,286,867 | 3,635,160 |
| Energy |  |  | 11,352,592,561 | 4,049,109,440 | 1,197,088,880 | 103,621,086 | 1,508,873,858 | 1,992,826,476 | 1,288,132,009 | 1,050,890,542 | 56,355,100 |
| Energy (Loss Adjusted) | Energy |  | 11,999,883,068 | 4,313,299,004 | 1,275,194,546 | 108,036,539 | 1,607,322,352 | 2,077,743,868 | 1,372,177,906 | 1,074,760,983 | 58,756,477 |
| O\&M Customer Allocators |  |  |  |  |  |  |  |  |  |  |  |
| Customers (Monthly Bills) |  |  | 6,223,717 | 4,531,186 | 544,312 | 840 | 33,389 | 1,579 | 6,060 | 156 | 24 |
| Average Customers (Bills/12) |  |  | 518,643 | 377,599 | 45,359 | 70 | 2,782 | 132 | 505 | 13 | 2 |
| Average Customers (Lighting $=$ Lights) |  |  | 518,643 | 377,599 | 45,359 | 70 | 2,782 | 132 | 505 | 13 | 2 |
| Weighted Average Customers (Lighting $=9$ Lights per Cust | Cust05 |  | 509,096 | 377,599 | 90,719 | 350 | 13,912 | 3,290 | 12,625 | 325 | 10 |
| Street Lighting | Cust04 |  | 91,009 |  |  |  |  |  | - |  |  |
| Average Customers | Cust01 |  | 518,643 | 377,599 | 45,359 | 70 | 2,782 | 132 | 505 | 13 | 2 |
| Average Customers (Lighting $=9$ Lights per Cust) | Cust06 |  | 436,714 | 377,599 | 45,359 | 70 | 2,782 | 132 | 505 | 13 | 2 |
| Average Secondary Customers | Cust07 |  | 433,209 | 377,599 | 45,359 | - | - | - | - | - |  |
| Average Primary Customers | Cust08 |  | 436,701 | 377,599 | 45,359 | 70 | 2,782 | 132 | 505 | - | 2 |
| Average Transformer Customers | Cust09 |  | 436,498 | 377,599 | 45,359 | - | 2,782 | - | 505 | - | - |
| Plant Customer Allocators |  |  |  |  |  |  |  |  |  |  |  |
| Average Customers |  |  | 518,575 | 377,557 | 45,332 | 70 | 2,783 | 132 | 505 | 13 | 2 |
| Average Customers (Lighting = 9 Lights) |  |  | 435,622 | 377,557 | 45,332 | 70 | 2,783 | 132 | 505 | 13 | 2 |
| Weighted Average Customers | PCust05 |  | 507,988 | 377,557 | 90,664 | 350 | 13,915 | 3,300 | 12,625 | 325 | 10 |
| Street Lighting (plant in service balance) | PCust04 |  | 126,670,914 |  |  |  |  |  | - |  | - |
| Average Customers | PCust01 |  | 518,575 | 377,557 | 45,332 | 70 | 2,783 | 132 | 505 | 13 | 2 |
| Average Customers (Lighting $=9$ Lights per Cust) | PCust06 |  | 435,622 | 377,557 | 45,332 | 70 | 2,783 | 132 | 505 | 13 | 2 |
| Average Secondary Customers | PCust07 |  | 432,318 | 377,557 | 45,332 | 70 | - | 132 | - | - |  |
| Average Primary Customers | PCust08 |  | 435,622 | 377,557 | 45,332 | 70 | 2,783 | 132 | 505 | 13 | 2 |
| Average Transformer Customers | PCust09 |  | 435,405 | 377,557 | 45,332 | - | 2,783 | - | 505 | - | - |
| Demand Allocators |  |  |  |  |  |  |  |  |  |  |  |
| Max Class Non-Coincident Peak Demands (Transmission) | NCPT |  | 2,982,631 | 1,411,141 | 344,697 | 22,627 | 383,541 | 321,647 | 304,516 | 158,800 | 10,205 |
| Max Class Non-Coincident Peak Demands (Primary) | NCPP |  | 2,823,831 | 1,411,141 | 344,697 | 22,627 | 383,541 | 321,647 | 304,516 | - | 10,205 |
| Sum of the Individual Customer Demands (Transformers) | SICDT |  | 4,560,291 | 3,154,764 | 504,189 | - | 477,538 | - | 398,342 | - |  |
| Sum of the Individual Customer Demands (Secondary) | SICD |  | 4,161,949 | 3,154,764 | 504,189 |  | 477,538 | - | - | - |  |
| LOLP Demand Allocator | LOLP |  | 1,891,712 | 902,573 | 213,017 | 14,423 | 238,519 | 226,687 | 186,383 | 103,765 | 5,705 |


| Description Ref | Name | Allocation Vector | 12 <br> Street Lighting Rate RLS, LS | 13 <br> Street Lighting Rate LE | Traffic Street Lighting Rate TLE | 15 <br> Outdoor Sports Lighting Rate OSL | 16 <br> Electric Vehicle Charging Rate EV | 17 <br> Solar Share Rate SSP | $\qquad$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Allocation Factors |  |  |  |  |  |  |  |  |  |
| Energy Allocation Factors |  |  |  |  |  |  |  |  |  |
| Energy Usage by Class | E01 | Energy | 0.008788 | 0.000306 | 0.000285 | 0.000001 | 0.000002 | - | - |
| Customer Allocation Factors |  |  |  |  |  |  |  |  |  |
| Primary Distribution Plant -- Average Number of Customers | C01 | Cust08 | 0.02316 | 0.00004 | 0.00025 | 0.00000 | 0.00002 |  |  |
| Customer Services -- Weighted cost of Services | C02 |  | - |  |  | 0.00000 | - | - |  |
| Meter Costs -- Weighted Cost of Meters | C03 |  | - | 0.00029 | 0.00181 | 0.00002 | - |  | - |
| Lighting Systems -- Lighting Customers | C04 | Cust04 | 1.00000 | - | - | - | - |  |  |
| Meter Reading and Billing -- Weighted Cost | C05 | Cust05 | 0.01986 | 0.00004 | 0.00022 | 0.00001 | 0.00004 | - | - |
| Marketing/Economic Development | C06 | Cust06 | 0.02315 | 0.00004 | 0.00025 | 0.00000 | 0.00002 | - | - |
| Revenue per Billing Determinants | R01 |  | 22,160,940 | 243,959 | 318,742 | 15,468 | 1,533 | 237,096 | 9,936 |
| Energy |  |  | 99,001,435 | 3,448,222 | 3,215,713 | 11,550 | 18,250 | - | - |
| Energy (Loss Adjusted) | Energy |  | 105,460,916 | 3,673,206 | 3,425,526 | 12,304 | 19,441 | - | - |
| O\&M Customer Allocators |  |  |  |  |  |  |  |  |  |
| Customers (Monthly Bills) |  |  | 1,092,108 | 1,932 | 12,000 | 12 | 120 | - | - |
| Average Customers (Bills/12) |  |  | 91,009 | 161 | 1,000 | 1 | 10 | - |  |
| Average Customers (Lighting $=$ Lights) |  |  | 91,009 | 161 | 1,000 | 1 | 10 |  |  |
| Weighted Average Customers (Lighting $=9$ Lights per Cust | Cust05 |  | 10,112 | 18 | 111 | 5 | 20 | - | - |
| Street Lighting | Cust04 |  | 91,009 |  | - | - |  |  |  |
| Average Customers | Cust01 |  | 91,009 | 161 | 1,000 | 1 | 10 | - | - |
| Average Customers (Lighting $=9$ Lights per Cust) | Cust06 |  | 10,112 | 18 | 111 | 1 | 10 | - |  |
| Average Secondary Customers | Cust07 |  | 10,112 | 18 | 111 | - | 10 | - | - |
| Average Primary Customers | Cust08 |  | 10,112 | 18 | 111 | 1 | 10 | - | - |
| Average Transformer Customers | Cust09 |  | 10,112 | 18 | 111 | 1 | 10 | - | - |
| Plant Customer Allocators |  |  |  |  |  |  |  |  |  |
| Average Customers |  |  | 91,009 | 161 | 1,000 | 1 | 10 | - | - |
| Average Customers (Lighting $=9$ Lights) |  |  | 9,101 | 16 | 100 | 1 | 10 | - | - |
| Weighted Average Customers | PCust05 |  | 9,101 | 16 | 100 | 5 | 20 |  |  |
| Street Lighting (plant in service balance) | PCust04 |  | 126,670,914 |  |  |  |  |  |  |
| Average Customers | PCust01 |  | 91,009 | 161 | 1,000 | 1 | 10 | - | - |
| Average Customers (Lighting = 9 Lights per Cust) | PCust06 |  | 9,101 | 16 | 100 | 1 | 10 | - | - |
| Average Secondary Customers | PCust07 |  | 9,101 | 16 | 100 | - | 10 | - | - |
| Average Primary Customers | PCust08 |  | 9,101 | 16 | 100 | 1 | 10 | - | - |
| Average Transformer Customers | PCust09 |  | 9,101 | 16 | 100 | 1 | 10 | - | - |
| Demand Allocators |  |  |  |  |  |  |  |  |  |
| Max Class Non-Coincident Peak Demands (Transmission) | NCPT |  | 24,182 | 842 | 387 | 42 | 4 | - | - |
| Max Class Non-Coincident Peak Demands (Primary) | NCPP |  | 24,182 | 842 | 387 | 42 | 4 | - | - |
| Sum of the Individual Customer Demands (Transformers) | SICDT |  | 24,182 | 842 | 387 | 42 | 4 | - | - |
| Sum of the Individual Customer Demands (Secondary) | SICD |  | 24,182 | 842 | 387 | 42 | 4 | - | - |
| LOLP Demand Allocator | LOLP |  | 317 | 11 | 307 | 1 | 3 | - | - |



| Description Ref | Name |  |  | $\begin{array}{r} 12 \\ \text { Street Lighting } \\ \text { Rate RLS, LS } \\ \hline \end{array}$ |  | 13 <br> Street Lighting Rate LE |  | Lighting Rate TLE |  | 15 <br> Outdoor Sports Lighting Rate OSL |  | C Vehicle Charging Rate EV |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Allocation Factors (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Demand Cost Allocation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gross Plant Production Residual LOLP Demand Allocator GPPLOLPDRA 317 <br> Gross Plant Production LOLP Demand Costs  11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | - |  | - |  |  |  |  |  |  |  | 2,630,743 |  | 84,972 |
| Gross Plant Production LOLP Demand Residual |  | GPPLOLPDRA | \$ | 646,656 | \$ | 22,523 | \$ | 627,517 | \$ | 1,493 | \$ | 6,773 | \$ | - | \$ | - |
| Gross Plant Production LOLP Demand Total | GPPLOLPDT |  | \$ | 646,656 | \$ | 22,523 | \$ | 627,517 | \$ | 1,493 | \$ | 6,773 | \$ | 2,630,743 | \$ | 84,972 |
| Gross Plant Production LOLP Demand Allocator | GPLOLPDA | GPPLOLPDT |  | 0.00017 |  | 0.00001 |  | 0.00016 |  | 0.00000 |  | 0.00000 |  | 0.00068 |  | 0.00002 |
| Net Plant Production Residual LOLP Demand Allocator | NPPLOLPDRA |  |  | 317 |  | 11 |  | 307 |  | 1 |  | 3 |  | - |  |  |
| Net Plant Production LOLP Demand Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | - |  | - |  |  |  |  |  |  |  | 2,486,734 |  | 72,329 |
| Net Plant Production LOLP Demand Residual |  | NPPLOLPDRA | \$ | 417,308 | \$ | 14,535 | \$ | 404,956 | \$ | 963 | \$ | 4,371 | \$ | - | \$ | - |
| Net Plant Production LOLP Demand Total | NPPLOLPDT |  | \$ | 417,308 | \$ | 14,535 | \$ | 404,956 | \$ | 963 | \$ | 4,371 | \$ | 2,486,734 | \$ | 72,329 |
| Net Plant Production LOLP Demand Allocator | NPLOLPDA | NPPLOLPDT |  | 0.00017 |  | 0.00001 |  | 0.00016 |  | 0.00000 |  | 0.00000 |  | 0.00100 |  | 0.00003 |
| Rate Base Production ResidualRate Base Production LOLP Demand Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | - |  | - |  |  |  |  |  |  |  | 2,314,622 |  | 60,677 |
| Rate Base Production LOLP Demand Residual |  | RBPLOLPDRA | \$ | 336,015 | \$ | 11,703 | \$ | 326,069 | \$ | 776 | \$ | 3,520 | \$ |  | \$ |  |
| Rate Base Production LOLP Demand Total | RBPLOLPDT |  | \$ | 336,015 | \$ | 11,703 | \$ | 326,069 | \$ | 776 | \$ | 3,520 | \$ | 2,314,622 | \$ | 60,677 |
| Rate Base Production LOLP Demand Allocator | RBLOLPDA | RBPLOLPDT |  | 0.00017 |  | 0.00001 |  | 0.00016 |  | 0.00000 |  | 0.00000 |  | 0.00115 |  | 0.00003 |
| Production O\&M Residual LoLP Demand Allocator | POMLOLPDRA |  |  | 317 |  | 11 |  | 307 |  | 1 |  | 3 |  | - |  | - |
| Production O\&M LOLP Demand Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | - |  | - |  |  |  |  |  |  |  | 71,903 |  | - |
| Production O\&M LOLP Demand Residual |  | POMLOLPDRA | \$ | 18,730 | \$ | 652 | \$ | 18,176 | \$ | 43 | \$ | 196 | \$ | - | \$ | - |
| Production O\&M LOLP Demand Total | POMLOLPDT |  | \$ | 18,730 | \$ | 652 | \$ | 18,176 | \$ | 43 | \$ | 196 | \$ | 71,903 | \$ | - |
| Production O\&M LOLP Demand Allocator | POMLOLPDA | POMLOLPDT |  | 0.00017 |  | 0.00001 |  | 0.00016 |  | 0.00000 |  | 0.00000 |  | 0.00064 |  |  |
| Production Depreciation LOLP Demand Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | - |  | - |  |  |  |  |  |  |  | 83,870 |  | 3,154 |
| Production Depreciation LOLP Demand Residual |  | PDEPLOLPDRA | \$ | 35,598 |  | 1,240 | S | 34,544 | \$ | 82 | \$ | 373 | \$ | - | \$ | - |
| Production Depreciation LOLP Demand Total | PDEPLOLPDT |  | \$ | 35,598 | \$ | 1,240 | \$ | 34,544 | \$ | 82 | \$ | 373 | \$ | 83,870 | \$ | 3,154 |
| Production Depreciation LOLP Demand Allocator | PDEPLOLPDA | PDEPLOLPDT |  | 0.00017 |  | 0.00001 |  | 0.00016 |  | 0.00000 |  | 0.00000 |  | 0.00039 |  | 0.00001 |
| Production Prop Tax Residual LOLP Demand Allocator | PPTLOLPDRA |  |  | 317 |  | 11 |  | 307 |  | 1 |  | 3 |  | - |  | - |
| Production Prop Tax LOLP Demand Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | - |  | - |  |  |  |  |  |  |  | 3,190 |  | 111 |
| Production Prop Tax LOLP Demand Residual |  | PPTLOLPDRA | \$ | 4,305 | \$ | 150 | \$ | 4,178 | \$ | 10 | \$ | 45 | \$ | - | \$ | - |
| Production Prop Tax LOLP Demand Total | PPTLOLPDT |  | \$ | 4,305 | \$ | 150 | \$ | 4,178 | \$ | 10 | \$ | 45 | \$ | 3,190 | \$ | 111 |
| Production Prop Tax LOLP Demand Allocator | PPTLOLPDA | PPTLOLPDT |  | 0.00017 |  | 0.00001 |  | 0.00016 |  | 0.00000 |  | 0.00000 |  | 0.00012 |  | 0.00000 |
| Production ITC Residual LOLP Demand Allocator | PITCLOLPDRA |  |  | 317 |  | 11 |  | 307 |  | 1 |  | 3 |  | - |  | - |
| Production ITC LOLP Demand Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | - |  | - |  |  |  |  |  |  |  | $(13,728)$ |  | (399) |
| Production ITC LOLP Demand Residual |  | PITCLOLPDRA | \$ | (91) | \$ | (3) | \$ | (88) | \$ | (0) | \$ | (1) | \$ | - | \$ |  |
| Production ITC LOLP Demand Total | PItclolpdt |  | \$ | (91) | \$ | (3) | \$ | (88) | \$ | (0) | \$ | (1) | \$ | $(13,728)$ | \$ | (399) |
| Production ITC LOLP Demand Allocator | PITCLOLPDA | PITCLOLPDT |  | 0.00016 |  | 0.00001 |  | 0.00016 |  | 0.00000 |  | 0.00000 |  | 0.02464 |  | 0.00072 |


|  |  | 1 | 2 |  | 3 |  | 4 |  | 5 |  | 6 |  | 7 |  | 8 |  | 9 |  | 10 | 11 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Allocation Vector |  | $\begin{array}{r} \text { Total } \\ \text { System } \\ \hline \end{array}$ |  | $\begin{array}{r} \text { Residential } \\ \text { Rate RS } \\ \hline \end{array}$ |  | General Service Rate GS |  | Rate PS <br> Primary |  | Rate PS Secondary |  | Rate TOD Primary |  | Rate TOD Secondary |  | $\begin{array}{r} \text { Rate RTS } \\ \text { Transmission } \\ \hline \end{array}$ |  | Special Contract Customer |  |
| Meter Cost Allocation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meters Gross Plant Residual Allocator |  | MGPRA |  |  | 38,550,020 |  | 26,350,722 |  | 8,187,269 |  | 267,611 |  | 2,289,550 |  | 534,525 |  | 452,630 |  | 377,746 |  |  | 8,124 |
| Meters Gross Plant Costs |  |  |  | \$ | 44,815,612 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | \$ | 183,388 |  |  |  | - | \$ | - |  | - |  | - |  | - |  |  |  |  | - |
| Meters Gross Plant Residual |  |  | MGPRA | \$ | 44,632,225 | \$ | 30,508,190 | \$ | 9,479,010 | \$ | 309,833 | \$ | 2,650,782 | \$ | 618,860 | \$ | 524,043 | \$ | 437,345 | \$ |  | 9,406 |
| Meters Gross Plant Total |  | MGPT |  | \$ | 44,815,612 | \$ | 30,508,190 | \$ | 9,479,010 | \$ | 309,833 | \$ | 2,650,782 | \$ | 618,860 | \$ | 524,043 | \$ | 437,345 | \$ |  | 9,406 |
| Meters Gross Plant Allocator |  | MGPA | MGPT |  | 1.000000 |  | 0.68075 |  | 0.21151 |  | 0.00691 |  | 0.05915 |  | 0.01381 |  | 0.01169 |  | 0.00976 |  |  | 0.00021 |
| Meters Net Plant Residual Allocator |  | MNPRA |  |  | 38,550,020 |  | 26,350,722 |  | 8,187,269 |  | 267,611 |  | 2,289,550 |  | 534,525 |  | 452,630 |  | 377,746 |  |  | 8,124 |
| Meters Net Plant Costs |  |  |  | \$ | 30,149,962 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | \$ | 139,194 |  |  |  | - | \$ | - |  |  |  | - |  |  |  |  |  |  | - |
| Meters Net Plant Residual |  |  | MNPRA | \$ | 30,010,768 | \$ | 20,513,748 | \$ | 6,373,699 | \$ | 208,332 | \$ | 1,782,389 | \$ | 416,122 | \$ | 352,367 | \$ | 294,071 | \$ |  | 6,324 |
| Meters Net Plant Total |  | MNPT |  | \$ | 30,149,962 | \$ | 20,513,748 | \$ | 6,373,699 | \$ | 208,332 | \$ | 1,782,389 | \$ | 416,122 | \$ | 352,367 | \$ | 294,071 | \$ |  | 6,324 |
| Meters Net Plant Allocator |  | MNPA | MNPT |  | 1.000000 |  | 0.68039 |  | 0.21140 |  | 0.00691 |  | 0.05912 |  | 0.01380 |  | 0.01169 |  | 0.00975 |  |  | 0.00021 |
| Meters Rate Base Residual Allocator |  | mRBRA |  |  | 38,550,020 |  | 26,350,722 |  | 8,187,269 |  | 267,611 |  | 2,289,550 |  | 534,525 |  | 452,630 |  | 377,746 |  |  | 8,124 |
| Meters Rate Base Costs |  |  |  | \$ | 26,834,745 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | \$ | 105,259 |  |  |  | - | \$ | - |  | - |  | - |  | - |  | - |  |  |  |
| Meters Rate Base Residual |  |  | MRBRA | \$ | 26,729,486 | \$ | 18,270,840 | \$ | 5,676,819 | \$ | 185,554 | \$ | 1,587,509 | \$ | 370,625 | \$ | 313,841 | \$ | 261,918 | \$ |  | 5,633 |
| Meters Rate Base Total |  | MRBT |  | \$ | 26,834,745 | \$ | 18,270,840 | \$ | 5,676,819 | \$ | 185,554 | \$ | 1,587,509 | \$ | 370,625 | \$ | 313,841 | \$ | 261,918 | \$ |  | 5,633 |
| Meters Rate Base Allocator |  | MRBA | MRBT |  | 1.000000 |  | 0.68087 |  | 0.21155 |  | 0.00691 |  | 0.05916 |  | 0.01381 |  | 0.01170 |  | 0.00976 |  |  | 0.00021 |
| Meters O\&M Residual Allocator |  | MOMRA |  |  | 38,550,020 |  | 26,350,722 |  | 8,187,269 |  | 267,611 |  | 2,289,550 |  | 534,525 |  | 452,630 |  | 377,746 |  |  | 8,124 |
| Meters O\&M Costs |  |  |  | \$ | 13,918,315 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | \$ | - |  |  |  | - | \$ | - |  | - |  | - |  |  |  |  |  |  |  |
| Meters O\&M Residual |  |  | MOMRA | \$ | 13,918,315 | \$ | 9,513,812 | \$ | 2,955,978 | \$ | 96,620 | \$ | 826,632 | \$ | 192,988 | \$ | 163,420 | \$ | 136,384 | \$ |  | 2,933 |
| Meters O\&M Total |  | момт |  | \$ | 13,918,315 | \$ | 9,513,812 | \$ | 2,955,978 | \$ | 96,620 | \$ | 826,632 | \$ | 192,988 | \$ | 163,420 | \$ | 136,384 | \$ |  | 2,933 |
| Meters O\&M Allocator |  | MOMA | момт |  | 1.000000 |  | 0.68355 |  | 0.21238 |  | 0.00694 |  | 0.05939 |  | 0.01387 |  | 0.01174 |  | 0.00980 |  |  | 0.00021 |
| Meters Depreciation Residual Allocator |  | MDRA |  |  | 38,550,020 |  | 26,350,722 |  | 8,187,269 |  | 267,611 |  | 2,289,550 |  | 534,525 |  | 452,630 |  | 377,746 |  |  | 8,124 |
| Meters Depreciation Costs |  |  |  | \$ | 1,184,751 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | \$ | 18,339 |  |  |  | - | \$ | - |  | - |  | - |  | - |  | - |  |  | - |
| Meters Depreciation Residual |  |  | MDRA | \$ | 1,166,412 | \$ | 797,297 | \$ | 247,723 | \$ | 8,097 | \$ | 69,275 | \$ | 16,173 | \$ | 13,695 | \$ | 11,430 | \$ |  | 246 |
| Meters Depreciation Total |  | MDT |  | \$ | 1,184,751 | \$ | 797,297 | \$ | 247,723 | \$ | 8,097 | \$ | 69,275 | \$ | 16,173 | \$ | 13,695 | \$ | 11,430 | \$ |  | 246 |
| Meters Depreciation Allocator |  | MDA | MDT |  | 1.000000 |  | 0.67297 |  | 0.20909 |  | 0.00683 |  | 0.05847 |  | 0.01365 |  | 0.01156 |  | 0.00965 |  |  | 0.00021 |
| Meters Prop Tax Residual Allocator |  | MPTRA |  |  | 38,550,020 |  | 26,350,722 |  | 8,187,269 |  | 267,611 |  | 2,289,550 |  | 534,525 |  | 452,630 |  | 377,746 |  |  | 8,124 |
| Meters Prop Tax Costs |  |  |  | \$ | 298,205 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  | \$ | 2,689 |  |  |  | - | \$ | - |  | - |  | - |  | - |  | - |  |  | - |
| Meters Prop Tax Residual |  |  | MPTRA | \$ | 295,516 | \$ | 201,999 | \$ | 62,762 | \$ | 2,051 | \$ | 17,551 | \$ | 4,098 | \$ | 3,470 | \$ | 2,896 | \$ |  | 62 |
| Meters Prop Tax Total |  | MPTT |  | \$ | 298,205 | \$ | 201,999 | \$ | 62,762 | \$ | 2,051 | \$ | 17,551 | \$ | 4,098 | \$ | 3,470 | \$ | 2,896 | \$ |  | 62 |
| Meters Prop Tax Allocator |  | MPTA | MPTT |  | 1.000000 |  | 0.67738 |  | 0.21046 |  | 0.00688 |  | 0.05886 |  | 0.01374 |  | 0.01164 |  | 0.00971 |  |  | 0.00021 |
| Customer Service O\&M Cost Allocation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Service Residual Allocator |  | CSRA |  |  | 436,714 |  | 377,599 |  | 45,359 |  | 70 |  | 2,782 |  | 132 |  | 505 |  | 13 |  |  | 2 |
| Customer Service O\&M Costs |  |  |  |  | 4,888,693 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment Customer Service O\&M Residual |  |  |  | \$ | 34,000 4,854 | \$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Service O\&M Residual Customer Service O\&M Total |  | CSOT | Cska | \$ | $4,854,693$ $4.888,693$ | \$ | 4,197,542 | \$ | 504,233 | \$ | 778 | \$ | 30,930 30,930 | \$ | 1,463 1,463 | \$ | 5,614 | \$ | 145 | \$ |  | ${ }_{22}^{22}$ |
| Customer Service O\&M Allocator |  | C10 | CSOT |  | 1.000000 |  | 0.85862 |  | 0.10314 |  | 0.00016 |  | 0.00633 |  | 0.00030 |  | 0.00115 |  | 0.00003 |  |  | 0.00000 |

## 12 Months Ended

June 30, 2022

| Description | Ref | Name |  |  | 12 <br> Street Lighting Rate RLS, LS |  | 13 <br> Street Lighting Rate LE |  | Rate TLE |  | 15 Outdoor Sports Lighting Rate OSL |  | 16 Electric Vehicle Charging Rate EV |  | 17 <br> Solar Share Rate SSP |  | 18 <br> Business Solar Rate BS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Meter Cost Allocation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meters Gross Plant Residual Allocator MGPRA - 11,235 69,785 <br> Meters Gross Plant Costs   823  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  |  | - |  | - |  |  |  |  |  | \$183,388 |  |  |  |  |
| Meters Gross Plant Residual |  |  | MGPRA | \$ | - | \$ | 13,008 | \$ | 80,795 | \$ | 953 | \$ | - | \$ | - | \$ | - |
| Meters Gross Plant Total |  | MGPT |  | \$ | - | \$ | 13,008 | \$ | 80,795 | \$ | 953 | \$ | 183,388 | \$ | - | \$ | - |
| Meters Gross Plant Allocator |  | MGPA | MGPT |  | - |  | 0.00029 |  | 0.00180 |  | 0.00002 |  | 0.00409 |  | - |  | - |
| Meters Net Plant Residual Allocator |  | MNPRA |  |  | - |  | 11,235 |  | 69,785 |  | 823 |  | - |  | - |  | - |
| Meters Net Plant Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  |  | - |  | - |  |  |  |  |  | \$139,194 |  |  |  |  |
| Meters Net Plant Residual |  |  | MNPRA | \$ | - | \$ | 8,747 | \$ | 54,327 | \$ | 641 | \$ | - | \$ | - | \$ | - |
| Meters Net Plant Total |  | MNPT |  | \$ | - | \$ | 8,747 | \$ | 54,327 | \$ | 641 | \$ | 139,194 | \$ | - | \$ | - |
| Meters Net Plant Allocator |  | MNPA | MNPT |  | - |  | 0.00029 |  | 0.00180 |  | 0.00002 |  | 0.00462 |  | - |  | - |
| Meters Rate Base Residual Allocator MRBRA - 11,235 <br> Meters Rate Base Costs    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  |  | - |  | - |  |  |  |  |  | \$105,259 |  |  |  |  |
| Meters Rate Base Residual |  |  | MRBRA | \$ | - | \$ | 7,790 | \$ | 48,387 | \$ | 571 | \$ | - | \$ | - | \$ | - |
| Meters Rate Base Total |  | MRBT |  | \$ | - | \$ | 7,790 | \$ | 48,387 | \$ | 571 | \$ | 105,259 | \$ | - | \$ | - |
| Meters Rate Base Allocator |  | MRBA | MRBT |  | - |  | 0.00029 |  | 0.00180 |  | 0.00002 |  | 0.00392 |  | - |  |  |
| Meters O\&M Residual Allocator |  | MOMRA |  |  | - |  | 11,235 |  | 69,785 |  | 823 |  | - |  | - |  | - |
| Meters O\&M Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Meters O\&M Residual |  |  | MOMRA | \$ | - | \$ | 4,056 | \$ | 25,196 | \$ | 297 | \$ | - | \$ | - | \$ | - |
| Meters O\&M Total |  | MOMT |  | \$ | - | \$ | 4,056 | \$ | 25,196 | \$ | 297 | \$ | - | \$ | - | \$ | - |
| Meters O\&M Allocator |  | MOMA | MOMT |  | - |  | 0.00029 |  | 0.00181 |  | 0.00002 |  | - |  | - |  | - |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  |  | - |  | - |  |  |  |  |  | \$18,339 |  |  |  |  |
| Meters Depreciation Residual |  |  | MDRA | \$ | - | \$ | 340 | \$ | 2,111 | \$ | 25 | \$ |  | \$ | - | \$ |  |
| Meters Depreciation Total |  | MDT |  | \$ | - | \$ | 340 | \$ | 2,111 | \$ | 25 | \$ | 18,339 | \$ | - |  | - |
| Meters Depreciation Allocator |  | MDA | MDT |  | - |  | 0.00029 |  | 0.00178 |  | 0.00002 |  | 0.01548 |  | - |  | - |
| Meters Prop Tax Residual Allocator |  | MPTRA |  |  | - |  | 11,235 |  | 69,785 |  | 823 |  | - |  | - |  | - |
| Meters Prop Tax Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Specific Assignment |  |  |  |  | - |  | - |  |  |  |  |  | \$2,689 |  |  |  |  |
| Meters Prop Tax Residual |  |  | MPTRA | \$ | - | \$ | 86 | \$ | 535 | \$ | 6 | \$ | - | \$ | - | \$ | - |
| Meters Prop Tax Total |  | MPTT |  | \$ | - | \$ | 86 | \$ | 535 | \$ | 6 | \$ | 2,689 | \$ | - | \$ | - |
| Meters Prop Tax Allocator |  | MPTA | MPTT |  | - |  | 0.00029 |  | 0.00179 |  | 0.00002 |  | 0.00902 |  | - |  | - |
| Customer Service O\&M Cost Allocation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Customer Service Residual Allocator |  | CSRA |  |  | 10,112 |  | 18 |  | 111 |  | 1 |  | 10 |  | - |  | - |
| Customer Specific Assignment |  |  |  |  |  |  |  |  |  |  |  |  | \$24,000 | \$ | - |  | \$10,000 |
| Customer Service O M M Residual |  |  | CSRA | \$ | 112,410 | \$ | 199 | \$ | 1,235 | \$ | 11 | \$ | 111 | \$ | - | \$ |  |
| Customer Service O\&M Total Customer Service O\&M Allocator |  | $\underset{\text { C10 }}{\text { CSOT }}$ |  | \$ | 112,410 0.02299 | \$ | 199 0.00004 | \$ | 1,235 | \$ |  | \$ | 24,111 | \$ | - | \$ | 10,000 |
| Customer Service O\&M Allocator |  | C10 | CSOT |  | 0.02299 |  | 0.00004 |  | 0.00025 |  | 0.00000 |  | 0.00493 |  |  |  | 0.00205 |

12 Months Ended
June 30, 2022

|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Ref | Name | Allocation Vector | $\begin{array}{r} \text { Total } \\ \text { System } \end{array}$ | Residential Rate RS | General Service Rate GS | Rate PS Primary | Rate PS Secondary | Rate TOD Primary | Rate TOD Secondary | Rate RTS Transmission | Special Contract Customer |
| Revenue Adjustment Allocators |  |  |  |  |  |  |  |  |  |  |  |  |
| Forfeited Discounts |  | FDIS |  | 2,707,235 | 2,147,670 | 209,067 | 7,006 | 278,476 | 13,171 | 50,543 | 1,301 | - |
| Misc Service Revenue Allocator |  | MISCR |  | 1,837,730 | 1,753,541 | 69,649 | 291 | 11,552 | 546 | 2,097 | 54 | - |
| Rent From Electric Property |  | RFEP |  | 3,457,582,001 | 1,830,420,621 | 383,935,310 | 21,476,777 | 369,390,342 | 328,714,071 | 283,566,435 | 135,862,169 | 8,795,357 |
| Other Electric Revenue |  | OER |  | 3,457,582,001 | 1,830,420,621 | 383,935,310 | 21,476,777 | 369,390,342 | 328,714,071 | 283,566,435 | 135,862,169 | 8,795,357 |
| Expense Adjustment Allocators |  |  |  |  |  |  |  |  |  |  |  |  |
| Interruptible Credit Allocator (Prod Plant) |  | INTCRE |  | 3,862,851,117 | 1,843,044,295 | 434,979,325 | 29,452,187 | 487,053,951 | 462,893,194 | 380,591,965 | 211,887,495 | 11,650,517 |
| O\&M less fuel |  | OMLF |  | 245,941,143 | 140,658,266 | 30,381,048 | 1,401,213 | 23,637,517 | 19,892,195 | 17,681,383 | 8,122,963 | 535,746 |
| Base Rate Revenue at Current Rates |  |  |  | 1,066,653,012 | 431,824,736 | 148,100,588 | 10,054,862 | 147,448,878 | 136,688,085 | 101,626,163 | 64,286,867 | 3,635,160 |
| CSR Avoided Cost |  |  |  |  |  |  |  |  |  |  |  |  |
| Interruptible Demands |  |  |  | 433,038 |  |  |  |  | 38,819 |  | 394,219 |  |
| Avoided Cost per kW |  |  |  |  |  |  |  |  | 3.67 |  | 5.90 |  |
| Avoided Cost |  |  |  | 2,468,360 |  |  |  |  | 142,467 |  | 2,325,893 |  |



## Exhibit WSS-33

## Gas Transmission Plant

Functional Assignment for the
Cost of Service Study
(Louisville Gas and Electric Company)

Allocation of Gas Transmission between Storage and Non-Storage

Account 367 Balance from July 2020

Engineering Estimate of Storage Related Transmission as of July 2020
Amount Included in Account 353
Storage Related Transmission Included in Account 367

Additional Storage Related Transmission Investment Included in Account 367 June 2022 Balance
Estimated Storage Related Transmission Included in Account 367 June 2022 Balance

Account 367 Forecasted Balance June 2022

Percent of Account 367 Forecasted Balance as of June 2022 Related to Storage 30.15\%

Percent of Account 367 Forecasted Balance as of June 2022 Not Related to Storage 69.85\% Total

## Exhibit WSS-34

## Zero Intercept Analysis of <br> Distribution Mains

(Louisville Gas and Electric Company)

| Type of Main | Pipe Size | Net Cost of Plant | Quantity | Avg Cost | n | y | $\mathbf{x}$ | est y | $\mathrm{y}^{\star} \mathrm{n}^{\wedge} .5$ | n^. 5 | xn^. 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PIPE, CAST IRON, 10 | 10 | 77,658.52 | 45,547 | 1.70501943 | 45,547 | 1.70502 | 10.00 | 24.776 | 363.88 | 213.42 | 2134.17431 |
| PIPE, CAST IRON, 12 | 12 | 66,566.15 | 31,106 | 2.139977818 | 31,106 | 2.13998 | 12.00 | 27.549 | 377.43 | 176.37 | 2116.42718 |
| PIPE, CAST IRON, 14 | 14 | 21,255.50 | 7,950 | 2.673647799 | 7,950 | 2.67365 | 14.00 | 30.322 | 238.39 | 89.16 | 1248.27882 |
| PIPE, CAST IRON, 16 | 16 | 90,103.45 | 28,376 | 3.175340076 | 28,376 | 3.17534 | 16.00 | 33.095 | 534.89 | 168.45 | 2695.22838 |
| PIPE, CAST IRON, 18 | 18 | 34,815.59 | 8,985 | 3.874856984 | 8,985 | 3.87486 | 18.00 | 35.868 | 367.29 | 94.79 | 1706.20632 |
| PIPE, CAST IRON, 24 | 24 | 6,523.65 | 1,220 | 5.347254098 | 1,220 | 5.34725 | 24.00 | 44.186 | 186.77 | 34.93 | 838.283961 |
| PIPE, CAST IRON, 4 | 4 | 232,011.34 | 284,533 | 0.815411007 | 284,533 | 0.81541 | 4.00 | 16.457 | 434.95 | 533.42 | 2133.66539 |
| PIPE, CAST IRON, 6 | 6 | 30,092.75 | 29,657 | 1.01469299 | 29,657 | 1.01469 | 6.00 | 19.230 | 174.74 | 172.21 | 1033.27247 |
| PIPE, CAST IRON, 8 | 8 | 38,666.69 | 27,960 | 1.382928827 | 27,960 | 1.38293 | 8.00 | 22.003 | 231.24 | 167.21 | 1337.69952 |
| PIPE, PLASTIC, 1 | 1 | 71,808.18 | 3,000 | 23.93606 | 3,000 | 23.93606 | 1.00 | 12.298 | 1311 | 54.77 | 54.7722558 |
| PIPE, PLASTIC, 2 | 2 | 147,496,076.13 | 8,888,931 | 16.59322995 | 8,888,931 | 16.59323 | 2.00 | 13.684 | 49472 | 2,981.43 | 5962.86206 |
| PIPE, PLASTIC, 4 | 4 | 106,786,944.81 | 4,014,837 | 26.59807728 | 4,014,837 | 26.59808 | 4.00 | 16.457 | 53295 | 2,003.71 | 8014.82327 |
| PIPE, PLASTIC, 6 | 6 | 39,493,513.89 | 878,431 | 44.95915318 | 878,431 | 44.95915 | 6.00 | 19.230 | 42138 | 937.25 | 5623.47899 |
| PIPE, PLASTIC, 8 | 8 | 25,702,840.01 | 290,920 | 88.3501994 | 290,920 | 88.35020 | 8.00 | 22.003 | 47653 | 539.37 | 4314.96002 |
| PIPE, PLASTIC, 10 | 10 | 19,616.26 | 46 | 426.4404348 | 46 | 426.44043 | 10.00 | 24.776 | 2892.3 | 6.78 | 67.8232998 |
| PIPE, STEEL, 1 | 1 | 1,792,624.37 | 72,839 | 24.61077678 | 72,839 | 24.61078 | 1.00 | 12.298 | 6642.1 | 269.89 | 269.887013 |
| PIPE, STEEL, 1 1/2 | 1.5 | 25,393.20 | 652 | 38.94662577 | 652 | 38.94663 | 1.50 | 12.991 | 994.47 | 25.53 | 38.301436 |
| PIPE, STEEL, 1 1/4 | 1.25 | 11,352.19 | 403 | 28.16920596 | 403 | 28.16921 | 1.25 | 12.645 | 565.49 | 20.07 | 25.0935749 |
| PIPE, STEEL, 10 | 10 | 92,683.96 | 5,185 | 17.87540212 | 5,185 | 17.87540 | 10.00 | 24.776 | 1287.2 | 72.01 | 720.069441 |
| PIPE, STEEL, 12 | 12 | 14,656,557.38 | 521,083 | 28.12710716 | 521,083 | 28.12711 | 12.00 | 27.549 | 20304 | 721.86 | 8662.32948 |
| PIPE, STEEL, 16 | 16 | 8,006,093.90 | 257,321 | 31.11325504 | 257,321 | 31.11326 | 16.00 | 33.095 | 15783 | 507.27 | 8116.29078 |
| PIPE, STEEL, 2 | 2 | 18,128,004.78 | 4,099,373 | 4.422140844 | 4,099,373 | 4.42214 | 2.00 | 13.684 | 8953.5 | 2,024.69 | 4049.38168 |
| PIPE, STEEL, 2 1/2 | 2.5 | 9,087.67 | 480 | 18.93264583 | 480 | 18.93265 | 2.50 | 14.378 | 414.79 | 21.91 | 54.7722558 |
| PIPE, STEEL, 20 | 20 | 4,002,792.28 | 154,201 | 25.95827705 | 154,201 | 25.95828 | 20.00 | 38.641 | 10193 | 392.68 | 7853.68703 |
| PIPE, STEEL, 22 | 22 | 56,616.99 | 3,497 | 16.19016014 | 3,497 | 16.19016 | 22.00 | 41.413 | 957.41 | 59.14 | 1300.97963 |
| PIPE, STEEL, 24 | 24 | 122,746.10 | 871 | 140.9254879 | 871 | 140.92549 | 24.00 | 44.186 | 4159.1 | 29.51 | 708.305019 |
| PIPE, STEEL, 4 | 4 | 38,014,082.75 | 4,721,852 | 8.050672226 | 4,721,852 | 8.05067 | 4.00 | 16.457 | 17494 | 2,172.98 | 8691.92913 |
| PIPE, STEEL, 6 | 6 | 11,373,827.64 | 825,294 | 13.7815465 | 825,294 | 13.78155 | 6.00 | 19.230 | 12520 | 908.46 | 5450.7416 |
| PIPE, STEEL, 8 | 8 | 30,776,488.82 | 1,967,573 | 15.6418536 | 1,967,573 | 15.64185 | 8.00 | 22.003 | 21941 | 1,402.70 | 11221.6163 |
| PIPE, WROUGHT IRON, 1 1/2 | 1.5 | 906.81 | 2,276 | 0.398422671 | 2,276 | 0.39842 | 1.50 | 12.991 | 19.008 | 47.71 | 71.5611627 |
| PIPE, WROUGHT IRON, 1 1/4 | 1.25 | 3,455.93 | 8,636 | 0.400177165 | 8,636 | 0.40018 | 1.25 | 12.645 | 37.188 | 92.93 | 116.162602 |
| PIPE, WROUGHT IRON, 10 | 10 | 49,167.84 | 26,553 | 1.851686815 | 26,553 | 1.85169 | 10.00 | 24.776 | 301.73 | 162.95 | 1629.50913 |
| PIPE, WROUGHT IRON, 12 | 12 | 14,816.90 | 5,786 | 2.560819219 | 5,786 | 2.56082 | 12.00 | 27.549 | 194.79 | 76.07 | 912.789132 |
| PIPE, WROUGHT IRON, 16 | 16 | 46,942.53 | 14,045 | 3.342294767 | 14,045 | 3.34229 | 16.00 | 33.095 | 396.1 | 118.51 | 1896.18564 |
| PIPE, WROUGHT IRON, 2 | 2 | 1,268.21 | 3,617 | 0.350624827 | 3,617 | 0.35062 | 2.00 | 13.684 | 21.087 | 60.14 | 120.283 |
| PIPE, WROUGHT IRON, 3 | 3 | 1,348.82 | 2,388 | 0.564832496 | 2,388 | 0.56483 | 3.00 | 15.071 | 27.602 | 48.87 | 146.601501 |
| PIPE, WROUGHT IRON, 4 | 4 | 43,896.76 | 39,947 | 1.098875009 | 39,947 | 1.09888 | 4.00 | 16.457 | 219.63 | 199.87 | 799.469824 |
| PIPE, WROUGHT IRON, 8 | 8 | 120,947.42 | 85,164 | 1.420170729 | 85,164 | 1.42017 | 8.00 | 22.003 | 414.45 | 291.83 | 2334.62974 |

## Weighted Linear Regression Statistics

|  | Standard <br>  <br>  <br>  <br>  <br> Size Coefficient (\$ per Foot)$\quad$ Estimate |  |  |  |
| :--- | ---: | ---: | ---: | ---: |

Plant Classification

| Total All Distribution Mains |  | $27,360,535$ |
| ---: | ---: | ---: |
| Zero Intercept |  | 10.9114934 |
| Zero Intercept Cost | $\$$ | $298,544,296$ |
| Total Cost of Sample | $\$$ | $447,519,596$ |



## Exhibit WSS-35

Analysis of Low-, Medium-, and HighPressure Distribution Mains for the Cost of Service Study (Louisville Gas and Electric Company)

| Actual | Residential Rate RGS | Commercial Rate CGS | Industrial Rate IGS | Rate AAGS | IntraCompany | Rate FT (1) | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| Total Mcf Sales and Transportation | 17,994,912 | 9,880,285 | 1,523,000 | 326,085 | 246,837 | 13,791,319 | 43,762,438 |
| Non-Temp. Sensitive Sales \& Transportation - Jul. \& Aug. | 640,087 | 525,363 | 183,067 | 32,292 | 27,294 | 1,638,503 | 3,046,606 |
| Annualized Non-Temperature Sensitive Sales \& Transport. | 3,840,523 | 3,152,175 | 1,098,400 | 193,753 | 163,765 | 9,831,019 | 18,279,635 |
| Non-Temperature Sensitive Sales \& Transportation per Day | 10,522 | 8,636 | 3,009 | 531 | 449 | 26,934 | 50,081 |
| Temperature Sensitive Sales \& Transportation | 14,154,388 | 6,728,110 | 424,600 | 132,332 | - | 3,960,300 | 25,482,803 |
| Degree Days | 3,585 | 3,585 | 3,677 | 3,677 | 3,677 | 3,677 |  |
| Temperature Sensitive Sales \& Transportation per Degree Day | 3,949 | 1,877 | 115 | 36 | - | 1,077 | 7,054 |
| Calculated Daily Customer Deliveries (Demands) @ -14 Degrees (79 Degree Days) |  |  |  |  |  |  |  |
| Total Demands | 322,467 | 156,915 | 12,132 | 3,374 | 449 | 112,021 | 607,357.06 |
| Percentage of Total | 53.09\% | 25.84\% | 2.00\% | 0.56\% | 0.07\% | 18.44\% | 100.00\% |
| Demands - High Pressure Distribution System | 322,467 | 156,915 | 12,132 | 3,374 | 449 | 112,021 | 607,357 |
| Demands - Low/Medium Pressure Distribution System | 322,467 | 156,489 | 11,621 | 3,281 | - | 14,146 | 508,004 |

(1) Rate FT includes LG\&E Transportation Special Contract

|  | Residential Rate RGS | Commercial Rate CGS | Industrial Rate IGS | Rate AAGS | Rate FT (1) | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actual |  |  |  |  |  |  |
| Total Mcf Sales and Transportation | - | 253,887 | 186,563 | 33,884 | 11,336,626 | 11,810,960 |
| Non-Temp. Sensitive Sales \& Transportation - Jul. \& Aug. | - | 279 | 38,652 | 6,601 | 1,295,371 | 1,340,903 |
| Annualized Non-Temperature Sensitive Sales \& Transport. | - | 1,674 | 186,563 | 33,884 | 7,772,228 | 7,994,349 |
| Non-Temperature Sensitive Sales \& Transportation per Day | - | 5 | 511 | 93 | 21,294 | 21,902 |
| Temperature Sensitive Sales \& Transportation | - | 252,213 | - | - | 3,564,398 | 3,816,611 |
| Degree Days | 3,585 | 3,585 | 3,677 | 3,677 | 3,677 |  |
| Temperature Sensitive Sales \& Transportation per Degree Day | - | - | - | - | 969 | 969 |
| Calculated Daily Customer Deliveries (Demands) @ -14 Degrees (79 Degree Days) |  |  |  |  |  |  |
| Total Demands/MDQ | - | 426 | 511 | 93 | 97,875 | 98,483 |
| Percentage of Total | 0\% | 0\% | 1\% | 0\% | 99\% | 100\% |

## Exhibit WSS-36

## Gas Cost of Service Study

Functional Assignment and Classification
(Louisville Gas and Electric Company)

Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification

|  | A | B | C | D |  | S |  | T |  | U |  | V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{1}{2}$ | Description |  | Name | Vector |  | Services Customer |  | $\begin{array}{r} \text { Meters } \\ \text { Customer } \end{array}$ |  | Customer Accounts |  | Customer Service Expense Customer |
| 3 | Gas Plant at Original Cost |  |  |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | Underground Storage Plant |  |  |  |  |  |  |  |  |  |  |  |
| 7 | 350-357 | Underground Storage Plant | PT350 | F003 |  | - |  | - |  | - |  | - |
| - | 358 | Asset Retire Obligation Gas Plant | PT350 | F003 |  | - |  | - |  | - |  | - |
| 9 |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 | Total Storage Plant |  | PTST |  | \$ | - | s | - | \$ | - | \$ | - |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | Transmission Plant |  |  |  |  |  |  |  |  |  |  |  |
| 13 | 365-372 | Transmission | PT365 | F005 |  | - |  | - |  | - |  | - |
| 14 |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{15}{16}$ | Distribution Plant |  |  |  |  |  |  |  |  |  |  |  |
|  | 374 | Land and Land Rights | PT374 | F008 |  | - |  | - |  | - |  |  |
| 17 | 375 | Structures \& Improvements | PT375 | F008 |  | - |  | - |  | - |  | - |
| 8 | 376 | Mains | PT376 | F009 |  | - |  | - |  | - |  | - |
| 9 | 378 | Meas. \& Reg. Sta. Equip. - General | PT378 | F008 |  | - |  | - |  | - |  | - |
| 20 | 379 | Meas. \& Reg. Sta. Equip. - City Gate | PT379 | F008 |  | - |  | - |  | - |  | - |
| 21 | 380 | Services | PT380 | F010 |  | 422,716,510 |  | - |  | - |  | - |
| 22 | 381 | Meters | PT381 | F011 |  | - |  | 69,454,781 |  | - |  | - |
| 23 | 382 | Meter Installations | PT382 | F011 |  | - |  |  |  |  |  |  |
| $\frac{24}{24}$ | 383 | House Regulators | PT383 | F011 |  | - |  | 27,617,358 |  | - |  | - |
| 25 | 384 | House Regulator Installations | PT384 | F011 |  | - |  | - |  | - |  | - |
| $\frac{25}{26}$ | 385 | Industrial Meas. \& Reg. Equip. | PT385 | F011 |  | - |  | 2,155,727 |  | - |  | - |
| $\frac{27}{27}$ | 387 | Other Equipment | PT387 | F011 |  | - |  | 1,990,118 |  | - |  | - |
| $\frac{27}{28}$ | 388 | Asset Retire Obligation Gas Plant-City Gate | PT388 | F008 |  | - |  | - |  | - |  | - |
| $\begin{array}{\|l} \hline \frac{28}{29} \\ \hline \end{array}$ | 388 | Asset Retire Obligation Gas Plant-Mains | PT388 | F009 |  | - |  | - |  | - |  | - |
| $\begin{array}{\|} \hline 29 \\ \hline 30 \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 31 | Sub-Total D | stribution Plant | PTDSUB |  | \$ | 422,716,510 | s | 101,217,983 | \$ | - | \$ | - |
| 32 |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{33}{34}$ | U-T-D Subt |  | PTSUB |  |  | 422,716,510 |  | 101,217,983 |  | - |  | - |
|  | 35 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 36 | 117 \& 352 | Gas Stored UndergroundNon-Current | PT117 | F003 |  | - |  | - |  | - |  | - |
| 37 | 301-303 | Intangible Plant | PT301 | PTSUB |  | 109 |  | 26 |  | - |  | - |
| $\frac{37}{38}$ | 392-396 | General Plant | PT389 | PTSUB |  | 4,736,115 |  | 1,134,046 |  | - |  | - |
| 39 | 301-399 | Common Utility Plant | PTCP | PTSUB |  | 29,242,805 |  | 7,002,087 |  | - |  | - |
| 4 |  |  |  |  |  |  |  |  |  |  |  |  |
| 41 | Total Plant | Service | PTIS |  |  | 456,695,539 |  | 109,354,142 |  | - |  | - |
| 42 |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{43}{44}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{44}{45}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 46 |  |  |  |  |  |  |  |  |  |  |  |  |
| $47$ |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{48}{49}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{49}{50}$ |  |  |  |  |  |  |  |  |  |  |  |  |

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12 Months Ended June 30, 2022
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12 Months Ended June 30, 2022
Functional Assignment and Classification

|  | A | B | C | D |  | S |  |  | T |  |  | U |  | V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{1}{2}$ | Description |  | Name | Vector |  |  | $\begin{array}{r} \text { Services } \\ \text { Customer } \\ \hline \end{array}$ |  |  | $\begin{aligned} & \text { Meters } \\ & \text { Customer } \end{aligned}$ |  | Customer Accounts Customer |  | Customer Service Expense Customer |
| 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{141}{142}$ | Labor Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{142}{143}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 144 | 807 \& 810 | Procurement Expenses | LB807 | DMCM |  |  | - |  |  | - |  | - |  | - |
| 145 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 146 | Storage Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 147 | Operation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 148 | 814 | Operations Supervision and Engineer | LB814 | OSE |  |  | - |  |  | - |  | - |  | - |
| 149 | 815 | Maps and Records | LB815 | F003 |  |  | - |  |  | - |  | - |  | - |
| 150 | 816 | Well Expenses | LB816 | F003 |  |  | - |  |  | - |  | - |  | - |
| 151 | 817 | Lines Expenses | LB817 | F003 |  |  | - |  |  | - |  | - |  | - |
| 152 | 818 | Compressor Station Exp - Payroll | LB818 | F004 |  |  | - |  |  | - |  | - |  | - |
| 153 | 819 | Compressor Station Fuel and Power | LB819 | F004 |  |  | - |  |  | - |  | - |  | - |
| 154 | 820 | Measurement and Regulator Station | LB820 | F003 |  |  | - |  |  | - |  | - |  | - |
| 155 | 821 | Purification of Natural Gas | LB821 | F004 |  |  | - |  |  | - |  | - |  | - |
| 156 | 823 | Gas losses | LB823 | F004 |  |  | - |  |  | - |  | - |  | - |
| 157 | 824 | Other Expenses | LB824 | F004 |  |  | - |  |  | - |  | - |  | - |
| 158 | 825 | Storage Well Royalities | LB825 | F003 |  |  | - |  |  | - |  | - |  | - |
| 159 | 826 | Rents | LB826 | F003 |  |  | - |  |  | - |  | - |  | - |
| 160 | Total Storage Operation Labor |  | LBSO |  |  |  | - | \$ |  | - | \$ | - |  | . |
| 161 |  |  | \$ |  |  |  |  |  |  |  |  |  |  |
| 162 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 163 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 164 | Storage Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 165 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 166 | Maintenance |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 167 | 830 | Maintenance Super and Eng. | LB830 | MSE |  |  | - |  |  | - |  | - |  | - |
| 168 | 831 | Maintenance of Structures | LB831 | F003 |  |  | - |  |  | - |  | - |  | - |
| 169 | 832 | Maintenance of Resevoirs | LB832 | F003 |  |  | - |  |  | - |  | - |  | - |
| 170 | 833 | Maintenance of Lines | LB833 | F003 |  |  | - |  |  | - |  | - |  | - |
| 171 | 834 | Main of Compressor Station Equipment | LB834 | F004 |  |  | - |  |  | - |  | - |  | - |
| 172 | 835 | Main of Meas and Reg Sta. Equip | LB835 | F003 |  |  | - |  |  | - |  | - |  | - |
| 173 | 836 | Main of Purification Equip | LB836 | F004 |  |  | - |  |  | - |  | - |  | - |
| 174 | 837 | Main of Other Equipment | LB837 | F003 |  |  | - |  |  | - |  | - |  | - |
| $\frac{175}{176}$ | Total Maintenance Labor |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{176}{177}$ |  |  | LBSM |  | s |  |  | \$ |  |  | \$ | - | \$ | - |
| 178 | Total Storage Labor |  | LBS |  |  |  | - |  |  | - |  | - |  |  |
| 179 |  |  |  |  |  |  |  |  |  |  |  | - |  |
| 180 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 181 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{182}{183}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |

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Cost of Service Study
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|  | A | B | C | D |  | S |  |  | T |  |  | U |  | V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{1}{2}$ | Description |  | Name | Vector |  |  | $\begin{array}{r} \text { Services } \\ \text { Customer } \end{array}$ |  |  | $\begin{array}{r} \text { Meters } \\ \text { Customer } \end{array}$ |  | Customer Accounts Customer |  | Customer Service Expense Customer |
| 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 227 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{228}{229}$ | Labor Expenses (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{230}{230}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 231 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 232 (entenance Expense -- Distribution |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 233 | 885 | Maintenance Supr and Engr | LB885 | DMES |  |  | - |  |  | - |  | - |  | - |
| 234 | 886 | Maintenance Structures | LB886 | F008 |  |  | - |  |  | - |  | - |  | - |
| 235 | 887 | Maintenance Mains | LB887 | F009 |  |  | - |  |  | - |  | - |  | - |
| 2368 | 888 | Maintenance Comp. Station Equip. | LB888 | F007 |  |  | - |  |  | - |  | - |  | - |
| 237 | 889 | Maintenance Meas and Reg. General | LB889 | F008 |  |  | - |  |  | - |  | - |  | - |
| 238 | 890 | Maintenance Meas and Reg - Industrial | LB890 | F011 |  |  | - |  |  | 188,595 |  | - |  | - |
| 2398 | 891 | Maintenance Meas and Reg.-City Gate | LB891 | F008 |  |  | - |  |  | - |  | - |  | - |
| 240 | 892 | Maintenance Services | LB892 | F010 |  |  | 537,961 |  |  | - |  | - |  | - |
| 241 | 893 | Maintenance Meters and House Reg. | LB893 | F011 |  |  | - |  |  | - |  | - |  | - |
| 2428 | 894 | Maintenance Other Equipment | LB894 | PTDSUB |  |  | 33,661 |  |  | 8,060 |  | - |  | - |
| $\frac{243}{244}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Total Maintenance Labor |  | LBDM |  | s |  | 571,622 | s |  | 196,655 | \$ | - | s | - |
| 245 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 246 | Total Transmission \& Distribution Labor |  | LBTD |  | s |  | 2,480,889 | \$ |  | 2,012,124 | \$ | - | s | - |
| 247 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 248 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{249}{250}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 901 | Supervision | LB901 | F012 |  |  | - |  |  | - |  | 858,916 |  | - |
|  | 902 | Meter Reading | LB902 | F012 |  |  | - |  |  | - |  | 291,309 |  | - |
| 251 | 903 | Customer Records and Collections | LB903 | F012 |  |  | - |  |  | - |  | 2,764,532 |  | - |
| 252 <br> 253 |  | Uncollectible Accounts | LB904 | F012 |  |  | - |  |  | - |  | - |  | - |
| $\frac{254}{255}$ | 905 | Misc. Cust Account Expenses | LB905 | F012 |  |  | - |  |  | - |  | - |  | - |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| -256 | Total Customer Accounts Labor |  | LBCA |  | s |  | - | \$ |  | - | s | 3,914,757 | s | - |
| 257 | Customer Service Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{258}{259}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 907-910 | Customer Service | LB907 | F013 |  |  | - |  |  | - |  | - |  | 240,990 |
| 259 | Sales Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 260 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 262 | 911-916 | Sales Expenses | LB911 | F013 |  |  | - |  |  | - |  | - |  | - |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 26 26 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{26}{26}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{26}{\frac{26}{26}}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{26}{26}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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|  | A | B | C | D | E |  | F |  | G |  | H |  | I |  |  | J |  | K |  | L |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{1}{2}$ | Descript |  | Name | Vector |  |  | $\begin{array}{r} \text { Total } \\ \text { Company } \end{array}$ |  | Procurement Demand |  | Procurement Commodity |  |  | Storage <br> Demand |  | $\begin{array}{r} \text { Storage } \\ \text { Commodity } \end{array}$ |  | Transmission NonStorage Related Demand |  | Transmission Storage Related Demand |
| 3 <br> 356 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{357}{358}$ Operation \& Maintenance Expenses (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 359 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 360 Transmission |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 361 | 850-867 | Transmission Expenses | OM850 | F005 |  | \$ | 18,074,099 |  | - |  | - |  |  | - |  | - |  | 15,102,338 |  | 2,971,761 |
| 363 Distribution Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 365 | 870 | Operation Supr and Engr | OM870 | Does |  | \$ | - |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 366 | 871 | Dist Load Dispatching | OM871 | F007 |  |  | 1,075,433 |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 367 | 872 | Compr. Station Labor and Exp. | OM872 | F007 |  |  | , |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 368 | 873 | Compr. Station Fuel and Power | OM873 | F007 |  |  | - |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 369 | 874.01 | Other Mains/Serv. Expenses | OM874.01 | CADAL |  |  | 9,885,996 |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 370 | 874.02 | Leak Survey-Mains | OM874.02 | F009 |  |  | 9,85, |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 371 | 874.03 | Leak Survey - Service | OM874.03 | F010 |  |  | - |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 372 | 874.04 | Locate Main per Request | OM874.04 | CADAL |  |  | - |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 373 | 874.05 | Check Stop Box Access | OM874.05 | F010 |  |  | - |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 374 | 874.06 | Patrolling Mains | OM874.06 | F009 |  |  | - |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 375 | 874.07 | Check/Grease Valves | OM874.07 | F009 |  |  | - |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 376 | 874.08 | Opr. Odor Equipment | OM874.08 | F007 |  |  | - |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 377 | 874.09 | Locate and Inspect Valve Boxes | OM874.09 | F009 |  |  | - |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 378 | 874.1 | Cut Grass - Right of Way | OM874.10 | F009 |  |  | - |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 379 |  | Meas and Reg Station Exp.- General | OM875 | F008 |  |  | 1,439,892 |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 380 | 876 | Meas and Reg Station Exp.- Industrial | OM876 | F011 |  |  | 649,731 |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 381 | 877 | Meas and Reg Station Exp. - City Gate | OM877 | F008 |  |  | 269,704 |  | - |  | - |  |  | - |  | - |  | - |  | - |
|  | 878 | Meter and House Reg. Expense | OM878 | F011 |  |  | 2,254,644 |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 383 | 879 | Customer Installation Expense | OM879 | F011 |  |  | 234,605 |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 384 | 880 | Other Expenses | OM880 | PTDSUB |  |  | 7,923,534 |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 385 | 881 | Rents | OM881 | PTDSUB |  |  | 26,536 |  | - |  | - |  |  | - |  | - |  | - |  | - |
| 386 | Total Operations Distribution Expense |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{387}{388}$ |  |  | OMDO |  |  | \$ | 23,760,075 |  | - |  | - |  |  | - |  | - |  | - |  | - |
| $\frac{388}{389}$ |  |  |  |  |  |  |  |  |  |  |  | \$ |  |  |  |  |  |  |  | 2,971,761 |
| 389 <br> 390 | Total Transmission and Distribution Oper Exp |  | OMTDO |  |  |  | 41,834,174 \$ | \$ |  | \$ |  |  |  |  |  |  | \$ | 15,102,338 | \$ |  |
| 391 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{392}{393}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 394 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 395 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{396}{397}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\underline{398}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification

|  |  | A | B | C | D |  | M |  | N |  | 0 |  | P |  | Q |  | R |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{1}{2}$ | Descrip | iption |  | Name | Vector |  | Distribution Commodity |  | ution Structures \& Equipment Demand |  | Distribution Mains Low \& Med. Pressure Demand |  | Distribution Mains Low \& Med. Pressure Customer |  | Distribution Mains High Pressure Demand |  | Distribution Mains High Pressure Customer |
| 35 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{357}{358}$ Operation \& Maintenance Expenses (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 359 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 360 Transmission |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 361 | 850-867 |  | Transmission Expenses | OM850 | F005 |  | - |  | - |  | - |  | - |  | - |  | - |
| 363 Distribution Expenses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 364 | Operation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 365 | 870 |  | Operation Supr and Engr | OM870 | does |  | - |  | - |  | - |  | - |  | - |  | - |
| 366 | 871 |  | Dist Load Dispatching | OM871 | F007 |  | 1,075,433 |  | - |  | - |  | - |  | - |  | - |
| 367 | 872 |  | Compr. Station Labor and Exp. | OM872 | F007 |  | - |  | - |  | - |  | - |  | - |  | - |
| 368 | 873 |  | Compr. Station Fuel and Power | OM873 | F007 |  | - |  | - |  | - |  | - |  | - |  | - |
| 369 | 874.01 |  | Other Mains/Serv. Expenses | OM874.01 | CADAL |  | - |  | - |  | 1,507,846 |  | 3,310,059 |  | 261,762 |  | 236,209 |
| 370 | 874.02 |  | Leak Survey-Mains | OM874.02 | F009 |  | - |  | - |  | - |  | - |  | - |  | - |
| 371 | 874.03 |  | Leak Survey - Service | OM874.03 | F010 |  | - |  | - |  | - |  | - |  | - |  | - |
| 372 | 874.04 |  | Locate Main per Request | OM874.04 | CADAL |  | - |  | - |  | - |  | - |  | - |  | - |
| 373 | 874.05 |  | Check Stop Box Access | OM874.05 | F010 |  | - |  | - |  | - |  | - |  | - |  | - |
| 374 | 874.06 |  | Patrolling Mains | OM874.06 | F009 |  | - |  | - |  | - |  | - |  | - |  | - |
| 375 | 874.07 |  | Check/Grease Valves | OM874.07 | F009 |  | - |  | - |  | - |  | - |  | - |  | - |
| $\frac{376}{37}$ | 874.08 |  | Opr. Odor Equipment | OM874.08 | F007 |  | - |  | - |  | - |  | - |  | - |  | - |
| 377 | 874.09 |  | Locate and Inspect Valve Boxes | OM874.09 | F009 |  | - |  | - |  | - |  | - |  | - |  | - |
| 378 | 874.1 |  | Cut Grass - Right of Way | OM874.10 | F009 |  | - |  | - |  | - |  | - |  | - |  | - |
| 379 | 875 |  | Meas and Reg Station Exp.- General | OM875 | F008 |  | - |  | 1,439,892 |  | - |  | - |  | - |  | - |
| 380 | 876 |  | Meas and Reg Station Exp.- Industrial | OM876 | F011 |  | - |  |  |  | - |  | - |  | - |  | - |
| 381 | 877 |  | Meas and Reg Station Exp. - City Gate | OM877 | F008 |  | - |  | 269,704 |  | - |  | - |  | - |  | - |
| 382 | 878 |  | Meter and House Reg. Expense | OM878 | F011 |  | - |  | - |  | - |  | - |  | - |  | - |
| 383 | 879 |  | Customer Installation Expense | OM879 | F011 |  | - |  | - |  | 2 |  | - |  | , 6 |  | 2 |
| 384 | 880 |  | Other Expenses | OM880 | PTDSUB |  | - |  | 472,187 |  | 1,023,241 |  | 2,246,242 |  | 177,634 |  | 160,294 |
| 385 | 881 |  | Rents | OM881 | PTDSUB |  | - |  | 1,581 |  | 3,427 |  | 7,523 |  | 595 |  | 537 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| -3878 | Total Operations Distribution Expense |  |  | OMDO |  |  | 1,075,433 | 2,183,364 |  | 2,534,514 |  | 5,563,824 |  | 439,991 |  |  | 397,039 |
| 388 <br> 389 |  |  |  | OMTDO |  |  | 1,075,433 | \$ | 2,183,364 |  |  |  | 5,563,824 | \$ | 439,991 | \$ | 397,039 |
| 390 |  |  |  |  |  |  |  | \$ |  | \$ 2,534,514 | \$ |  |  |  |  |  |
| $\frac{392}{}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 393 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 394 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| -395 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{397}{397}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 398 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification

|  | A | B | C | D |  | S |  | T |  | U |  | V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{1}{2}$ | Description |  | Name | Vector |  | $\begin{array}{r} \text { Services } \\ \text { Customer } \end{array}$ |  | $\begin{array}{r} \text { Meters } \\ \text { Customer } \\ \hline \end{array}$ | Customer AccountsCustomer |  |  | Customer Service Expense Customer |
| 3 |  |  |  |  |  |  |  |  |  |  |  |  |
| 357 Operation \& Maintenance Expenses (Continued) |  |  |  |  |  |  |  |  |  |  |  |  |
| 358 |  |  |  |  |  |  |  |  |  |  |  |  |
| 359 |  |  |  |  |  |  |  |  |  |  |  |  |
| 360 Transmission |  |  |  |  |  |  |  |  |  |  |  |  |
| 361 | 850-867 | Transmission Expenses | OM850 | F005 |  | - |  | - |  | - |  | - |
| 362 |  |  |  |  |  |  |  |  |  |  |  |  |
| 363 Distribution Expenses |  |  |  |  |  |  |  |  |  |  |  |  |
| 364 | Operatio |  |  |  |  |  |  |  |  |  |  |  |
| 365 | 870 | Operation Supr and Engr | OM870 | does |  | - |  |  |  |  |  | - |
| 3668 | 871 | Dist Load Dispatching | OM871 | F007 |  | - |  | - |  | - |  | - |
| 367 | 872 | Compr. Station Labor and Exp. | OM872 | F007 |  | - |  | - |  | - |  | - |
| 368 | 873 | Compr. Station Fuel and Power | OM873 | F007 |  | - |  | - |  | - |  | - |
| 369 | 874.01 | Other Mains/Serv. Expenses | OM874.01 | CADAL |  | 4,570,120 |  | - |  | - |  | - |
| 370 | 874.02 | Leak Survey-Mains | OM874.02 | F009 |  | - |  | - |  | - |  | - |
| 371 | 874.03 | Leak Survey - Service | OM874.03 | F010 |  | - |  | - |  | - |  | - |
| 372 | 874.04 | Locate Main per Request | OM874.04 | CADAL |  | - |  | - |  | - |  | - |
| 373 | 874.05 | Check Stop Box Access | OM874.05 | F010 |  | - |  | - |  | - |  | - |
| 374 | 874.06 | Patrolling Mains | OM874.06 | F009 |  | - |  | - |  | - |  | - |
| 375 | 874.07 | Check/Grease Valves | OM874.07 | F009 |  | - |  | - |  |  |  |  |
| 376 | 874.08 | Opr. Odor Equipment | OM874.08 | F007 |  | - |  | - |  | - |  | - |
| 377 | 874.09 | Locate and Inspect Valve Boxes | OM874.09 | F009 |  | - |  | - |  | - |  | - |
| 378 | 874.1 | Cut Grass - Right of Way | OM874.10 | F009 |  | - |  | - |  | - |  | - |
| 379 | 875 | Meas and Reg Station Exp.- General | OM875 | F008 |  | - |  | - |  | - |  | - |
| 380 | 876 | Meas and Reg Station Exp.- Industrial | OM876 | F011 |  | - |  | 649,731 |  | - |  | - |
| 381 |  | Meas and Reg Station Exp. - City Gate | OM877 | F008 |  | - |  | - |  | - |  | - |
| 382 | 878 | Meter and House Reg. Expense | OM878 | F011 |  | - |  | 2,254,644 |  | - |  | - |
| 383 | 879 | Customer Installation Expense | OM879 | F011 |  | - |  | 234,605 |  | - |  | - |
| 384 |  | Other Expenses | OM880 | PTDSUB |  | 3,101,333 |  | 742,603 |  | - |  | - |
| 385 | 881 | Rents | OM881 | PTDSUB |  | 10,386 |  | 2,487 |  | - |  | - |
| -386 |  |  |  |  |  |  |  |  |  |  |  |  |
| 387 | Total Operations Distribution Expense |  | OMDO |  |  | 7,681,839 |  | 3,884,070 |  | - |  | - |
| 388 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Total Tr | ission and Distribution Oper Exp | OMTDO |  | s | 7,681,839 | \$ | 3,884,070 | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 392 |  |  |  |  |  |  |  |  |  |  |  |  |
| 393 |  |  |  |  |  |  |  |  |  |  |  |  |
| 394 |  |  |  |  |  |  |  |  |  |  |  |  |
| -395 |  |  |  |  |  |  |  |  |  |  |  |  |
| 397 |  |  |  |  |  |  |  |  |  |  |  |  |
| 398 |  |  |  |  |  |  |  |  |  |  |  |  |

Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification

| A | C | D |  | M |  | N |  | 0 |  | P |  | Q |  | R |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1  <br> 2 Description | Name | Vector |  | Distribution Commodity |  | ution Structures \& Equipment Demand |  | $\begin{array}{r} \text { Distribution Mains - } \\ \text { Low \& Med. Pressure } \\ \text { Demand } \end{array}$ |  | Distribution Mains Low \& Med. Pressure Customer |  | Distribution Mains High Pressure Demand |  | Distribution Mains High Pressure Customer |
| 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 619 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 620 Internally Generated Functional Vectors |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 622 Sub-Total Distribution Plant |  | PTDSUB |  | - |  | 0.059593 |  | 0.129139 |  | 0.283490 |  | 0.022419 |  | 0.020230 |
| 623 Storage-Transmission-Distribution Subtotal |  | PTSUB |  | - |  | 0.042868 |  | 0.092896 |  | 0.203928 |  | 0 |  | 0 |
| 624 Total Storage Plant |  | PTST |  | - |  | - |  | - |  | - |  | - |  | - |
| 625 Transmission Plant |  | PT365 |  | - |  | - |  | - |  | - |  |  |  | - |
| 626 General Plant |  | PT389 |  |  |  | 0.042868 |  | 0.092896 |  | 0.203928 |  | 0 |  | 0 |
| 627 Total Distribution Plant |  | PTDSUB |  | - |  | 0.059593 |  | 0.129139 |  | 0.283490 |  | 0 |  | 0 |
| 628 Sub-Total CWIP |  | CWIP |  | - |  | 0.004501 |  | 0.111073 |  | 0.243829 |  | 0 |  | 0 |
| 629 Total Operation and Maintenance Expenses |  | омт |  | 0.018068 |  | 0.047500 |  | 0.074178 |  | 0.162837 |  | 0 |  | 0 |
| 630 Total Depreciation Reserve |  | DEPR |  | - |  | 0.018257 |  | 0.146856 |  | 0.251182 |  | 0 |  | 0 |
| 631 Storage-Transmission -Distribution Plant Subtotal |  | PTSUB |  | - |  | 0.042868 |  | 0.092896 |  | 0.203928 |  | 0 |  | 0 |
| 632 Total Labor Expenses |  | LBtot |  | 0.033197 |  | 0.066771 |  | 0.070373 |  | 0.154484 |  | 0 |  | 0 |
| 633 Transmission and Distribution Payroll |  | LBTD |  | 0.051958 |  | 0.104021 |  | 0.109091 |  | 0.239479 |  | 0 |  | 0 |
| 634 Transmission and Distribution Mains |  | TDMSUB |  | - |  | - |  | 0.195024 |  | 0.428122 |  | 0 |  | 0 |
| 635 Storage Operation Expenses Labor Subtotal | OSE |  |  | - |  |  |  | - |  | - |  |  |  |  |
| 636 Storage Maintenance Expenses Labor Subtotal | MSE |  |  | - |  | - |  | - |  | - |  | - |  | - |
| 637 Mains \& Services | CADAL |  |  | - |  | - |  | 139,469,306 |  | 306,166,312 |  | 24,211,839 |  | 21,848,279 |
| 638 Demand/Commodity Percent of Purchased Gas Cost | DMCM |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 639 Distribution Operation Expenses Labor Subtotal | DOES |  |  | 838,265 |  | 1,183,787 |  | 629,935 |  | 1,382,849 |  | 109,357 |  | 98,681 |
| 640 Distribution Maintenance Expenses Labor Subtotal | DMES |  |  | - |  | 494,445 |  | 1,130,088 |  | 2,480,795 |  | 196,183 |  | 177,032 |
| 641 Subtotal Labor Expenses | LBSUB |  |  | 838,265 | \$ | 1,678,232 |  | 1,760,023 | \$ | 3,863,645 | s | 305,540 |  | 275,713 |
| 642 Subtotal O\&M Expenses | omsub |  |  | 1,075,433 | \$ | 3,308,347 |  | 6,019,987 | s | 13,215,217 | s | 1,045,068 |  | 943,049 |
| 643 Depreciation Reserve - Distribution | DEPRDIS |  |  |  | s | 4,247,160 | S | 42,919,420 | s | 71,843,810 | s | 6,245,561 |  | 4,501,029 |

Cost of Service Study
12 Months Ended June 30, 2022
Functional Assignment and Classification


## Exhibit WSS-37

## Gas Cost of Service Study <br> Class Allocation

(Louisville Gas and Electric Company)

## Cost of Service Study

12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



Cost of Service Study
12 Months Ended June 30, 2022
Class Allocation


Cost of Service Study
12 Months Ended June 30, 2022
Class Allocation


Cost of Service Study
12 Months Ended June 30, 2022

## Class Allocation



## Exhibit WSS-38

## Gas Cost of Service Study <br> Storage Allocation

(Louisville Gas and Electric Company)

Calculation of Maximum Class Demands On February 26th Design Day (4 Degrees) for Determination of Demand Allocation Factors

|  | Residential <br> Rate | Commercial <br> Rate <br> CGS | Industrial <br> Rate <br> IGS | Rate FT <br> 5 Percent <br> Balancing |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Calculated Daily Requirements at 4 Degrees (61 HDDs) | Total | 416,029 | 276,944 | 129,292 | 9,793 |

Allocation of Underground Storage

|  | Storage Withdrawals | Residential Rate RGS | Commercial Rate CGS | Industrial Rate IGS | Rate FT <br> 5 Percent <br> Balancing |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total Allocated Withdrawals Thru February 28th | 8,316,075 | 5,485,002 | 2,542,658 | 218,439 | 69,976 |
| Balance of Working Gas Allocated on the |  |  |  |  |  |
| Basis of 4 Degrees (Feb. 26th) | 3,363,925 | 2,239,365 | 1,045,508 | 79,052 | 0 |
| Total Working Gas Cycled | 11,680,000 | 7,724,367 | 3,588,166 | 297,491 | 69,976 |
| Total Allocation Factor For Underground Storage | 1.000000 | 0.661333 | 0.307206 | 0.025470 | 0.005991 |

## Exhibit WSS-39

## Summary Results of Lead-Lag Study

## Kentucky Utilities Company <br> Cash Working Capital Analysis <br> 2020 Kentucky Rate Case <br> Revenue Lag Days Based on the Year Ended December 31, 2019 <br> Expense Lead Days Based on the Year Ended December 31, 2017

| ead/Lag Days Summary |  |
| :---: | :---: |
|  | Lag Days |
| Revenue |  |
| Meter Reading. | 15.21 |
| Billing... | 4.20 |
| Collection... | 25.09 |
| Bank... | 1.00 |
| Total. | 45.50 |
|  | Lead Days |
| O\&M Expense |  |
| Fuel: Coal.. | 27.28 |
| Fuel: Gas. | 39.32 |
| Fuel: Oil... | 17.32 |
| Other Non-Fuel Commodities.. | 27.76 |
| Purchased Power... | 23.66 |
| Payroll Expense... | 13.01 |
| Pension Expense.. | - |
| OPEB Expense..... | - |
| Team Incentive Award Compensation... | 244.79 |
| 401k Match Expense.... | 22.56 |
| Retirement Income Account Expense.. | 283.50 |
| Uncollectible Expense. | 131.70 |
| Major Storm Damage Expense... | 41.74 |
| Charges from Affiliates. | 25.39 |
| Other O\&M..... | 48.05 |
| Depreciation and Amortization Expense |  |
| Depreciation and Amortization....................................... | - |
| Regulatory Debits..................................................... | - |
| Amortization of Regulatory Assets............................... | - |
| Amortization of Regulatory Liabilities.. | - |
| Income Tax Expense |  |
| Current: Federal... | 37.50 |
| Current: State... | 37.50 |
| Deferred: Federal and State (Including ITC).. | - |
| Taxes Other Than Income |  |
| Property Tax Expense.................................................... | 157.57 |
| Payroll Tax Expense.. | 35.64 |
| Other Taxes. | (152.00) |
| Interest Expense...................................................... | 88.65 |
| Sales Tax............................................................... | 39.80 |
| School Tax............................................................. | 34.95 |
| Franchise Fees....................................................... | 67.16 |

## Louisville Gas and Electric Company

Cash Working Capital Analysis
2020 Kentucky Rate Case
Revenue Lag Days Based on the Year Ended December 31, 2019
Expense Lead Days Based on the Year Ended December 31, 2017

| Lead/Lag Days Summary |  |  |
| :---: | :---: | :---: |
|  | Lag Days |  |
|  | Electric | Gas |
| Revenue |  |  |
| Meter Reading...................................................... | 15.21 | 15.21 |
| Billing..... | 4.29 | 4.28 |
| Collection.. | 23.77 | 23.77 |
| Bank.... | 1.00 | 1.00 |
| Total... | 44.27 | 44.26 |
|  | Lead Days |  |
|  | Electric | Gas |
| O\&M Expense |  |  |
| Fuel: Coal.......................................................... | 24.36 | n/a |
| Fuel: Gas........................................................... | 38.99 | n/a |
| Fuel: Oil............................................................. | 8.40 | $\mathrm{n} / \mathrm{a}$ |
| Other Non-Fuel Commodities................................... | 26.87 | n/a |
| Purchased Gas..................................................... | n/a | 39.66 |
| No-Notice Storage Injections and Withdrawals............... | n/a | - |
| Purchased Power................................................. | 28.37 | n/a |
| Payroll Expense... | 12.00 | 12.00 |
| Pension Expense...... | - | - |
| OPEB Expense... | - | - |
| Team Incentive Award Compensation......................... | 245.22 | 245.22 |
| 401k Match Expense.............................................. | 22.99 | 22.99 |
| Retirement Income Account Expense........................... | 283.50 | 283.50 |
| Uncollectible Expense............................................ | 174.20 | 256.34 |
| Major Storm Damage Expense... | 35.32 | 35.32 |
| Charges from Affiliates........................................... | 25.40 | 25.40 |
| Other O\&M.. | 49.19 | 49.19 |
| Depreciation and Amortization Expense |  |  |
| Depreciation and Amortization................................... | - | - |
| Regulatory Debits..................................................... | - | - |
| Amortization of Regulatory Assets................................. | - | - |
| Amortization of Regulatory Liabilities............................ | - | - |
| Income Tax Expense |  |  |
| Current: Federal................................................... | 37.50 | 37.50 |
| Current: State...... | 37.50 | 37.50 |
| Deferred: Federal and State (Including ITC)... | - | - |
| Taxes Other Than Income |  |  |
| Property Tax Expense... | 216.26 | 216.26 |
| Payroll Tax Expense.... | 35.48 | 35.48 |
| Other Taxes... | (148.70) | (148.70) |
| Interest Expense.................................................... | 87.50 | 87.50 |
| Sales Taxes.......................................................... | 39.83 | 39.83 |
| School Taxes........................................................ | 35.05 | 35.05 |
| Franchise Fees....................................................... | 100.24 | 100.24 |


[^0]:    ${ }^{1}$ In its Oder in Case No.2018-00295, the Commission required that the Basic Service Charge for both KU and LG\&E represent the same percentage of the customer-related costs from the Companies' cost of service studies. See Case No. 2018-00295, Order at 25 (Ky. P.S.C. April 30, 2019). The Companies' proposal in the current proceedings is consistent with that directive.

[^1]:    ${ }^{2}$ Electronic Application of Jackson Energy Cooperative Corporation for a General Adjustment in Existing Rates, Case No. 2019-00066, Order at 8 (Ky. P.S.C. June 19, 2019).

[^2]:    ${ }^{3}$ For accounting purposes, the Companies record a portion of the monthly conversion fees as revenue and a portion as a credit to net plant (viz., Account No. 108 - Accumulated Depreciation - Salvage). The portion credited to plant reflects the contribution that the conversion fees make toward the direct recovery of the stranded plant cost. Based on the current LED Conversion fee, for $\mathrm{KU} \$ 2.07$ of the fee is recorded as revenue and $\$ 3.96$ is recorded as a credit to plant, and for LG\&E, $\$ 2.56$ of the fee is recorded as revenue and $\$ 4.81$ is credited to plant. Based on the proposed LED Conversion Fee, for KU $\$ 1.72$ of the fee would be recorded as revenue and $\$ 3.29$ would be credited to plant, and for LG\&E $\$ 2.46$ of the fee would be recorded as revenue and $\$ 4.62$ would be credited to plant. While both charges are shown in Schedule M-2.3 for KU and LG\&E, only the revenue components of the conversion fees are included in test-year revenues.

[^3]:    ${ }^{4}$ The $1.75 \%$ increase in monthly unit charges for non-LED fixtures reflects the effect of transferring cost recovery of eliminated ECR projects into base rates and the impact of the proposed adjustments in the charges for poles and LED fixtures to current customers. While there is an increase in the monthly unit charge for nonLED fixtures, there is a corresponding reduction in the ECR mechanism revenues that would be billed. Of the $1.75 \%$ increase, $1.63 \%$ is related to the transfer of cost recovery of ECR revenue into base revenue.

[^4]:    ${ }^{5}$ The $16.57 \%$ increase in the monthly unit charges for non-LED fixtures reflects the effect of transferring cost recovery of eliminated ECR projects into base rates and the impact of the proposed adjustments in the charges for poles and LED fixtures to current customers. While there is an increase in the monthly unit charge for nonLED fixtures, there is a corresponding reduction in the ECR mechanism revenues that would be billed. Of the $16.57 \%$ increase, $4.53 \%$ is related to the transfer of cost recovery of ECR revenue into base revenue.

[^5]:    ${ }^{6}$ See The Adoption of a Small Power Production and Cogeneration Regulation Pursuant to Section 210 of Public Utility Regulatory Policies Act, Admin. Case No. 244, Order (Ky. P.S.C. Feb. 10, 1981).

[^6]:    ${ }^{7} \$ 0.2173$ per kWh is the current non-time-differentiated avoided cost rate in KU for Small Cogeneration and Small Power Production Qualifying Facilities (Standard Rate Rider SQF).

[^7]:    ${ }^{8}$ KRS 278.466(5).

[^8]:    ${ }^{9}$ Approval of the tariff was affirmed in Docket No. 18-WSEE-328-RTS after being considered in Docket No. 16-GIME-4030-GIE, which was an administrative case styled "In the Matter of the General Investigation to Examine Issues Surrounding Rate Design for Distributed Generation Customers."
    ${ }^{10}$ In 2018, Westar Energy received regulatory approval to be merged with Great Plains Energy to form Evergy, Inc. Evergy serves approximately 1.6 million customers in Kansas and Missouri.
    ${ }^{11}$ The date applicable to new distributed generation was subsequently moved to October 1, 2018, in the Kansas Corporation Commission's Order in Docket No. 18-WSEE-328-RTS.

[^9]:    ${ }^{12}$ Final Order, Docket No. 16-GIME-403-GIE dated September 21, 2017, at p.

[^10]:    ${ }^{13}$ For example, testimony was filed by Southwest Public Service Company and the New Mexico Public Regulation Staff in Case No. 17-00255-UT on the issue.

[^11]:    ${ }^{14}$ The only exception to this is that all-electric schools taking service prior the KU system on or before July 1, 2011, were allowed to continue to be served under a two-part rate schedule. Except for this grandfathering provision, customers with demand greater than 50 kVA must be served under demand-based rates.
    ${ }^{15}$ See "Presidential Address to the Junior Engineering Society, $4{ }^{\text {th }}$ Nov., 1892, On the Cost of Electric Supply", Original Papers by the Late John Hopkinson, Vol 1 (1901), pp. 254-268.

[^12]:    ${ }^{16}$ The meter was called the "Lincoln Demand Meter". See also, Paul M. Lincoln, "Rates and Rate Making", Transactions of the American Institute of Electrical Engineers, July to December 1915, at pp. 2279-2318. It is of historical interest that in responding to Lincoln's paper, the utility executive Louis R. Lee clearly described the basis for a four-part rate:
    [T]he idea of the demand charge is to cover fixed charges necessary to handle the demand both at power station in the distribution system and in service transformers. In the power station the portion of fixed cost which any individual customer should be charged with, would be based up his average demand during the peak load on the power plant. For the distribution system and service transformers, however, the amount which would be chargeable to the individual customer would depend upon his maximum demand regardless of the time of its occurrence. (Id., at p. 2354.)

[^13]:    ${ }^{17}$ The meter design was eventually purchased by Sangamo Electric Company and was used in non-billing industrial applications until the 1960s.
    ${ }^{18}$ Id. at pp. 2319-2360.

[^14]:    ${ }^{19}$ The sample includes customer loads for which the Companies have MV90 telemetering data. There were 20 residential net metering customers served by KU and 15 net metering customers served by LG\&E. The analysis of the data is intended to be illustrative. The Companies plan to collect more load data for net metering customers before evaluating four-part rates for distributed generation customers.

[^15]:    ${ }^{20}$ California utilities rely heavily on utility- and customer-owned solar power to meet peak demands. In midAugust, a heat wave in California resulted in rolling blackouts on two consecutive days. The problem came in the evening when solar generation dropped off. The rolling outages affected several hundred thousand customers starting around 6:30 PM on August 14 and 15, 2020. Once solar power provided to the grid fell below 6 percent of the load, grid operators were required to institute rolling blackouts. A spokesperson for the California Independent System Operator said, "The peak demand was steady in late hours, and we had thousands of megawatts of solar reducing their output as the sun set." Forbes, August 15, 2020.

[^16]:    ${ }^{21}$ See Exhibit WSS-9.
    ${ }^{22}$ According to the Electric Power Research Institute (EPRI), the number of electric vehicles registered in Kentucky grew to 4,133 in June 2020.

[^17]:    ${ }^{23}$ See https://www.esource.com/429201ebtf/ev-charging-and-pricing-what-are-consumers-willing-pay, dated September 20, 2020.

[^18]:    * Customers with 5 or more vehicles operating in the utility's service territory are eligible for a $25 \%$ discount.
    ** Rate is adjusted quarterly to reflect the average price charged in the service territory.
    *** Georgia Power charges $\$ 0.25$ per hour, which is equivalent to approximately \$0.30 per kWH for charging at its DC Fast Charging Stations.

[^19]:    ${ }^{24}$ Rate T was implemented in 1988 pursuant to the Commission's Order in Case No. 10064 (Ky. P.S.C. Jul. 1, 1988).
    ${ }^{25}$ In 1995, Rate FT replaced Rate T, which also included a distribution charge of \$0.43. See The Tariff Filing of Louisville Gas and Electric Company to Modify Firm Transportation Service Tariff, Case No. 95-037, Order (Ky. P.S.C. Jun. 27, 1995).
    ${ }^{26}$ Case No. 2014-00372, Order (Ky. P.S.C. Jun. 30, 2015).
    ${ }^{27}$ Case No. 2016-00371, Order (Ky. P.S.C. Jun. 29, 2017).

[^20]:    ${ }^{28}$ Electronic Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates, Case No. 201800294, Testimony of Stephen J. Baron (Ky. P.S.C. Jan. 16, 2019); Electronic Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Rates, Case No. 2018-00295, Testimony of Stephen J. Baron (Ky. P.S.C. Jan. 16, 2019).
    ${ }^{29}$ Case No. 2018-00294, Testimony of James T. Selecky (Ky. P.S.C. Jan. 16, 2019); Case No. 2018-00295, Testimony of James T. Selecky (Ky. P.S.C. Jan. 16, 2019).

[^21]:    30 "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).

[^22]:    ${ }^{31}$ The cost of service study used the zero intercept results from the detailed analysis that was performed based on plant records as of June 30, 2020.

[^23]:    ${ }^{32}$ This allocation factor is determined as follows: First, customer accounts supervision (Account 901), meter reading (Account 902), customer records and collections (Account 903), and miscellaneous customer account expenses (Account 905) were allocated to each customer class using a customer weighting factor based on discussions with LG\&E's meter reading, billing and customer service departments. A cost weighting factor of 1.0 was utilized for Residential Gas Service, a cost weighting factor of 1.1 was utilized for Commercial Gas Service, a cost weighting factor of 10 was utilized for Rates IGS and AAGS, and a customer weighting factor of 20 was utilized for Rate FT and special contracts. Using a cost weighting factor of 20 for Rate FT and special contracts, for example, means that the cost of performing the meter reading, billing and customer service functions for customers served under Rate FT is 20 times more than the cost of performing these same services for customers served under Rate RGS.

[^24]:    ${ }^{33}$ Virginia Administrative Code 20 VAC5-201-10 - Rules Governing Utility Rate Applications and Annual Information Filings with the VA SCC specifies that "Utilities required to use a lead/lag study should perform a complete lead/lag analysis every five years. Major items such as the revenue lag and balance sheet accounts should be reviewed every year."

[^25]:    ${ }^{1}$ Order Opening General Investigation, p. 5 (July 12, 2016).
    ${ }^{2} I d$.
    ${ }^{3}$ Westar Energy, Inc. and Kansas Gas and Electric Company (collectively, Westar), Kansas City Power \& Light Company ( KCP\&L), Southern Pioneer Electric Company (Southern Pioneer), Midwest Energy, Inc. (Midwest Energy), Empire District Electric Company (Empire).
    ${ }^{4}$ Order Opening General Investigation, p. 5.

[^26]:    ${ }^{5}$ Order Setting Procedural Schedule, p. 3 (Feb. 16, 2017).
    ${ }^{6}$ Initial Comments of Midwest Energy, Inc., (March 17, 2017) (Initial Comments Midwest Energy).
    ${ }^{7}$ Initial Comments of Southern Pioneer Electric Company Joined by the Kansas Electric Cooperatives, Inc., (March 17, 2017) (Initial Comments Southern Pioneer and KEC).
    ${ }^{8}$ Initial Comments of Westar Energy, Inc. and Kansas Gas and Electric Company Regarding Cost-Based Rates for Customers with Distributed Generation, (March 17, 2017) (Initial Comments Westar).
    ${ }^{9}$ Brightergy elected not to provide a sponsoring witness for its comments and later withdrew its comments from the evidentiary record. Brightergy requested its comments be included with the public comments.
    ${ }^{10}$ Testimony of Dorothy Barnett on Behalf of the Climate + Energy Project, (March 17, 2017) (Initial Comments CEP).
    ${ }^{11}$ Initial Comments of Kansas City Power \& Light Company, (March 17, 2017) (Initial Comments KCP\&L).
    ${ }^{12}$ United Wind elected not to provide a sponsoring witness for its comments and later withdrew its comments from the evidentiary record. United Wind requested its comments be included with the public comments.
    ${ }^{13}$ Initial Comments of Cromwell Environmental, (March 17, 2017) (Initial Comments Cromwell).

[^27]:    ${ }^{14}$ Initial Comments of Sunflower Electric Power Corporation and Mid-Kansas Electric Company, LLC, (March 17, 2017) (Initial Comments of Sunflower and Mid-Kansas).
    ${ }^{15}$ Notice of Filing of CURB'S Initial Comments, (March 17, 2017) (Initial Comments CURB).
    ${ }^{16}$ Affidavit of William G. Eichman on Behalf of The Empire District Electric Company, (March 17, 2017) (Initial Comments Empire).
    ${ }^{17}$ Notice of Filing Staff's Verified Initial Comments (March 17, 2017) (Initial Comments Staff).
    ${ }^{18}$ Reply Comments of Southem Pioneer Electric Company, (May 5, 2017) (Reply Comments Southem Pioneer).
    ${ }^{19}$ Reply Comments of Westar Energy, Inc. and Kansas Gas and Electric Company Regarding Cost-Based Rates for Customers with Distributed Generation, (May 5, 2017) (Reply Comments Westar).
    ${ }^{20}$ Reply Comments of Midwest Energy, Inc., (May 5, 2017) (Reply Comments Midwest).
    ${ }^{21}$ Notice of Filing Staff's Verified Reply Comments, (May 5, 2017) (Reply Comments Staff).
    ${ }^{22}$ Reply Comments of Sunflower Electric Power Corporation and Mid-Kansas Electric Company, LLC, (May 5, 2017) (Reply Comments Sunflower and Mid-Kansas).
    ${ }^{23}$ Reply Comments of Kansas City Power \& Light Company, (May 5, 2017) (Reply Comments KCP\&L).
    ${ }^{24}$ Affidavit of William G. Eichman Supporting Reply Comments on Behalf of The Empire District Electric Company, (May 5, 2017) (Reply Comments Empire).
    ${ }^{25}$ Brightergy elected not to provide a sponsoring witness for its comments and later withdrew its comments from the evidentiary record. Brightergy requested its comments be included with the public comments.
    ${ }^{26}$ Reply Comments of Cromwell Environmental, (May 5, 2017) (Reply Comments Cromwell).
    ${ }^{27}$ IBEW 304 elected not to provide a sponsoring witness for its comments and later withdrew its comments from the evidentiary record. IBEW 304 requested its comments be included with the public comments.
    ${ }^{28}$ Reply Comments of Climate and Energy, (May 5, 2017)(Reply Comments CEP).
    ${ }^{29}$ Testimony of Jeff Martin in Support of Stipulation and Agreement - Westar Energy, Inc. (June 20, 2017) (Testimony in Support Martin); On June 26, 2017, Westar late filed the Rebuttal Testimony of Ahmad Faruqui in Support of Stipulation and Agreement (Testimony in Support Faruqui).
    ${ }^{30}$ Testimony in Support of the Settlement Agreement of Bradley D. Lutz on behalf of Kansas City Power \& Light Company (June 20, 2017) (Testimony in Support Lutz).

[^28]:    ${ }^{31}$ Testimony in Support of Stipulation and Agreement Prepared by Richard J. Macke (June 20, 2017) (Testimony in Support Macke).
    ${ }^{32}$ Testimony in Support of the Non-Unanimous Stipulation and Agreement Prepared by Robert H. Glass (June 20, 2017) (Testimony in Support Glass).
    ${ }^{33}$ Testimony in Opposition to Non-Unanimous Stipulation and Agreement of Cary Catchpole on Behalf of CURB (Jun. 20, 2017) (Testimony in Opposition Catchpole); Testimony in Opposition to Non-Unanimous Stipulation and Agreement of Brian Kalcic on Behalf of CURB (Jun. 20, 2017) (Testimony in Opposition Kalcic).
    ${ }^{34}$ Testimony of Aron Cromwell in Opposition to Non-Unanimous Stipulation and Agreement (Jun. 20, 2017) (Testimony in Opposition Cromwell).
    ${ }^{35}$ Testimony of the Climate and Energy Project Addressing Non-Unanimous Settlement (Jun. 20, 2017) (Testimony in Opposition CEP).
    ${ }^{36}$ K.S.A. 66-101b.
    ${ }^{37}$ Kansas Gas and Elec. Co. v. Kansas Corp. Comm'n., 239 Kan. 483, 488 (1986).
    ${ }^{38}$ Jones v. Kansas Gas \& Electric Co., 222 Kan. 390, 401 (1977).
    ${ }^{39}$ Docket No. 12-KCPE-764-RTS (Aug. 22, 2012); Docket No. 16-KCPE-446-TAR (Jun. 22, 2017); See also, Midwest Gas Users Ass'n v. Kansas Corp. Comm'n, 3 Kan. App.2d 376, 380 (1979).
    ${ }^{40}$ Federal Power Comm 'n v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944); Kansas Gas and Electric Co., 239 Kan. At 501; Zinke \& Trumbo, Ltd. v. State Corp. Comm'n, 242 Kan. 470, 475 (1988).

[^29]:    ${ }^{41}$ Farmland Indus., Inc. v. Kansas Corp. Comm'n., 25 Kan.App.2d 849, 852 (1999).
    ${ }^{42}$ Zinke \& Trumbo, Ltd. v. Kansas Corp. Comm'n, 242 Kan. 470, 474 (1988) (quoting Kansas-Nebraska Natural Gas Co. v. Kansas Corp. Comm 'n, 217 Kan. 604, 617).
    ${ }^{43}$ Id. at 475.
    ${ }^{44}$ Krantz v. Univ. of Kansas, 271 Kan. 234, 241-42 (2001).
    ${ }^{45}$ Citizens' Utility Ratepayer Board v. Kansas Corp. Comm'n., 28 Kan.App.2d 313, 316, (2000) rev. denied March 20, 2001.
    ${ }^{46}$ See K.S.A. 66-101b (providing the Commission with the power to "require all electric public utilities governed by this act to establish and maintain just and reasonable rates").
    ${ }^{47}$ See, K.S.A. 77-501 et seq.
    ${ }^{48}$ See, K.S.A. 77-601 et seq.

[^30]:    ${ }^{49}$ Order Approving Contested Settlement Agreement, Docket No. 08-ATMG-280-RTS, p. 5 (May 12, 2008).
    ${ }^{50}$ Staff's Report and Recommendation p. 8 (March 11, 2016).
    ${ }^{51}$ Id. at pp. 7-8.
    ${ }^{52}$ Tr. Vol. 1, p. 177 Ins. 18-24; p. 178 lns. 16-19; pp. 126-127; pp. 178-179; pp. 180-82; p. $183 \operatorname{lns} .4-20$; Tr. Vol. 2, p. 335.
    ${ }_{53}$ Reply Brief of Commission Staff, pp.6-7 (Aug. 25, 2017) (Nothing in the S\&A limits or restricts a utility or the Commission to using a certain rate design. As discussed at hearing, Staff views the enumeration of rate design option in Paragraph 11 of the Stipulation and Agreement as merely that: options; not prescriptive requirements); Reply Brief of Citizens' Utility Ratepayer Board, p. 10 (Aug. 25, 2017); Post-Hearing Reply Brief of Kansas City Power \& Light Company, p. 12 (Aug. 25, 2017).

[^31]:    ${ }^{54}$ See Generally, Testimony in Opposition CEP; Testimony in Opposition Cromwell; Testimony in Opposition Kalcic; Testimony in Opposition Catchpole.
    ${ }^{\text {ss }}$ See Generally, Testimony in Support Glass; Testimony in Support Martin; Testimony in Support Faruqui; Testimony in Support Lutz; Testimony in Support Macke.
    ${ }^{56}$ See, Reply Comments Westar; Reply Comments Empire; Reply Comments KCP\&L; Reply Comments Sunflower and Mid-Kansas; Reply Comments Midwest Energy; Reply Comments KEC; Reply Comments Southern Pioneer; Reply Comments Staff; Initial Comments Staff.
    ${ }^{57}$ The omission from this Order of any argument or portion of the record raised by the participants in their briefs does not mean that it has not been considered. All such arguments have been evaluated and found to either lack merit or significance to the extent that their inclusion would only tend to lengthen this Order without altering its substance or effect.

[^32]:    ${ }^{58}$ Initial Comments Staff, p. 16, $\$ 41 ;$ Reply Comments of Commission Staff, pp. 5-6; Comments of Cary Catchpole for the Citizens' Utility Ratepayer Board on Distributed Generation Policy Matters, p. 7, §11, pp. 8-9, §12-13, (Mar. 17, 2017); Comments of Brian Kalcic for the Citizens' Utility Ratepayer Board on Distributed Generation Rate Design, p. 8, (Mar. 17, 2017); Reply Comments Kalcic, pp. 2-4; Initial Comments Westar Energy, pp. 3-8, (Mar. 17, 2017); Reply Comments Westar, pp. 3-6, Initial Comments Empire District Electric Company, pp. 2-3, Reply Comments Empire, p. 1, pp. 3-4; Initial Comments Sunflower and Mid-Kansas, pp. 2-3; Initial Comments Southern Pioneer and KEC, p. 5, p. 7, If 17; Reply Comments Southem Pioneer, p. 8, 9ff 19-20, (May 5, 2017); Initial Comments Midwest Energy, pp. 3, 5-6, and 8; Reply Comments Midwest Energy, pp. 2-4; Initial Comments KCP\&L, p. 24; Reply Comments of KCP\&L, p. 8.
    ${ }^{59}$ Direct Testimony in Support Lutz, p. 5.

[^33]:    ${ }^{60}$ Initial Comments Staff, pp. 1-2; Initial Comments Westar Energy, pp. 7-13; Initial Comments Empire, p. 2; Initial Comments Southern Pioneer and KEC, pp. 5-7; Initial Comments Midwest Energy, $\mathbb{1} 13$; Initial Comments KCP\&L, pp. 23-24; Initial Comments of Cary Catchpole for the CURB, $\mathbb{q} 16$; Initial Comments of Brian Kalcic for the CURB, 97.
    ${ }_{61}$ Initial Comments Staff, pp. 1-4; Tr. Vol. 1, p. 112.
    ${ }^{62}$ See Faruqui Initial Affidavit, at pp. 12-22, Brown Initial Affidavit, at pp. 41-42, Martin Initial Affidavit, at pp. 45, Faruqui Reply Affidavit, at pp. 1-2, Brown Reply Affidavit, at pp. 1-4, Martin Reply Affidavit, at pp. 5-6.
    ${ }^{63}$ Initial Comments of Southern Pioneer and KEC, p. 7; Initial Comments of Sunflower and Mid-Kansas, p. 4.
    ${ }^{64}$ Initial Comments CURB, p. 5; Initial Comments Empire, p. 3; Initial Comments Sunflower and Mid-Kansas, p. 4.
    ${ }^{65}$ Direct Testimony in Support Lutz, p. 7.
    ${ }^{66}$ Direct Testimony in Support Lutz, p. 7.

[^34]:    ${ }^{67}$ See, K.S.A. 66-101b; K.A.R. 82-1-231.
    ${ }^{68}$ Direct Testimony in Support Lutz, p. 8.
    ${ }^{69}$ Direct Testimony in Support Lutz, p. 8.
    ${ }^{70}$ Order Opening General Investigation, p. 5.
    ${ }^{71}$ Initial Comments Staff, pp. 2-3

[^35]:    ${ }^{72}$ Initial Comments Staff, p. 8 (Mar. 17, 2017); Reply Comments Staff, p. 3; See also, Direct Testimony in Support Lutz, p. 8.
    ${ }^{73}$ Direct Testimony in Support Lutz, p. 9.
    ${ }^{74}$ Id.

[^36]:    ${ }^{75}$ Direct Testimony in Support Lutz, p. 10.
    ${ }^{76} 1 \mathrm{~d}$.
    ${ }^{77}$ Tr. Vol. 1, p. 124.
    ${ }^{78}$ Direct Testimony in Support Lutz, p. 10.

[^37]:    ${ }^{79}$ Direct Testimony in Support Glass, p. 7.
    ${ }^{80}$ S\&A, ITT 9-10.
    ${ }^{81}$ Id. at $\mathbb{1}$ 13; See also, K.A.R. 82-1-231.
    ${ }^{82}$ S\&A, at 914.
    ${ }^{83}$ Id. at $\mathbb{1} 11$.

[^38]:    ${ }^{84}$ Initial Comments Staff, p. 1.
    ${ }^{85}$ Initial Comments Staff, pp. 1, 4; Tr. Vol. 1, p. 112.
    ${ }^{86} \mathrm{Tr}$. Vol. 1 pp. 113-120; p.130; pp. 298-299.

[^39]:    ${ }^{87}$ K.S.A. 66-118b; K.S.A. 77-529(a)(1).

