East Kentucky Power Cooperative, Inc. Case No. 2021-00103 General Adjustment of Rates Filing Requirements / Exhibit List

Exhibit 15

807 KAR 5:001 Sec. 16(4)(b) Sponsoring Witness: John Spanos

Description of Filing Requirement:

If the utility has gross annual revenues greater than \$5,000,000, the written testimony of each witness the utility proposes to use to support its application.

Response:

In support of its Application, EKPC provides written testimony from Mr. John Spanos, President at Gannett Fleming Valuation and Rate Consultants, LLC, whose testimony is included with this Exhibit 15.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In '	the	M	[atter	of:

THE ELECTRONIC APPLICATION OF EAST)	
KENTUCKY POWER COOPERATIVE, INC.)	
FOR A GENERAL ADJUSTMENT OF RATES,)	Case No. 2021-00103
APPROVAL OF DEPRECIATION STUDY,)	
AMORTIZATION OF CERTAIN REGULATORY)	
ASSETS AND OTHER GENERAL RELIEF)	

DIRECT TESTIMONY

OF

JOHN J. SPANOS

ON BEHALF OF

EAST KENTUCKY POWER COOPERATIVE

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I. INTRODUCTION

1 O. PLEASE STATE YOUR NAME AND A) ADDRESS	i.
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- 2 A. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp
- 3 Hill, Pennsylvania, 17011.

4 O. ARE YOU ASSOCIATED WITH ANY FIRM?

- 5 A. Yes. I am associated with the firm of Gannett Fleming Valuation and Rate
- 6 Consultants, LLC (Gannett Fleming).
- 7 Q. HOW LONG HAVE YOU BEEN ASSOCIATED WITH GANNETT
- **FLEMING?**
- 9 A. I have been associated with the firm since June 1986.
- 10 O. WHAT IS YOUR POSITION WITH THE FIRM?
- 11 A. I am the President.
- 12 Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?
- 13 A. I am testifying on behalf of East Kentucky Power Cooperative. ("EKPC" or
- "Company").
- 15 Q. PLEASE STATE YOUR QUALIFICATIONS.
- 16 A. I have over 34 years of depreciation experience which includes giving expert
- testimony in over 350 cases before 41 regulatory commissions in the United States
- and Canada, including this Commission. The cases include depreciation studies in
- the electric, gas, water, wastewater and pipeline industries. In addition to the cases
- where I have submitted testimony, I have supervised in over 700 other depreciation
- or valuation assignments. Please refer to Appendix A for additional information
- on my qualifications, which includes further information with respect to my work

- history, case experience, and my leadership in the Society of Depreciation
- 2 Professionals.
- 3 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS
- 4 **PROCEEDING?**
- 5 A. My testimony will support and explain the depreciation study conducted under my
- direction and supervision for the electric utility plant of EKPC. The study
- 7 represents all electric plant assets.
- 8 Q. ARE YOU SPONSORING ANY FILING REQUIREMENTS?
- 9 **A.** Yes, the depreciation study meets the filing requirements contained in 807 KAR 5:001, Section 16(4)(n).

II. <u>DISCUSSION</u>

- 11 Q. PLEASE DEFINE THE CONCEPT OF DEPRECIATION.
- 12 A. Depreciation refers to the loss in service value not restored by current maintenance,
- incurred in connection with the consumption or prospective retirement of utility
- plant in the course of service from causes which are known to be in current
- operation, against which the Company is not protected by insurance. Among the
- causes to be given consideration are wear and tear, decay, action of the elements,
- obsolescence, changes in the art, changes in demand and the requirements of public
- authorities.
- 19 Q. PLEASE IDENTIFY EXHIBIT JJS-1.
- 20 A. Exhibit JJS-1 is a report entitled, "2019 Depreciation Study Calculated Annual
- Depreciation Accruals Related to Electric Plant as of December 31, 2019." This
- report sets forth the results of my depreciation study for EKPC.

1	Q.	IS EXHIBIT JJS-1 A TRUE AND ACCURATE COPY OF YOUR
2		DEPRECIATION STUDY?
3	A.	Yes.
4	Q.	DOES EXHIBIT JJS-1 ACCURATELY PORTRAY THE RESULTS OF
5		YOUR DEPRECIATION STUDY AS OF DECEMBER 31, 2019?
6	A.	Yes.
7	Q.	WHAT WAS THE PURPOSE OF YOUR DEPRECIATION STUDY?
8	A.	The purpose of the depreciation study was to estimate the annual depreciation
9		accruals related to electric plant in service for ratemaking purposes and determine
10		appropriate average service lives and net salvage percents for each plant account.
11	Q.	PLEASE DESCRIBE THE CONTENTS OF YOUR REPORT.
12	A.	The Depreciation Study is presented in nine parts. Part I, Introduction, presents the
13		scope and basis for the Depreciation Study. Part II, Estimation of Survivor Curves,
14		includes descriptions of the methodology of estimating survivor curves. Parts III
15		and IV set forth the analysis for determining service life and net salvage estimates.
16		Part V, Calculation of Annual and Accrued Depreciation, includes the concepts of
17		depreciation and amortization using the remaining life. Part VI, Results of Study,
18		presents a description of the results of my analysis and a summary of the
19		depreciation calculations. Parts VII, VIII and IX include graphs and tables that
20		relate to the service life and net salvage analyses, and the detailed depreciation
21		calculations by account.
22		The Depreciation Study also includes several tables and tabulations of data

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and calculations. Table 1 on pages VI-4 through VI-8 of the Depreciation Study

presents the estimated survivor curve, the net salvage percent, the original cost as of December 31, 2019, the book depreciation reserve, and the calculated annual depreciation accrual and rate for each account or subaccount. The section beginning on page VII-2 presents the results of the retirement rate analyses prepared as the historical bases for the service life estimates. The section beginning on page VIII-2 presents the results of the net salvage analysis. The section beginning on page IX-2 presents the depreciation calculations related to surviving original cost as of December 31, 2019.

9 Q. PLEASE EXPLAIN HOW YOU PERFORMED YOUR DEPRECIATION 10 STUDY.

A.

I used the straight line remaining life method of depreciation, with the average service life procedure for all plant assets except some general plant accounts. The annual depreciation is based on a method of depreciation accounting that seeks to distribute the unrecovered cost of fixed capital assets over the estimated remaining useful life of each unit, or group of assets, in a systematic and rational manner.

For General Plant Accounts 391.0, 391.1, 393.0, 394.0, 395.0, 397.0, 397.1 and 398.0, I used the straight line remaining life method of amortization. The annual amortization is based on amortization accounting that distributes the unrecovered cost of fixed capital assets over the remaining amortization period selected for each account and vintage.

Q. HOW DID YOU DETERMINE THE RECOMMENDED ANNUAL DEPRECIATION ACCRUAL RATES?

1	A.	I did this in two phases. In the first phase, I estimated the service life and net
2		salvage characteristics for each depreciable group, that is, each plant account or
3		subaccount identified as having similar characteristics. In the second phase, I
4		calculated the composite remaining lives and annual depreciation accrual rates
5		based on the service life and net salvage estimates determined in the first phase.

- Q. PLEASE DESCRIBE THE FIRST PHASE OF THE DEPRECIATION
 STUDY, IN WHICH YOU ESTIMATED THE SERVICE LIFE AND NET
 SALVAGE CHARACTERISTICS FOR EACH DEPRECIABLE GROUP.
- 9 A. The service life and net salvage study consisted of compiling historic data from
 10 records related to EKPC's plant; analyzing these data to obtain historic trends of
 11 survivor and net salvage characteristics; obtaining supplementary information from
 12 EKPC's management, and operating personnel concerning practices and plans as
 13 they relate to plant operations; and interpreting the above data and the estimates
 14 used by other electric utilities to form judgments of average service life and net
 15 salvage characteristics.
- 16 Q. WHAT HISTORIC DATA DID YOU ANALYZE FOR THE PURPOSE OF
 17 ESTIMATING SERVICE LIFE CHARACTERISTICS?
- A. I analyzed the EKPC's accounting entries that record plant transactions during the period 1984 through 2019. The transactions included additions, retirements, transfers and the related balances. EKPC records also included surviving dollar value by year installed for each plant account as of December 31, 2019.
- Q. WHAT METHOD DID YOU USE TO ANALYZE THIS SERVICE LIFE
 DATA?

1	A.	I used the retirement rate method. This is the most appropriate method when aged
2		retirement data are available, because this method determines the average rates of
3		retirement actually experienced by EKPC during the period of time covered by the
4		study.

5 Q. PLEASE DESCRIBE HOW YOU USED THE RETIREMENT RATE 6 METHOD TO ANALYZE EKPC'S SERVICE LIFE DATA.

- I applied the retirement rate method to each different group of property in the study. 7 A. For each property group, I used the retirement rate method to form a life table 8 which, when plotted, shows an original survivor curve for that property group. 9 Each original survivor curve represents the average survivor pattern experienced 10 by the several vintage groups during the experience band studied. The survivor 11 patterns do not necessarily describe the life characteristics of the property group; 12 therefore, interpretation of the original survivor curves is required in order to use 13 14 them as valid considerations in estimating service life. The Iowa-type survivor curves were used to perform these interpretations. 15
- 16 Q. WHAT IS AN "IOWA-TYPE SURVIVOR CURVE" AND HOW DID YOU

 17 USE SUCH CURVES TO ESTIMATE THE SERVICE LIFE

 18 CHARACTERISTICS FOR EACH PROPERTY GROUP?
- 19 A. Iowa type curves are a widely used group of generalized survivor curves that
 20 contain the range of survivor characteristics usually experienced by utilities and
 21 other industrial companies. The Iowa curves were developed at the Iowa State
 22 College Engineering Experiment Station through an extensive process of observing

and classifying the ages at which various types of property used by utilities and other industrial companies had been retired.

A.

Iowa type curves are used to smooth and extrapolate original survivor curves determined by the retirement rate method. The Iowa curves and truncated Iowa curves were used in this study to describe the forecasted rates of retirement based on the observed rates of retirement and the outlook for future retirements.

The estimated survivor curve designations for each depreciable property group indicate the average service life, the family within the Iowa system to which the property group belongs, and the relative height of the mode. For example, the Iowa 60-R2 indicates an average service life of sixty years; a right-moded, or R, type curve (the mode occurs after average life for right-moded curves); and a moderate height, 2, for the mode (possible modes for R type curves range from 0.5 to 5).

Q. WHAT APPROACH DID YOU USE TO ESTIMATE THE LIVES OF SIGNIFICANT PRODUCTION FACILITIES?

I used the life span technique to estimate the lives of significant facilities for which concurrent retirement of the entire facility is anticipated. In this technique, the survivor characteristics of such facilities are described by the use of interim survivor curves and estimated probable retirement dates. The interim survivor curve describes the rate of retirement related to the replacement of elements of the facility, such as, for a power plant, the retirement of assets such as pumps, motors and piping that occur during the life of the facility. The probable retirement date provides the rate of final retirement for each year of installation for the facility by

[truncating the interim survivor curve for each installation year at its attained age at
2	the date of probable retirement. The use of interim survivor curves truncated at the
3	date of probable retirement provides a consistent method for estimating the lives of
1	the several years of installation for a particular facility inasmuch as a single
5	concurrent retirement for all years of installation will occur when it is retired.

Q. IS THIS APPROACH WIDELY ACCEPTED FOR ESTIMATING THE SERVICE LIVES OF PRODUCTION FACILITIES?

- A. Yes. The life span has been used previously for EKPC. My firm has also used the life span technique in performing depreciation studies presented to many other public utility commissions across the United States and Canada as well as for other electric utilities in Kentucky.
- 12 Q. HOW ARE THE LIFE SPANS ESTIMATED FOR EKPC'S PRODUCTION
 13 FACILITIES?
- 14 A. The life span estimates are based on informed judgment that incorporates factors
 15 for each facility such as the technology of the facility, management plans and
 16 outlook for the facility, and the estimates for similar facilities for other utilities.
- 17 Q. ARE THE FACTORS CONSIDERED IN YOUR ESTIMATES OF SERVICE
 18 LIFE AND NET SALVAGE PERCENTS PRESENTED IN EXHIBIT JJS-1?
- 19 A. Yes. A discussion of the factors considered in the estimation of service lives and
 20 net salvage percents are presented in Part III and Part IV of Exhibit JJS-1.
- Q. HAVE YOU PHYSICALLY OBSERVED EKPC'S PLANT AND
 EQUIPMENT AS PART OF YOUR DEPRECIATION STUDIES?

Yes. I made field reviews of EKPC's property during September 2018 to observe representative portions of plant. Due to travel restrictions and pandemic guidelines, only a virtual site visit of facilities were conducted for this study in November 2020. Field reviews are conducted to become familiar with Company operations and obtain an understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements. This knowledge was incorporated in the interpretation and extrapolation of the statistical analyses.

Α.

Α.

O. WOULD YOU PLEASE EXPLAIN THE CONCEPT OF "NET SALVAGE"?

Net salvage is a component of the service value of capital assets that is recovered through depreciation rates. The service value of an asset is its original cost less its net salvage. Net salvage is the salvage value received for the asset upon retirement less the cost to retire the asset. When the cost to retire exceeds the salvage value, the result is negative net salvage.

Inasmuch as depreciation expense is the loss in service value of an asset during a defined period, e.g. one year, it must include a ratable portion of both the original cost and the net salvage. That is, the net salvage related to an asset should be incorporated in the cost of service during the same period as its original cost so that customers receiving service from the asset pay rates that include a portion of both elements of the asset's service value, the original cost and the net salvage value.

For example, the full recovery of the service value of a \$5,000 circuit breaker will include not only the \$5,000 of original cost, but also, on average, \$550

- to remove the circuit breaker at the end of its life and \$50 in salvage value. In this
 example, the net salvage component is negative \$500 (\$50 \$550), and the net
 salvage percent is negative 10% ((\$50 \$550)/\$5,000).
- 4 Q. PLEASE DESCRIBE HOW YOU ESTIMATED NET SALVAGE
 5 PERCENTAGES.
- 6 A. The net salvage percentages estimated in the Depreciation Study were based on informed judgment that incorporated factors such as the statistical analyses of 7 historical net salvage data; information provided to me by EKPC's operating personnel, general knowledge and experience of the industry practices; and trends 9 in the industry in general. The statistical net salvage analyses incorporates EKPC's 10 actual historical data for the period 2005 through 2019, and considers the cost of 11 removal and gross salvage ratios to the associated retirements during the 15-year 12 period. Trends of these data are also measured based on three-year moving 13 14 averages and the most recent five-year indications.

15 Q. WERE THE NET SALVAGE PERCENTAGES FOR GENERATING 16 FACILITIES BASED ON THE SAME ANALYSES?

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A.

Yes, for the interim net salvage estimates. The net salvage percentages for generating facilities were based on two components, the interim net salvage percentage and the final net salvage percentage. The interim net salvage percentage is determined based on the historical indications from the period 2005 to 2019 of the cost of removal and gross salvage amounts as a percentage of the associated plant retired. The final net salvage or dismantlement component was determined

- based on the retirement activities associated with the assets anticipated to be retired
 at the concurrent date of final retirement.
- 3 Q. HAVE YOU INCLUDED A DISMANTLEMENT OR DECOMMISSIONING
- 4 COMPONENT INTO THE OVERALL RECOVERY OF GENERATING
- 5 **FACILITIES?**
- 6 A. Yes. A dismantlement or decommissioning component has been included to the
 7 net salvage percentage for steam and other production facilities.
- 8 Q. CAN YOU EXPLAIN HOW THE FINAL NET SALVAGE COMPONENT IS
- 9 INCLUDED IN THE DEPRECIATION STUDY?
- Yes. The dismantlement component is part of the overall net salvage for each 10 Α. location within the production assets. Based on studies for other utilities, it was 11 determined that the dismantlement or decommissioning costs for steam and other 12 production facilities is best calculated by dividing the dismantlement cost by the 13 14 surviving plant at final retirement. These amounts at a location basis are added to the interim net salvage percentage of the assets anticipated to be retired on an 15 interim basis to produce the weighted net salvage percentage for each location. The 16 17 calculation of terminal and interim retirements as a percentage of plant by location is set forth in Table 1, page VIII-2 of the Depreciation Study. The detailed 18 19 calculations of the overall net salvage for each location is set forth on Table 2, page 20 VIII-3 of the Depreciation Study.
- Q. WHAT IS THE BASIS OF THE DISMANTLEMENT OR
 DECOMMISSIONING COST ESTIMATES?

1	A.	The decommissioning cost estimates are based on decommissioning estimates of
2		other similar generating sites across the United States. For most steam facilities a
3		utility standard has been to expect costs to be comparable to \$40/kw. The costs for
4		other production plant are \$10/kw for combustion turbines and landfill locations
5		and \$5/kw for solar facilities. However, the costs to decommission power plants
6		has tended to increase over time (as have construction costs in general). For this
7		reason, in order to recover the full decommissioning costs for each site, these costs
8		need to be escalated to the time of retirement. The calculations of the escalation of
9		these costs have been provided in the table set forth on page VIII-4 of the
10		Depreciation Study.

- 11 Q. PLEASE DESCRIBE THE SECOND PHASE OF THE PROCESS THAT
 12 YOU USED IN THE DEPRECIATION STUDY IN WHICH YOU
 13 CALCULATED COMPOSITE REMAINING LIVES AND ANNUAL
 14 DEPRECIATION ACCRUAL RATES.
- A. After I estimated the service life and net salvage characteristics for each depreciable property group, I calculated the annual depreciation accrual rates for each depreciable group based on the straight line remaining life method, using remaining lives weighted consistent with the average service life procedure. The calculation of annual depreciation accrual rates were developed as of December 31, 2019.
- 20 Q. PLEASE DESCRIBE THE STRAIGHT LINE REMAINING LIFE
 21 METHOD OF DEPRECIATION.

- 1 A. The straight line remaining life method of depreciation allocates the original cost
 2 of the property, less accumulated depreciation, less future net salvage, in equal
 3 amounts to each year of remaining service life.
- 4 Q. PLEASE DESCRIBE THE AVERAGE SERVICE LIFE PROCEDURE FOR
 5 CALCULATING REMAINING LIFE ACCRUAL RATES.

A. The average service life procedure defines the group or account for which the remaining life annual accrual is determined. Under this procedure, the annual accrual rate is determined for the entire group or account based on its average remaining life and the rate is then applied to the surviving balance of the group's cost. The average remaining life of the group is calculated by first dividing the future book accruals (original cost less allocated book reserve less future net salvage) by the average remaining life for each vintage. The average remaining life for each vintage is derived from the area under the survivor curve between the attained age of the vintage and the maximum age. The sum of the future book accruals is then divided by the sum of the annual accruals to determine the average remaining life of the entire group for use in calculating the annual depreciation accrual rate.

O. PLEASE DESCRIBE AMORTIZATION ACCOUNTING.

A. Amortization accounting is used for accounts with a large number of units, but small asset values. In amortization accounting, units of property are capitalized in the same manner as they are in depreciation accounting. However, depreciation accounting is difficult for these assets because periodic inventories are required to properly reflect plant in service. Consequently, retirements are recorded when a

1		vintage is fully amortized rather than as the units are removed from service. That
2		is, there is no dispersion of retirement. All units are retired when the age of the
3		vintage reaches the amortization period. Each plant account or group of assets is
4		assigned a fixed period which represents an anticipated life during which the asset
5		will render service. For example, in amortization accounting, assets that have a 20-
6		year amortization period will be fully recovered after 20 years of service and taken
7		off EKPC's books, but not necessarily removed from service. In contrast, assets
8		that are taken out of service before 20 years remain on the books until the
9		amortization period for that vintage has expired.
10	Q.	AMORTIZATION ACCOUNTING IS BEING IMPLEMENTED FOR
11		WHICH PLANT ACCOUNTS?
12	A.	Amortization accounting is only appropriate for certain General Plant accounts.
13		These accounts are 391.0, 391.1, 393.0, 394.0, 395.0, 397.0, 397.1 and 398.0 for
14		General Plant which represents approximately two percent of depreciable plant.
15	Q.	PLEASE USE AN EXAMPLE TO ILLUSTRATE THE DEVELOPMENT
16		OF THE ANNUAL DEPRECIATION ACCRUAL RATE FOR A
17		PARTICULAR GROUP OF PROPERTY IN YOUR DEPRECIATION
18		STUDY.
19	A.	I will use Account 353.0, Station Equipment, as an example because it is one of the
20		largest depreciable groups.
21		The retirement rate method was used to analyze the survivor characteristics
22		of this property group. Aged plant accounting data were compiled from 1984

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through 2019 and analyzed in periods that best represent the overall service life of

this property. The life tables for the 1984-2019 and 2005-2019 experience bands are presented in the depreciation study on pages VII-38 through VII-41. Each life table displays the retirement and surviving ratios of the aged plant data exposed to retirement by age interval. For example, page VII-38 of Exhibit JJS-1, shows \$261,637 retired during age interval 0.5-1.5 with \$241,177,991 exposed to retirement at the beginning of the interval. Consequently, the retirement ratio is 0.0011 (\$261,637/\$241,177,991) and the survivor ratio is 0.9989 (1-0.0011). The life tables, or original survivor curves, are plotted along with the estimated smooth survivor curve, the 60-R2, on page VII-37 of Exhibit JJS-1.

The net salvage percent is presented on page VIII-15. The percentage is based on the result of annual gross salvage minus the cost to remove plant assets as compared to the original cost of plant retired during the period 2005 through 2019. The 15-year period experienced \$7,648,622 (\$460,576 - \$8,109,198) in net salvage for \$13,595,581 plant retired. The result is negative net salvage of 56 percent (\$7,648,622/\$13,595,581). Recent trends have shown indications of negative 27 percent. The industry ranges are negative 5 to negative 25 percent. Therefore, it was determined that based on historical indications, industry ranges and EKPC expectations, that negative 25 percent was the most appropriate estimate.

My calculation of the annual depreciation related to original cost of electric utility plant at December 31, 2019 for Account 353.0 is presented on pages IX-53 and IX-54 of Exhibit JJS-1. The calculation is based on the 60-R2 survivor curve, 25% negative net salvage, the attained age, and the allocated book reserve. The tabulation sets forth the installation year, the original cost, calculated accrued

- depreciation, allocated book reserve, future accruals, remaining life and annual accrual. These totals are brought forward to Table 1 on page VI-7.
- 3 Q. ARE THERE OTHER SPECIAL RECOVERY AMOUNTS THAT WERE
- 4 **INCLUDED IN THE STUDY?**
- Yes. There is a special recovery amount for the unrecovered reserve amortization 5 A. 6 established for certain general plant accounts. In order to achieve a more stable accrual for general and common plant accounts in the future, I have recommended 7 a ten-year amortization to adjust unrecovered reserve. This approach will achieve 8 consistent amortization rates for existing assets as well as future assets. The reserve 9 for each of these accounts is segregated into two components. The first component 10 is the amount required to achieve the proper rate for the amortization period. The 11 remaining amount, which could be negative, is amortized over 10 years separately 12 from the assets. 13

III. CONCLUSION

- 14 Q. WAS EXHIBIT JJS-1 PREPARED UNDER YOUR DIRECTION AND
 15 CONTROL?
- 16 A. Yes.
- 17 O. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
- 18 A. Yes.



2019 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2019

Prepared by:



Excellence Delivered As Promised

EAST KENTUCKY POWER COOPERATIVE, INC.

Winchester, Kentucky

2019 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO ELECTRIC PLANT
AS OF DECEMBER 31, 2019

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC
Harrisburg, Pennsylvania



Excellence Delivered As Promised

March 8, 2021

East Kentucky Power Cooperative, Inc. 4775 Lexington Road Winchester. KY 40392

Attention Ms. Michelle K. Carpenter, CPA

Controller

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the electric plant of East Kentucky Power Cooperative, Inc. as of December 31, 2019. The attached report presents a description of the methods used in the estimation of depreciation, the summary of annual depreciation accrual rates, the statistical support for the life and net salvage estimates and the detailed tabulations of annual and accrued depreciation.

Respectfully submitted,

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

John J. Sparos

JOHN J. SPANOS

President

JJS:mle

067379

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EAST KENTUCKY POWER COOPERATIVE, INC.

DEPRECIATION STUDY

EXECUTIVE SUMMARY

Pursuant to East Kentucky Power Cooperative, Inc.'s ("EKPC" or "Company") request, Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a depreciation study related to the electric plant as of December 31, 2019. The purpose of this study was to determine the annual depreciation accrual rates and amounts for book and ratemaking purposes.

The depreciation rates are based on the straight line method using the average service life ("ASL") procedure and were applied on a remaining life basis. The calculations were based on attained ages and estimated average service life and forecasted net salvage characteristics for each depreciable group of assets.

EKPC's accounting policy has not changed since the last depreciation study was prepared. However, there have been changes in plans of some generating assets since the most recent study as well as additions of capital investment in all plant categories. Some service lives for transmission and distribution plant have become slightly longer, however, the primary change has been the utilization of appropriate net salvage percentages for many accounts including a component of terminal net salvage for generating facilities.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to electric plant in service as of December 31, 2019 as summarized by Table 1 of the study. Supporting analysis and calculations are provided within the study.



The study results set forth an annual depreciation expense of \$129.1 million when applied to depreciable plant balances as of December 31, 2019. The results are summarized at the functional level as follows:

SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS

FUNCTION	ORIGINAL COST AS OF DECEMBER 31, 2019	PROPOSED RATE	PROPOSED EXPENSE
Electric Plant			
Steam Production Plant	\$ 2,426,607,851.36	3.55	\$ 86,108,150
Other Production Plant	639,379,853.03	2.87	18,378,213
Transmission Plant	588,898,570.85	2.59	15,271,844
Distribution Plant	238,391,641.92	2.51	5,983,284
General Plant	141,393,195.68	3.53	4,986,678
General Plant Reserve Amortization		-	(1,910,304)
Total	<u>\$4,037,004,423.89</u>	3.20	<u>\$129,084,263</u>



PART I. INTRODUCTION



EAST KENTUCKY POWER COOPERATIVE, INC. DEPRECIATION STUDY

PART I. INTRODUCTION

SCOPE

This report sets forth the results of the depreciation study for East Kentucky Power Cooperative, Inc. ("Company"), to determine the annual depreciation accrual rates and amounts for book purposes applicable to the original cost of electric plant as of December 31, 2019. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to electric plant in service as of December 31, 2019.

The service life and net salvage estimates resulting from the study were based on informed judgment which incorporated analyses of historical plant retirement data as recorded through 2019, a review of Company practice and outlook as they relate to plant operation and retirement, and consideration of current practice in the electric industry, including knowledge of service lives and net salvage estimates used for other electric companies.

PLAN OF REPORT

Part I, Introduction, contains statements with respect to the plan of the report, and the basis of the study. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and the methods used in the service life and net salvage studies. Part III, Service Life Considerations, presents the factors and judgment utilized in the average service life analysis. Part IV, Net Salvage Considerations, presents the judgment utilized for the net salvage study. Part V, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of group depreciation. Part VI, Results



of Study, presents summaries by depreciable group of annual depreciation accrual rates and amounts as well as composite remaining lives. Part VII, Service Life Statistics, presents the statistical analysis of service life estimates, Part VIII, Net Salvage Statistics, sets forth the statistical indications of net salvage percents, and Part IX, Detailed Depreciation Calculations, presents the detailed tabulations of annual depreciation.

BASIS OF THE STUDY

Depreciation

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among causes to be given consideration are wear and tear, deterioration, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and the requirements of public authorities.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing electric utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight line method of depreciation.

For most accounts, the annual depreciation was calculated by the straight line method using the average service life procedure and the remaining life basis. For certain General Plant accounts, the annual depreciation is based on amortization accounting.



Both types of calculations were based on original cost, attained ages, and estimates of service lives and net salvage.

The straight line method, average service life procedure is a commonly used depreciation calculation procedure that has been accepted in Kentucky. Amortization accounting is used for certain General Plant accounts because of the disproportionate plant accounting effort required when compared to the minimal original cost of the large number of items in these accounts. An explanation of the calculation of annual and accrued amortization is presented beginning on page V-4 of the report.

Service Life and Net Salvage Estimates

The service life and net salvage estimates used in the depreciation and amortization calculations were based on informed judgment which incorporated a review of management's plans, policies and outlook, a general knowledge of the electric utility industry, and comparisons of the service life and net salvage estimates from our studies of other electric utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for electric plant. Iowa type survivor curves were used to depict the estimated survivor curves for the plant accounts not subject to amortization accounting.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data analyses and the probable future. The combination of the historical experience and the estimated future yielded estimated survivor curves from which the average service lives were derived.



PART II. ESTIMATION OF SURVIVOR CURVES



PART II. ESTIMATION OF SURVIVOR CURVES

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

SURVIVOR CURVES

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units or by constructing a survivor curve by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.



This study has incorporated the use of lowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

Iowa Type Curves

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the lowa type curves. There are four families in the lowa system, labeled in accordance with the location of the modes of the retirements in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family.

The lowa curves were developed at the lowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.



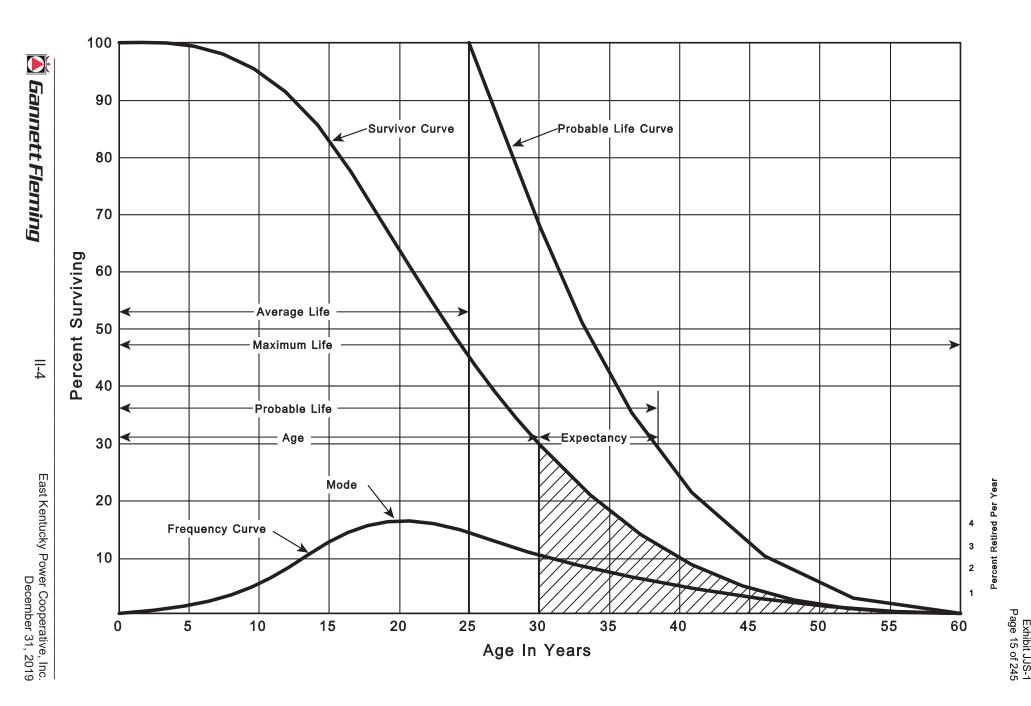


Figure 1. A Typical Survivor Curve and Derived Curves

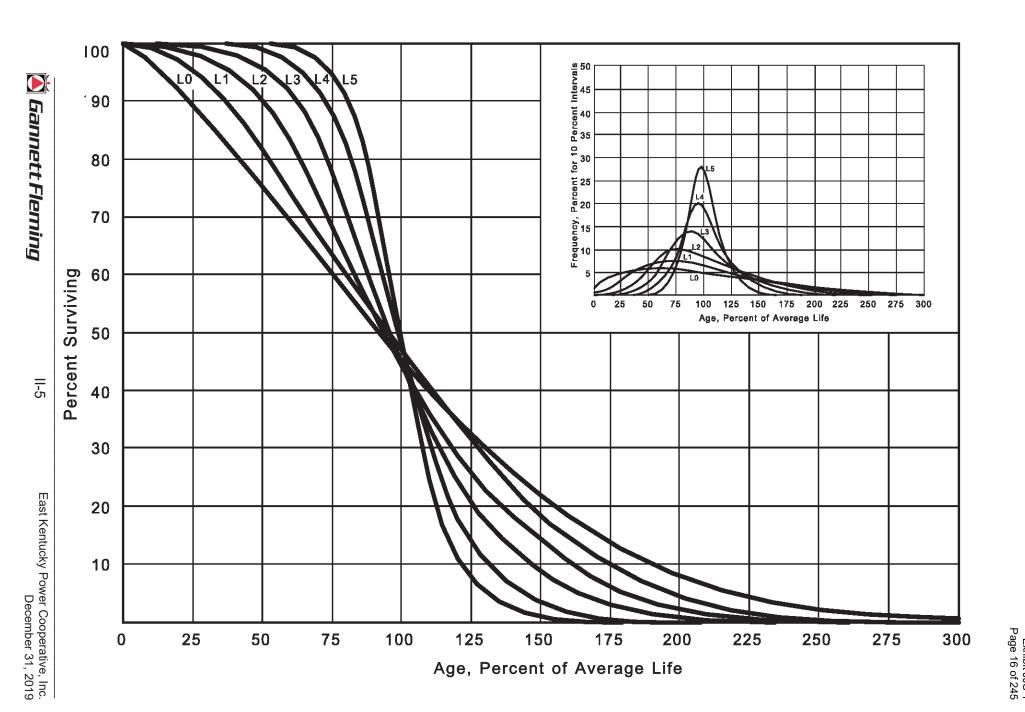


Figure 2. Left Modal or "L" lowa Type Survivor Curves

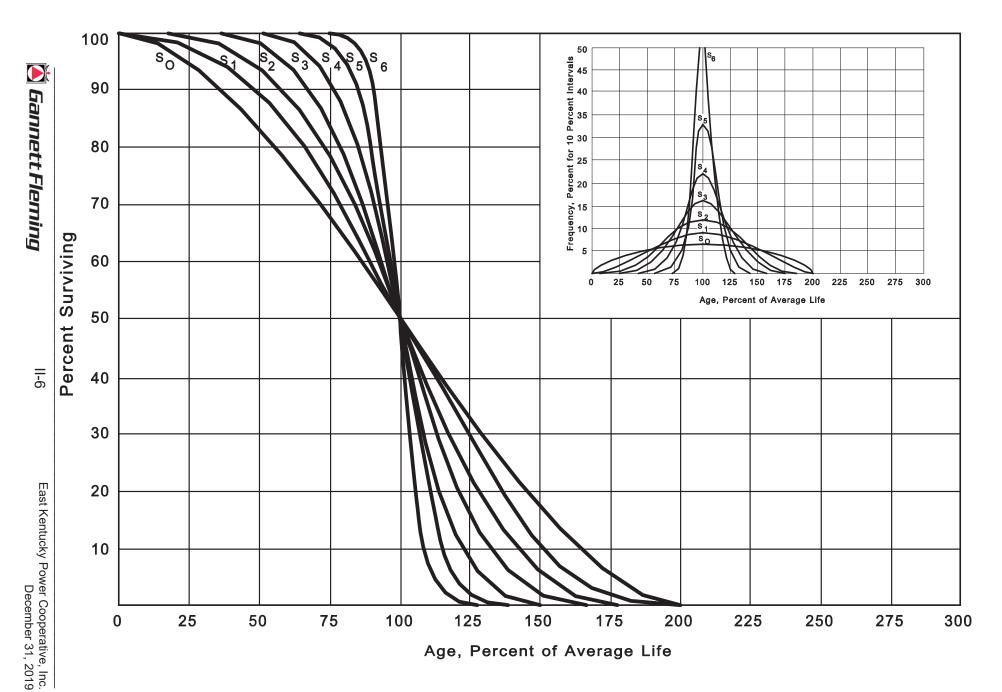


Figure 3. Symmetrical or "S" lowa Type Survivor Curves

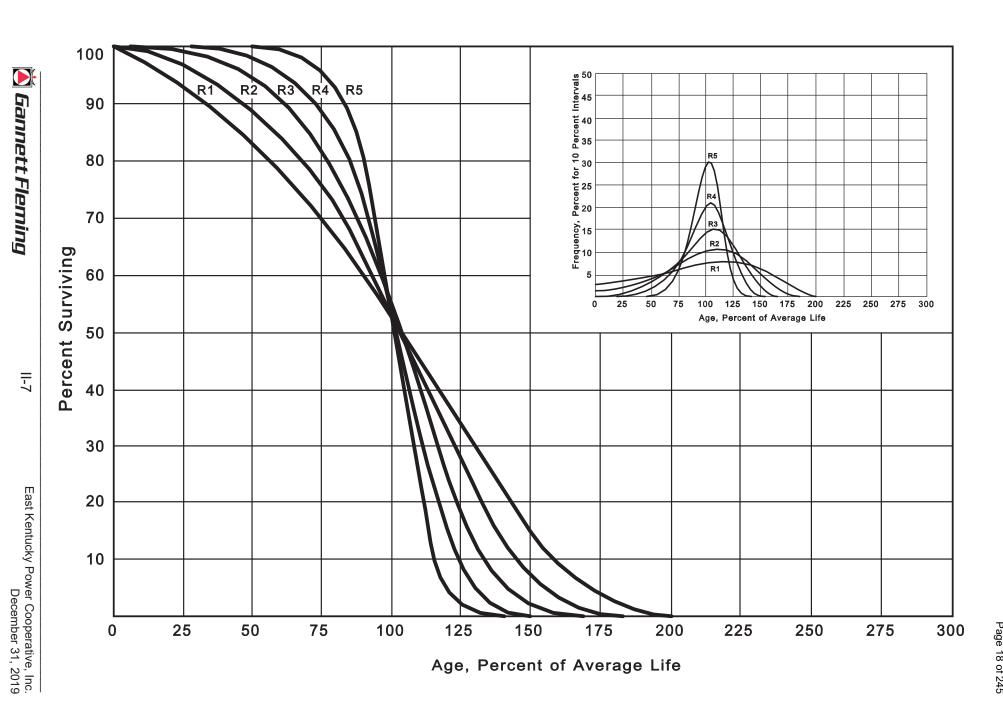


Figure 4. Right Modal or "R" lowa Type Survivor Curves

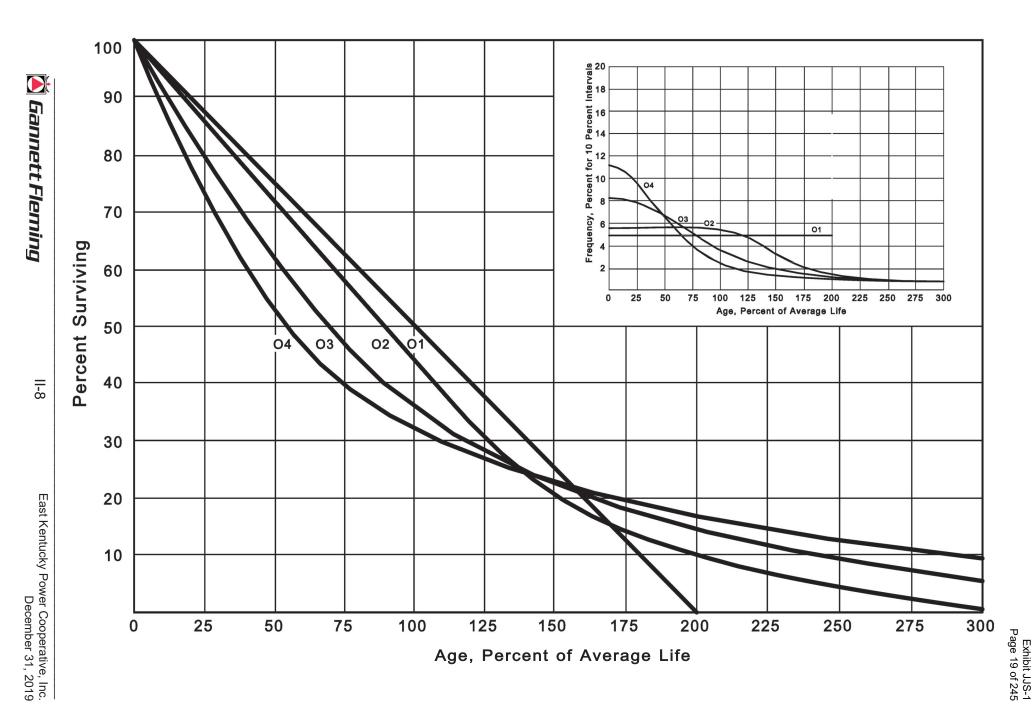


Figure 5. Origin Modal or "O" lowa Type Survivor Curves

These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation." In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

Retirement Rate Method of Analysis

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text and is also explained in several publications including "Statistical Analyses of Industrial Property Retirements," Engineering Valuation and Depreciation, and "Depreciation Systems."

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the <u>experience band</u>. The band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the <u>placement band</u>. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

⁴Wolf, Frank K. and W. Chester Fitch. <u>Depreciation Systems</u>. Iowa State University Press. 1994.



¹Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

²Winfrey, Robley, Supra Note 1.

³Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 2.

Schedules of Annual Transactions in Plant Records

The property group used to illustrate the retirement rate method is observed for the experience band 2010-2019 during which there were placements during the years 2005-2019. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2005 were retired in 2010. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval $4\frac{1}{2}$ - $5\frac{1}{2}$ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2010 retirements of 2005 installations and ending with the 2019 retirements of the 2014 installations. Thus, the total amount of 143 for age interval $4\frac{1}{2}$ - $5\frac{1}{2}$ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20$$
.



SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2010-2019 SUMMARIZED BY AGE INTERVAL

Placement Band 2005-2019

	Age	Interval	(13)	131/2-141/2	121/2-131/2	111/2-121/2	101/2-111/2	91/2-101/2	81/2-91/2	71/2-81/2	61/2-71/2	51/2-61/2	41/2-51/2	31/2-41/2	21/2-31/2	11/2-21/2	1/2-11/2	0-1/2	
	Total During	Age Interval	(12)	26	44	64	83	93	105	113	124	131	143	146	150	151	153	80	1,606
		2019	(11)	26	19	18	17	20	20	20	19	19	20	23	25	25	24	13	308
		2018	(10)	25	22	22	16	19	16	18	19	19	19	22	22	23	_		273
		2017	(6)	24	21	21	15	17	15	16	17	17	17	20	20	7			231
Dollars		2016	(8)	23	20	19	14	16	14	15	16	16	16	18	<u></u>				196
Retirements, Thousands of Dollars	During Year	2015	(7)	16	18	17	13	4	13	14	15	15	4	_∞					157
nents, Tho	Durin	2014	(9)	41	16	16	7	13	12	13	13	13	7						128
Retirer		2013	(2)	13	15	4	7	12	7	12	12	9							106
		2012	(4)	12	13	13	10	7	10	7	9								86
		2011	(3)		12	12	<u></u>	10	<u></u>	2									89
		2010	(2)	10	11	7	∞	6	4										53
	Year	Placed	(1)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total

Experience Band 2010-2019

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2010-2019 SUMMARIZED BY AGE INTERVAL

Experience Band 2010-2019

Placement Band 2005-2019

		Age	Interval	(13)	131/2-141/2	121/2-131/2	111/2-121/2	101/2-111/2	91/2-101/2	81/2-91/2	71/2-81/2	61/2-71/2	51/2-61/2	41/2-51/2	31/2-41/2	21/2-31/2	11/2-21/2	1/2-11/2	0-1/2		
		Total During	Age Interval	(12)	1	1	1	09	1	(2)	9	1	1	ı	10	ı	(121)	1	1	(20)	
			2019	(11)													$(102)^{c}$			(102)	
			2018	(10)										22 ^a						22	
f Dollars			2017	(6)	ı	,	,	(2) _p	6 ^a				$(12)^{b}$		(19) ^b					(30)	
usands o			2016	(8)	60 ^a	,				,										09	
sales, Tho	Year		2015	(2)	,	ı	ı														
sters and	During Year		2014	(9)	,																
Acquisitions, Transfers and Sales, Thousands of Dollars			2013	(2)																'	
Acquisiti			2012	(4)	,	,	,														
			2011	(3)	,															١	
			2010	(2)	ı	ı	ı		,	,											
•		Year	Placed	<u>(</u>	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total	

^a Transfer Affecting Exposures at Beginning of Year

Parentheses Denote Credit Amount.

^b Transfer Affecting Exposures at End of Year

^c Sale with Continued Use

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

Schedule of Plant Exposed to Retirement

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2010 through 2019 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2015 are calculated in the following manner:

```
Exposures at age 0 = amount of addition = $750,000 

Exposures at age \frac{1}{2} = $750,000 - $8,000 = $742,000 

Exposures at age \frac{1}{2} = $742,000 - $18,000 = $724,000 

Exposures at age \frac{2}{2} = $724,000 - $20,000 - $19,000 = $685,000 

Exposures at age \frac{3}{2} = $685,000 - $22,000 = $663,000
```



SCHEDULE 3. PLANT EXPOSED TO RETIREMENT JANUARY 1 OF EACH YEAR 2010-2019 SUMMARIZED BY AGE INTERVAL

Age	Interval	(13)	131/2-141/2	121/2-131/2	111/2-121/2	101/2-111/2	91/2-101/2	81/2-91/2	71/2-81/2	61/2-71/2	51/2-61/2	41/2-51/2	31/2-41/2	21/2-31/2	11/2-21/2	1/2-11/2	0-1/2	
Total at Beginning of	Age Interval	(12)	167	323	531	823	1,097	1,503	1,952	2,463	3,057	3,789	4,332	4,955	5,719	6,579	7,490	44,780
	2019	(11)	167	131	162	226	261	316	356	412	482	609	663	799	926	1,069	1,220a	7,799
	2018	(10)	192	153	184	242	280	332	374	431	501	628	685	821	949	$1,080^{a}$		6,852
ı	2017	(6)	216	174	205	262	297	347	390	448	530	623	724	841	960a			6,017
ollars of the Yea	2016	(8)	239	194	224	276	307	361	405	464	546	639	742	850a				5,247
sands of D Beginning	2015	(2)	195	212	241	289	321	374	419	479	561	653	750a					4,494
Exposures, Thousands of Dollars Il Survivors at the Beginning of the Year	2014	(9)	209	228	257	300	334	386	432	492	574	660a						3,872
Expos Annual Surv	2013	(2)	222	243	271	311	346	397	444	504	580^a							3,318
A	2012	(4)	234	256	284	321	357	407	455	510^a								2,824
	2011	(3)	245	268	296	330	367	416	460a									2,382
	2010	(2)	255	279	307	338	376	420a										1,975
Year	Placed	(1)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total

^aAdditions during the year



For the entire experience band 2010-2019, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval $4\frac{1}{2}-5\frac{1}{2}$, is obtained by summing:

Original Life Table

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

```
Percent surviving at age 4½
                                 =
                                        88.15
Exposures at age 4½
                                 = 3.789,000
Retirements from age 4\frac{1}{2} to 5\frac{1}{2}
                                      143.000
Retirement Ratio
                                 =
                                      143,000 \div 3,789,000 = 0.0377
                                        1.000 -
Survivor Ratio
                                 =
                                                    0.0377 = 0.9623
Percent surviving at age 5½
                                 =
                                       (88.15) x
                                                   (0.9623) =
                                                                84.83
```

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.



SCHEDULE 4. ORIGINAL LIFE TABLE CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2010-2019

Placement Band 2005-2019

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
					- — —
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u> 167</u>	26	0.1557	0.8443	42.24
					35.66
Total	<u>44,780</u>	<u>1,606</u>			

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.



The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

Smoothing the Original Survivor Curve

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The lowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the lowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Table 4 is compared with the L, S, and R lowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 lowa curve would be selected as the most representative of the plotted survivor characteristics of the group.



FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

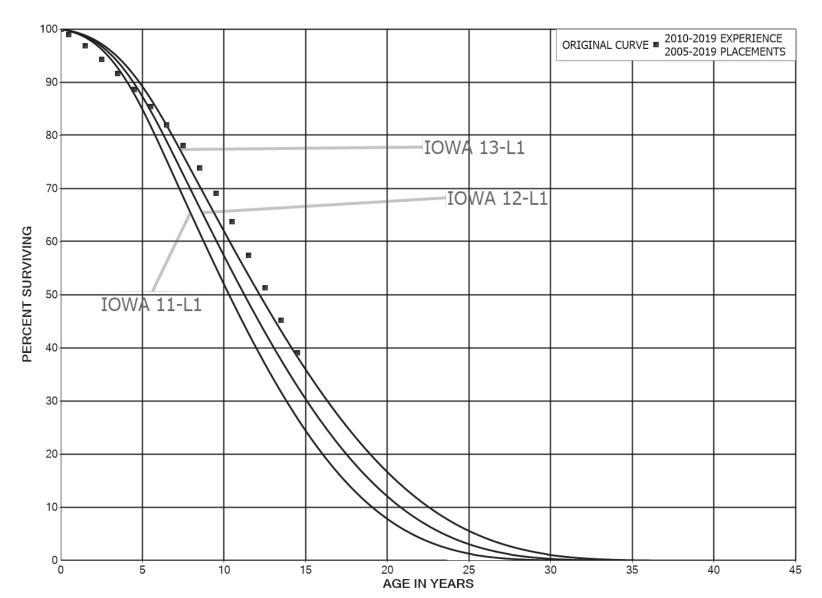


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN SO IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

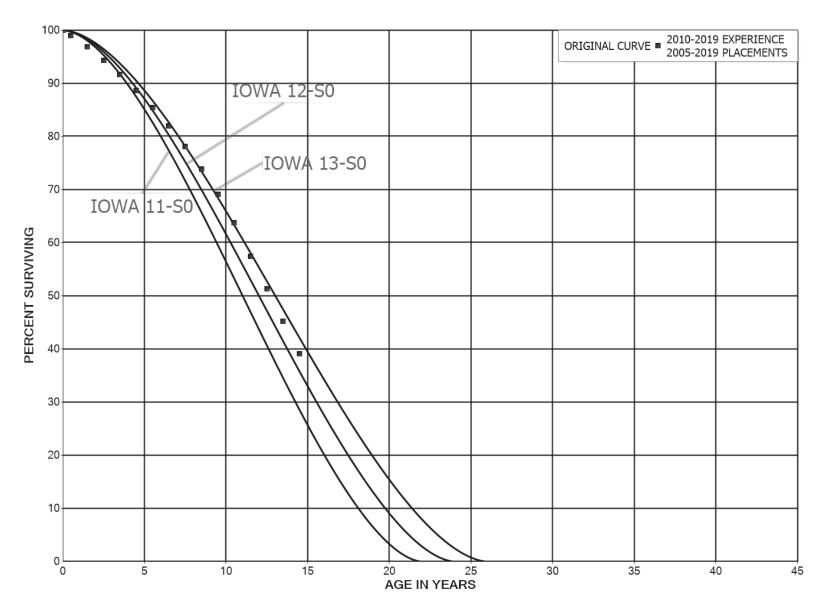


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

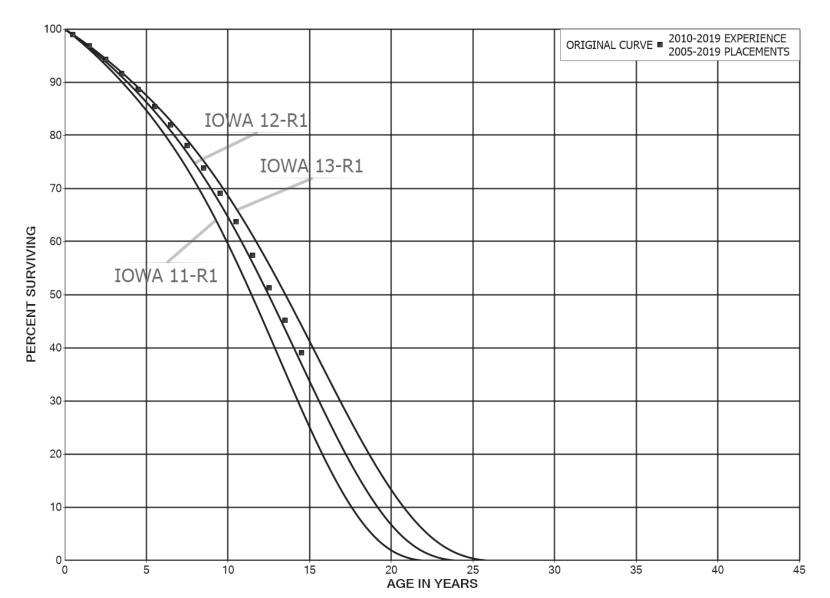
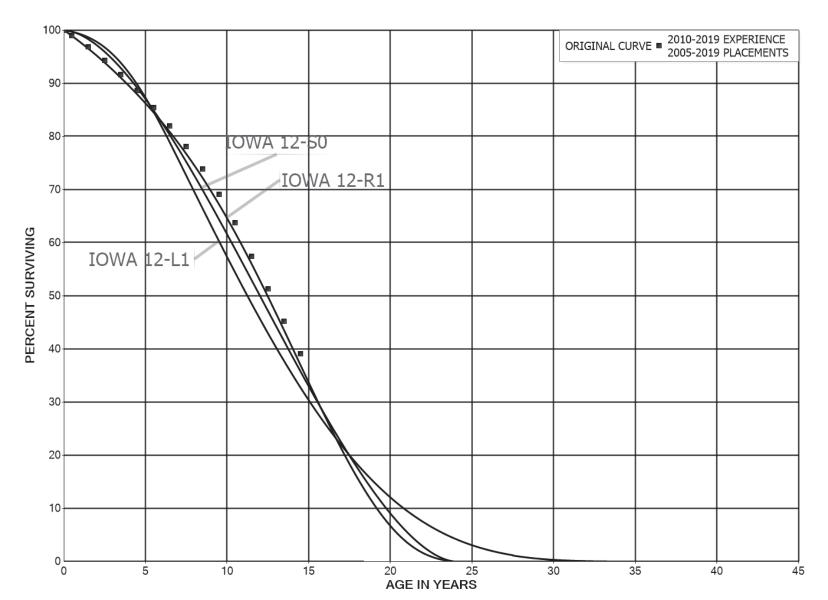


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES



PART III. SERVICE LIFE CONSIDERATION	PART III.	SERVICE LIFE	CONSIDER	ATIONS
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PART III. SERVICE LIFE CONSIDERATIONS

FIELD TRIPS

In order to be familiar with the operation of the Company and observe representative portions of the plant, field trips have been conducted in past studies with a virtual tour of some locations during this study. These field trips and meetings aid in the general understanding of the plant and provide information related the reasons for past retirements and expected future causes of retirement. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during the most recent field trips.

November 20-23, 2020

Smith Station – Irvine Road

Smith Station - White Conkwright Road

November 17, 2020

Spurlock Station

<u>September 5-6, 2018</u>

Bluegrass Station

Cooper Station

Burnside Service Center

Somerset Substation – Transmission

Somerset Substation – Distribution

Pulaski County Transmission Substation

South Floyd Distribution Substation

Cooperative Solar Farm One

Headquarters

Spurlock Station

. Bavarian Landfill

August 28-29, 2013

Spurlock Station

Dale Station

Dale Substation

Smith Station

Smith Substation

North Clark Substation



Sideview Substation
Winchester Office
Cooper Station
Burnside Service Center
Avon Substation
Winchester Operations Center

SERVICE LIFE ANALYSIS

The service life estimates were based on informed judgment which considered a number of factors. The primary factors were the statistical analyses of data; current Company policies and outlook as determined during conversations with management; and the survivor curve estimates from previous studies of this company and other electric companies.

For many of the plant accounts and subaccounts for which survivor curves were estimated, the statistical analyses using the retirement rate method resulted in good to excellent indications of the survivor patterns experienced. These accounts represent 76 percent of depreciable plant. Generally, the information external to the statistics led to little or no significant departure from the indicated survivor curves for the accounts listed below. The statistical support for the service life estimates is presented in the section beginning on page VII-2.

STEAM PRODUCTION PLANT

311	Structures and Improvements
312	Boiler Plant Equipment
315	Accessory Electric Equipment
316	Miscellaneous Power Plant Equipment

OTHER PRODUCTION PLANT

344 Generators

TRANSMISSION PLANT

353	Station Equipment
353.1	Station Equipment – Energy Control System
355	Poles and Fixtures
356	Overhead Conductors and Devices



DISTRIBUTION PLANT

362 Station Equipment

362.1 Station Equipment - SCADA

GENERAL PLANT

390 Structures and Improvements
392 Transportation Equipment
396 Power Operated Equipment

Account 353, Station Equipment, and Account 355, Poles and Fixtures are used to illustrate the manner in which the study was conducted for the groups in the preceding list. Account 353 represents 7 percent, and Account 355 represents 4 percent of the total depreciable plant. Aged plant accounting data have been compiled for the years 1984 through 2019. These data have been coded in the course of the Company's normal record keeping according to account or property group, type of transaction, year in which the transaction took place, and year in which the electric plant was placed in service. The retirements, other plant transactions, and plant additions were analyzed by the retirement rate method.

The survivor curve estimate for Account 353, Station Equipment, is the 60-R2 and is based on the statistical indication for the period 1984-2019 and 2005-2019. The 60-R2 is an excellent fit of the significant portion of the original survivor curve as set forth on page VII-37 consistent with management outlook for a continuation of historical experience, and at the upper end of the typical service life range of 40 to 60 years for transmission substation equipment.

The survivor curve estimate for Account 355, Poles and Fixtures, is based on the statistical indications for the period 1984-2019. The lowa 60-S2 is an excellent fit of the original survivor curve. The 60-year service life is within the typical service life range of 45 to 65 years for transmission poles. The 60-year life reflects the Company's continued



practices for replacing transmission poles and reflects the industry trend towards a longer life.

Life Span Estimates

The life span technique was used for the Company's Power Production accounts. The life span procedure is appropriate for these accounts since many of the assets within the plant will be retired concurrently. Probable retirement dates were estimated for each generating facility and structure. Life spans for each Steam and Other Production Plant were the result of considering experienced life spans of similar generating units, the age of surviving units, general operating characteristics of the units, major refurbishing, and discussions with management personnel concerning the probable long-term outlook for the units.

The depreciable life span estimates for steam, base-load units are 40 to 60 years. The typical range of life spans for such units in the past has been 50 to 65 years, however, in recent years the life spans have been 40 to 50 years. This life span represents the expected depreciable life of the facility under its current configuration. Future capital expenditures can extend a facility's depreciable life, however, such changes to depreciable life would not be prudent until the capital expenditures are actually put into plant in service. A life span of 35 to 40 years was estimated for the combustion turbines and landfill facilities. Life span estimates are typically 35 to 40 years for combustion turbines which are used primarily as peaking units and 30 to 35 years for landfill facilities. The life spans for solar facilities are typically 25 years.

The life span and probable retirement dates used for steam and other production plants are as follows:



Depreciable Group	Major Year in Service	Depreciable <u>Life Date</u>	<u>Depreciable</u> <u>Life Span</u>
Steam Production Plant		<u>= =</u>	<u></u>
Central Lab	1978	2030	52
Cooper	1966,1970	2030	60,64
Spurlock Unit 1	1980	2040	60
Spurlock Unit 2	1982	2042	60
Spurlock Unit 3	2005	2045	40
Spurlock Unit 4	2009	2049	40
Other Production Plant			
Smith Unit 1	1999	2034	35
Smith Unit 2	1999	2034	35
Smith Unit 3	1999	2034	35
Smith Unit 4	2001	2041	40
Smith Unit 5	2001	2041	40
Smith Unit 6	2005	2045	40
Smith Unit 7	2005	2045	40
Smith Unit 9	2010	2050	40
Smith Unit 10	2010	2050	40
Cooperative Solar	2017	2042	25
Green Valley Landfill	2003	2038	35
Laurel Ridge Landfill	2003	2038	35
Bavarian Landfill	2003	2038	35
Pearl Hollow Landfill	2006	2041	35
Pendleton County Landfill	2007	2042	35
Bluegrass Oldham Unit 1	2002*	2042	40
Bluegrass Oldham Unit 2	2002*	2042	40
Bluegrass Oldham Unit 3	2002*	2042	40

^{*}All units were acquired in 2015.

Similar studies were performed for the remaining plant accounts. Each of the judgments represented a consideration of statistical analyses of aged plant activity, management's outlook for the future, and the typical range of lives used by other electric companies.

The selected amortization periods for other General Plant accounts are described in the section "Calculated Annual and Accrued Amortization."

PART IV	NFT SA	I VAGE	CONSIDE	SATIONS
FAILIV.	NLI SE	LVAGL	COMODE	



PART IV. NET SALVAGE CONSIDERATIONS

SALVAGE ANALYSIS

The estimates of net salvage by account were based in part on historical data compiled for the years 2005 through 2019. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates by account are expressed as a percent of the original cost of plant retired.

Net Salvage Considerations

The estimates of future net salvage are expressed as percentages of surviving plant in service, i.e., all future retirements. In cases in which removal costs are expected to exceed salvage receipts, a negative net salvage percentage is estimated. The net salvage estimates were based on judgment which incorporated analyses of historical cost of removal and salvage data, expectations with respect to future removal requirements and markets for retired equipment and materials.

The analyses of historical cost of removal and salvage data are presented in the section titled "Net Salvage Statistics" for the plant accounts for which the net salvage estimate relied partially on those analyses.

Statistical analyses of historical data for the period 2005 through 2019 contributed toward the net salvage estimates for 17 plant accounts, representing 93 percent of the depreciable plant, as follows:

STEAM PRODUCTION PLANT

311	Structures and Improvements	
312	Boiler Plant Equipment	
314	Turbogenerator Units	
315	Accessory Electric Equipment	

Miscellaneous Power Plant Equipment 316



OTHER PRODUCTION PLANT

- 341 Structures and Improvements
- 343 Prime Movers
- 345 Accessory Electric Equipment
- 346 Miscellaneous Power Plant Equipment

TRANSMISSION PLANT

- 353 Station Equipment
- 353.1 Station Equipment Energy Control System
- 355 Poles and Fixtures
- 356 Overhead Conductors and Devices

DISTRIBUTION PLANT

- 362 Station Equipment
- 362.1 Station Equipment SCADA

GENERAL PLANT

- 392 Transportation Equipment
- 396 Power Operated Equipment

Account 353, Station Equipment, is used to illustrate the manner in which the study was conducted for the groups in the preceding list. Net salvage data for the period 2005 through 2019 were analyzed for this account. The data include cost of removal, gross salvage and net salvage amounts and each of these amounts is expressed as a percent of the original cost of regular retirements. Three-year moving averages for the 2005-2007 through 2017-2019 periods were computed to smooth the annual amounts.

Cost of removal was high during the entire period, however, particularly high in the early years as compared to retirements. The high removal cost in the early years related to practices during that time and the type of assets primarily being replaced. Since 2011, cost of removal as a percentage of retirements has been at a more common level. Cost of removal for the most recent five years averaged 31 percent.



Gross salvage has been recorded consistently since 2012. The most recent fiveyear average of 4 percent gross salvage reflects recent trends of salvage value for some equipment.

The net salvage percent based on the overall period 2005 through 2019 is 56 percent negative net salvage. The range of estimates made by other electric companies for station equipment is negative 10 to negative 25 percent. The net salvage estimate for station equipment is negative 25 percent, is at the upper end of the range of estimates for other electric companies, reflects the trend to lower cost of removal and reflects the overall experience for negative net salvage for the future.

The overall net salvage estimates for the Company's production facilities, for which the life span method is used, is based on estimates of both final net salvage and interim net salvage. Final(terminal) net salvage is the net salvage experienced at the end of a production plant's life span. Interim net salvage is the net salvage experienced for interim retirements that occur prior to the final retirement of the plant. The final net salvage estimates in the study were based on industry decommissioning analyses performed by various engineering organizations. The interim net salvage estimates were based in part on analysis of historical interim retirement and net salvage data. Based on informed judgment that incorporated these interim net salvage analyses for each plant account, an interim net salvage estimate of zero to negative 10 percent was used for each steam plant account, and zero to negative 51 percent estimate was used for all other production plant accounts.

The interim survivor curve estimates for each account and production facility were used to calculate the percentage of plant expected to be retired as interim retirements and final retirements. These are shown on Table 1 in the Net Salvage Statistics section on page VIII-2. These percentages were used to determine the weighted net salvage



estimate for each account and production facility based on the interim and final net salvage estimates. These calculations, as well as the estimated final net salvage amounts and interim net salvage percents, are shown on Table 2 of the Net Salvage Statistics. Table 3 sets forth the determination of the terminal net salvage amount for each location.

The net salvage percents for the remaining accounts were based on judgment incorporating estimates of previous studies of this and other electric utilities.

Generally, the net salvage estimates for the general plant accounts were zero percent, consistent with amortization accounting.



PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

GROUP DEPRECIATION PROCEDURES

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives, but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

Single Unit of Property

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4+6)}$$
 = \\$100 per year.

The accrued depreciation is:

$$$1,000\left(1-\frac{6}{10}\right)=$400.$$



Remaining Life Annual Accruals

For the purpose of calculating remaining life accruals as of December 31, 2019, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of December 31, 2019, are set forth in the Results of Study section of the report.

Average Service Life Procedure

In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining life is a directly weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future depreciation accruals, if current forecasts of life characteristics are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account, based upon the attained age and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$Ratio = 1 - \frac{Average\ Remaining\ Life}{Average\ Service\ Life}.$$



CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is proposed for a number of accounts that represent numerous units of property, but a very small portion of depreciable electric plant in service. The accounts and their amortization periods are as follows:

	Account	Amortization Period, <u>Years</u>
391	Office Furniture and Equipment	20
391.1	Office Furniture and Equipment - Peoplesoft	15
393	Stores Equipment	25
394	Tools, Shop and Garage Equipment	20
395	Laboratory Equipment	20
397	Communication Equipment	15
397.1	Communication Equipment – Energy Control System	10
398	Miscellaneous Equipment	20

For the purpose of calculating annual amortization amounts as of December 31, 2019, the book depreciation reserve for each plant account or subaccount is assigned or allocated to vintages. The book reserve assigned to vintages with an age greater than the amortization period is equal to the vintage's original cost. The remaining book reserve



is allocated among vintages with an age less than the amortization period in proportion to the calculated accrued amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount is determined by dividing the future amortizations (original cost less allocated book reserve) by the remaining period of amortization for the vintage.



PART VI. RESULTS OF STUDY



PART VI. RESULTS OF STUDY

QUALIFICATION OF RESULTS

The calculated annual and accrued depreciation are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and net salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line remaining life method of depreciation, using the average service life procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

The annual depreciation accrual rates are applicable specifically to the electric plant in service as of December 31, 2019. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to December 31, 2019, is reasonable for a period of three to five years.

DESCRIPTION OF DETAILED TABULATIONS

Table 1 sets forth a summary of the results of the study as applied to the original cost of electric plant at December 31, 2019. These results are presented on pages VI-4 through VI-8 of this report. The schedule sets forth the original cost, the book depreciation reserve, future accruals, the calculated annual depreciation rate and amount, and the composite remaining life related to electric plant.

The service life estimates were based on judgment that incorporated statistical analysis of retirement data, discussions with management and consideration of estimates made for other electric utilities. The results of the statistical analysis of service life are



presented in the section beginning on page VII-2, within the supporting documents of this report.

For each depreciable group analyzed by the retirement rate method, a chart is provided depicting the original and estimated survivor curves followed by a tabular presentation of the original life table(s) plotted on the chart. The survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the curve type designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. The titles of the chart indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which were plotted. The experience band indicates the range of years for which retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The analyses of salvage data are presented in the section titled, "Net Salvage Statistics." The tabulations present annual cost of removal and salvage data, three-year moving averages and the most recent five-year average. Data are shown in dollars and as percentages of original costs retired.

The tables of the calculated annual depreciation applicable to depreciable assets as of December 31, 2019 are presented in account sequence starting on page IX-2 of the supporting documents. The tables indicate the estimated survivor curve and net salvage percent for the account and set forth, for each installation year, the original cost, the calculated accrued depreciation, the allocated book reserve, future accruals, the remaining life, and the calculated annual accrual amount.



EAST KENTUCKY POWER COOPERATIVE, INC.

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED AND LALCULATED AND

		AND CALCUL	ATED ANNUAL DEF	PRECIATION ACCRU	AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANTAS OF DECEMBER 31, 2019 BET ORIGINAL PORT	ANT AS OF DECEMBER 31, 201	6	CITY III	Ģ	FISCOMO
	ACCOUNT	RETIREMENT DATE	SURVIVOR	SALVAGE	AS OF DECEMBER 31, 2019	DEPRECIATION RESERVE	FUTURE	ANDUNT ACCRUAL	RUAL RATE	REMAINING
	(1)	(2)	(3)	(4)	(2)	(9)	(2)	(8)	(9)=(8)/(2)	(10)=(7)/(8)
	ELECTRIC PLANT									
	INTANGIBLE PLANT									
303.00	MISCELLANEOUS INTANGIBLE PLANT		10-SQ	0	2,333,311.05	1,134,520	1,198,791	266,398	11.42	4.5
	TOTAL INTANGIBLE PLANT				2,333,311.05	1,134,520	1,198,791	266,398	11.42	
	STEAM PRODUCTION PLANT									
310.10	LAND AND LAND RIGHTS COOPER COMMON - LANDFILL	2030	SQUARE	0	5,325,571.56	0	5,325,572	507,197	9.52	10.5
	COOPER COMMON - ACCESS ROAD SPURLOCK COMMON - LANDFILL	2030 2049	SQUARE	00	480,134.08 20,170,029.31	00	480,134	45,727 683,730	9.52	10.5
	SPURLOCK COMMON - AMMONIA CONTAINMENT SMITH COMMON - LANDFILL	2049 2026	SQUARE '	00	1,050,779.86 6,050,424.87	0 1,462,186	1,050,780 4,588,239	35,620 705,883	3.39	29.5 6.5
	TOTAL LAND AND LAND RIGHTS				33,076,939.68	1,462,186	31,614,754	1,978,157	5.98	
311.00	STRUCTURES AND IMPROVEMENTS	6		ć				;		
	CENTRAL LAB COOPER COMMON	2030 2030	85-S1.5	(2)	619,445.56 11,599,889.13	501,279 8,333,766	118,167 3,846,118	11,477 372,847	3.21	10.3 10.3
	COOPER UNIT 2 SCRUBBER SPURLOCK COMMON	2030	85-S1.5	9.0	16,839,214.86 29,901,164.98	7,532,370 4,504,371	10,148,806 27,489,876	969,322 945,554	5.76 3.16	10.5
	SPURLOCK UNIT 1	2040	85-S1.5	:E6	27,841,989.00	17,909,967	11,880,961	614,994	2.21	19.3
	SPURLOCK UNIT 3	2042 2045	85-51.5	SE	34,657,321.80 135,424,737.29	23,943,936	13,139,398	4,087,225	3.02	24.9
	SPURLOCK UNIT 4 SPURLOCK UNIT 1 SCRUBBER	2049	85-S1.5	66	91,915,875.08	9,800,259	88,549,727	3,069,934	3.34	28.8
	SPURLOCK UNIT 2 SCRUBBER	2042	85-S1.5	E	22,341,947.21	8,045,353	15,860,531	714,438	3.20	22.2
	TOTAL STRUCTURES AND IMPROVEMENTS				396,431,158.27	132,741,143	290,828,054	12,303,611	3.10	
312.00	BOILER PLANT EQUIPMENT COOPER COMMON	2030	55-50.5	(5)	102 794 003 59	66 700 151	41 233 553	4 110 747	4 00	10.0
	COOPER UNIT 1	2030	55-80.5	(a)	14,959,125.04	4,819,574	10,887,507	1,053,970	7.05	10.3
	COOPER UNIT 2 SCRUBBER	2030	55-80.5	(2)	194,151,378.75	86,850,257	117,008,691	11,404,356	5.87	10.3
	SPURLOCK COMMON SPURLOCK UNIT 1	2049	55-80.5	66	47,303,061.50	11,032,732	39,581,544	1,487,587	3.18	26.6
	SPURLOCK UNIT 2	2042	55-80.5	:E6	264,954,492.52	148,127,712	135,373,595	6,988,909	2.64	19.4
	SPURLOCK UNIT 4	2049	55-80.5	SE	310,905,410.86	33,139,434	299,529,356	11,408,395	3.67	26.3
	SPURLOCK UNIT 1 SCRUBBER SPURLOCK UNIT 2 SCRUBBER	2040 2042	55-S0.5	EE	102,930,250.29 157,598,866.33	36,988,548 57,451,408	73,146,820	3,829,676 5,355,461	3.72 3.40	19.1 20.8
	TOTAL BOILER PLANT EQUIPMENT				1,586,308,057.02	601,803,456	1,089,278,554	58,442,903	3.68	
314.00	TURBOGENERATOR UNITS									
	COOPER COMMON SPURLOCK UNIT 1	2030 2040	50-R2 50-R2	(2)	23,714,956.78 33,699,815.29	17,101,082 21,499,392	7,799,623	812,009 884,400	3.42	9.6
	SPURLOCK UNIT 2 SPURLOCK UNIT 3	2042	50-R2	: E	60,137,136.60	34,021,115 25,108,153	30,325,621	1,606,261	2.67	18.9
	SPURLOCK UNIT 4	2049	50-R2	EE.	80,239,064.25	6,017,115	79,838,684	2,960,611	3.69	27.0
	TOTAL TURBOGENERATOR UNITS				278,199,932.47	103,746,857	193,452,772	8,910,196	3.20	

EAST KENTUCKY POWER COOPERATIVE, INC.

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2019

		315.00 ACCESS COOP COOP COOP SPUR SPUR SPUR SPUR SPUR SPUR SPUR SPU	TOTAL,	316.00 MISCEL CONT COOP SPUR SPUR SPUR SPUR SPUR SPUR SPUR	TOTAL	TOTAL		SMITTON SMITTO	TOTAL :	342.00 FUEL H SMITH SMITH SMITH SMITH SMITH SMITH SMITH BAVAE BLUEG	TOTAL
ACCOUNT	(1)	ACCESSORY ELECTRIC EQUIPMENT COOPER COMMON COOPER UNIT 1 COOPER UNIT 2 COOPER UNIT 2 COOPER UNIT 2 SPIRALOCK COMMON SPURIC COK UNIT 2 SPURIC COK UNIT 3 SPUR	OTAL ACCESSORY ELECTRIC EQUIPMENT	MISCELLANEOUS POWER PLANT EQUIPMENT CENTRALLAU COPER COMMON COOPER UNIT 2 SCRUBBER SPURCOK COMMON SPURCOK COMMON SPURCOK UNIT 3 SPURLOK UNIT 3 SPURLOK UNIT 3	FOTAL MISCELLANEOUS POWER PLANT EQUIPMENT	TOTAL STEAM PRODUCTION PLANT	OTHER PRODUCTION PLANT	STRUCTURES AND IMPROVEMENTS SMITH OF COMMON SMITH OF UNIT 3 SMITH OF UNIT 3 SMITH OF UNIT 3 SMITH OF UNIT 3 SMITH OF UNIT 5 SMITH OF UNIT 5 SMITH OF UNIT 5 SMITH OF UNIT 7 SM	TOTAL STRUCTURES AND IMPROVEMENTS	FUEL HOLDERS, PRODUCERS AND ACCESSORIES SMITH OF COMMON SMITH OT UNIT 6 SMITH OT UNIT 7 SMITH OT UNIT 9 SMITH OT UNIT 10 LAUREL RIDEE LANDELL BAVARRAN LANDELL BLUEGRASS OLDHAM COMMON	TOTAL FUEL HOLDERS, PRODUCERS AND ACCESSORIES
PROBABLE RETIREMENT DATE	(2)	2030 2030 2030 2030 2040 2040 2042 2044 2044		2030 2030 2030 2049 2046 2045 2045				2000 2004 2004 2004 2004 2004 2006 2006		2050 2045 2045 2045 2050 2050 2038 2038 2042	
SURVIVOR	(3)	5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		39-17 39-17 39-17 39-17 39-17				26. 26. 26. 26. 26. 26. 26. 26. 26. 26.		50-\$2.5 50-\$2.5 50-\$2.5 50-\$2.5 50-\$2.5 50-\$2.5 50-\$2.5	
NET SALVAGE PERCENT	(4)	22222220000		(3)(3)(2)(2)(2)(2)				@ 			
ORIGINAL COST AS OF DECEMBER 31, 2019	(9)	3,382,383,45 108,198,10 108,298,00 12,060,627,88 10,670,885,65 10,670,885,65 23,764,302,64 12,751,242,44 11,250,77,151,1988,40	115,519,762.90	1,111,554,28 2,706,566,34 2,139,985,18 4,774,642,05 182,522,70 2,192,499,66 3,964,220,08	17,072,001.02	2,426,607,851.36		19.534.021.23 2.666.719.81 2.666.719.81 2.666.719.81 1.937.757.41 1.599.138.43 303.524.78 4.500.637.37 8.8.946.57 1.119.860.80 1.465.228.09 1.465.228.09 2.033.652.36 7.229.721.64 933.660.40 933.660.40 933.660.40	53,879,445.86	13766.120.51 70.051.65 70.051.65 2.344.52.85 2.116.650.59 106.294.19 37.770.24	20,033,575.25
BOOK DEPRECIATION RESERVE	(9)	2, 667,793 17,587 17,587 17,587 17,580 5,388,009 6,834,01 15,081,564 7,571,588 1,382,182 4,450,690 6,374,337	49,563,507	695,769 1,294,786 968,395 1,942,513 1,27,731 248,026 272,786	5,551,006	894,868,156		8,079,954 1,526,577 1,547,030 1,537,134 910,073 744,544 111,370 111,37	22,321,752	6,102,433 26,328 26,327 464,445 51,382 47,199 1684 513,184	7,890,120
FUTURE	(2)	872,710 96,959 96,959 96,006 67,274,750 966,006 4,764,415 82,26,565 17,906,256 17,906,256 17,906,26	73,729,851	415,785 1,577,109 1,277,589 3,166,354 67,611 2,097,917 3,968,930	12,541,295	1,691,445,280		12,040,088 1,246,812 1,226,336 1,226,336 1,105,195 204,286 2,04,286 3,777,494 7,73,494 1,933,284 4,344,946 6,93,633 1,933,284 4,344,946 6,344,946	33,459,960	8 076 671 46 556 46,527 2,015,489 1,649,335 61,221 226,002 707,130	12,809,481
CALCULATED ANNUAL ACCRUAL AMOUNT	(8)	88.268 9,139 9,139 1,150 9,140 69,140 25,69 71,69 42,06 69,440 66,440 66,440 66,440	3,643,001	46,409 165,029 134,767 180,210 6,378 105,158	830,282	86,108,150		461 876 91 600 90 097 90 0924 90 0924 90 882 8 882 8 882 137 706 137 706 137 706 137 882 148 151 8 263 8 263	1,549,325	307 631 1,970 1,970 7,0,594 57,791 3,475 1,591 1,781	486,903
) JAL RATE	(6)=(8)/(2)	2 63 8 45 8 445 5 75 5 75 2 40 3 30 3 31 3 31 3 31 3 31	3.15	4.18 6.10 6.30 3.77 3.82 4.80 4.84	4.86	3.55		2 2 3 6 2 3 6 2 3 6 2 3 6 2 3 6 2 3 6 2 3 6 2 3 6 2 3 6 2 3 6 2 2 6 2 2 6 2 2 6 2 2 6 2 2 6 2 2 6	2.88	2.23 2.81 2.81 2.96 2.73 3.27 3.27 2.73	2.43
COMPOSITE REMAINING LIFE	(10)=(7)/(8)	9 9 0 1 0 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		9.0 9.4 9.5 17.6 9.7 20.0 20.7				26 136 136 136 136 136 136 137 172 172 172 172 172 172 172 172 173 174 172 172 173 174 175 177 172 173 174 175 176 177 177 177 177 177 177 177 177 177		26.3 23.6 23.6 28.6 28.6 17.6 17.6	Ü

EAST KENTUCKY POWER COOPERATIVE, INC.

TABLE 1, SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2019

	ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AS OF DECEMBER 31, 2019	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	ED RUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(9)	(9)	(2)	(8)	(9)=(8)/(2)	(10)=(7)/(8)
343.00 PRIME MOVERS	RIME MOVERS	o di o o	c c	ę	000 90	000	000	100	č	G G
SMITH	CT UNIT 1	2030	50-R3	§ ()	18,938,769.40	10,814,894	8,881,426	640,798	3.38	13.9
SMITH	CT UNIT 2	2034	50-R3	4 5	17,021,561.97	10,158,430	7,543,994	546,139	3.21	13.8
SMITHS	CT UNIT 4	2041	50-R3	1 4	25.858.484.41	12,138,053	6,022,922	738.852	2.86	20.0
SMITH	SMITH CT UNIT 5	2041	50-R3	3.3	21,295,538.73	10,125,651	12,021,709	603,663	2.83	19.9
SMITH	CT UNIT 7	2045	50-R3	£ (16,754,183.57	6,064,093	11,360,258	478,999	2.86	23.7
SMITH	CT UNIT 9	2050	50-R3	4 5	57,736,570.22	10,973,966	49,072,067	1,723,649	2.99	28.5
GREEN	VALLEY LANDFILL	2038	50-R3	(S) (±	35,010,982.47	14,010,384	43, 192,030	12.366	3.49	17.71
LAUREI	L RIDGE LANDFILL	2038	50-R3 *	(2)	300,785.97	132,190	174,612	9,921	3.30	17.6
BAVAR	JAN LANDFILL	2038	50-R3	99	388,128.81	150,290	245,601	13,819	3.56	17.8
PEARL	HOLLOW LANDFILL	2041	50-K3	3(3)	201,654.60	72,823	132,865	6,494	3.22	20.5
BLUEGI	BLUEGRASS OLDHAM COMMON	2042	50-R3	(2) (2)	2,407,952.29	582,589	1,945,761	87,964	3.65	22.1
BLUEG,	BLUEGRASS OLDHAM UNIT 1	2042	50-R3 *	(2)	46,724,956.78	22,062,972	26,998,232	1,226,069	2.62	22.0
BLUEG	BLUEGRASS OLDHAM UNIT 2	2042	50-R3	(2)	45,508,646.35	20,986,500	26,797,578	1,216,747	2.67	22.0
BLUEG	KASS OLDHAM UNIT 3	2042	50-K3	(c)	41,213,903.72	19,457,814	23,816,784	1,081,589	2.62	22.0
TOTAL PI	TOTAL PRIME MOVERS				406,605,726.33	164,187,060	259,794,427	11,464,730	2.82	
C C C C C C C C C C C C C C C C C C C										
344.00 GENERAL	OKS COMMON	2050	50.R2 5	(3)	385 287 95	100 840	296 007	10 596	2.75	27.9
SMITH	CT UNIT 1	2033	50-R2.5	9	5,409,806.36	3,149,102	2,477,097	180.024	3.33	13.8
SMITH	CT UNIT 2	2034	50-R2.5 *	4	5,315,973.93	3,110,623	2,417,990	175,512	3.30	13.8
SMITH	CT UNIT 3	2034	50-R2.5	4 5	5,368,828.40	3,095,925	2,487,657	180,444	3.36	13.8
SMITH	CT UNIT 4	2041	50-R2.5	(4) 4	8,212,342.41	3,863,206	4,677,630	236,372	2.88	19.8
SMITH	CT UNIT 6	2045	50-R2.5	£ 3	4,831,725.68	1,839,937	3,185,058	136,522	2.83	23.3
SMITH	CT UNIT 7	2045	50-R2.5 *	(4)	4,838,938.32	1,842,648	3,189,848	136,727	2.83	23.3
SMITH	SMITH CT UNIT 9	2050	50-R2.5 *	4 3	5,428,818.37	879,891	4,766,080	168,982	3.11	28.2
GREEN	VALLEY LANDEILL	2038	50-R2.5	(4)	1,098,205,33	498.493	3,906,570	35.729	3.25	17.4
LAUREI	LAUREL RIDGE LANDFILL	2038	50-R2.5 *	(2)	1,963,510.74	867,730	1,135,051	65,028	3.31	17.5
BAVAR	IAN LANDFILL	2038	50-R2.5 *	(2)	4,525,028.84	1,301,455	3,314,074	185,596	4.10	17.9
PEARL	PEAKL HOLLOW LANDFILL PENDI FTON COLINTY LANDFILL	2041	50-R2.5	© (S	1,285,806.38	580,668	832,499	41,213 53,645	3.21	20.2
GLASG	GLASGOW LANDFILL	2046	50-R2.5 *	ΞΞ	2,993,753.87	457,130	2,566,561	101,657	3.40	25.2
BLUEG	RASS OLDHAM COMMON	2042	50-R2.5 *	(2)	17,086.14	6,300	11,640	534	3.13	21.8
BLUEG	RASS OLDHAM UNIT 1	2042	50-R2.5	(a)	7,457,690.57	3,646,045	4, 184, 530	192,569	2.58	21.7
BLUEG	BLUEGRASS OLDHAM UNIT 3	2042	50-R2.5	<u> </u>	7,457,690.57	3,645,751	4,184,824	192,583	2.58	21.7
1000	COOPERATIVE SOLAR	7047	30-PKZ:3	()	15,610,305.55	1,420,231	14,340,112	00,000	17:4	0.12
TOTAL G	TOTAL GENERATORS				104,582,841.49	39,415,445	68,795,575	3,327,688	3.18	
345.00 ACCESSC	ACCESSORY ELECTRIC EQUIPMENT			į						
SMITH	SMITH CT COMMON SMITH CT UNIT 1	2034	50-R2:5	§ 4	1,039,394,43	608.799	6,000,408 472,171	34,465	3.32	13.7
SMITH	CT UNIT 2	2034	50-R2.5 *	(4)	1,039,395.53	616,956	464,015	33,870	3.26	13.7
SMITH	CT UNIT 3	2034	50-R2.5	4 3	1,039,395.53	613,009	467,962	34,158	3.29	13.7
SMITH	CT LINT 5	2041	50-R2.5	£ 4	983,990,86	468.711	565.046	28.726	2.89	19.7
SMITH	SMITH CT UNIT 6	2045	50-R2.5	. 43	1,251,472.92	457,774	843,758	36,166	2.89	23.3
SMITH	CT UNIT 7	2045	50-R2.5 *	(4) (4)	1,220,275.59	446,353 2 290 836	822,734	35,265	3.04	23.3
SMITH	CT UNIT 10	2050	50-R2.5 *	<u>4</u>	1,879,693.27	478,322	1,476,559	52,810	2.81	28.0
GREEN	I VALLEY LANDFILL	2038	50-R2.5	90	344,891.29	150,379	201,410	11,575	3.36	17.4
BAVARI	L RIUGE LANDFILL JAN LANDFILL	2038	50-R2.5	Ø Ø	380,104.65	155.856	208.745	12,961	3.36	17.4
PEARL	PEARL HOLLOW LANDFILL	2041	50-R2.5 *	(S)	452,676.95	161,993	299,737	14,838	3.28	20.2
PENDL	ETON COUNTY LANDFILL	2042	50-R2.5	Ø @	406,784.25	135,008	279,912	13,247	3.26	21.1
BLUEG	RASS OLDHAM UNIT 1	2042	50-R2.5 *	<u>@</u>	386,034.41	181,290	224,046	10,310	2.67	21.7
BLUEG	BLUEGRASS OLDHAM UNIT 2 BLUEGRASS OLDHAM UNIT 3	2042	50-R2.5 * 50-R2.5 *	(2) (2)	386,034.41 386.034.41	179,389	225,947	10,398	2.69	21.7
COOPE	COOPERATIVE SOLAR	2042	50-R2.5 *	Ξ	779,800.00	699'29	719,929	32,964	4.23	21.8
TOTALA	TOTAL ACCESSORY ELECTRIC EQUIPMENT				38,288,055.69	13,327,592	26,372,734	1,092,266	2.85	

EAST KENTUCKY POWER COOPERATIVE, INC.

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND GALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2019

		AND CALCUL	ATED ANNUAL DEI	PRECIATION ACCRU	AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2019	ANT AS OF DECEMBER 31, 201	6			
	MINGGOV	PROBABLE RETIREMENT	SURVIVOR	NET SALVAGE PEPCENT	ORIGINAL COST AS OF	BOOK DEPRECIATION DESERVE	FUTURE	CALCULATED ANNUAL ACCRUAL	D UAL BATE	COMPOSITE REMAINING
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)=(8)/(5)	(10)=(7)/(8)
346.00	MISCELLANEOUS POWER PLANT EQUIPMENT	2050	20 OV	Ĉ	45 K 20 B 35 K 20	0.00 7.00 0.00	707 727 40	720 027	c c	186
	SMITH OF COMMINDING GREEN VALLEY ANDEILL IN INFEL PROFELL IN INFEL PROFELL IN INFEL PROFELL INFEL PROFEL PROFEL INFEL INFEL PROFEL INFEL PROFEL INFEL I	2030 2038 2038			91,253.04	39,954	53,124	459,927 3,194 4.555	3.50	16.6
	BAVARIAN LANDFILL PEARL HOLLOW LANDFILL PEARL ETON COMMENT AND FILE	2038	40-S2.5 40-S2.5	000	60,998.54 63,896.29	27,965 24,158	34,254 41,016	2,092	3.43	16.4
	TOTAL MISCELLANEOUS POWER PLANT EQUIPMENT	7407	2.00	(7)	15,990,208.41	4,662,043	11,803,256	457.301	2.86	t. - 7
	TOTAL OTHER PRODUCTION PLANT				639,379,853.03	251,804,012	413,035,433	18,378,213	2.87	
	TRANSMISSION PLANT									
353.00 353.10			60-R2 25-S1.5	(25)	269,766,938.30 9,476,611.16	66,231,238 6,039,041	270,977,435 4,385,231	5,872,454 598,296	2.18	46.1
354.00 355.00 356.00	TOWERS AND FIXTURES POLES AND FIXTURES OVERHEAD CONDUCTORS AND DEVICES		70-R4 60-S2 60-R4	0 (09) 0 (09)	3,853,520.91 166,166,560.01 139,611,652.82	1,918,285 59,294,869 63,120,142	1,935,236 206,571,627 160,258,503	63,799 4,693,496 4,043,353	1.66 2.82 2.90	30.3 44.0 39.6
359.00			70-R4	0	23,287.65	15,186	8,102	446	1.92	18.2
	TOTAL TRANSMISSION PLANT				588,898,570.85	196,618,761	644,136,134	15,271,844	2.59	
	DISTRIBUTION PLANT									
362.00 362.10	STATION EQUIPMENT STATION EQUIPMENT - SCADA ILINE TRANSFORMERS		35-R0.5 35-R2.5 50-R3	0 0	228,725,585.62 7,252,060.32 2,413,995,98	85,293,814 3,734,264 1,281,788	166,304,330 3,517,796 1,132,208	5,817,664 138,662 26,958	2.54	28.6 25.4 42.0
			!		238,391,641.92	998'608'06	170,954,334	5,983,284	2.51	İ
	GENERAL PLANT									
390.00	STRUCTURES AND IMPROVEMENTS		65-R4	0	17,176,820.18	9,684,841	7,491,979	170,358	0.99	44.0
391.00	OFFICE FURNITURE AND EQUIPMENT FULLY ACCRUED AMORTIZED		20-SQ	0	2,016,677.53 9,301,032.16	2,016,678 2,720,987	0 6,580,045	0 465,074	5.00	14.1
	TOTAL OFFICE FURNITURE AND EQUIPMENT				11,317,709.69	4,737,665	6,580,045	465,074	4.11	
391.10	OFFICE FURNITURE AND EQUIPMENT - PEOPLESOFT FULLY ACORUED AMORTIZED		15-SQ	0	2,771,805.14	2,771,805	0 7,077,637	0 968,596	6.67	7.3
	TOTAL OFFICE FURNITURE AND EQUIPMENT - PEOPLESOFT				17,298,493.67	10,220,857	7,077,637	968,596	5.60	
392.00 393.00	TRANSPORTATION EQUIPMENT STORES EQUIPMENT		11-L1.5 25-SQ	00	17,294,828.56 132,973.46	9,084,603 99,601	8,210,226 33,372	1,010,178 5,318	5.84	6.3
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT FULLY ACCRUED AMORTIZED		20-SQ	0	772,161.33 1,540,988.46	772,161	0 938,476	0 770,77	2.00	12.2
	TOTAL TOOLS, SHOP AND GARAGE EQUIPMENT				2,313,149.79	1,374,673	938,476	770,77	3.33	
395.00	LABORATORY EQUIPMENT FULLY ACGRUED AMORTIZED		20-SQ	0	1,251,278.95 4,059,896.75	1,251,279	0 2,496,038	0 203,000	5.00	12.3
	TOTAL LABORATORY EQUIPMENT				5,311,175.70	2,815,138	2,496,038	203,000	3.82	
396.00	POWER OPERATED EQUIPMENT		20-R1.5	0	20,685,598.48	13,562,128	7,123,470	416,907	2.02	17.1

EAST KENTUCKY POWER COOPERATIVE, INC.

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2019

		PROBABLE RETIREMENT	SURVIVOR	NET SALVAGE	ORIGINAL COST AS OF	BOOK DEPRECIATION	FUTURE	CALCULATED ANNUAL ACCRUAL	ED RUAL
	ACCOUNT	DATE	CURVE	PERCENT	DECEMBER 31, 2019	RESERVE	ACCRUALS	AMOUNT	RA
	(1)	(2)	(3)	(4)	(9)	(9)	(2)	(8)	(6)=
397.00	COMMUNICATION EQUIPMENT FULLY ACCRUED AMORTIZED		15-SQ	0	23,276,736.88 23,514,697.87	23,276,737 8,667,518	0 14,847,180	0,569,449	
	TOTAL COMMUNICATION EQUIPMENT				46,791,434.75	31,944,255	14,847,180	1,569,449	
397.10	COMMUNICATION EQUIPMENT - ENERGY CONTROL SYSTEM		FULLY A	FULLY ACCRUED	642,538.48	642,538	0	0	
398.00	MSCELLANEOUS EQUIPMENT FULLY ACCRUED AMORTIZED		20-SQ	0	413,882.29 2,014,590.63	413,882 918,854	0 1,095,737	0 100,721	
	TOTAL MISCELLANEOUS EQUIPMENT				2,428,472.92	1,332,736	1,095,737	100,721	
	TOTAL GENERAL PLANT				141,393,195.68	85,499,035	55,894,160	4,986,678	
	RESERVE ADJUSTMENT FOR AMORTIZATION								
391.00 391.10 393.00 394.00 395.00 397.00	O GFEIGE FURNITURE AND EQUIPMENT OFFICE FURNITURE AND EQUIPMENT - PEOPLESOFT STORES EQUIPMENT TOOLS, SHOP, AND GARAGE EQUIPMENT LABORATORY EQUIPMENT COMMUNICATION EQUIPMENT MSCELLANEOUS EQUIPMENT					1,216,907 6,179,000 31,577 424,010 735,655 9,419,253 1,095,737	,	(121,691) *** (617,900) *** (3158) *** (42,491) *** (73,565) *** (941,925) *** (109,574) ***	
	TOTAL RESERVE ADJUSTMENT FOR AMORTIZATION					19,103,037	,	(1,910,304)	
	TOTAL DEPRECIABLE PLANT				4,037,004,423.89	1,539,337,387	2,976,664,132	129,084,263	
	NONDEPRECIABLE PLANT AND ACCOUNTS NOT STUDIED								
301.00 310.00 340.00	O GRGANIZATION LAND I LAND I LAND				5,040.43 6,916,766.14 5,964,025.69 5,771.527.66				
350.10 360.00 389.00 389.10					55,719,148,42 10,115,251,35 1,381,311,62 454,290,88				
	TOTAL NONDEPRECIABLE PLANT AND ACCOUNTS NOT STUDIED				86,327,372.19				
	TOTAL ELECTRIC PLANT				4,123,331,796.08				

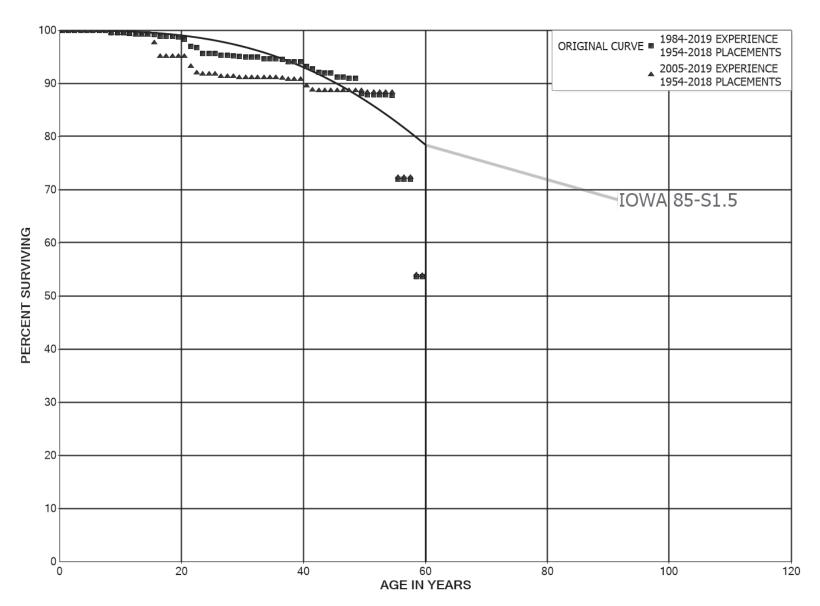
4.15 3.53

LIFE SPAN PROCEDURE USED. CHRVE SHOWN IS INTERIM SURVIVOR CURVE.
 NEW ADDITIONS WILL UTILIZE A 10% DEPRECIATION RATE BASED ON A 10-SQ SURVIVOR CURVE AND 0% NET SALVAGE.
 10-YEAR AMORTIZATION OF RESERVE ADJUSTMENT RELATED TO IMPLEMENTATION OF AMORTIZATION ACCOUNTING.

PART VII. SI	ERVICE L	_IFE_S	TATIST	ΓICS
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EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 311.00 STRUCTURES AND IMPROVEMENTS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 311.00 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1954-2018		EXPEF	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	331,373,309 342,482,753 375,244,976 373,641,188 383,744,543 383,922,796 383,963,877 383,224,335 361,380,659 347,940,338	34 623 6,656 1,535 16,551 130,646 192,024 11,376 1,255,946 282,805	0.0000 0.0000 0.0000 0.0000 0.0000 0.0003 0.0005 0.0000 0.0035	1.0000 1.0000 1.0000 1.0000 0.9997 0.9995 1.0000 0.9965 0.9992	100.00 100.00 100.00 100.00 100.00 99.99 99.96 99.91 99.91
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	345,878,654 217,663,751 217,128,926 216,732,247 216,158,464 81,557,431 81,325,086 80,155,827 81,875,099 81,755,856	12,175 101,005 299,585 2,656 40,592 110,690 215,808 10,453 63,023 86,910	0.0000 0.0005 0.0014 0.0000 0.0002 0.0014 0.0027 0.0001 0.0008 0.0011	1.0000 0.9995 0.9986 1.0000 0.9998 0.9986 0.9973 0.9999 0.9999	99.48 99.47 99.43 99.29 99.27 99.14 98.87 98.86 98.78
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	80,735,228 80,183,379 79,089,227 79,472,343 78,360,236 78,016,489 68,155,174 66,621,366 66,412,260 66,379,824	287,733 1,097,978 219,998 870,090 21,506 8,497 253,147 7,539 32,784 132,702	0.0036 0.0137 0.0028 0.0109 0.0003 0.0001 0.0037 0.0001 0.0005 0.0020	0.9964 0.9863 0.9972 0.9891 0.9997 0.9999 0.9963 0.9999 0.9995 0.9980	98.68 98.33 96.98 96.71 95.65 95.63 95.62 95.26 95.25
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	68,854,111 68,662,427 68,586,123 67,231,863 66,822,719 66,358,966 66,079,238 65,997,741 33,489,260 33,412,148	38,806 21,311 11,450 181,125 4,729 39,289 62,571 336,332 18 2,579	0.0006 0.0003 0.0002 0.0027 0.0001 0.0006 0.0009 0.0051 0.0000 0.0001	0.9994 0.9997 0.9998 0.9973 0.9999 0.9994 0.9991 0.9949 1.0000 0.9999	95.01 94.96 94.93 94.91 94.66 94.65 94.60 94.51 94.02



ACCOUNT 311.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1954-2018		EXPER	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	11,209,632 11,012,979 10,759,325 10,687,455 10,622,576 10,619,932 10,529,196 10,526,454 10,502,658 10,502,618	103,161 55,512 71,870 7,096 31 90,736 2,427 23,796 40 343,599	0.0092 0.0050 0.0067 0.0007 0.0000 0.0085 0.0002 0.0023 0.0000 0.0327	0.9908 0.9950 0.9933 0.9993 1.0000 0.9915 0.9998 0.9977 1.0000 0.9673	94.02 93.15 92.68 92.06 92.00 92.00 91.22 91.19 90.99
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	7,273,179 7,258,627 7,258,627 7,256,479 3,896,985 3,893,545 3,191,699 3,191,699 3,191,699 2,381,053	2,485 3,440 701,846 810,646 3,405	0.0020 0.0000 0.0000 0.0003 0.0009 0.1803 0.0000 0.0000 0.2540 0.0014	0.9980 1.0000 1.0000 0.9997 0.9991 0.8197 1.0000 1.0000 0.7460 0.9986	88.01 87.84 87.84 87.84 87.81 87.73 71.91 71.91 71.91 53.65
59.5 60.5 61.5	2,377,648 2,376,911 2,376,612	737 298 2,376,612	0.0003 0.0001 1.0000	0.9997	53.57 53.56 53.55



62.5

ACCOUNT 311.00 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1954-2018		EXPER	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	320,659,326 321,172,993 321,702,815 321,977,055 308,809,720 309,934,143 310,044,833 309,305,730 287,492,550 274,348,382	121,316 188,915 1,250,483 280,049	0.0000 0.0000 0.0000 0.0000 0.0000 0.0004 0.0006 0.0000 0.0043 0.0010	1.0000 1.0000 1.0000 1.0000 0.9996 0.9994 1.0000 0.9957 0.9990	100.00 100.00 100.00 100.00 100.00 100.00 99.96 99.90 99.90 99.47
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	272,705,035 144,817,288 145,695,696 145,515,841 141,850,705 7,460,598 7,390,113 6,307,550 5,834,609 6,006,408	98,836 299,440 24,674 107,883 196,879	0.0000 0.0007 0.0021 0.0000 0.0002 0.0145 0.0266 0.0000 0.0000	1.0000 0.9993 0.9979 1.0000 0.9998 0.9855 0.9734 1.0000 1.0000	99.36 99.36 99.30 99.09 99.07 97.64 95.04 95.04
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	5,535,481 5,525,155 16,214,623 47,993,077 47,719,174 69,898,868 59,308,923 57,983,012 57,783,144 57,908,903	106,782 216,478 126,493 14,258 239,480 29,457 128,771	0.0000 0.0193 0.0134 0.0026 0.0003 0.0000 0.0040 0.0000 0.0005 0.0022	1.0000 0.9807 0.9866 0.9974 0.9997 1.0000 0.9960 1.0000 0.9995 0.9978	95.04 95.04 93.20 91.96 91.72 91.69 91.32 91.32 91.32
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	57,642,941 57,495,827 57,438,980 56,087,426 55,859,406 58,283,527 58,025,576 57,944,226 25,680,337 28,974,804	2,170 8,743 4,716 17,512 62,425 93,888 2,553	0.0000 0.0000 0.0002 0.0000 0.0001 0.0003 0.0011 0.0016 0.0000 0.0001	1.0000 1.0000 0.9998 1.0000 0.9999 0.9997 0.9989 0.9984 1.0000 0.9999	91.07 91.07 91.07 91.05 91.05 91.05 91.02 90.92 90.77



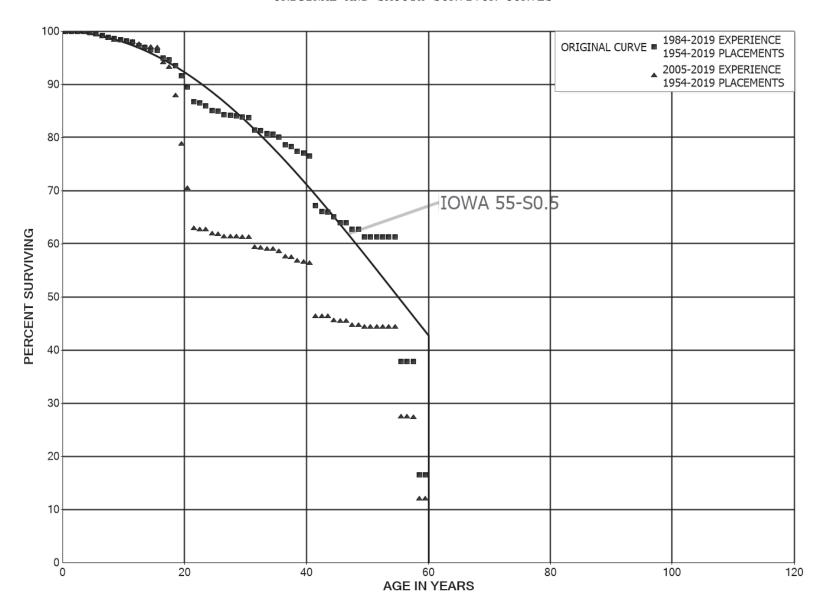
ACCOUNT 311.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1954-2018		EXPER	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	6,772,314 6,581,389 6,330,527 6,328,204 6,972,268 6,969,655 6,969,655 7,777,967 7,781,371 7,782,108	97,433 55,205 5,763 2,019	0.0144 0.0084 0.0009 0.0000 0.0000 0.0000 0.0003 0.0000 0.0000	0.9856 0.9916 0.9991 1.0000 1.0000 0.9997 1.0000 1.0000	90.76 89.46 88.71 88.63 88.63 88.63 88.63 88.60 88.60
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	4,896,566 7,258,627 7,258,627 7,256,479 3,896,985 3,893,545 3,191,699 3,191,699 3,191,699 2,381,053	2,485 3,440 701,846 810,646 3,405	0.0030 0.0000 0.0000 0.0003 0.0009 0.1803 0.0000 0.0000 0.2540 0.0014	0.9970 1.0000 1.0000 0.9997 0.9991 0.8197 1.0000 1.0000 0.7460 0.9986	88.60 88.34 88.34 88.31 88.23 72.33 72.33 72.33 53.96
59.5 60.5 61.5 62.5	2,377,648 2,376,911 2,376,612	737 298 2,376,612	0.0003 0.0001 1.0000	0.9997 0.9999	53.88 53.86 53.86



EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 312.00 BOILER PLANT EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 312.00 BOILER PLANT EQUIPMENT

PLACEMENT	BAND 1954-2019		EXPEF	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	1,446,692,235 1,523,685,588 1,679,290,799 1,659,788,495 1,704,041,466 1,670,648,623 1,644,846,648 1,618,364,162 1,392,169,916 1,375,746,755	128,130 179,328 263,231 944,140 3,244,938 3,537,997 6,085,168 5,283,582 2,952,549 3,307,254	0.0001 0.0001 0.0002 0.0006 0.0019 0.0021 0.0037 0.0033 0.0021 0.0024	0.9999 0.9999 0.9998 0.9994 0.9981 0.9979 0.9963 0.9967 0.9976	100.00 99.99 99.98 99.96 99.91 99.72 99.51 99.14 98.81 98.60
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	1,368,299,207 806,443,846 773,622,361 763,717,074 756,247,979 589,046,296 585,535,485 449,866,073 388,290,086 379,204,711	2,632,715 1,724,394 5,139,997 3,201,979 2,782,176 741,327 8,638,236 1,867,276 4,605,234 7,801,738	0.0019 0.0021 0.0066 0.0042 0.0037 0.0013 0.0148 0.0042 0.0119 0.0206	0.9981 0.9979 0.9934 0.9958 0.9963 0.9987 0.9852 0.9958 0.9881 0.9794	98.37 98.18 97.97 97.32 96.91 96.55 96.43 95.01 94.61 93.49
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	365,917,755 357,396,381 346,386,798 349,208,535 342,418,043 338,175,089 239,085,646 236,933,928 236,556,865 235,159,488	8,148,953 11,010,913 1,068,396 2,223,056 3,723,841 138,058 2,079,352 169,705 423,561 507,973	0.0223 0.0308 0.0031 0.0064 0.0109 0.0004 0.0087 0.0007 0.0018 0.0022	0.9777 0.9692 0.9969 0.9936 0.9891 0.9996 0.9913 0.9993 0.9982 0.9978	91.57 89.53 86.77 86.50 85.95 85.02 84.98 84.24 84.18 84.03
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	237,316,248 235,437,263 228,491,377 226,862,607 224,637,965 224,211,935 222,509,169 218,297,734 79,914,794 78,617,929	331,618 6,576,549 269,139 1,568,877 332,338 1,563,805 3,857,593 942,131 952,690 282,022	0.0014 0.0279 0.0012 0.0069 0.0015 0.0070 0.0173 0.0043 0.0119 0.0036	0.9986 0.9721 0.9988 0.9931 0.9985 0.9930 0.9827 0.9957 0.9881 0.9964	83.85 83.73 81.40 81.30 80.74 80.62 80.06 78.67 78.33 77.39



ACCOUNT 312.00 BOILER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1954-2019		EXPER	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	35,008,803 34,095,154 29,926,421 29,451,717 29,222,626 28,803,636 28,241,153 27,317,745 26,802,029 26,797,574	290,143 4,168,734 474,704 72,990 386,073 467,622 10,368 500,152 4,456 620,223	0.0083 0.1223 0.0159 0.0025 0.0132 0.0162 0.0004 0.0183 0.0002 0.0231	0.9917 0.8777 0.9841 0.9975 0.9868 0.9838 0.9996 0.9817 0.9998 0.9769	77.12 76.48 67.13 66.06 65.90 65.03 63.97 63.95 62.78
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	15,784,786 15,738,431 15,737,114 15,701,722 9,162,943 9,161,887 5,665,272 5,664,627 5,659,680 2,475,305	3,561 1,056 3,496,616 645 4,947 3,184,374 2,384	0.0008 0.0000 0.0000 0.0002 0.0001 0.3816 0.0001 0.0009 0.5626 0.0010	0.9992 1.0000 1.0000 0.9998 0.9999 0.6184 0.9999 0.9991 0.4374 0.9990	61.31 61.27 61.27 61.27 61.25 61.24 37.87 37.87 37.83 16.55
59.5 60.5 61.5	2,452,534 2,451,375 2,448,392	1,159 2,984 2,448,392	0.0005 0.0012 1.0000	0.9995 0.9988	16.53 16.52 16.50



62.5

ACCOUNT 312.00 BOILER PLANT EQUIPMENT

PLACEMENT	BAND 1954-2019		EXPEF	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	1,160,261,059 1,159,148,932 1,286,316,709 1,338,605,386 1,334,703,270 1,307,040,475 1,282,658,750 1,259,874,048 1,041,201,846 1,029,136,658	75,210 8,066 27,805 751,086 3,046,176 3,213,073 5,951,643 4,999,141 2,899,954 2,012,723	0.0001 0.0000 0.0000 0.0006 0.0023 0.0025 0.0046 0.0040 0.0028 0.0020	0.9999 1.0000 1.0000 0.9994 0.9977 0.9975 0.9954 0.9960 0.9972 0.9980	100.00 99.99 99.99 99.93 99.71 99.46 99.00 98.61 98.33
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	1,028,156,167 496,044,653 464,825,937 457,779,960 439,206,271 275,556,928 274,488,456 139,881,473 72,377,345 64,434,437	675,265 514,093 2,463,040 2,309,000 293,775 71,842 7,954,958 1,385,448 4,118,533 6,710,827	0.0007 0.0010 0.0053 0.0050 0.0007 0.0003 0.0290 0.0099 0.0569 0.1041	0.9993 0.9990 0.9947 0.9950 0.9993 0.9997 0.9710 0.9901 0.9431 0.8959	98.14 98.08 97.97 97.45 96.96 96.90 96.87 94.07 93.13 87.83
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	52,608,833 47,226,814 117,369,760 264,168,674 261,165,535 305,321,118 203,076,888 202,135,520 202,120,155 201,365,419	5,508,525 5,069,076 491,019 147,273 3,305,166 80,114 1,529,893 60,727 52,441 448,840	0.1047 0.1073 0.0042 0.0006 0.0127 0.0003 0.0075 0.0003 0.0003	0.8953 0.8927 0.9958 0.9994 0.9873 0.9997 0.9925 0.9997 0.9997	78.69 70.45 62.89 62.62 62.59 61.80 61.78 61.31 61.30 61.28
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	202,550,294 201,092,819 197,173,775 195,633,983 194,358,328 205,243,978 203,744,399 199,729,346 61,962,229 67,721,204	4,970 6,213,902 265,966 642,642 115,901 1,394,458 3,666,453 361,700 664,077 254,293	0.0000 0.0309 0.0013 0.0033 0.0006 0.0068 0.0180 0.0018 0.0107 0.0038	1.0000 0.9691 0.9987 0.9967 0.9994 0.9932 0.9820 0.9883 0.9962	61.14 61.14 59.25 59.17 58.98 58.94 58.54 57.49 57.38 56.77



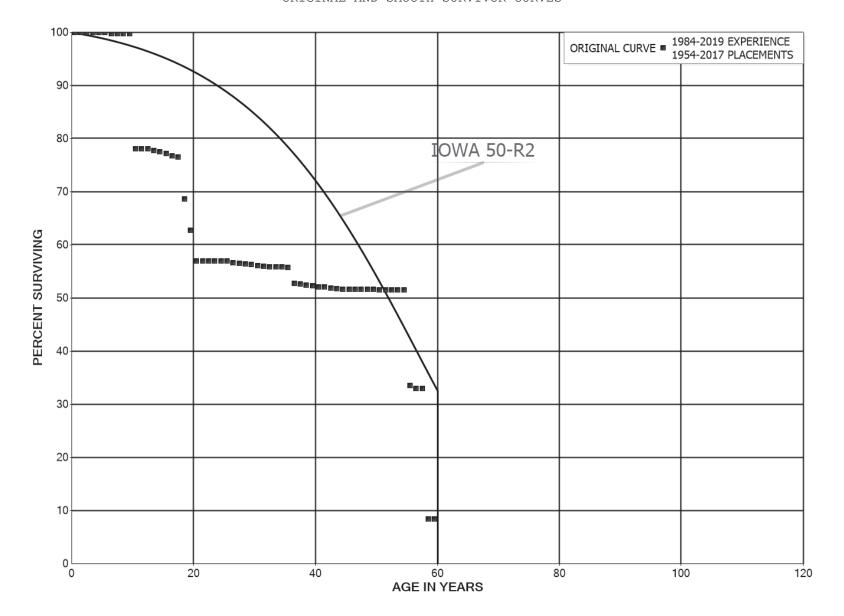
ACCOUNT 312.00 BOILER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT 1	BAND 1954-2019		EXPEF	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5	24,139,808 23,396,764 19,245,982 19,247,038 22,585,821 22,188,565 22,075,898 24,347,232 23,867,971	119,538 4,154,343 1,732 385,372 22,752 466,082 3,925	0.0050 0.1776 0.0000 0.0001 0.0171 0.0010 0.0000 0.0191 0.0002	0.9950 0.8224 1.0000 0.9999 0.9829 0.9990 1.0000 0.9809 0.9998	56.56 56.28 46.28 46.28 46.28 45.49 45.44 45.44
48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	23,865,205 13,333,294 15,738,431 15,737,114 15,701,722 9,162,943 9,161,887 5,665,272 5,664,627 5,659,680 2,475,305	3,561 1,056 3,496,616 645 4,947 3,184,374 2,384	0.0060 0.0007 0.0000 0.0000 0.0002 0.0001 0.3816 0.0001 0.0009 0.5626 0.0010	0.9940 0.9993 1.0000 1.0000 0.9998 0.9999 0.6184 0.9999 0.9991 0.4374 0.9990	44.57 44.30 44.27 44.27 44.27 44.26 44.25 27.36 27.36 27.34 11.96
59.5 60.5 61.5	2,452,534 2,451,375 2,448,392	1,159 2,984 2,448,392	0.0005 0.0012 1.0000	0.9995 0.9988	11.94 11.94 11.92

62.5

EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 314.00 TURBOGENERATOR UNITS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 314.00 TURBOGENERATOR UNITS

PLACEMENT I	BAND 1954-2017		EXPER	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	287,574,152 287,594,850 326,100,552 323,840,149 345,443,928 343,078,498 343,075,493 342,009,448 340,822,489 340,818,177	491 2,899 6,517 10 1,677 3,005 1,033,445 14,718 4,312 13,968	0.0000 0.0000 0.0000 0.0000 0.0000 0.0030 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9970 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 99.69 99.69 99.69
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	340,551,650 206,988,730 202,166,091 201,498,740 209,007,958 134,216,021 133,779,126 129,662,070 134,863,199 120,866,081	73,776,163 3,040 422 868,016 739,553 438,075 929,575 295,305 13,997,118 10,253,532	0.2166 0.0000 0.0000 0.0043 0.0035 0.0033 0.0069 0.0023 0.1038 0.0848	0.7834 1.0000 1.0000 0.9957 0.9965 0.9967 0.9931 0.9977 0.8962 0.9152	99.68 78.09 78.09 77.75 77.48 77.22 76.69 76.51 68.57
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	105,353,578 95,687,215 81,965,625 83,324,705 76,631,601 76,630,996 78,456,923 78,082,483 77,879,369 77,046,108	9,666,363 6,647 491 11,375 604 77,415 375,805 203,114 191,886 46,539	0.0918 0.0001 0.0000 0.0001 0.0000 0.0010 0.0048 0.0026 0.0025 0.0006	0.9082 0.9999 1.0000 0.9999 1.0000 0.9990 0.9952 0.9974 0.9975 0.9994	62.75 57.00 56.99 56.99 56.98 56.98 56.51 56.51
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	77,585,131 77,183,801 77,021,267 76,555,803 76,514,943 76,505,902 76,324,743 72,327,863 37,697,887 37,486,521	305,499 162,534 213,017 40,860 9,041 166,202 3,996,880 132,964 160,938 96,145	0.0039 0.0021 0.0028 0.0005 0.0001 0.0022 0.0524 0.0018 0.0043 0.0026	0.9961 0.9979 0.9972 0.9995 0.9999 0.9978 0.9476 0.9982 0.9957 0.9974	56.33 56.11 55.99 55.84 55.81 55.80 55.68 52.76 52.67 52.44



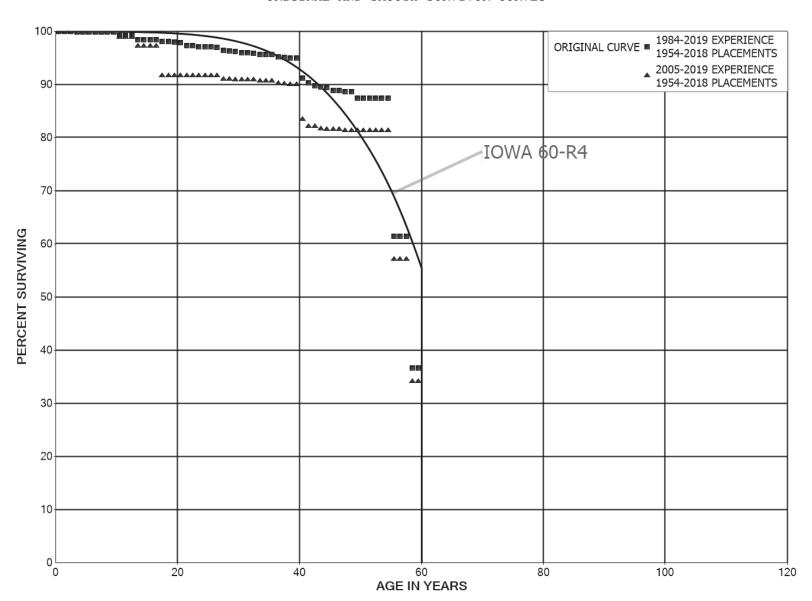
ACCOUNT 314.00 TURBOGENERATOR UNITS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1954-2017		EXPER	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	16,151,985 15,977,961 15,977,911 15,906,488 15,868,390 15,836,650 15,835,873 15,835,873 15,829,511	83,841 50 71,423 29,875 31,740 777 1	0.0052 0.0000 0.0045 0.0019 0.0020 0.0000 0.0000 0.0000 0.0000	0.9948 1.0000 0.9955 0.9981 0.9980 1.0000 1.0000 1.0000	52.31 52.04 52.04 51.80 51.71 51.60 51.60 51.60 51.60
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	8,231,794 8,218,602 8,217,544 8,213,001 3,352,823 3,349,646 2,182,695 2,145,094 2,145,094 548,114	3,177 1,166,951 37,601 1,596,979 1,136	0.0016 0.0000 0.0000 0.0000 0.0009 0.3484 0.0172 0.0000 0.7445 0.0021	0.9984 1.0000 1.0000 1.0000 0.9991 0.6516 0.9828 1.0000 0.2555 0.9979	51.60 51.52 51.52 51.52 51.52 51.47 33.54 32.96 32.96 8.42
59.5 60.5 61.5	546,979 546,979 546,979	546 , 979	0.0000 0.0000 1.0000	1.0000	8.40 8.40 8.40

62.5

EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 315.00 ACCESSORY ELECTRIC EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 315.00 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1954-2018		EXPEF	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	87,933,405 94,843,056 114,155,198 114,107,296 121,137,301 121,149,688 121,149,673 121,148,511 108,586,182 108,613,650	24 618 142,903 3,122 14 1,162 262 1,533 174	0.0000 0.0000 0.0000 0.0013 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9987 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 99.87 99.87 99.87 99.87 99.87
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	108,613,476 64,852,549 64,856,155 64,856,118 65,481,270 42,335,886 41,513,700 37,799,594 36,667,176 36,649,417	756,981 65 37 491,160 17,219 14 3,996 122,101 17,759 4,520	0.0070 0.0000 0.0000 0.0076 0.0003 0.0000 0.0001 0.0032 0.0005 0.0001	0.9930 1.0000 1.0000 0.9924 0.9997 1.0000 0.9999 0.9968 0.9995 0.9999	99.87 99.17 99.17 99.17 98.42 98.40 98.40 98.39 98.07 98.02
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	36,567,803 36,504,629 36,317,774 36,784,160 36,674,612 36,673,197 30,409,419 30,377,057 30,174,207 30,167,172	63,174 186,856 417 109,549 1,414 5,206 32,362 181,717 7,036 62,559	0.0017 0.0051 0.0000 0.0030 0.0000 0.0001 0.0011 0.0060 0.0002 0.0021	0.9983 0.9949 1.0000 0.9970 1.0000 0.9999 0.9989 0.9940 0.9998	98.01 97.84 97.34 97.05 97.04 97.03 96.93 96.35 96.32
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	30,781,979 30,723,035 30,722,945 30,701,494 30,561,182 30,556,883 29,961,936 29,629,971 10,218,847 10,170,697	58,944 90 21,451 88,058 4,298 136,349 32,800 9,923	0.0019 0.0000 0.0007 0.0029 0.0001 0.0000 0.0046 0.0011 0.0010 0.0000	0.9981 1.0000 0.9993 0.9971 0.9999 1.0000 0.9954 0.9989 0.9990 1.0000	96.12 95.94 95.94 95.87 95.60 95.59 95.15 95.04 94.95

ACCOUNT 315.00 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1954-2018		EXPER	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	3,288,547 3,156,864 3,128,607 3,108,259 3,099,431 3,097,669 3,075,480 3,075,480 3,065,511 3,065,511	131,683 28,257 20,348 8,828 1,762 22,189 8,200	0.0400 0.0090 0.0065 0.0028 0.0006 0.0072 0.0000 0.0027 0.0000 0.0128	0.9600 0.9910 0.9935 0.9972 0.9994 0.9928 1.0000 0.9973 1.0000 0.9872	94.95 91.15 90.33 89.75 89.49 89.44 88.80 88.80 88.56
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	1,972,532 1,972,532 1,972,532 1,972,532 1,400,947 1,400,947 983,950 983,950 983,950 587,509	416,997 396,441	0.0000 0.0000 0.0000 0.0000 0.0000 0.2977 0.0000 0.0000 0.4029 0.0000	1.0000 1.0000 1.0000 1.0000 0.7023 1.0000 1.0000 0.5971 1.0000	87.43 87.43 87.43 87.43 87.43 87.43 61.41 61.41 61.41
59.5 60.5 61.5	587,509 587,509 587,509	587,509	0.0000 0.0000 1.0000	1.0000	36.67 36.67 36.67

62.5

ACCOUNT 315.00 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT I	BAND 1954-2018		EXPEF	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	80,560,186 81,382,358 84,836,964 86,385,981 86,243,184 86,320,278 86,442,191 86,442,191 73,745,426 73,745,426	142,797	0.0000 0.0000 0.0000 0.0017 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9983 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 99.83 99.83 99.83 99.83 99.83
9.5 10.5 11.5 12.5 13.5 14.5	73,745,426 30,043,759 30,043,759 30,064,892 29,573,796 6,474,009	755,972 491,096	0.0103 0.0000 0.0000 0.0163 0.0000 0.0000	0.9897 1.0000 1.0000 0.9837 1.0000	99.83 98.81 98.81 98.81 97.20 97.20
15.5 16.5 17.5 18.5	5,831,129 2,121,018 374,543 426,796	121,913	0.0000 0.0575 0.0000 0.0000	1.0000 0.9425 1.0000 1.0000	97.20 97.20 91.61 91.61
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5	349,703 1,002,108 7,853,556 27,231,880 27,270,108 34,351,866 27,653,064 27,649,334	3,730 179,292	0.0000 0.0000 0.0000 0.0000 0.0000 0.0001 0.0065	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9999 0.9935	91.61 91.61 91.61 91.61 91.61 91.61 91.60
27.5 28.5	27,448,910 27,580,593	61,099	0.0000 0.0022	1.0000	91.00 91.00
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	27,523,102 27,523,102 27,523,102 27,519,880 27,410,763 28,469,154 27,874,207 27,545,769 8,156,461 8,688,096	6,753 56,864 4,298 132,822 10,984 9,923	0.0000 0.0000 0.0002 0.0021 0.0002 0.0000 0.0048 0.0004 0.0012	1.0000 1.0000 0.9998 0.9979 0.9998 1.0000 0.9952 0.9996 0.9988 1.0000	90.80 90.80 90.80 90.78 90.59 90.58 90.58 90.15 90.11



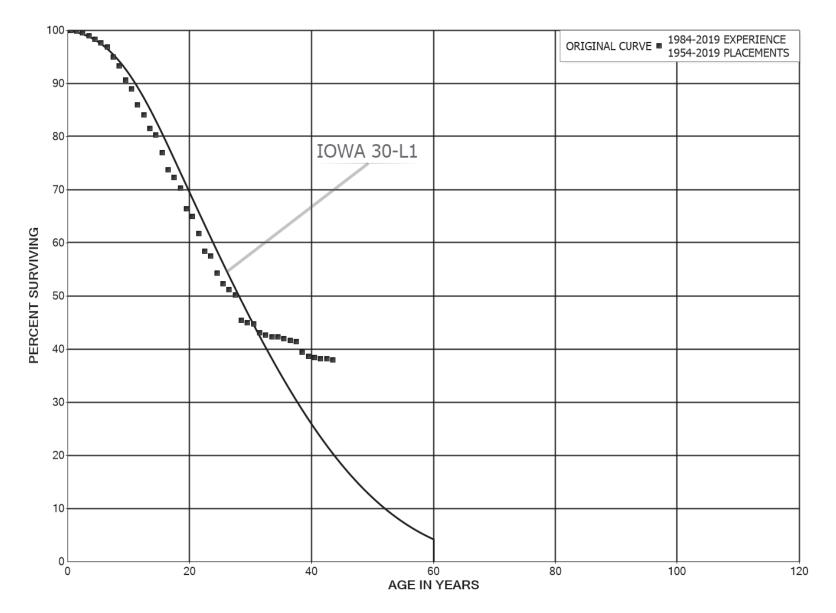
ACCOUNT 315.00 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1954-2018		EXPER	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	1,805,946 1,674,262 1,646,006 1,646,006 2,054,174 2,052,412 2,052,412 2,448,853 2,438,884 2,438,884	131,683 28,257 8,828 1,762	0.0729 0.0169 0.0000 0.0054 0.0009 0.0000 0.0000 0.0033 0.0000 0.0000	0.9271 0.9831 1.0000 0.9946 0.9991 1.0000 1.0000 0.9967 1.0000	90.00 83.44 82.03 82.03 81.59 81.52 81.52 81.52 81.52
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	1,385,023 1,972,532 1,972,532 1,972,532 1,400,947 1,400,947 983,950 983,950 983,950 587,509	416,997 396,441	0.0000 0.0000 0.0000 0.0000 0.0000 0.2977 0.0000 0.0000 0.4029	1.0000 1.0000 1.0000 1.0000 1.0000 0.7023 1.0000 1.0000 0.5971 1.0000	81.25 81.25 81.25 81.25 81.25 81.25 57.06 57.06 57.06 34.07
59.5 60.5 61.5	587,509 587,509 587,509	587 , 509	0.0000 0.0000 1.0000	1.0000	34.07 34.07 34.07

62.5

EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 316.00 MISCELLANEOUS POWER PLANT EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 316.00 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1954-2019		EXPEF	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	17,026,285 17,176,109 16,701,731 16,366,816 14,471,108 14,246,988 13,635,838 13,630,456 11,669,287 11,357,125	8,193 26,216 50,438 87,379 94,211 99,547 109,598 262,525 203,380 327,806	0.0005 0.0015 0.0030 0.0053 0.0065 0.0070 0.0080 0.0193 0.0174 0.0289	0.9995 0.9985 0.9970 0.9947 0.9935 0.9930 0.9920 0.9807 0.9826 0.9711	100.00 99.95 99.80 99.50 98.97 98.32 97.64 96.85 94.99 93.33
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	10,147,204 8,141,643 7,707,057 7,492,209 7,062,545 6,183,616 5,864,118 5,400,129 5,277,474 5,088,593	193,567 268,312 170,779 228,356 104,314 256,927 248,204 101,992 146,134 281,444	0.0191 0.0330 0.0222 0.0305 0.0148 0.0415 0.0423 0.0189 0.0277 0.0553	0.9809 0.9670 0.9778 0.9695 0.9852 0.9585 0.9577 0.9811 0.9723 0.9447	90.64 88.91 85.98 84.07 81.51 80.31 76.97 73.71 72.32 70.32
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	4,702,960 4,345,454 3,994,420 3,571,387 3,219,749 2,834,561 2,307,235 2,047,081 1,856,215 1,601,775	106,526 211,367 217,606 57,696 178,461 102,208 50,801 39,842 175,122 17,100	0.0227 0.0486 0.0545 0.0162 0.0554 0.0361 0.0220 0.0195 0.0943 0.0107	0.9773 0.9514 0.9455 0.9838 0.9446 0.9639 0.9780 0.9805 0.9057 0.9893	66.43 64.92 61.76 58.40 57.46 54.27 52.32 51.16 50.17 45.43
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	1,444,253 1,338,817 1,181,048 1,020,759 966,406 829,067 737,896 683,438 534,452 451,788	5,859 52,233 11,379 7,042 1,256 7,042 5,687 2,397 26,703 8,528	0.0041 0.0390 0.0096 0.0069 0.0013 0.0085 0.0077 0.0035 0.0500 0.0189	0.9959 0.9610 0.9904 0.9931 0.9987 0.9915 0.9923 0.9965 0.9500	44.95 44.77 43.02 42.61 42.31 42.26 41.90 41.58 41.43 39.36



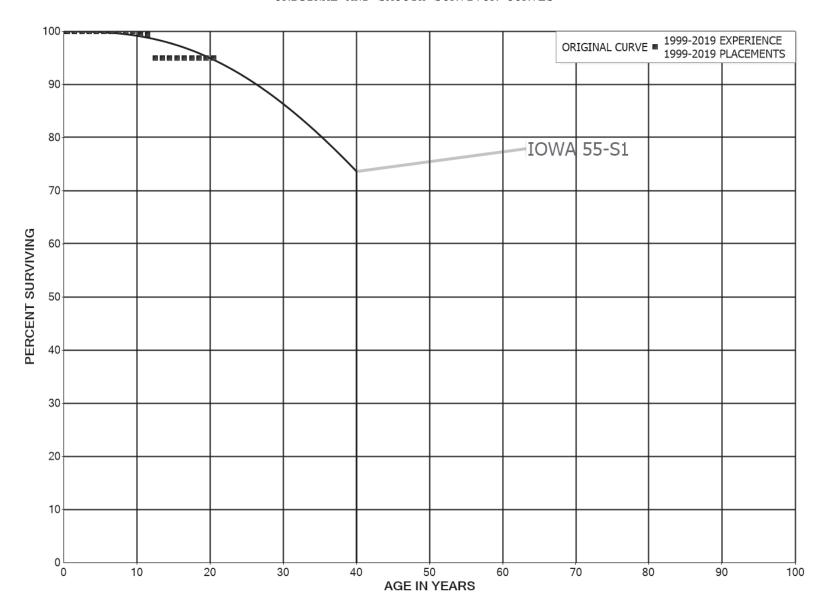
ACCOUNT 316.00 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1954-2019		EXPERIENCE BAND 1984-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5 40.5 41.5	380,555 353,579 215,414	2,692 1,598	0.0071 0.0045 0.0000	0.9929 0.9955 1.0000	38.62 38.34 38.17	
42.5 43.5 44.5 45.5 46.5 47.5	166,859 57,495 48,533 38,621 38,621 37,076	1,091	0.0065 0.0000 0.0000 0.0000 0.0000	0.9935 1.0000 1.0000 1.0000 1.0000	38.17 37.92 37.92 37.92 37.92 37.92	
48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5	37,076 37,076 37,076 37,076 27,168 27,168 22,574	7,531 4,594	0.0000 0.0000 0.0000 0.2031 0.0000 0.1691 0.0000	1.0000 1.0000 1.0000 0.7969 1.0000 0.8309 1.0000	37.92 37.92 37.92 30.22 30.22 25.11 25.11	



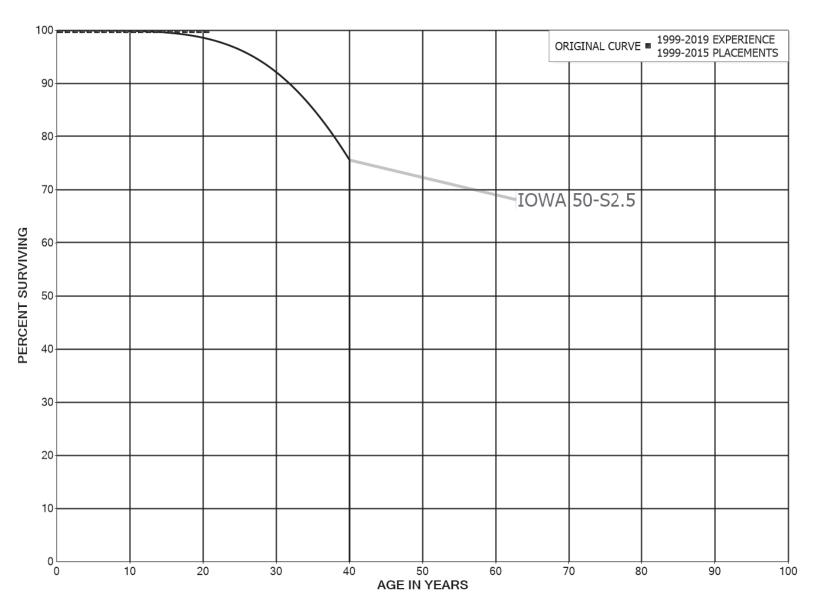
EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 341.00 STRUCTURES AND IMPROVEMENTS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 341.00 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1999-2019		EXPER	RIENCE BAN	D 1999-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	54,993,881 57,375,248 52,921,230 51,969,902 51,914,247 41,883,484 41,817,903 41,817,903 41,817,903 41,292,669		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	34,086,915 33,845,791 33,316,789 31,500,168 30,034,940 29,025,638 28,750,661 25,223,525 22,747,965 13,970,825	200,883 1,504,460	0.0059 0.0000 0.0452 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.9941 1.0000 0.9548 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 99.41 99.41 94.92 94.92 94.92 94.92 94.92 94.92 94.92
19.5 20.5	13,970,825		0.0000	1.0000	94.92 94.92

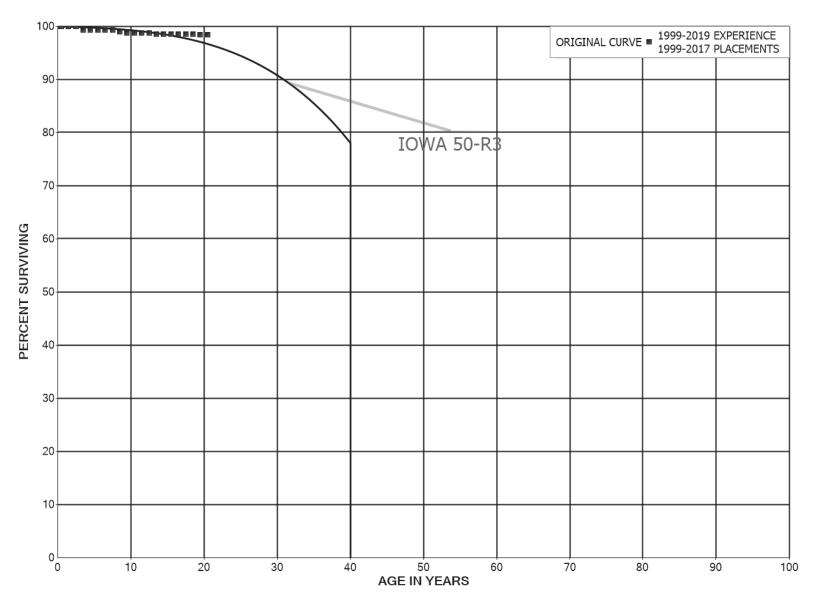
EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 342.00 FUEL HOLDERS, PRODUCERS AND ACCESSORIES ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 342.00 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

PLACEMENT	BAND 1999-2015		EXPE	RIENCE BAN	D 1999-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	20,058,007 20,058,007 20,033,575 20,033,575 20,033,575 18,871,372 18,871,372 18,871,372 18,871,372 18,871,372		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	14,370,188 14,370,188 14,370,188 14,370,188 14,370,188 12,077,951 5,125,937 4,661,972 4,661,972 3,702,255		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
19.5 20.5	3,702,255		0.0000	1.0000	100.00

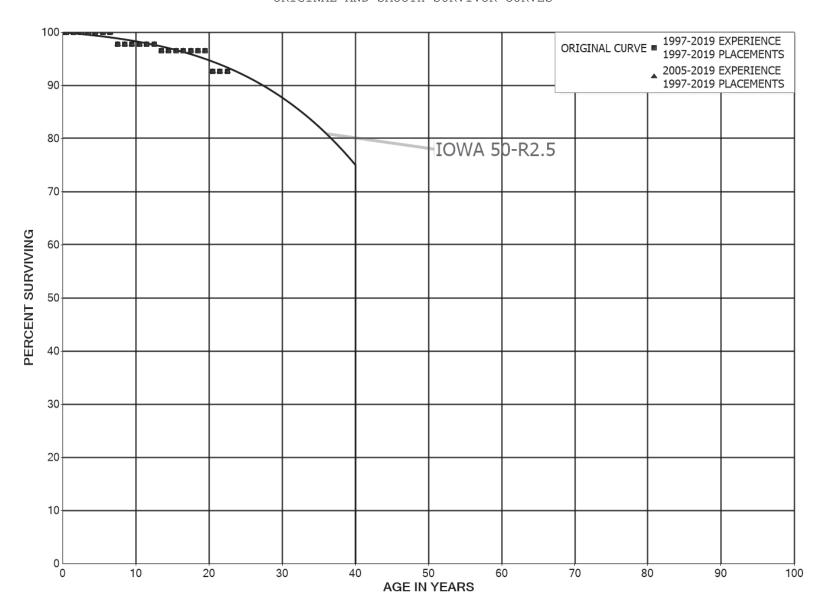
EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 343.00 PRIME MOVERS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 343.00 PRIME MOVERS

PLACEMENT	EXPER	EXPERIENCE BAND 1999-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5	458,345,056 357,903,861 302,622,195 405,621,153 402,925,886 268,408,467 267,863,584 267,623,352 267,549,536	2,695,268 931,747	0.0000 0.0000 0.0000 0.0066 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9934 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 99.34 99.34 99.34 99.34 99.34
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	266,617,789 155,318,256 154,715,439 154,715,439 153,416,076 149,861,754 116,465,764 116,465,764 110,949,159 110,949,159 56,618,643	852,688 290,419 59,612	0.0032 0.0000 0.0000 0.0019 0.0000 0.0000 0.0000 0.0000 0.0000 0.0011	0.9968 1.0000 1.0000 0.9981 1.0000 1.0000 1.0000 1.0000 1.0000 0.9989	98.99 98.67 98.67 98.67 98.49 98.49 98.49 98.49 98.49
19.5	56,559,032	33, 312	0.0000	1.0000	98.38 98.38

EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 344.00 GENERATORS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 344.00 GENERATORS

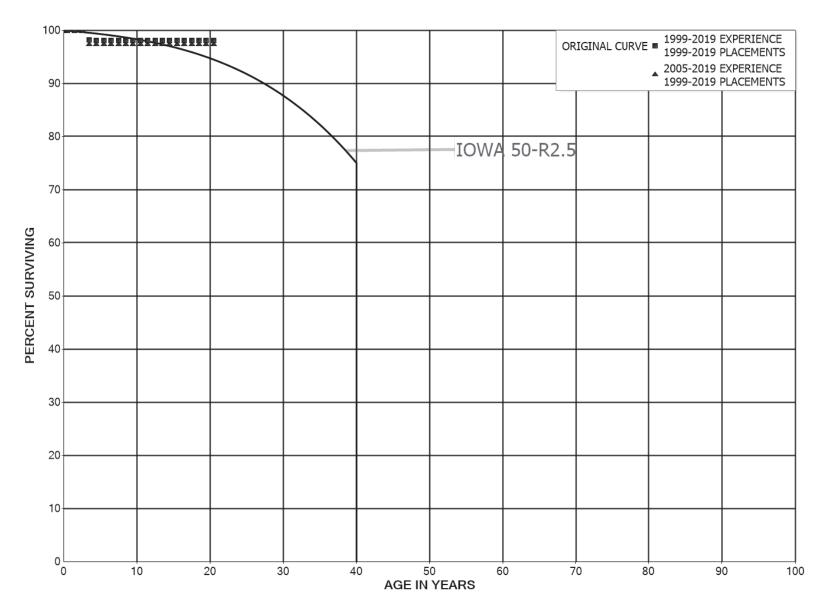
PLACEMENT	BAND 1997-2019		EXPE	RIENCE BAN	D 1997-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	116,693,593 112,164,212 104,697,577 88,887,271 85,778,793 60,841,869 60,841,869 59,477,497 57,885,031	1,364,371	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0224 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9776 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 97.76 97.76
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	49,000,644 49,000,644 49,000,644 47,320,064 44,947,811 35,277,147 35,277,147 30,495,388 30,495,388 15,677,270	599 , 987	0.0000 0.0000 0.0000 0.0127 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9873 1.0000 1.0000 1.0000 1.0000 1.0000	97.76 97.76 97.76 97.76 96.52 96.52 96.52 96.52 96.52
19.5 20.5 21.5 22.5	14,994,494 449,511 449,511	603 , 570	0.0403 0.0000 0.0000	0.9597 1.0000 1.0000	96.52 92.63 92.63 92.63



ACCOUNT 344.00 GENERATORS

PLACEMENT BAND 1997-2019			EXPERIENCE BAND 2005-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	72,162,830 70,441,338 74,202,189 58,391,883 70,101,523 45,847,374 60,392,358 60,392,358 59,477,497 57,885,031	1,364,371	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0226 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9774 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 97.74 97.74
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	49,000,644 49,000,644 49,000,644 47,320,064 44,947,811 35,277,147 35,277,147 30,495,388 30,495,388 15,677,270	599 , 987	0.0000 0.0000 0.0000 0.0127 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9873 1.0000 1.0000 1.0000 1.0000 1.0000	97.74 97.74 97.74 97.74 96.50 96.50 96.50 96.50 96.50
19.5 20.5 21.5 22.5	14,994,494 449,511 449,511	603 , 570	0.0403 0.0000 0.0000	0.9597 1.0000 1.0000	96.50 92.62 92.62 92.62

EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 345.00 ACCESSORY ELECTRIC EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



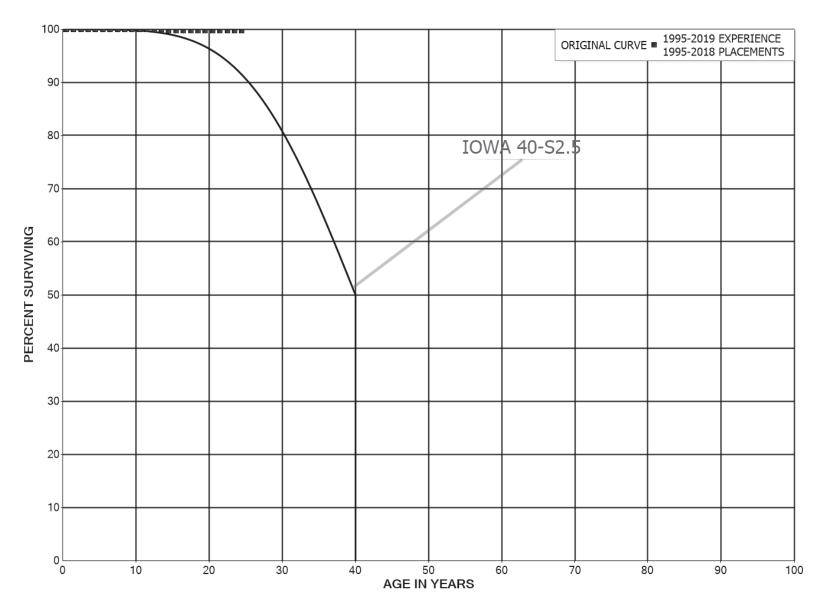
ACCOUNT 345.00 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	EXPERIENCE BAND 1999-2019				
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	39,003,660 38,989,721 38,989,721 37,581,003 36,883,681 32,692,972 32,692,972 32,692,972 32,692,972 32,692,972	697,322 18,282	0.0000 0.0000 0.0000 0.0186 0.0005 0.0000 0.0000 0.0000	1.0000 1.0000 0.9814 0.9995 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 98.14 98.10 98.10 98.10 98.10
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	18,773,076 18,773,076 18,773,076 18,366,291 17,913,614 12,607,118 12,607,118 11,502,353 11,502,353 7,130,844		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	98.10 98.10 98.10 98.10 98.10 98.10 98.10 98.10 98.10
19.5 20.5	7,130,844		0.0000	1.0000	98.10 98.10

ACCOUNT 345.00 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 1999-2019		EXPER	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	26,396,542 26,382,603 27,487,369 26,078,650 29,752,837 25,562,128 32,692,972 32,692,972 32,692,972 32,692,972	697,322 18,282	0.0000 0.0000 0.0000 0.0267 0.0006 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9733 0.9994 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 97.33 97.27 97.27 97.27 97.27
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	18,773,076 18,773,076 18,773,076 18,366,291 17,913,614 12,607,118 12,607,118 11,502,353 11,502,353 7,130,844		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	97.27 97.27 97.27 97.27 97.27 97.27 97.27 97.27 97.27
19.5 20.5	7,130,844		0.0000	1.0000	97.27 97.27

EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 346.00 MISCELLANEOUS POWER PLANT EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES

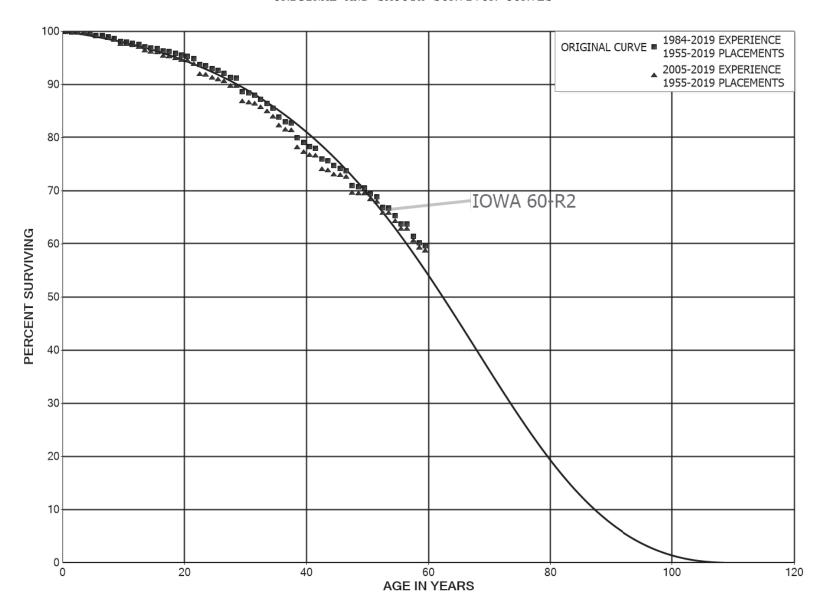


ACCOUNT 346.00 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1995-2018		EXPE	RIENCE BAN	D 1995-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	18,433,064 15,994,133 15,987,627 15,987,627 15,861,174 12,120,906 11,605,154 11,500,667 6,213,087 5,928,515		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	5,910,707 5,910,707 5,904,772 3,687,342 1,483,799 1,059,591 1,059,591 874,357 841,541 780,953	3 , 924	0.0000 0.0000 0.0000 0.0026 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9974 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 99.74 99.74 99.74 99.74
19.5 20.5 21.5 22.5 23.5 24.5	780,953 293,791 154,469 137,940 85,357		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000	99.74 99.74 99.74 99.74 99.74 99.74



EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 353.00 STATION EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 353.00 STATION EQUIPMENT

PLACEMENT	BAND 1955-2019		EXPEF	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	230,326,146 241,177,991 247,734,880 253,036,676 252,597,932 237,140,793 236,511,452 231,309,608 228,796,313 198,745,101	6,206 261,637 81,247 347,345 134,108 1,102,177 71,938 656,167 718,273 1,081,875	0.0000 0.0011 0.0003 0.0014 0.0005 0.0046 0.0003 0.0028 0.0031 0.0054	1.0000 0.9989 0.9997 0.9986 0.9995 0.9954 0.9997 0.9972 0.9969 0.9946	100.00 100.00 99.89 99.86 99.72 99.67 99.20 99.17 98.89 98.58
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	180,834,472 140,221,029 131,950,693 107,627,455 106,190,027 89,518,785 84,689,921 80,171,766 79,001,467 77,341,253	100,476 303,025 358,432 476,917 280,778 137,344 334,681 127,180 258,889 214,485	0.0006 0.0022 0.0027 0.0044 0.0026 0.0015 0.0040 0.0016 0.0033 0.0028	0.9994 0.9978 0.9973 0.9956 0.9974 0.9985 0.9960 0.9984 0.9967 0.9972	98.04 97.99 97.78 97.51 97.08 96.82 96.68 96.29 96.14 95.83
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	71,080,471 69,968,679 69,261,282 66,711,377 67,098,868 62,411,507 55,625,995 51,049,491 49,174,101 49,839,234	197,954 361,115 775,950 154,109 398,491 261,768 280,641 480,403 41,333 1,367,955	0.0028 0.0052 0.0112 0.0023 0.0059 0.0042 0.0050 0.0094 0.0008 0.0274	0.9972 0.9948 0.9888 0.9977 0.9941 0.9958 0.9950 0.9906 0.9992	95.56 95.29 94.80 93.74 93.52 92.97 92.58 92.11 91.24 91.17
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	47,839,419 46,806,265 46,430,298 45,808,627 44,002,670 42,570,520 40,381,547 37,062,289 27,364,861 18,485,780	163,952 244,753 369,976 408,450 478,437 794,816 454,891 80,442 945,750 186,488	0.0034 0.0052 0.0080 0.0089 0.0109 0.0187 0.0113 0.0022 0.0346 0.0101	0.9966 0.9948 0.9920 0.9911 0.9891 0.9813 0.9887 0.9978 0.9654 0.9899	88.66 88.36 87.90 87.20 86.42 85.48 83.89 82.94 82.76 79.90



ACCOUNT 353.00 STATION EQUIPMENT

PLACEMENT 1	BAND 1955-2019		EXPER	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	14,178,875 11,976,438 7,776,512 7,509,512 7,369,349 7,260,393 7,176,646 7,114,436 6,602,150 6,565,842	141,375 52,315 199,320 39,638 83,536 49,238 43,167 271,730 20,150 19,889	0.0100 0.0044 0.0256 0.0053 0.0113 0.0068 0.0060 0.0382 0.0031 0.0030	0.9900 0.9956 0.9744 0.9947 0.9887 0.9932 0.9940 0.9618 0.9969 0.9970	79.09 78.31 77.96 75.96 75.56 74.71 74.20 73.75 70.94 70.72
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	4,940,209 4,483,391 4,163,131 4,026,422 2,478,349 2,031,740 1,888,442 1,881,884 1,776,272 1,658,946	81,080 31,545 123,521 6,510 54,668 48,357 67,239 36,192 15,975	0.0164 0.0070 0.0297 0.0016 0.0221 0.0238 0.0000 0.0357 0.0204 0.0096	0.9836 0.9930 0.9703 0.9984 0.9779 0.9762 1.0000 0.9643 0.9796 0.9904	70.72 70.51 69.35 68.86 66.82 66.71 65.24 63.69 63.69 61.41 60.16
59.5 60.5 61.5 62.5 63.5 64.5	832,739 656,144 655,504 627,787 627,731	27,717	0.0000 0.0000 0.0423 0.0000 0.0000	1.0000 1.0000 0.9577 1.0000	59.58 59.58 59.58 57.06 57.06

ACCOUNT 353.00 STATION EQUIPMENT

PLACEMENT	BAND 1955-2019		EXPEF	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	178,813,732 191,905,698 190,389,151 189,408,136 186,735,516 175,267,662 169,915,482 165,215,531 164,653,556 135,651,896	243,792 57,100 314,282 94,422 1,061,767 25,891 616,488 655,335 1,008,661	0.0000 0.0013 0.0003 0.0017 0.0005 0.0061 0.0002 0.0037 0.0040 0.0074	1.0000 0.9987 0.9997 0.9983 0.9995 0.9939 0.9998 0.9963 0.9960 0.9926	100.00 100.00 99.87 99.84 99.68 99.63 99.02 99.01 98.64 98.25
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	123,001,359 89,475,557 85,635,169 62,663,769 60,553,622 44,148,935 39,919,610 35,710,523 33,119,828 32,553,272	14,969 231,961 295,384 379,560 183,367 48,764 263,328 40,732 134,098 93,439	0.0001 0.0026 0.0034 0.0061 0.0030 0.0011 0.0066 0.0011 0.0040 0.0029	0.9999 0.9974 0.9966 0.9939 0.9970 0.9989 0.9989 0.9960 0.9971	97.52 97.50 97.25 96.92 96.33 96.04 95.93 95.30 95.19 94.80
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	27,406,117 28,102,172 30,423,676 39,800,497 47,731,879 47,146,042 42,762,527 43,124,460 41,372,959 40,972,283	45,857 184,384 614,234 43,738 325,649 152,797 148,254 426,647 21,018 1,330,800	0.0017 0.0066 0.0202 0.0011 0.0068 0.0032 0.0035 0.0099 0.0005	0.9983 0.9934 0.9798 0.9989 0.9932 0.9968 0.9965 0.9901 0.9995 0.9675	94.53 94.37 93.75 91.86 91.76 91.13 90.84 90.52 89.63 89.58
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	39,037,748 38,117,937 37,948,601 37,696,397 36,150,761 36,610,791 34,900,144 32,106,739 22,463,086 15,243,271	96,117 58,850 313,267 361,426 409,116 743,177 319,656 39,788 895,524 174,209	0.0025 0.0015 0.0083 0.0096 0.0113 0.0203 0.0092 0.0012 0.0399 0.0114	0.9975 0.9985 0.9917 0.9904 0.9887 0.9797 0.9908 0.9988 0.9601 0.9886	86.67 86.46 86.33 85.61 84.79 83.83 82.13 81.38 81.28 78.04

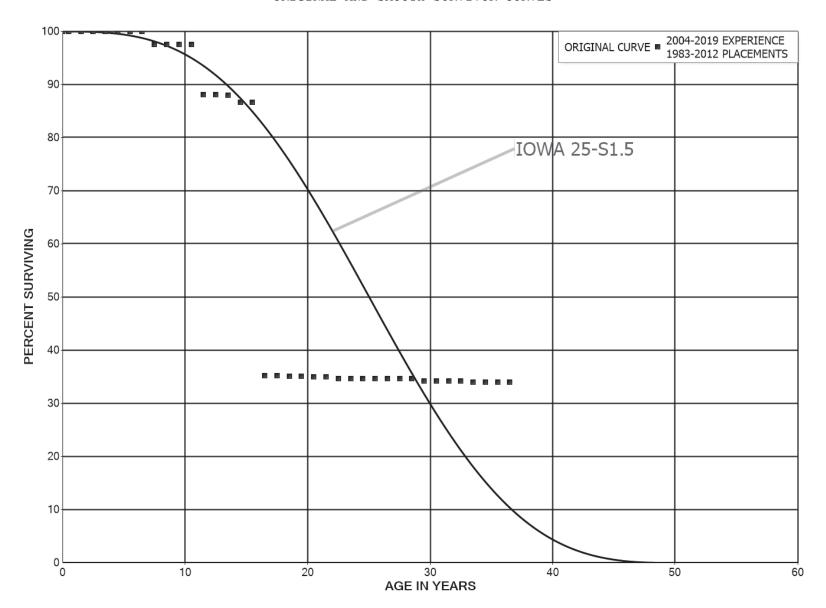


ACCOUNT 353.00 STATION EQUIPMENT

PLACEMENT	BAND 1955-2019		EXPER	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	11,399,545 9,353,682 5,207,462 5,019,891 5,029,858 6,116,515 6,275,692 6,222,615 5,724,150 5,704,475	80,716 5,556 173,449 15,892 57,809 5,352 34,673 257,910 3,572	0.0071 0.0006 0.0333 0.0032 0.0115 0.0009 0.0055 0.0414 0.0006 0.0000	0.9929 0.9994 0.9667 0.9968 0.9885 0.9991 0.9945 0.9586 0.9994	77.15 76.60 76.55 74.00 73.77 72.92 72.86 72.46 69.45 69.41
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	4,940,209 4,483,391 4,163,131 4,026,422 2,478,349 2,031,740 1,888,442 1,881,884 1,776,272 1,658,946	81,080 31,545 123,521 6,510 54,668 48,357 67,239 36,192 15,975	0.0164 0.0070 0.0297 0.0016 0.0221 0.0238 0.0000 0.0357 0.0204 0.0096	0.9836 0.9930 0.9703 0.9984 0.9779 0.9762 1.0000 0.9643 0.9796 0.9904	69.41 68.27 67.79 65.78 65.67 64.22 62.70 62.70 60.46 59.22
59.5 60.5 61.5 62.5 63.5 64.5	832,739 656,144 655,504 627,787 627,731	27,717	0.0000 0.0000 0.0423 0.0000 0.0000	1.0000 1.0000 0.9577 1.0000	58.65 58.65 58.65 56.17 56.17



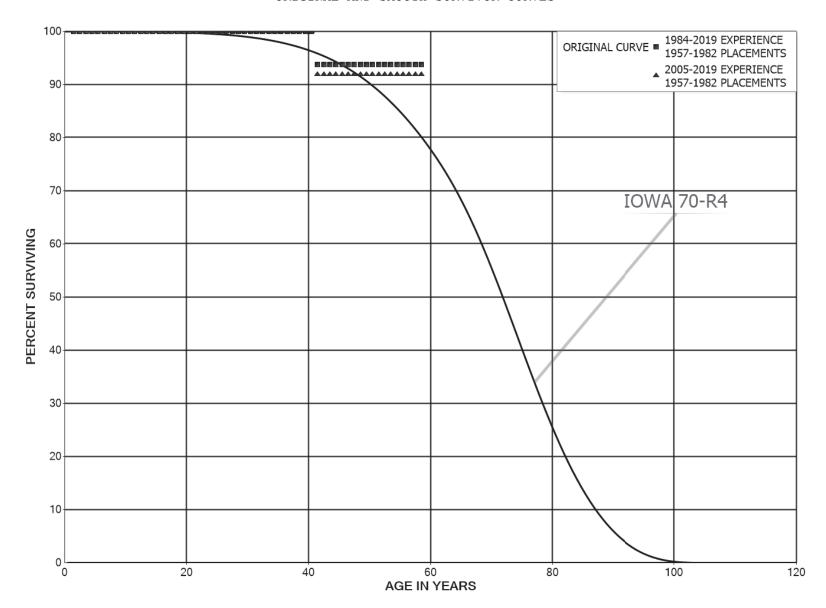
EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 353.10 STATION EQUIPMENT - ENERGY CONTROL SYSTEM ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 353.10 STATION EQUIPMENT - ENERGY CONTROL SYSTEM

PLACEMENT	BAND 1983-2012		EXPE	RIENCE BAN	D 2004-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	478,304 534,140 774,404 813,915 4,321,264 4,387,018 7,254,751 7,332,716 4,505,324 4,588,828	179,124	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0244 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9756 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 97.56 97.56
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	4,627,583 4,699,644 4,397,637 4,408,436 4,411,306 4,351,300 4,429,345 1,767,752 1,791,013 1,784,095	457,262 4,925 68,370 2,629,841 4,983	0.0000 0.0973 0.0000 0.0011 0.0155 0.0000 0.5937 0.0000 0.0028 0.0000	1.0000 0.9027 1.0000 0.9989 0.9845 1.0000 0.4063 1.0000 0.9972 1.0000	97.56 97.56 88.07 88.07 87.97 86.60 86.60 35.18 35.18
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	950,152 5,710,602 5,705,602 5,580,703 5,549,323 5,512,328 5,473,572 5,406,495 5,234,316 5,223,518	3,960 5,000 46,933 424	0.0042 0.0009 0.0082 0.0000 0.0001 0.0000 0.0000 0.0000 0.0000 0.0119	0.9958 0.9991 0.9918 1.0000 0.9999 1.0000 1.0000 1.0000 0.9881	35.09 34.94 34.91 34.62 34.62 34.62 34.62 34.62 34.62 34.62
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5	5,153,589 5,137,922 5,056,182 5,039,401 4,813,673 4,776,097 4,732,532	7,302 27,426	0.0014 0.0000 0.0000 0.0054 0.0000 0.0000	0.9986 1.0000 1.0000 0.9946 1.0000 1.0000	34.21 34.16 34.16 34.16 33.97 33.97 33.97

EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 354.00 TOWERS AND FIXTURES ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 354.00 TOWERS AND FIXTURES

PLACEMENT H	BAND 1957-1982		EXPEF	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	1,385 2,171,385 2,171,385 3,078,289 3,078,289 3,452,671 3,504,170 3,504,170		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	3,504,170 3,504,170 3,504,170 3,504,170 3,504,170 3,504,170 3,506,849 3,713,169 3,713,169 3,713,169		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	3,713,169 3,713,169 3,713,169 3,878,461 3,878,461 3,888,227 3,888,227 3,905,020 3,905,020 3,905,020		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	3,905,020 3,905,020 3,905,020 3,905,020 3,905,020 3,905,020 3,905,020 3,905,020 3,903,635 1,733,635		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00



ACCOUNT 354.00 TOWERS AND FIXTURES

PLACEMENT	BAND 1957-1982		EXPER	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	1,733,635 826,731 775,231 400,850 400,850 400,850 400,850 400,850 400,850	51,499	0.0000 0.0623 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.9377 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 93.77 93.77 93.77 93.77 93.77 93.77 93.77
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	400,850 400,850 398,171 191,851 191,851 191,851 191,851 191,851 26,559		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	93.77 93.77 93.77 93.77 93.77 93.77 93.77 93.77 93.77
59.5 60.5 61.5 62.5	26,559 16,793 16,793		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	93.77 93.77 93.77 93.77



ACCOUNT 354.00 TOWERS AND FIXTURES

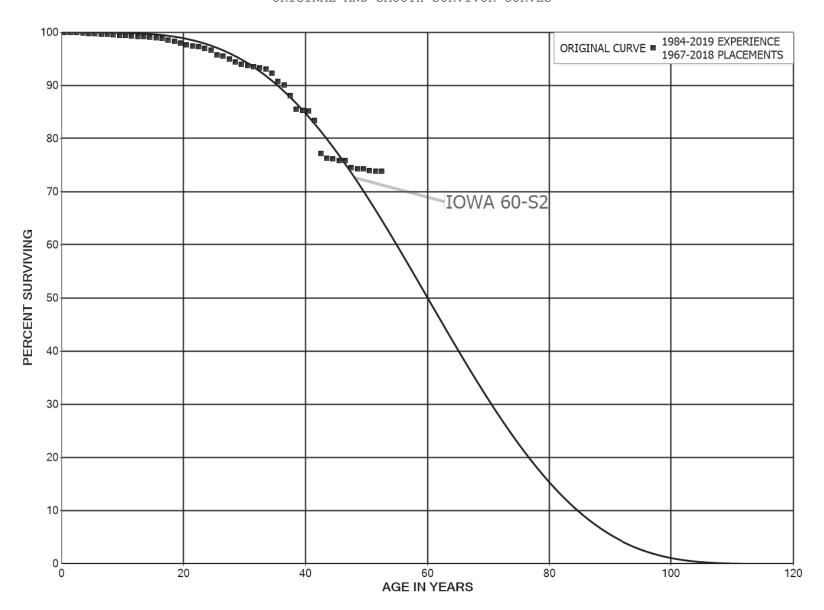
PLACEMENT E	BAND 1957-1982		EXPER	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5					
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5					
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	1,385 2,171,385 2,171,385 3,078,289 3,078,289 3,452,671 3,504,170		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	3,504,170 3,504,170 3,504,170 3,504,170 3,504,170 3,504,170 3,504,170 3,506,849 3,711,784 1,541,784		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00



ACCOUNT 354.00 TOWERS AND FIXTURES

PLACEMENT	BAND 1957-1982		EXPE	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	1,541,784 634,879 583,380 208,999 374,291 374,291 384,057 384,057 400,850 400,850	51,499	0.0000 0.0811 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.9189 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 91.89 91.89 91.89 91.89 91.89 91.89 91.89
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	400,850 400,850 398,171 191,851 191,851 191,851 191,851 191,851 26,559		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	91.89 91.89 91.89 91.89 91.89 91.89 91.89 91.89
59.5 60.5 61.5 62.5	26,559 16,793 16,793		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	91.89 91.89 91.89 91.89

EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 355.00 POLES AND FIXTURES ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 355.00 POLES AND FIXTURES

PLACEMENT	BAND 1967-2018		EXPEF	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	125,919,525 128,636,796 132,582,158 135,164,017 126,440,885 124,683,321 118,252,144 117,610,974 116,054,025 106,472,618	17,261 49,126 31,011 126,995 132,184 63,146 40,643 85,536 84,135 52,229	0.0001 0.0004 0.0002 0.0009 0.0010 0.0005 0.0003 0.0007 0.0007	0.9999 0.9996 0.9998 0.9991 0.9990 0.9995 0.9997 0.9993 0.9993	100.00 99.99 99.95 99.92 99.83 99.73 99.68 99.64 99.57
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	94,935,600 88,977,214 82,488,890 70,860,134 69,553,731 66,215,812 58,262,034 59,338,505 56,010,517 53,302,799	94,057 49,542 53,572 56,116 41,867 87,516 85,483 172,508 162,687 132,528	0.0010 0.0006 0.0006 0.0008 0.0006 0.0013 0.0015 0.0029 0.0029	0.9990 0.9994 0.9992 0.9994 0.9987 0.9985 0.9971 0.9975	99.45 99.35 99.29 99.23 99.15 99.09 98.96 98.82 98.53 98.24
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	51,000,414 50,578,617 49,601,618 48,242,742 46,879,553 43,310,218 42,386,984 39,819,322 38,446,073 36,965,488	203,980 109,779 75,217 169,027 146,565 388,308 125,939 210,846 240,881 134,253	0.0040 0.0022 0.0015 0.0035 0.0031 0.0090 0.0030 0.0053 0.0063 0.0036	0.9960 0.9978 0.9985 0.9965 0.9969 0.9910 0.9970 0.9947 0.9937 0.9964	98.00 97.61 97.39 97.25 96.91 96.60 95.74 95.45 94.95 94.35
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	35,835,196 35,027,299 32,776,078 31,922,541 28,866,314 27,872,901 25,723,231 24,209,541 23,087,060 19,496,963	127,532 74,344 73,820 51,928 246,946 466,933 189,908 551,602 659,804 50,540	0.0036 0.0021 0.0023 0.0016 0.0086 0.0168 0.0074 0.0228 0.0286 0.0026	0.9964 0.9979 0.9977 0.9984 0.9914 0.9832 0.9926 0.9772 0.9714	94.01 93.67 93.48 93.27 93.11 92.32 90.77 90.10 88.05 85.53

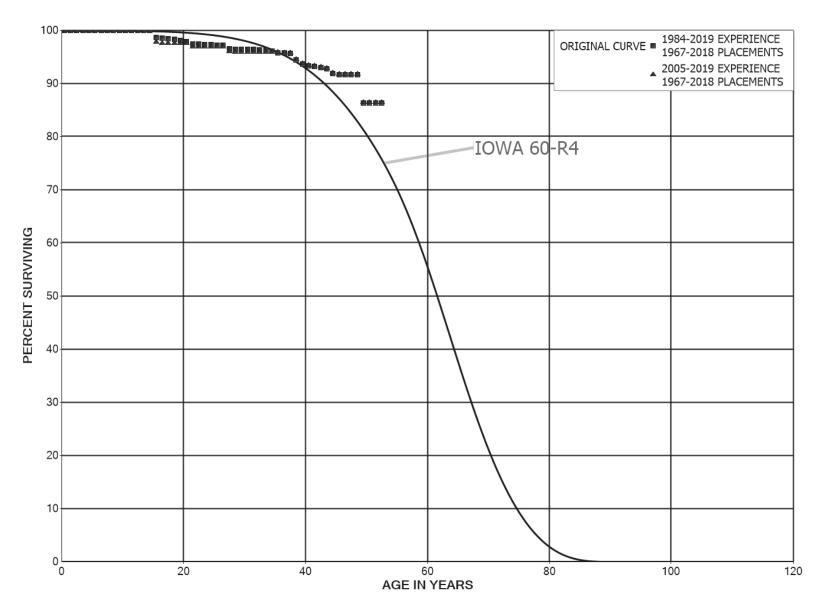


ACCOUNT 355.00 POLES AND FIXTURES

PLACEMENT BAND 1967-2018 EXPERIENCE BAND 1984-2					D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	18,970,852 12,082,060 10,891,420 7,894,564 7,458,958 6,977,565 6,496,697 6,427,048 6,243,300 6,095,885	31,182 244,062 821,090 90,136 15,275 21,407 6,287 114,101 16,985 2,069	0.0016 0.0202 0.0754 0.0114 0.0020 0.0031 0.0010 0.0178 0.0027 0.0003	0.9984 0.9798 0.9246 0.9886 0.9980 0.9969 0.9990 0.9822 0.9973 0.9997	85.31 85.17 83.45 77.16 76.28 76.12 75.89 75.81 74.47 74.26
49.5 50.5 51.5 52.5	5,356,571 3,306,264 3,304,824	25,113 460 460	0.0047 0.0001 0.0001	0.9953 0.9999 0.9999	74.24 73.89 73.88 73.87



EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 356.00 OVERHEAD CONDUCTORS AND DEVICES ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 356.00 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT	BAND 1967-2018		EXPEF	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	106,706,279 108,497,179 108,003,997 112,336,043 110,302,208 115,790,851 116,156,361 115,354,978 115,047,722 114,065,797	4 43 296 403 3,150 2,380 9,054 5,534 10,102	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0001 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9999 1.0000 0.9999	100.00 100.00 100.00 100.00 100.00 100.00 100.00 99.99 99.99
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	111,519,908 84,348,621 80,178,143 67,722,998 67,753,804 63,922,509 60,500,834 64,068,814 59,118,017 56,279,834	4,929 7,432 6,281 17,047 8,139 850,878 60,851 94,000 26,836 157,669	0.0000 0.0001 0.0001 0.0003 0.0001 0.0133 0.0010 0.0015 0.0005 0.0028	1.0000 0.9999 0.9999 0.9997 0.9999 0.9867 0.9990 0.9985 0.9995	99.97 99.97 99.96 99.95 99.93 99.91 98.58 98.49 98.34
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	51,922,114 51,591,659 50,037,946 48,830,422 46,946,636 42,919,997 42,499,559 39,568,014 37,845,048 36,341,355	73,989 227,547 19,449 76,044 14,050 14,858 2,428 266,660 43,879 1,359	0.0014 0.0044 0.0004 0.0016 0.0003 0.0003 0.0001 0.0067 0.0012 0.0000	0.9986 0.9956 0.9996 0.9984 0.9997 0.9997 0.9999 0.9933 0.9988 1.0000	98.02 97.88 97.45 97.41 97.26 97.23 97.20 97.19 96.54 96.42
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	34,279,236 33,778,686 33,184,631 32,588,708 29,269,700 28,808,325 27,061,541 25,786,762 25,166,495 19,904,251	3,369 9,517 15,865 24,811 57,477 106,179 13,174 8,474 325,545 162,902	0.0001 0.0003 0.0005 0.0008 0.0020 0.0037 0.0005 0.0003 0.0129 0.0082	0.9999 0.9997 0.9995 0.9992 0.9980 0.9963 0.9995 0.9997 0.9871 0.9918	96.42 96.41 96.38 96.34 96.27 96.08 95.72 95.68 95.64 94.41



ACCOUNT 356.00 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT BAND 1967-2018 EXPERIENCE BAND 1984-					D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	19,137,136 12,694,986 11,548,944 9,589,635 9,531,984 9,334,278 8,602,622 8,567,844 8,486,417 8,320,276	69,397 17,700 23,743 27,151 87,299 27,250	0.0036 0.0014 0.0021 0.0028 0.0092 0.0029 0.0000 0.0000 0.0000	0.9964 0.9986 0.9979 0.9972 0.9908 0.9971 1.0000 1.0000 1.0000	93.63 93.29 93.16 92.97 92.71 91.86 91.59 91.59 91.59
49.5 50.5 51.5 52.5	6,971,399 6,142,672 6,114,015		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	86.26 86.26 86.26 86.26



ACCOUNT 356.00 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT	BAND 1967-2018		EXPER	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	62,973,253 66,988,738 69,832,213 74,023,644 74,189,009 77,462,258 76,942,257 75,500,878 76,359,652 77,077,985		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	77,830,598 51,033,887 49,715,377 38,549,210 39,172,051 36,532,018 33,536,794 29,867,773 25,591,033 26,227,987	11,800 839,505 42,335	0.0000 0.0000 0.0000 0.0003 0.0000 0.0230 0.0013 0.0000 0.0000	1.0000 1.0000 1.0000 0.9997 1.0000 0.9770 0.9987 1.0000 1.0000	100.00 100.00 100.00 100.00 99.97 99.97 97.67 97.55 97.55
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	22,416,590 23,800,729 23,582,064 23,263,356 26,429,974 23,024,387 28,991,560 27,192,420 27,410,976 25,944,002	154,104 262,000 37,660	0.0000 0.0065 0.0000 0.0000 0.0000 0.0000 0.0096 0.0014 0.0000	1.0000 0.9935 1.0000 1.0000 1.0000 1.0000 0.9904 0.9986 1.0000	97.49 97.49 96.86 96.86 96.86 96.86 96.86 95.93 95.80
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	23,993,649 24,200,874 23,649,881 23,151,250 20,023,133 20,489,631 19,677,753 18,487,214 25,166,495 19,904,251	1,234 62 5,887 325,545 162,902	0.0000 0.0001 0.0000 0.0000 0.0000 0.0000 0.0003 0.0000 0.0129 0.0082	1.0000 0.9999 1.0000 1.0000 1.0000 0.9997 1.0000 0.9871 0.9918	95.80 95.80 95.79 95.79 95.79 95.79 95.76 95.76 94.52

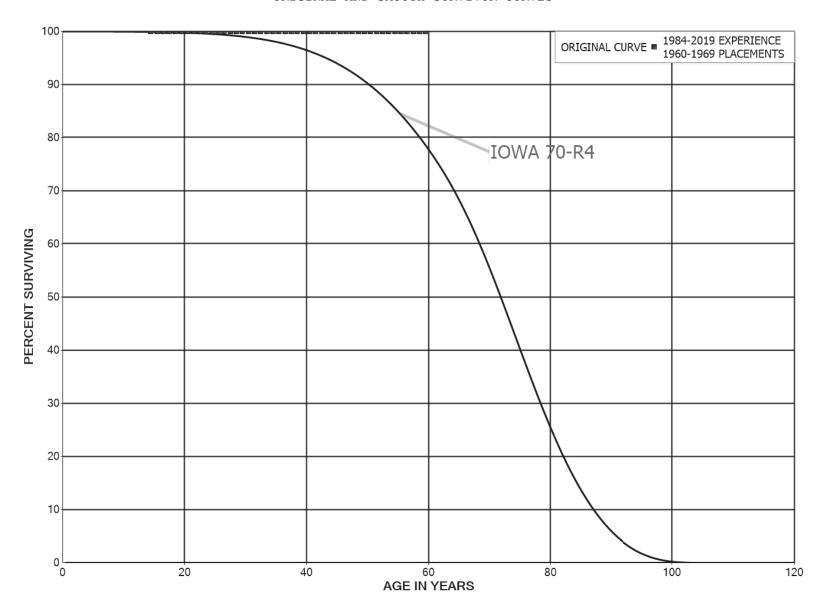


ACCOUNT 356.00 OVERHEAD CONDUCTORS AND DEVICES

PLACEMENT BAND 1967-2018 EXPERIENCE BAND 2005-					D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	19,137,136 12,694,986 11,548,944 9,589,635 9,531,984 9,334,278 8,602,622 8,567,844 8,486,417 8,320,276 6,971,399 6,142,672	69,397 17,700 23,743 27,151 87,299 27,250	0.0036 0.0014 0.0021 0.0028 0.0092 0.0029 0.0000 0.0000 0.0000 0.0582	0.9964 0.9986 0.9979 0.9972 0.9908 0.9971 1.0000 1.0000 0.9418	93.75 93.41 93.28 93.09 92.82 91.97 91.71 91.71 91.71 91.71 86.37 86.37
51.5 52.5	6,114,015		0.0000	1.0000	86.37 86.37



EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 359.00 ROADS AND TRAILS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 359.00 ROADS AND TRAILS

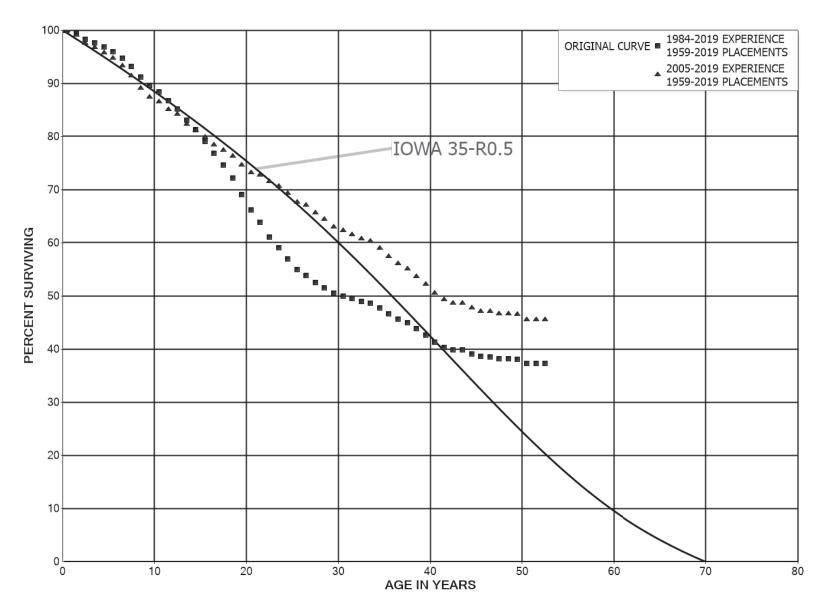
PLACEMENT BAND 1960-1969			EXPER	LIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5					
9.5 10.5 11.5 12.5 13.5					
14.5 15.5 16.5 17.5 18.5	7,116 7,116 7,116 7,116 7,116		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	7,116 7,116 7,116 7,116 23,288 23,288 23,288 23,288 23,288 23,288		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	23,288 23,288 23,288 23,288 23,288 23,288 23,288 23,288 23,288 23,288		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00



ACCOUNT 359.00 ROADS AND TRAILS

PLACEMENT I	BAND 1960-1969		EXPER	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	23,288 23,288 23,288 23,288 23,288 23,288 23,288 23,288 23,288 23,288		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	23,288 16,172 16,172 16,172 16,172 16,172 16,172 16,172 16,172 16,172		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
59.5					100.00

EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 362.00 STATION EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 362.00 STATION EQUIPMENT

PLACEMENT	BAND 1959-2019		EXPEF	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	239,443,047 239,476,524 239,326,828 235,871,878 227,207,840 214,742,743 202,674,394 195,869,932 181,332,694	162,347 1,340,117 2,552,659 1,582,224 1,879,903 1,948,577 2,582,873 3,209,970 3,996,356	0.0007 0.0056 0.0107 0.0067 0.0083 0.0091 0.0127 0.0164 0.0220	0.9993 0.9944 0.9893 0.9933 0.9917 0.9909 0.9873 0.9836 0.9780	100.00 99.93 99.37 98.31 97.65 96.85 95.97 94.74 93.19
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5	170,704,690 158,149,317 145,992,453 134,375,890 123,129,857 112,564,308 105,010,641 96,867,872 91,058,889 83,283,672	2,908,536 2,044,435 2,867,825 2,300,321 3,114,263 2,441,481 2,757,675 2,827,904 2,611,427 2,691,827	0.0170 0.0129 0.0196 0.0171 0.0253 0.0217 0.0263 0.0292 0.0287 0.0323	0.9830 0.9871 0.9804 0.9829 0.9747 0.9783 0.9737 0.9708 0.9713 0.9677	91.14 89.58 88.43 86.69 85.21 83.05 81.25 79.12 76.81 74.60
18.5 19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	75,775,562 59,746,903 57,650,601 50,037,274 42,087,699 37,773,963 33,877,126 31,554,863 28,784,802 23,925,660 21,217,228	3,282,681 2,522,662 2,003,996 2,152,180 1,416,181 1,311,514 1,200,776 682,058 700,059 439,218 421,284	0.0433 0.0422 0.0348 0.0430 0.0336 0.0347 0.0354 0.0216 0.0243 0.0184 0.0199	0.9567 0.9578 0.9652 0.9570 0.9664 0.9653 0.9646 0.9784 0.9757 0.9816 0.9801	72.19 69.06 66.15 63.85 61.10 59.05 57.00 54.98 53.79 52.48 51.52
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	19,665,650 17,838,394 16,481,966 15,724,699 14,847,349 13,713,523 12,675,253 10,750,766 9,669,001 8,341,448	192,164 177,364 194,808 91,760 281,419 313,271 261,328 171,768 233,649 223,767	0.0098 0.0099 0.0118 0.0058 0.0190 0.0228 0.0206 0.0160 0.0242 0.0268	0.9902 0.9901 0.9882 0.9942 0.9810 0.9772 0.9794 0.9840 0.9758 0.9732	50.49 50.00 49.50 48.92 48.63 47.71 46.62 45.66 44.93 43.84



ACCOUNT 362.00 STATION EQUIPMENT

PLACEMENT 1	BAND 1959-2019		EXPER	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	7,276,174 6,072,196 4,558,998 3,818,679 3,150,312 2,854,962 2,459,776 2,158,325 2,008,812 1,851,939	226,641 150,559 55,310 2,225 54,852 37,301 4,875 20,203 84 3,273	0.0131 0.0020 0.0094 0.0000	0.9689 0.9752 0.9879 0.9994 0.9826 0.9869 0.9980 0.9906 1.0000 0.9982	42.67 41.34 40.31 39.83 39.80 39.11 38.60 38.52 38.16 38.16
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	1,683,577 1,518,223 1,423,434 259,677 132,988 123,894 123,646 123,258 123,258 123,083	35,624 1,732 92	0.0212 0.0000 0.0012 0.0000 0.0007 0.0000 0.0000 0.0000 0.0000	0.9788 1.0000 0.9988 1.0000 0.9993 1.0000 1.0000 1.0000	38.09 37.29 37.24 37.24 37.21 37.21 37.21 37.21 37.21
59.5 60.5	964		0.0000	1.0000	37.21 37.21

ACCOUNT 362.00 STATION EQUIPMENT

PLACEMENT I	BAND 1959-2019		EXPEF	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	141,843,112 146,537,769 151,944,763 152,893,878 147,879,966 148,623,128 132,408,521 130,197,631 121,518,826 114,893,845	113,168 1,210,151 2,373,897 1,340,048 1,543,678 1,509,371 2,046,775 2,548,273 3,187,393 2,049,132	0.0008 0.0083 0.0156 0.0088 0.0104 0.0102 0.0155 0.0196 0.0262 0.0178	0.9992 0.9917 0.9844 0.9912 0.9896 0.9898 0.9845 0.9804 0.9738 0.9822	100.00 99.92 99.10 97.55 96.69 95.68 94.71 93.25 91.42 89.02
9.5	105,287,722	1,083,797 1,598,371 977,461 1,782,000 1,018,019 1,149,794 1,134,887 753,303 726,545 1,107,122	0.0103	0.9897	87.44
10.5	94,932,910		0.0168	0.9832	86.54
11.5	86,910,018		0.0112	0.9888	85.08
12.5	81,850,554		0.0218	0.9782	84.12
13.5	74,008,182		0.0138	0.9862	82.29
14.5	69,299,209		0.0166	0.9834	81.16
15.5	64,352,712		0.0176	0.9824	79.81
16.5	58,436,200		0.0129	0.9871	78.40
17.5	52,827,913		0.0138	0.9862	77.39
18.5	48,694,924		0.0227	0.9773	76.33
19.5	36,337,824 36,984,253 33,047,805 27,746,894 25,604,407 23,743,573 23,449,378 23,498,839 19,701,595 17,848,115	695,167	0.0191	0.9809	74.59
20.5		212,399	0.0057	0.9943	73.17
21.5		584,419	0.0177	0.9823	72.75
22.5		348,524	0.0126	0.9874	71.46
23.5		467,636	0.0183	0.9817	70.56
24.5		573,975	0.0242	0.9758	69.27
25.5		174,913	0.0075	0.9925	67.60
26.5		502,993	0.0214	0.9786	67.10
27.5		366,569	0.0186	0.9814	65.66
28.5		401,272	0.0225	0.9775	64.44
29.5	16,667,526	190,708	0.0114	0.9886	62.99
30.5	15,268,106	177,364	0.0116	0.9884	62.27
31.5	14,217,364	194,808	0.0137	0.9863	61.54
32.5	13,609,723	91,760	0.0067	0.9933	60.70
33.5	12,895,864	281,419	0.0218	0.9782	60.29
34.5	11,932,767	313,271	0.0263	0.9737	58.98
35.5	11,026,694	261,328	0.0237	0.9763	57.43
36.5	9,204,220	171,768	0.0187	0.9813	56.07
37.5	9,411,436	233,649	0.0248	0.9752	55.02
38.5	8,215,840	223,767	0.0272	0.9728	53.65



ACCOUNT 362.00 STATION EQUIPMENT

PLACEMENT	EXPER	RIENCE BAN	D 2005-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	7,159,289 5,955,311 4,442,112 3,701,794 3,033,427 2,854,962 2,459,776 2,158,325 2,008,812 1,851,939	226,641 150,559 55,310 2,225 54,852 37,301 4,875 20,203 84 3,273	0.0317 0.0253 0.0125 0.0006 0.0181 0.0131 0.0020 0.0094 0.0000 0.0018	0.9683 0.9747 0.9875 0.9994 0.9819 0.9869 0.9980 0.9906 1.0000 0.9982	52.19 50.54 49.26 48.65 48.62 47.74 47.12 47.02 46.58 46.58
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	1,683,577 1,518,223 1,423,434 259,677 132,988 123,894 123,646 123,258 123,258 123,083	35,624 1,732 92	0.0212 0.0000 0.0012 0.0000 0.0007 0.0000 0.0000 0.0000 0.0000	0.9788 1.0000 0.9988 1.0000 0.9993 1.0000 1.0000 1.0000	46.50 45.52 45.52 45.46 45.46 45.43 45.43 45.43 45.43
59.5 60.5	964		0.0000	1.0000	45.43 45.43

8 ORIGINAL CURVE - 1988-2013 PLACEMENTS 2005-2019 EXPERIENCE 1988-2013 PLACEMENTS 2 9 IOWA 35-R2.5 20 AGE IN YEARS 30 20 9 90 7 10-9 8 9 20 40 30 20 РЕВСЕИТ ЗИВУІУІИС

EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 362.10 STATION EQUIPMENT - SCADA ORIGINAL AND SMOOTH SURVIVOR CURVES

ACCOUNT 362.10 STATION EQUIPMENT - SCADA

PLACEMENT	BAND 1988-2013		EXPE	RIENCE BAN	D 1988-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	13,056,475 12,923,251 9,537,590 6,569,202 6,569,202 6,569,202 6,569,202 6,542,453 6,424,719 5,734,171	159,146 227,015	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0248 0.0396	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9752 0.9604	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 97.52
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	5,449,824 5,049,338 4,962,829 4,962,829 3,274,973 2,958,880 1,947,940 1,922,278 1,922,278 1,922,278	7,562 34,780 51,034 11,638	0.0000 0.0015 0.0000 0.0070 0.0156 0.0039 0.0000 0.0000 0.0000	1.0000 0.9985 1.0000 0.9930 0.9844 0.9961 1.0000 1.0000 0.9857	93.66 93.66 93.52 93.52 92.87 91.42 91.06 91.06 91.06
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	1,706,981 1,683,427 1,648,610 1,044,787 1,034,692 777,796 635,935 398,801 383,451 256,338	23,555 10,096 5,522 8,461	0.0138 0.0000 0.0000 0.0097 0.0053 0.0000 0.0133 0.0000 0.0000	0.9862 1.0000 1.0000 0.9903 0.9947 1.0000 0.9867 1.0000 1.0000	89.76 88.52 88.52 88.52 87.66 87.19 87.19 86.03 86.03
29.5 30.5 31.5	256,338 256,338		0.0000	1.0000	86.03 86.03 86.03

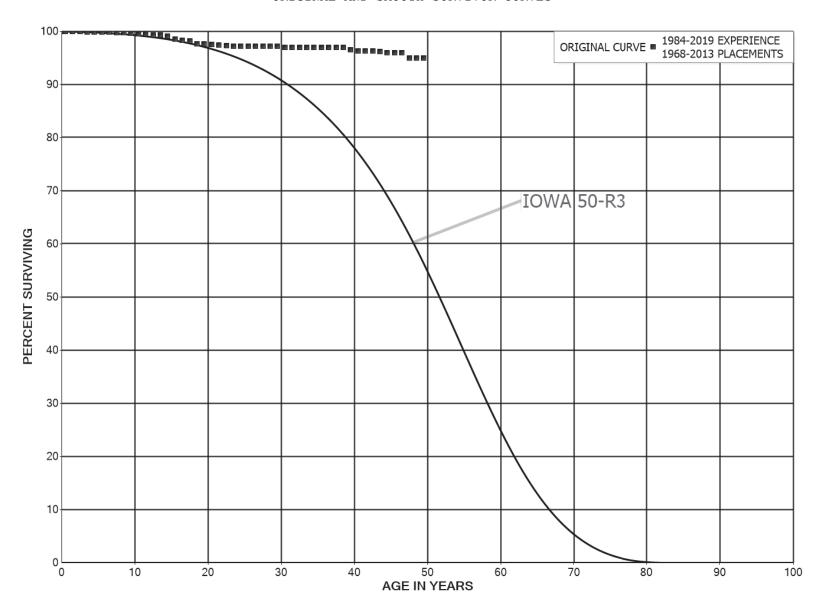


ACCOUNT 362.10 STATION EQUIPMENT - SCADA

PLACEMENT BAND 1988-2013			EXPERIENCE BAND 2005-2019		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	9,633,183 10,963,673 7,603,674 4,635,285 4,635,285 4,823,069 4,823,069 4,831,136 5,352,418 4,661,870	159,146 227,015	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0297 0.0487	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9703 0.9513	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 97.03
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	4,628,896 4,370,272 4,558,506 4,573,856 3,013,113 2,697,020 1,686,080 1,922,278 1,922,278 1,922,278	7,562 34,780 51,034 11,638	0.0000 0.0017 0.0000 0.0076 0.0169 0.0043 0.0000 0.0000 0.0000	1.0000 0.9983 1.0000 0.9924 0.9831 0.9957 1.0000 1.0000 0.9857	92.30 92.30 92.14 92.14 91.44 89.89 89.50 89.50 89.50
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	1,706,981 1,683,427 1,648,610 1,044,787 1,034,692 777,796 635,935 398,801 383,451 256,338	23,555 10,096 5,522 8,461	0.0138 0.0000 0.0000 0.0097 0.0053 0.0000 0.0133 0.0000 0.0000	0.9862 1.0000 1.0000 0.9903 0.9947 1.0000 0.9867 1.0000 1.0000	88.22 87.01 87.01 87.01 86.17 85.71 85.71 84.57 84.57
29.5 30.5 31.5	256,338 256,338		0.0000	1.0000	84.57 84.57 84.57



EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 368.00 LINE TRANSFORMERS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 368.00 LINE TRANSFORMERS

PLACEMENT	BAND 1968-2013	EXPERIENCE BAND 1984-2019			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	1,423,532 1,446,330 1,480,423 1,520,122 1,522,251 1,534,868 1,554,109 1,419,251 962,564 975,637	220 348 440 661 559 431 388 663 399 938	0.0002 0.0002 0.0003 0.0004 0.0004 0.0003 0.0002 0.0005 0.0004 0.0010	0.9998 0.9997 0.9996 0.9996 0.9997 0.9998 0.9995 0.9996 0.9990	100.00 99.98 99.96 99.93 99.89 99.85 99.82 99.80 99.75
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	1,017,486 1,053,640 1,032,489 1,071,374 1,315,451 1,313,514 1,293,434 1,248,429 1,126,424 1,041,293	689 916 1,539 544 1,937 8,228 2,109 2,123 5,774 767	0.0007 0.0009 0.0015 0.0005 0.0015 0.0063 0.0016 0.0017 0.0051 0.0007	0.9993 0.9991 0.9985 0.9995 0.9985 0.9937 0.9984 0.9983 0.9949	99.61 99.55 99.46 99.31 99.26 99.11 98.49 98.33 98.17 97.66
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	855,042 853,939 852,876 852,684 851,852 851,640 851,512 851,328 851,161	1,103 1,063 192 832 212 128 184 167	0.0013 0.0012 0.0002 0.0010 0.0002 0.0002 0.0002 0.0002 0.0000 0.0002	0.9987 0.9988 0.9998 0.9990 0.9998 0.9998 0.9998 1.0000 0.9998	97.59 97.47 97.34 97.32 97.23 97.20 97.19 97.17 97.15
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	850,959 849,685 849,685 621,978 621,978 601,174 572,256 549,568 515,687 476,287	1,274 138 2,158	0.0015 0.0000 0.0002 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.9985 1.0000 0.9998 1.0000 1.0000 1.0000 1.0000 1.0000 0.9955	97.13 96.98 96.98 96.96 96.96 96.96 96.96 96.96



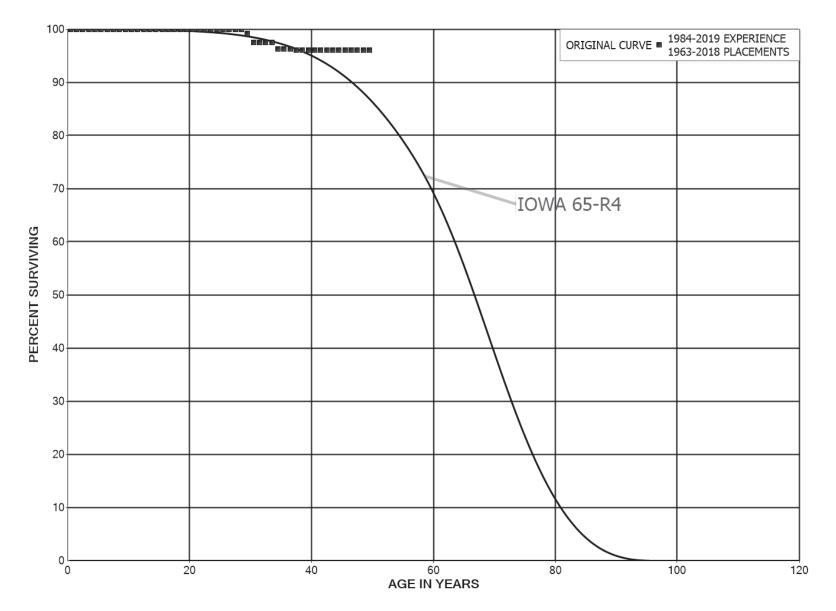
ACCOUNT 368.00 LINE TRANSFORMERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1968-2013		EXPE	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5	471,398 457,612 438,469	922	0.0020 0.0000 0.0000	0.9980 1.0000 1.0000	96.52 96.34 96.34
42.5 43.5 44.5 45.5	426,023 372,285 358,822 319,329	475 891	0.0011 0.0024 0.0000 0.0000	0.9989 0.9976 1.0000 1.0000	96.34 96.23 96.00 96.00
46.5 47.5 48.5	284,335 281,285 243,460	3,050	0.0107 0.0000 0.0000	0.9893 1.0000 1.0000	96.00 94.97 94.97
49.5 50.5 51.5	22,398 22,398		0.0000	1.0000	94.97 94.97 94.97



EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT	BAND 1963-2018		EXPE	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	12,580,620 12,594,298 13,255,233 14,330,688 14,211,436 14,235,726 14,047,989 13,591,273 12,898,432 12,770,758	7,738	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0006 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9994 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 99.94 99.94
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	12,779,321 12,701,446 12,630,782 12,592,304 14,465,319 14,432,315 14,432,315 14,433,766 14,331,586 14,064,435		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	99.94 99.94 99.94 99.94 99.94 99.94 99.94 99.94
19.5 20.5 21.5 22.5 23.5	11,924,830 11,956,267 11,953,961 11,820,649 11,820,649	2,307	0.0000 0.0002 0.0000 0.0000	1.0000 0.9998 1.0000 1.0000	99.94 99.94 99.92 99.92 99.92
24.5 25.5 26.5 27.5 28.5	11,820,649 7,276,613 7,257,074 5,924,387 4,703,075	1,839 33,214	0.0002 0.0000 0.0000 0.0000 0.0071	0.9998 1.0000 1.0000 1.0000 0.9929	99.92 99.91 99.91 99.91 99.91
29.5 30.5 31.5 32.5 33.5 34.5 35.5	4,596,514 4,516,289 4,494,326 4,488,684 4,477,900 4,375,271 4,354,236	78,424 1,755 739 52,357	0.0171 0.0004 0.0000 0.0002 0.0117 0.0000 0.0000	0.9829 0.9996 1.0000 0.9998 0.9883 1.0000	99.20 97.51 97.47 97.47 97.46 96.32 96.32
36.5 37.5 38.5	4,340,559 3,481,737 2,406,283	12,307	0.0028 0.0000 0.0000	0.9972 1.0000 1.0000	96.32 96.04 96.04



ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1963-2018		EXPE	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	2,360,958 2,316,667 2,306,778 2,123,583 2,099,937 1,954,389 1,945,826 1,938,214 1,930,372 1,908,569		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	96.04 96.04 96.04 96.04 96.04 96.04 96.04 96.04
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5	101,690 100,000 100,000 99,288 48,866 48,866		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000		96.04 96.04 96.04 96.04 96.04 96.04 96.04

EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 392.00 TRANSPORTATION EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES

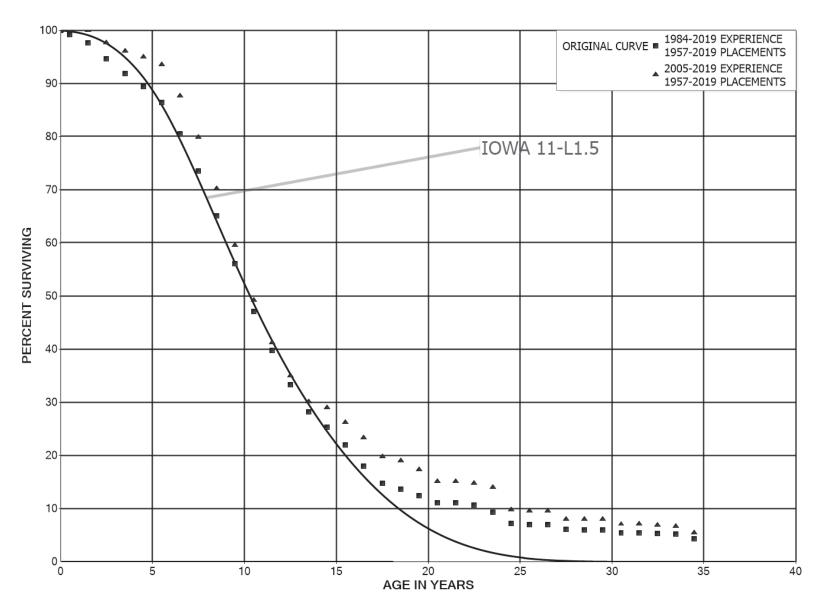


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ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT I	BAND 1957-2019		EXPEF	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5	31,627,937 29,654,085 27,918,418 24,637,131 22,564,140 20,179,611 17,951,723 15,625,592 13,518,519	260,605 452,560 865,903 723,452 606,546 669,878 1,217,142 1,369,919 1,557,501	0.0082 0.0153 0.0310 0.0294 0.0269 0.0332 0.0678 0.0877 0.1152	0.9918 0.9847 0.9690 0.9706 0.9731 0.9668 0.9322 0.9123 0.8848	100.00 99.18 97.66 94.63 91.85 89.39 86.42 80.56
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	11,312,998 8,764,340 6,593,459 5,507,065 4,552,822 3,530,409 3,012,765 2,176,132 1,704,085 1,333,573 1,117,157	1,567,180 1,407,399 1,022,511 891,609 704,077 354,713 407,951 390,203 311,792 101,160 93,937	0.1385 0.1606 0.1551 0.1619 0.1546 0.1005 0.1354 0.1793 0.1830 0.0759 0.0841	0.8615 0.8394 0.8449 0.8381 0.8454 0.8995 0.8646 0.8207 0.8170 0.9241 0.9159	65.03 56.02 47.02 39.73 33.30 28.15 25.32 21.89 17.97 14.68 13.57
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	978,556 775,886 650,665 586,692 454,216 308,744 299,993 274,723 189,828 124,895	106,396 2,951 26,136 74,282 103,270 6,499 36,462 2,241	0.1087 0.0038 0.0402 0.1266 0.2274 0.0210 0.0000 0.1327 0.0118 0.0000	0.8913 0.9962 0.9598 0.8734 0.7726 0.9790 1.0000 0.8673 0.9882 1.0000	12.43 11.07 11.03 10.59 9.25 7.15 7.00 7.00 6.07 6.00
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	124,895 112,594 112,594 109,855 106,942 90,042 87,283 87,283 59,345 57,718	12,301 2,739 2,913 16,900 1,473	0.0985 0.0000 0.0243 0.0265 0.1580 0.0164 0.0000 0.0000 0.0000	0.9015 1.0000 0.9757 0.9735 0.8420 0.9836 1.0000 1.0000	6.00 5.40 5.40 5.27 5.13 4.32 4.25 4.25 4.25



ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1957-2019 EXPERIENCE BAND 1984-201					D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	57,718 39,746 24,961 24,961 21,112 17,730 10,955 10,955 10,955 9,352	17,971 1,143 3,382 995	0.0000 0.0000 0.0000	0.6886 1.0000 1.0000 0.9542 0.8398 0.9439 1.0000 1.0000 0.9661	4.25 2.93 2.93 2.93 2.79 2.35 2.21 2.21 2.21
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	9,035 3,775 3,775 3,775 3,775 3,775 3,775 3,775 3,775 3,40 340		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	2.14 2.14 2.14 2.14 2.14 2.14 2.14 2.14
59.5 60.5 61.5 62.5	340 340 340		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	2.14 2.14 2.14 2.14



ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT	BAND 1957-2019		EXPEF	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	19,873,195 19,144,148 18,047,527 15,552,026 14,314,377 13,100,026 11,837,125 10,489,897 9,250,187 7,726,553	20,935 412,438 253,001 156,581 201,835 741,027 930,295 1,118,917 1,183,170	0.0011 0.0000 0.0229 0.0163 0.0109 0.0154 0.0626 0.0887 0.1210 0.1531	0.9989 1.0000 0.9771 0.9837 0.9891 0.9846 0.9374 0.9113 0.8790 0.8469	100.00 99.89 99.89 97.61 96.02 94.97 93.51 87.66 79.88 70.22
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	5,695,510 4,123,160 3,503,805 2,965,463 2,479,314 2,210,166 1,568,544 1,343,273 1,077,227 925,639	987,669 668,260 531,158 414,381 92,307 213,530 170,674 207,327 42,842 80,922	0.1734 0.1621 0.1516 0.1397 0.0372 0.0966 0.1088 0.1543 0.0398 0.0874	0.8266 0.8379 0.8484 0.8603 0.9628 0.9034 0.8912 0.8457 0.9602 0.9126	59.47 49.15 41.19 34.94 30.06 28.94 26.15 23.30 19.70 18.92
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	814,096 589,165 416,633 417,947 342,371 233,620 224,869 223,618 148,967 91,689	9,531 20,483 102,526 6,499 35,977	0.1304 0.0000 0.0229 0.0490 0.2995 0.0278 0.0000 0.1609 0.0000	0.8696 1.0000 0.9771 0.9510 0.7005 0.9722 1.0000 0.8391 1.0000	17.27 15.01 15.01 14.67 13.95 9.77 9.50 9.50 7.97
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	102,640 96,120 96,120 93,381 92,071 75,171 77,671 77,671 49,734 48,106	12,301 2,739 2,913 16,900 1,473	0.1198 0.0000 0.0285 0.0312 0.1836 0.0196 0.0000 0.0000	0.8802 1.0000 0.9715 0.9688 0.8164 0.9804 1.0000 1.0000	7.97 7.02 7.02 6.82 6.61 5.39 5.29 5.29 5.29



ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1957-2019		EXPER	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL		RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	48,106 30,452 18,326 24,621 20,772 17,390 10,615 10,615 10,955 9,352	17,971 1,143 3,382 995		1.0000 0.9536 0.8372 0.9428 1.0000 1.0000	3.31 3.31 3.16 2.64 2.49 2.49 2.49
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	9,035 3,775 3,775 3,775 3,775 3,775 3,775 3,775 3,40 340		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000	2.41 2.41 2.41
59.5 60.5 61.5 62.5	340 340 340		0.0000 0.0000 0.0000	1.0000	2.41 2.41 2.41 2.41



EAST KENTUCKY POWER COOPERATIVE, INC. ACCOUNT 396.00 POWER OPERATED EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES

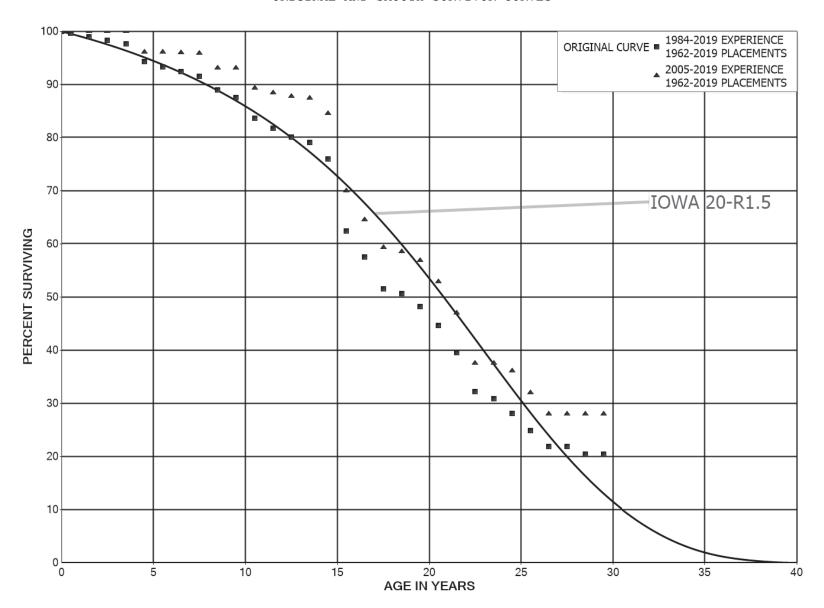


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ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT	BAND 1962-2019		EXPEF	RIENCE BAN	D 1984-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	24,731,756 25,838,095 23,225,217 21,709,152 21,393,253 19,787,448 16,793,973 15,362,767 13,876,401 10,506,968	97,227 171,705 153,741 141,419 735,536 200,583 167,148 147,501 397,330 166,990	0.0039 0.0066 0.0065 0.0344 0.0101 0.0100 0.0096 0.0286 0.0159	0.9961 0.9934 0.9935 0.9656 0.9899 0.9900 0.9904 0.9714 0.9841	100.00 99.61 98.94 98.29 97.65 94.29 93.34 92.41 91.52 88.90
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	9,856,443 9,198,775 8,096,544 7,167,226 7,058,041 6,659,977 4,880,725 4,500,046 3,968,219 3,871,367	431,757 213,839 164,725 89,520 278,635 1,189,704 380,678 465,155 70,669 190,700	0.0438 0.0232 0.0203 0.0125 0.0395 0.1786 0.0780 0.1034 0.0178 0.0493	0.9562 0.9768 0.9797 0.9875 0.9605 0.8214 0.9220 0.8966 0.9822 0.9507	87.49 83.65 81.71 80.05 79.05 75.93 62.36 57.50 51.56 50.64
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	3,195,481 2,527,205 1,791,144 1,270,467 766,369 670,774 594,544 502,983 309,386 178,880	233,172 292,068 329,092 56,582 68,365 76,231 71,033 354 20,626	0.0730 0.1156 0.1837 0.0445 0.0892 0.1136 0.1195 0.0007 0.0667 0.0000	0.9270 0.8844 0.8163 0.9555 0.9108 0.8864 0.8805 0.9993 0.9333 1.0000	48.14 44.63 39.47 32.22 30.79 28.04 24.85 21.88 21.87 20.41
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	87,127 77,806 23,458 14,663 4,320 4,320 4,320 4,320 4,320 4,320 4,320	41,958 8,795	0.0000 0.5393 0.3749 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.4607 0.6251 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	20.41 20.41 9.40 5.88 5.88 5.88 5.88 5.88 5.88



ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT 1	BAND 1962-2019	EXPER	RIENCE BAN	D 1984-2019	
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	4,320 4,320 4,320 4,320 4,320 4,320 4,320 4,320 4,320 4,320		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	5.88 5.88 5.88 5.88 5.88 5.88 5.88 5.88
49.5 50.5 51.5 52.5 53.5 54.5	4,320 4,320 4,320 4,320 4,320 4,320	4,320	0.0000 0.0000 0.0000 0.0000 0.0000 1.0000	1.0000 1.0000 1.0000 1.0000	5.88 5.88 5.88 5.88 5.88



55.5

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT E	BAND 1962-2019		EXPE	RIENCE BAN	D 2005-2019
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	16,327,449 18,116,950 15,696,976 13,616,879 13,771,069 13,080,693 10,802,547 10,432,705 9,719,380 6,915,709	544,867 13,340 13,637 279,083	0.0000 0.0000 0.0000 0.0000 0.0396 0.0000 0.0012 0.0013 0.0287 0.0000	1.0000 1.0000 1.0000 1.0000 0.9604 1.0000 0.9988 0.9987 0.9713 1.0000	100.00 100.00 100.00 100.00 100.00 96.04 96.04 95.92 95.80 93.05
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	6,937,391 6,669,625 5,733,456 5,455,927 6,022,464 6,024,294 4,423,853 4,091,464 3,693,703 3,625,611	281,083 68,304 41,116 18,000 202,953 1,035,555 344,779 331,090 52,251 101,932	0.0405 0.0102 0.0072 0.0033 0.0337 0.1719 0.0779 0.0809 0.0141 0.0281	0.9595 0.9898 0.9928 0.9967 0.9663 0.8281 0.9221 0.9191 0.9859 0.9719	93.05 89.28 88.36 87.73 87.44 84.49 69.97 64.52 59.30 58.46
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	3,070,885 2,419,231 1,607,060 1,090,983 685,425 633,130 569,244 477,684 284,439 174,560	216,550 267,160 324,492 25,065 72,681 71,033	0.0705 0.1104 0.2019 0.0000 0.0366 0.1148 0.1248 0.0000 0.0000	0.9295 0.8896 0.7981 1.0000 0.9634 0.8852 0.8752 1.0000 1.0000	56.81 52.81 46.98 37.49 37.49 36.12 31.97 27.98 27.98
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5	82,807 73,485 19,137 10,343	41,958 8,795	0.0000 0.5710 0.4596 0.0000	1.0000 0.4290 0.5404 1.0000	27.98 27.98 12.01 6.49 6.49



38.5

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1962-2019	EXPER	IENCE BAN	D 2005-2019	
	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5					
42.5	4,320		0.0000		
43.5	4,320		0.0000		
44.5	4,320		0.0000		
45.5	4,320		0.0000		
46.5	4,320		0.0000		
47.5	4,320		0.0000		
48.5	4,320		0.0000		
49.5	4,320		0.0000		
50.5	4,320		0.0000		
51.5	4,320		0.0000		
52.5	4,320		0.0000		
53.5	4,320		0.0000		
54.5	4,320	4,320	1.0000		
55.5	·	·			



PART VIII.	NFT S	ΔΙ ۷Δ	GF ST	TATISTIC	?5
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EAST KENTUCKY POWER COOPERATIVE, INC.

TABLE 1. CALCULATION OF TERMINAL AND INTERIM RETIREMENTS AS A PERCENT OF TOTAL RETIREMENTS

TINI	PROJECTED RETIREMENTS	IREMENTS	TOTAL	TERMINAL DETIDEMENT %	INTERIM DETIDEMENT %
(1)	(2)	(3)	(4)=(2)+(3)	(5)=(2)/(4)	(6)=(3)/(4)
STEAM PRODUCTION PLANT					
CENTRAL LAB	(1,346,538.16)	(384,461.68)	(1,730,999.84)	77.79	22.21
COOPER COMMON	(124,377,280.53)	(19,800,518.76)	(144,177,799.29)	86.27	13.73
COOPER UNIT 1	(14,515,248.21)	(552,015.93)	(15,067,264.14)	96.34	3.66
COOPER UNIT 2	(1,539,705.70)	(44,621.38)	(1,584,327.08)	97.18	2.82
COOPER UNIT 2 SCRUBBER	(215,261,096.15)	(9,930,110.49)	(225, 191, 206.64)	95.59	4.41
SPURLOCK COMMON	(66,017,993.86)	(16,618,787.03)	(82,636,780.89)	79.89	20.11
SPURLOCK UNIT 1	(209,832,911.56)	(69,634,643.67)	(279,467,555.23)	75.08	24.92
SPURLOCK UNIT 2	(260,040,425.44)	(121,491,851.99)	(381,532,277.43)	68.16	31.84
SPURLOCK UNIT 3	(349,834,391.09)	(74,119,155.80)	(423,953,546.89)	82.52	17.48
SPURLOCK UNIT 4	(391,964,904.67)	(107,810,908.75)	(499,775,813.42)	78.43	21.57
SPURLOCK UNIT 1 SCRUBBER	(123,747,202.08)	(16,993,336.72)	(140,740,538.80)	87.93	12.07
SPURLOCK UNIT 2 SCRUBBER	(168,323,263.70)	(29,349,538.33)	(197,672,802.03)	85.15	14.85
TOTAL STEAM PRODUCTION PLANT	(1,926,800,961)	(466,729,951)	(2,393,530,912)		
OTHER PRODUCTION PLANT					
SMITH CT COMMON	(49,229,192.26)	(31,523,753.46)	(80,752,945.72)	96.09	39.04
SMITH CT UNIT 1	(24,941,223.87)	(3,113,466.13)	(28,054,690.00)	88.90	11.10
SMITH CT UNIT 2	(23,080,684.67)	(2,962,966.57)	(26,043,651.24)	88.62	11.38
SMITH CT UNIT 3	(23,958,740.66)	(3,066,288.88)	(27,025,029.54)	88.65	11.35
SMITH CT UNIT 4	(29,994,874.55)	(7,007,706.54)	(37,002,581.09)	81.06	18.94
SMITH CT UNIT 5	(25,842,264.24)	(6,202,325.18)	(32,044,589.42)	80.64	19.36
SMITH CT UNIT 6	(18,717,581.23)	(4,740,761.57)	(23,458,342.80)	79.79	20.21
SMITH CT UNIT 7	(18,496,577.85)	(4,690,396.06)	(23,186,973.91)	79.77	20.23
SMITH CT UNIT 9	(64,698,498.28)	(17,392,263.67)	(82,090,761.95)	78.81	21.19
SMITH CT UNIT 10	(50,701,250.52)	(13,282,775.88)	(63,984,026.40)	79.24	20.76
GREEN VALLEY LANDFILL	(2,559,915.20)	(448,366.06)	(3,008,281.26)	85.10	14.90
LAUREL RIDGE LANDFILL	(3,487,291.15)	(573,382.48)	(4,060,673.63)	82.88	14.12
BAVARIAN LANDFILL	(6,078,540.00)	(746,704.93)	(6,825,244.93)	90.68	10.94
PEARL HOLLOW LANDFILL	(2,909,219.03)	(560,043.28)	(3,469,262.31)	83.86	16.14
PENDLETON COUNTY LANDFILL	(3,989,492.00)	(548,616.67)	(4,538,108.67)	87.91	12.09
GLASGOW LANDFILL	(2,611,084.43)	(382,669.44)	(2,993,753.87)	87.22	12.78
BLUEGRASS OLDHAM COMMON	(12,674,990.41)	(1,170,235.34)	(13,845,225.75)	91.55	8.45
BLUEGRASS OLDHAM UNIT 1	(51,776,975.16)	(3,725,387.00)	(55,502,362.16)	93.29	6.71
BLUEGRASS OLDHAM UNIT 2	(50,654,324.66)	(3,631,727.07)	(54,286,051.73)	93.31	69.9
BLUEGRASS OLDHAM UNIT 3	(46,613,287.13)	(3,378,021.97)	(49,991,309.10)	93.24	92.9
COOPERATIVE SOLAR	(15,905,538.41)	(1,310,449.14)	(17,215,987.55)	92.39	7.61
TOTAL OTHER PRODUCTION PLANT	(528 921 546)	(110 458 307)	(639.379.853)		
	(2-21-121-12)	(.,)()()()	(222,222,222)		

EAST KENTUCKY POWER COOPERATIVE, INC.

TABLE 2. CALCULATION OF WEIGHTED NET SALVAGE PERCENT

	TERMINAL R	TERMINAL RETIREMENTS	INTERIMR	INTERIM RETIREMENTS	WEIGHTED
ENO	RETIREMENTS (%)	NET SALVAGE (%)	RETIREMENTS (%)	NET SALVAGE (%)	AVERAGE NET SALVAGE %
(1)	(2)	(3)	(4)	(2)	$(6)=(2)^{*}(3)+(4)^{*}(5)$
STEAM PRODUCTION PLANT					
CENTRAL LAB	97.77	0	22.21	0	0
COOPER COMMON	86.27	(5)	13.73	(8)	(5)
COOPER UNIT 1	96.34	(2)	3.66	(10)	(5)
COOPER UNIT 2	97.18	(2)	2.82	(10)	(5)
COOPER UNIT 2 SCRUBBER	95.59	(2)	4.41	(6)	(5)
SPURLOCK COMMON	79.89	(7)	20.11	(7)	(7)
SPURLOCK UNIT 1	75.08	(7)	24.92	(8)	(7)
SPURLOCK UNIT 2	68.16	(7)	31.84	(8)	(7)
SPURLOCK UNIT 3	82.52	(2)	17.48	(8)	(2)
SPURLOCK UNIT 4	78.43	(7)	21.57	(6)	(7)
SPURLOCK UNIT 1 SCRUBBER	87.93	(2)	12.07	(10)	(2)
SPURLOCK UNIT 2 SCRUBBER	85.15	(7)	14.85	(10)	(7)
OTHER PRODUCTION PLANT					
SMITH CT COMMON	96.09	(4)	39.04	(2)	(3)
SMITH CT UNIT 1	88.90	(4)	11.10	(5)	(4)
SMITH CT UNIT 2	88.62	(4)	11.38	(5)	(4)
SMITH CT UNIT 3	88.65	(4)	11.35	(5)	(4)
SMITH CT UNIT 4	81.06	(4)	18.94	(5)	(4)
SMITH CT UNIT 5	80.64	(4)	19.36	(5)	(4)
SMITH CT UNIT 6	79.79	(4)	20.21	(5)	(4)
SMITH CT UNIT 7	79.77	(4)	20.23	(5)	(4)
SMITH CT UNIT 9	78.81	(4)	21.19	(4)	(4)
SMITH CT UNIT 10	79.24	(4)	20.76	(5)	(4)
GREEN VALLEY LANDFILL	85.10	(1)	14.90	(4)	(2)
LAUREL RIDGE LANDFILL	85.88	(1)	14.12	(4)	(2)
BAVARIAN LANDFILL	89.06	(1)	10.94	(4)	(2)
PEARL HOLLOW LANDFILL	83.86	(1)	16.14	(4)	(2)
PENDLETON COUNTY LANDFILL	87.91	(1)	12.09	(4)	(2)
GLASGOW LANDFILL	87.22	(1)	12.78	(5)	(1)
	91.55	(9)	8.45	(4)	(5)
BLUEGRASS OLDHAM UNIT 1	93.29	(9)	6.71	(2)	(5)
	93.31	(9)	69.9	(5)	(5)
L N N	93.24	(9)	6.76	(5)	(5)
COOPERALIVE SOLAR	92.39	Э	7.61	(ç)	(1)

EAST KENTUCKY POWER COOPERATIVE, INC.

TABLE 3. CALCULATION OF TERMINAL NET SALVAGE PERCENT

TERMINAL NET SALVAGE (%) (7)=(5)/(6)		0 (5)		4 -	(0)
ESTIMATED TERMINAL RETIREMENTS (6)		(1,346,538) (355,693,331) (1,569,761,092)		(329,660,888) (2,559,915) (3,487,291) (6,078,540) (2,909,219)	(3,989,492) (2,611,084) (161,719,577) (15,905,538)
TOTAL DECOMMISSIONING COSTS (FUTURE \$) (5)		0 16,839,320 111,564,885		13,794,754 38,368 51,157 76,735 41,318	56,468 19,478 8,946,576 74,996
TOTAL DECOMMISSIONING COSTS (CURRENT \$) (4)		0 12,834,000 60,723,800		7,960,000 24,000 32,000 48,000 24,000	32,000 10,000 5,070,000 42,500
MW (3)		0 320.85 1,518.1		796 7.2.4 7.3.2.4 7.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6	3.2 1 507 8.5
ESTIMATED RETIREMENT YEAR (2)		2030 2030 2049		2050 2038 2038 2038 2041	2042 2046 2042 2042
LOCATION (1)	STEAM PRODUCTION PLANT	CENTRAL LAB COOPER SPURLOCK	OTHER PRODUCTION PLANT	SMITH CT GREEN VALLEY LANDFILL LAUREL RIDGE LANDFILL BAVRIAN LANDFILL PEARH, HOLLOW LANDFILL	PENDLETON COUNTY LANDFILL GLASGOW LANDFILL BLUEGRASS OLDHAM COOPERATIVE SOLAR



ACCOUNT 311.00 STRUCTURES AND IMPROVEMENTS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT	PCT
2005	209,950		0	0		0
2006	239,480		0	0		0
2007						
2008	14,351		0	0		0
2009						
2010						
2011						
2012						
2013						
2014						
2015	188,915		0	0		0
2016	5,700,894	3,093	0	0	3,093-	0
2017	1,250,483	239	0	0	239-	0
2018						
2019	92 , 572		0	0		0
TOTAL	7,696,645	3,332	0	0	3,332-	0
THREE-YE	AR MOVING AVERAG	ES				
05-07	149,810		0	0		0
06-08	84,610		0	0		0
07-09	4,784		0	0		0
08-10	4,784		0	0		0
09-11						
10-12						
11-13						
12-14						
13-15	62 , 972		0	0		0
14-16	1,963,270	1,031	0	0	1,031-	0
15-17	2,380,097	1,111	0	0	1,111-	0
16-18	2,317,126	1,111	0	0	1,111-	0
17-19	447,685	80	0	0	80-	0
FIVE-YEA	R AVERAGE					
15-19	1,446,573	666	0	0	666-	0

ACCOUNT 312.00 BOILER PLANT EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
			rCI	AMOONI			FCI
2006	4,362,366	93,922	2		0	93,922-	2-
2007		26,183				26,183-	
2008	66,672	1,064,599			0	1,064,599-	
2009	104,852	461,938	441	105,000	100	356,938-	340-
2010	514,093	1,072,217	209		0	1,072,217-	209-
2011	269,154	661,934	246		0	661,934-	246-
2012		3,763,219				3,763,219-	
2013	11,815,718	11,804,550	100	5,400,410	46	6,404,140-	54-
2014	3,417,359	3,283,678	96	1,117,054	33	2,166,624-	63-
2015	6,077,105	1,534,324	25		0	1,534,324-	25-
2016	48,456,473	173	0	41	0	132-	0
2017	1,428,583	790,960	55	88,861	6	702,099-	49-
2018	13,105,672	769,172	6		0	769,172-	6-
2019	4,592,653	76,018	2		0	76,018-	2-
TOTAL	94,210,699	25,402,888	27	6,711,366	7	18,691,522-	20-
THREE-YE	AR MOVING AVERAG	GES					
06-08	1,476,346	394,901	27		0	394,901-	27-
07-09	57,174	517,573	905	35,000	61	482,573-	844-
08-10	228,539	866,251	379	35,000	15	831,251-	364-
09-11	296,033	732,030	247	35,000	12	697,030-	235-
10-12	261,082	1,832,457	702	,	0	1,832,457-	702-
11-13	4,028,291	5,409,901	134	1,800,137	45	3,609,765-	90-
12-14	5,077,692	6,283,816	124	2,172,488	43	4,111,328-	81-
13-15	7,103,394	5,540,851	78	2,172,488	31	3,368,363-	47-
14-16	19,316,979	1,606,059	8	372 , 365	2	1,233,694-	6-
15-17	18,654,054	775,152	4	29,634	0	745,518-	4 –
16-18	20,996,909	520,101	2	29,634	0	490,467-	2-
17-19	6,375,636	545,383	9	29,620	0	515,763-	8-
FIVE-YEA	R AVERAGE						
15-19	14,732,097	634,129	4	17,780	0	616,349-	4 –



ACCOUNT 314.00 TURBOGENERATOR UNITS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2012		6,980		8		6,972-	
2013	23,288	68,544	294	14,042	60	54,503-	234-
2014							
2015							
2016	37,485,923		0		0		0
2017							
2018	5 , 732 , 296	955 , 317	17	5 , 857	0	949,460-	17-
2019	73,792,664	1,242,756	2	533,864	1	708,892-	1-
TOTAL	117,034,171	2,273,597	2	553,771	0	1,719,826-	1-
THREE-YE	AR MOVING AVERAG	ES					
12-14	7,763	25 , 175	324	4,683	60	20,492-	264-
13-15	7,763	22,848	294	4,681	60	18,168-	234-
14-16	12,495,308		0		0		0
15-17	12,495,308		0		0		0
16-18	14,406,073	318,439	2	1,952	0	316,487-	2-
17-19	26,508,320	732 , 691	3	179,907	1	552,784-	2-
FIVE-YEA	R AVERAGE						
15-19	23,402,177	439,615	2	107,944	0	331,670-	1-



ACCOUNT 315.00 ACCESSORY ELECTRIC EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2005		11				11-	
2006							
2007							
2008	142,797		0		0		0
2009							
2010							
2011							
2012							
2013	128,896	17,151	13	1,453	1	15,698-	12-
2014							
2015							
2016	2,028,537		0		0		0
2017							
2018	501,019	6,000	1		0	6,000-	1-
2019	755 , 972	8,588	1		0	8,588-	1-
TOTAL	3,557,220	31,750	1	1,453	0	30,297-	1-
THREE-YE	AR MOVING AVERAG	ES					
05-07		4				4 –	
06-08	47,599		0		0		0
07-09	47,599		0		0		0
08-10	47,599		0		0		0
09-11							
10-12							
11-13	42,965	5,717	13	484	1	5,233-	12-
12-14	42,965	5,717	13	484	1	5,233-	12-
13-15	42,965	5,717	13	484	1	5,233-	12-
14-16	676,179		0		0		0
15-17	676,179		0		0		0
16-18	843,185	2,000	0		0	2,000-	0
17-19	418,997	4,863	1		0	4,863-	1-
FIVE-YEA	R AVERAGE						
15-19	657,106	2,918	0		0	2,918-	0

ACCOUNT 316.00 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT	PCT
2005 2006 2007 2008 2009	118,375 749,427		0	0		0
2010 2011 2012 2013 2014	1,256 6,996 2,840	401	0 0 14	0 0 0	401-	0 0 14-
2015 2016 2017 2018 2019	760,144 281,050 28,145 5,896		0 0 0	0 0 0		0 0 0
TOTAL	1,954,128	401	0	0	401-	0
THREE-YE	AR MOVING AVERAGE	ES				
05-07 06-08 07-09 08-10	289,267 249,809		0	0		0
09-11 10-12 11-13 12-14 13-15 14-16 15-17 16-18 17-19	419 2,751 3,697 3,279 947 253,381 347,065 356,447 105,030	134 134 134	0 0 4 4 14 0 0 0	0 0 0 0 0 0 0	134- 134- 134-	0 0 4- 4- 14- 0 0 0
15-19	215,047		0	0		0
T D - T 9	210,041		U	O		U

ACCOUNT 341.00 STRUCTURES AND IMPROVEMENTS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2014 2015 2016 2017	200,883		0		0		0
2018 2019	1,504,460	244,532	0	163,480	0	81,052-	0
2019	1,304,400		O		O		O
TOTAL	1,705,344	244,532	14	163,480	10	81,052-	5-
THREE-YE	AR MOVING AVERAGE	ES					
14-16 15-17	66,961		0		0		0
16-18		81,511		54,494		27,017-	
17-19	501,487	81,511	16	54,494	11	27,017-	5-
FIVE-YEA	R AVERAGE						
15-19	300,892	48,906	16	32,696	11	16,210-	5-

ACCOUNT 343.00 PRIME MOVERS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2012		29,364				29,364-	
2013							
2014							
2015							
2016							
2017		31,160				31,160-	
2018	3,977,045	75 , 570	2	238,222	6	162,652	4
2019	852,688	146,174	17		0	146,174-	17-
TOTAL	4,829,733	282,268	6	238,222	5	44,046-	1-
THREE-YE	AR MOVING AVERAG	ES					
12-14		9,788				9,788-	
13-15							
14-16							
15-17		10,387				10,387-	
16-18	1,325,682	35 , 577	3	79,407	6	43,831	3
17-19	1,609,911	84,301	5	79,407	5	4,894-	0
FIVE-YEA	R AVERAGE						
15-19	965,947	50,581	5	47,644	5	2,936-	0

ACCOUNT 344.00 GENERATORS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2008 2009 2010 2011 2012 2013 2014 2015		1,175		45,140		43,965	
2016 2017	1,364,371		0		0		0
2018	599 , 987		0		0		0
2019	603 , 570		0		0		0
TOTAL	2,567,928	1,175	0	45,140	2	43,965	2
THREE-YE	AR MOVING AVERAGE	ES					
08-10 09-11 10-12 11-13 12-14 13-15		392		15,047		14,655	
14-16	454,790		0		0		0
15-17	454,790		0		0		0
16-18	654,786		0		0		0
17-19	401,186		0		0		0
FIVE-YEA	R AVERAGE						
15-19	513,586		0		0		0

ACCOUNT 345.00 ACCESSORY ELECTRIC EQUIPMENT

	REGULAR	COST OF REMOVAL		GROSS SALVAGI	E	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2018	697,322	1,566	0		0	1,566-	0
2019	18,282		0		0		0
TOTAL	715,604	1,566	0		0	1,566-	0

ACCOUNT 346.00 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT	PCT
2014 2015		9,762 1,877			9,762- 1,877-	
2016 2017 2018 2019	3,924		0	0		0
TOTAL	3,924	11,639	297	0	11,639-	297-
THREE-YE	AR MOVING AVERAGE	IS				
14-16		3,880			3,880-	
15-17	1,308	626	48	0	626-	48-
16-18	1,308		0	0		0
17-19	1,308		0	0		0
FIVE-YEA	R AVERAGE					
15-19	785	375	48	0	375-	48-

ACCOUNT 353.00 STATION EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
ILAK		AMOUNT	PCI	AMOUNI	PCI	AMOUNT	PCI
2005	630,204	143,537	23		0	143,537-	23-
2006	73 , 050	430,917	590		0	430,917-	590-
2007	242,769	739 , 950	305		0	739,950-	305-
2008	632 , 952	636,141	101		0	636,141-	
2009	589 , 792	866,556	147	162,102	27	704,454-	119-
2010	13,258	1,217,043			0	1,217,043-	
2011	1,495,167	498,493	33		0	498,493-	33-
2012	2,355,517	194,878	8	6,854	0	188,024-	8 –
2013	964,208	1,023,254	106	53,553	6	969,701-	101-
2014	609,935	522 , 981	86	23,982	4	498,999-	82-
2015	514,521	535 , 799	104	90,480	18	445,319-	87-
2016	754,433	222,193	29	68,497	9	153,696-	20-
2017	1,514,131	404,034	27	50 , 595	3	353 , 439-	23-
2018	87 , 654	577 , 399	659	3,909	4	573 , 490-	654-
2019	3,117,990	96,021	3	603	0	95,418-	3-
TOTAL	13,595,581	8,109,198	60	460,576	3	7,648,622-	56-
THREE-YEA	AR MOVING AVERAG	ES					
05-07	315,341	438,135	139		0	438,135-	139-
06-08	316,257	602,336	190		0	602,336-	
07-09	488,504	747,549	153	54,034	11	693,515-	
08-10	412,001	906,580	220	54,034	13	852,546-	
09-11	699,406	860,697	123	54,034	8	806,663-	
10-12	1,287,981	636,805	49	2,285	0	634,520-	49-
11-13	1,604,964	572,208	36	20,136	1	552,073-	34-
12-14	1,309,887	580,371	44	28,130	2	552,241-	42-
13-15	696,221	694,012	100	56,005	8	638,006-	92-
14-16	626,297	426,991	68	60,986	10	366,005-	58-
15-17	927,695	387,342	42	69,857	8	317,485-	34-
16-18	785,406	401,209	51	41,000	5	360,208-	46-
17-19	1,573,258	359,152	23	18,369	1	340,783-	22-
±, ±,	1,0,0,200	555,152	20	10,000	_	310,703	<u>ک</u> ب
FIVE-YEAR	R AVERAGE						
15-19	1,197,746	367,089	31	42,817	4	324,273-	27-

ACCOUNT 353.10 STATION EQUIPMENT - ENERGY CONTROL SYSTEM

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2010		1,002				1,002-	
2011	4,983		0		0		0
2012	67 , 059	2,551	4		0	2,551-	4 –
2013	3,146	10	0		0	10-	0
2014		18,524				18,524-	
2015		167				167-	
2016	3,184,136	414,015	13	5,232	0	408,783-	13-
2017	59 , 235	34,849	59	179	0	34,670-	59-
2018							
2019	179,124		0		0		0
TOTAL	3,497,685	471,118	13	5,412	0	465,706-	13-
THREE-YE.	AR MOVING AVERAG	GES					
10-12	24,014	1,184	5		0	1,184-	5-
11-13	25,063	853	3		0	853-	3-
12-14	23,402	7,028	30		0	7,028-	30-
13-15	1,049	6,233	594		0	6,233-	594-
14-16	1,061,379	144,235	14	1,744	0	142,491-	13-
15-17	1,081,124	149,677	14	1,804	0	147,873-	14-
16-18	1,081,124	149,622	14	1,804	0	147,818-	14-
17-19	79,453	11,616	15	60	0	11,557-	15-
FIVE-YEA	R AVERAGE						
15-19	684,499	89,806	13	1,082	0	88,724-	13-

ACCOUNT 354.00 TOWERS AND FIXTURES

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT		GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2017 2018 2019	51,499		0		0		0
TOTAL	51,499		0		0		0
THREE-YE	AR MOVING AVERAGES	5					
17-19	17,166		0		0		0

ACCOUNTS 355.00 AND 356.00 POLES AND FIXTURES AND OVERHEAD CONDUCTORS AND DEVICES

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2005	740,458	91,569	12	4,560	1	87,009-	12-
2006	402,681	85 , 513	21		0	85,513-	21-
2007	568,911	30,837	5	53 , 965	9	23,128	4
2008	116,182	120,964	104	1,905-	2-	122,869-	106-
2009	530,165	68,921	13		0	68,921-	13-
2010	237,095	145,438	61		0	145,438-	61-
2011	1,171,646	100,211	9		0	100,211-	9-
2012	238,626	50,034	21		0	50,034-	21-
2013	83,078	316,050	380	18,358	22	297,692-	358-
2014	83,264	255 , 092	306	23,757	29	231,335-	278-
2015	5,287	546 , 789		4,406	83	542,382-	
2016	624,841	1,765,603	283	131,035	21	1,634,568-	262-
2017	95 , 555	404,184		14,752	15	389,431-	408-
2018	311,576	1,485,842	477	1,699,999	546	214,157	69
2019	1,108,019	11,926	1	11,896	1	30-	0
TOTAL	6,317,384	5,478,971	87	1,960,822	31	3,518,149-	56-
THREE-YE	AR MOVING AVERAG	ES					
05-07	570,683	69,306	12	19,508	3	49,798-	9-
06-08	362,591	79,105	22	17,353	5	61,751-	17-
07-09	405,086	73,574	18	17,353	4	56,221-	14-
08-10	294,481	111,774	38	635-		112,409-	38-
09-11	646,302	104,857	16		0	104,857-	16-
10-12	549 , 122	98,561	18		0	98,561-	18-
11-13	497 , 783	155,432	31	6,119	1	149,312-	30-
12-14	134,989	207,059	153	14,038	10	193,020-	143-
13-15	57,210	372,643	651	15,507	27	357,137-	624-
14-16	237,797	855 , 828	360	53,066	22	802,762-	338-
15-17	241,894	905,525	374	50,065	21	855,460-	354-
16-18	343,991	1,218,543	354	615,262	179	603,281-	175-
17-19	505,050	633,984	126	575 , 549	114	58,435-	12-
DT1/D_VDA							
	R AVERAGE						
15-19	429,056	842,869	196	372,418	87	470,451-	110-

ACCOUNT 362.00 STATION EQUIPMENT

		COST OF		GROSS		NET	
	REGULAR	REMOVAL	D.O.E.	SALVAGE	DOM	SALVAGE	Dam
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2005	2,746,060	288,564	11	1,543,492	56	1,254,928	46
2006	1,525,990	401,122	26	1,294,217	85	893,096	59
2007	1,840,910	129,797	7	1,165,345	63	1,035,547	56
2008	2,425,029	470,570	19	1,651,188	68	1,180,618	49
2009	2,004,666	520,202	26	1,453,301	72	933,099	47
2010	851,434	645,337	76	514,891	60	130,445-	15-
2011	1,558,114	922,880	59	1,489,651	96	566,770	36
2012	3,985,023	279 , 778	7	1,715,305	43	1,435,527	36
2013	1,976,646	426,056	22	1,708,251	86	1,282,195	65
2014	2,963,973	1,329,193	45	2,305,640	78	976,447	33
2015	3,320,242	923,483	28	2,412,565	73	1,489,082	45
2016	3,228,544	1,159,004	36	2,354,619	73	1,195,615	37
2017	3,085,469	733,486	24	1,655,127	54	921,641	30
2018	950,946	435,121	46	913,890	96	478,769	50
2019	3,850,617	141,896	4	856,054	22	714,158	19
TOTAL	36,313,664	8,806,490	24	23,033,536	63	14,227,046	39
THREE-YEA	AR MOVING AVERAG	ES					
05-07	2,037,653	273,161	13	1,334,351	65	1,061,190	52
06-08	1,930,643	333,830	17	1,370,250	71	1,036,420	54
07-09	2,090,202	373,523	18	1,423,278	68	1,049,755	50
08-10	1,760,377	545,370	31	1,206,460	69	661,091	38
09-11	1,471,405	696,140	47	1,152,614	78	456,475	31
10-12	2,131,524	615,998	29	1,239,949	58	623,951	29
11-13	2,506,595	542,905	22	1,637,736	65	1,094,831	44
12-14	2,975,214	678,342	23	1,909,732	64	1,231,390	41
13-15	2,753,620	892,911	32	2,142,152	78	1,249,241	45
14-16	3,170,920	1,137,227	36	2,357,608	74	1,220,381	38
15-17	3,211,418	938,658	29	2,140,770	67	1,202,112	37
16-18	2,421,653	775,870	32	1,641,212	68	865,342	36
17-19	2,629,011	436,834	17	1,141,690	43		27
I 1 - I 3	Z, UZ9, UII	430,034	1 /	1,141,090	40	704,856	۷ /
FIVE-YEAR	R AVERAGE						
15-19	2,887,164	678 , 598	24	1,638,451	57	959 , 853	33

ACCOUNT 362.10 STATION EQUIPMENT - SCADA

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2009 2010 2011		1,426 1,426-	-			1,426- 1,426	
2011	203,819		0		0		0
2013	227,015	497	0	40,035	18	39,538	17
2014							
2015							
2016	10,096		0		0		0
2017	58 , 335	6,087	10		0	6,087-	10-
2018	51,034	264	1		0	264-	1-
2019	16,023		0		0		0
TOTAL	566,321	6,847	1	40,035	7	33,188	6
THREE-YE.	AR MOVING AVERAG	ES					
09-11							
10-12	67,940	475-	1-		0	475	1
11-13	143,611	166	0	13,345	9	13,179	9
12-14	143,611	166	0	13,345	9	13,179	9
13-15	75 , 672	166	0	13,345	18	13,179	17
14-16	3,365		0		0		0
15-17	22,810	2,029	9		0	2,029-	9-
16-18	39,821	2,117	5		0	2,117-	5-
17-19	41,797	2,117	5		0	2,117-	5-
FTVE-YEA	R AVERAGE						
		1 070	Г		0	1 070	_
15-19	27 , 097	1,270	5		0	1,270-	5-

ACCOUNT 368.00 LINE TRANSFORMERS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT P	CT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2009 2010 2011 2012	1,786		0		0		0
2013 2014 2015 2016	2,185	97,412-		54,010-		43,402	
2017 2018 2019	3,525		0		0		0
TOTAL	7,495	97,412-		54,010-	721-	43,402	579
THREE-YE	AR MOVING AVERAGE	S					
09-11 10-12 11-13	595		0		0		0
12-14 13-15 14-16	728 728 728	32,471- 32,471- 32,471-		18,003- 18,003- 18,003-		14,467 14,467 14,467	
15-17	1,175		0		0		0
16-18 17-19	1,175 1,175		0		0		0
FIVE-YEA	R AVERAGE						
15-19	705		0		0		0

ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2006 2007 2008		1,350 1,350-				1,350- 1,350	
2009 2010 2011 2012 2013		11,082 1,532				11,082- 1,532-	
2014 2015 2016							
2017 2018	11,213	5,024 238	45		0	5,024- 238-	45-
2019	7,738	230	0		0	230	0
TOTAL	18,951	17,876	94		0	17,876-	94-
	AR MOVING AVERAG	ES					
06-08 07-09 08-10 09-11 10-12 11-13 12-14 13-15		450- 3,694 4,205 4,205 511				450 3,694- 4,205- 4,205- 511-	
14-16 15-17 16-18 17-19	3,738 3,738 6,317	1,675 1,754 1,754	45 47 28		0 0 0	1,675- 1,754- 1,754-	45- 47- 28-
FIVE-YEA	R AVERAGE						
15-19	3,790	1,052	28		0	1,052-	28-

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
		711100111		711100141		711100111	
2005	515,761		0		0		0
2006	433,524		0		0		0
2007	606,071		0		0		0
2008	353 , 269		0		0		0
2009	739,122		0		0		0
2010	617,432		0		0		0
2011	433,848		0		0		0
2012	702,640		0		0		0
2013	382,385		0		0		0
2014	441,465		0		0		0
2015	866,577		0		0		0
2016	491,515		0		0		0
2017	1,059,944		0		0		0
2018	599,920		0		0		0
2019	525,117		0		0		0
TOTAL	8,768,591		0		0		0
THREE-YE	AR MOVING AVERAG	GES .					
05-07	518,452		0		0		0
06-08	464,288		0		0		0
07-09	566,154		0		0		0
08-10	569,941		0		0		0
09-11	596,801		0		0		0
10-12	584,640		0		0		0
11-13	506,291		0		0		0
12-14	508,830		0		0		0
13-15	563,476		0		0		0
14-16	599 , 852		0		0		0
15-17	806,012		0		0		0
16-18	717,126		0		0		0
17-19	728,327		0		0		0
FT7/F-VF7	R AVERAGE						
15-19	708,615		0		0		0

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

SUMMARY OF BOOK SALVAGE

	REGULAR	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2005	131,140		0		0		0
2006	165,727		0		0		0
2007	255 , 587		0		0		0
2008	288,458		0		0		0
2009	94 , 172		0		0		0
2010	182,642		0		0		0
2011	312,750		0		0		0
2012	359 , 337		0		0		0
2013	731,941		0		0		0
2014	188,036		0		0		0
2015	490,732		0		0		0
2016	427,194		0		0		0
2017	546,340		0		0		0
2018	185,988		0		0		0
2019							
TOTAL	4,360,043		0		0		0
THREE-YEA	AR MOVING AVERAG	ES					
05-07	184,151		0		0		0
06-08	236,591		0		0		0
07-09	212,739		0		0		0
08-10	188,424		0		0		0
09-11	196,521		0		0		0
10-12	284,909		0		0		0
11-13	468,009		0		0		0
12-14	426,438		0		0		0
13-15	470,236		0		0		0
14-16	368,654		0		0		0
15-17	488,089		0		0		0
16-18	386 , 507		0		0		0
17-19	244,109		0		0		0
FIVE-YEAR	R AVERAGE						
15-19	330,051		0		0		0

PART IX. DETAILED DEPRECIATION CALCULATIONS



ACCOUNT 303.00 MISCELLANEOUS INTANGIBLE PLANT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE 10-SÇ ALVAGE PERCENT	~				
1993	332,106.96	332,107	332,107			
2001	66,238.90	66,239	66,239			
2002	849,440.38	849,440	849,440			
2005	568,160.00	568,160	568,160			
2014	517,364.81	284,551	681,426-	1,198,791	4.50	266,398
	2,333,311.05	2,100,497	1,134,520	1,198,791		266,398
	COMPOSITE REMAIN:	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	4.5	11.42



ACCOUNT 310.10 LAND AND LAND RIGHTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERII PROBABI	COMMON - LANDF M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E SQUARE EAR 6-2030				
2015	5,325,571.56	1,597,671		5,325,572	10.50	507,197
	5,325,571.56	1,597,671		5,325,572		507,197
INTERII PROBABI	CK COMMON - LANI M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E SQUARE EAR 6-2049				
2013 2014	2,727,019.77 6,046,318.51 3,382,670.46 8,014,020.57	1,091,723		2,727,020 6,046,319 3,382,670 8,014,021	29.50 29.50	92,441 204,960 114,667 271,662
	20,170,029.31	2,913,606		20,170,029		683 , 730
INTERII PROBABI	COMMON - LANDFI M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E SQUARE EAR 6-2026				
2016	6,050,424.87	2,117,649	1,462,186	4,588,239	6.50	705,883
	6,050,424.87	2,117,649	1,462,186	4,588,239		705,883
INTERII PROBABI	COMMON - ACCESS M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E SQUARE EAR 6-2030				
2009	480,134.08	240,067		480,134	10.50	45,727
	480,134.08	240,067		480,134		45,727



ACCOUNT 310.10 LAND AND LAND RIGHTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	OCK COMMON - AMMO IM SURVIVOR CURVI BLE RETIREMENT YI ALVAGE PERCENT	E SQUARE EAR 6-2049				
2018	1,050,779.86	50,847		1,050,780	29.50	35,620
	1,050,779.86	50,847		1,050,780		35,620
	33,076,939.68	6,919,840	1,462,186	31,614,754		1,978,157
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAI	RATE, PERCEN	г 16.0	5.98



ACCOUNT 311.00 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CENTRA:	T. T.AR					
	M SURVIVOR CURVE	E IOWA 85-S	1.5			
	LE RETIREMENT YE					
	LVAGE PERCENT					
1978	198,141.46	158,022	172,755	25,387	10.13	2,506
1980	4,012.00	3,168	3,463	549	10.16	54
1984	1,076.54	831	908	168	10.22	16
1987	80,111.38	60,564	66,211	13,901	10.26	1,355
1988	10,063.49	7,549	8,253	1,811	10.28	176
1993	5,331.79	3,822	4,178	1,153	10.33	112
1995	314,884.87	220,545	241,107	73 , 778	10.36	7,121
1996	5,824.03	4,028	4,404	1,420	10.37	137
	•	•	·	,		
	619,445.56	458,529	501,279	118,167		11,477
COOPER	COMMON					
	M SURVIVOR CURVE	E IOWA 85-S	1.5			
	LE RETIREMENT Y					
	LVAGE PERCENT					
1121 011		Ü				
1966	3,357,009.21	2,938,676	2,999,587	525,273	9.92	52,951
1967	2,147.35	1,874	1,913	342	9.94	34
1970	2,885,840.39	2,495,223	2,546,942	483,190	9.99	48,367
1973	315.00	269	275	56	10.05	, 6
1975	2,613.26	2,218	2,264	480	10.08	48
1976	57,782.42	48,824	49,836	10,836	10.10	1,073
1979	85,525.55	71,264	72,741	17,061	10.15	1,681
1980	13,175.25	10,924	11,150	2,684	10.16	264
1981	4,896.33	4,038	4,122	1,019	10.18	100
1982	8,132.18	6,670	6,808	1,731	10.19	170
1983	18,925.52	15,428	15,748	4,124	10.21	404
1984	42,304.53	34,280	34,991	9,429	10.22	923
1985	148,502.82	119,531	122,009	33,919	10.24	3,312
1986	204,908.37	163,831	167,227	47,927	10.25	4,676
1987	179,371.99	142,385	145,336	43,004	10.26	4,191
1988	44,928.39	35,387	36,120	11,054	10.28	1,075
1990	32,719.26	25,349	25,874	8,481	10.30	823
1992	158,592.93	120,597	123,097	43,426	10.32	4,208
1993	153,013.23	115,156	117,543	43,121	10.33	4,174
1996	234,596.49	170,347	173,878	72,448	10.37	6,986
1999	244,644.00	170,052	173,577	83,299	10.39	8,017
2000	98,385.28	67,216	68,609	34,695	10.40	3,336
2001	56,220.76	37,694	38,475	20,557	10.41	1,975
2004	66,585.88	41,727	42,592	27,323	10.43	2,620
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ACCOUNT 311.00 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBAE	R COMMON IM SURVIVOR CURVI BLE RETIREMENT YI ALVAGE PERCENT	EAR 6-2030				
2009 2010 2012 2013 2014 2016 2017	38,319.00 1,784,963.80 160,176.17 147,883.33 13,452.33 111,902.64 1,242,055.47	20,137 890,607 70,194 59,384 4,862 29,396 250,998	20,554 909,067 71,649 60,615 4,963 30,005 256,200	19,681 965,145 96,536 94,663 9,162 87,492 1,047,958	10.46 10.47 10.47 10.48 10.48 10.49	1,882 92,182 9,220 9,033 874 8,341 99,901
	11,599,889.13	8,164,538	8,333,766	3,846,118		372,847
INTERI PROBAE	R UNIT 2 SCRUBBE M SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 85-S EAR 6-2030				
2012	16,839,214.86	7,379,415	7,532,370	10,148,806	10.47	969,322
	16,839,214.86	7,379,415	7,532,370	10,148,806		969,322
INTERI PROBAE	OCK COMMON M SURVIVOR CURVI BLE RETIREMENT YI ALVAGE PERCENT	EAR 6-2049				
1986	719.59	419	419	351	26.87	13
1987	53,939.04	30,932	30,947	26,768		992
1989 1990	134,049.81 162,289.28	74,492 88,691	74,528 88,734	68,905 84,915		2,533 3,110
1990	43,827.82	23,098	23,109	23,787		865
1993	993,093.83	513,188	513,438	549,172	27.60	19,898
1997	181,931.72	85 , 836	85 , 878	108 , 789	27.97	3,889
1999	22,220.10	9,924	9,929	13,847	28.14	492
2000	829,157.78	359,333	359,508	527,691	28.22	18,699
2002	234,590.17	95,051	95 , 097	155,914	28.37	5,496
2003 2004	55,265.61 55,068.76	21,556 20,617	21,567 20,627	37,568 38,297	28.45 28.52	1,320 1,343
2004	97,093.42	31,364	31,379	72,511	28.72	2,525
2008	433,821.00	131,950	132,014	332,174	28.78	11,542
2009	338,754.52	96,500	96,547	265,920	28.83	9,224
2012	4,995,720.82	1,096,346	1,096,881	4,248,541	28.99	146,552

ACCOUNT 311.00 STRUCTURES AND IMPROVEMENTS

INTER: PROBA	ORIGINAL COST (2) OCK COMMON IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2049		FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
2013 2014 2015 2016 2017 2019	402,304.45 21,405.00 533,315.37 13,126,963.92 452,901.43 6,732,731.54 29,901,164.98	78,629 3,643 76,210 1,505,153 38,216 121,028	78,667 3,645 76,247 1,505,887 38,235 121,087	351,798 19,259 494,400 12,539,965 446,370 7,082,936 27,489,876	29.04 29.08 29.13 29.16 29.20 29.27	12,114 662 16,972 430,040 15,287 241,986
INTER: PROBA	OCK UNIT 1 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2040				
1979 1980 1981 1982 1984 1985 1986 1993 2003 2006	7,965.99 22,182,750.03 72,197.84 447,989.49 156,008.87 260,476.09 22,391.68 126,557.09 900,516.03 3,665,135.89	5,704 15,749,482 50,809 312,363 106,668 176,189 14,981 76,931 432,500 1,566,560	5,524 15,253,615 49,209 302,528 103,310 170,642 14,509 74,509 418,883 1,517,237	2,999 8,481,927 28,042 176,820 63,620 108,068 9,450 60,907 544,669 2,404,458	18.98 19.04 19.10 19.16 19.27 19.33 19.38 19.72 20.10 20.19	158 445,479 1,468 9,229 3,302 5,591 488 3,089 27,098 119,092
INTER: PROBAI	OCK UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2042				
1982 1984 1985 1987 1989 1993	31,713,670.22 41,049.17 50,044.43 1,029,387.85 18,828.35 6,576.33	21,431,122 27,168 32,747 657,519 11,712 3,843	22,317,143 28,291 34,101 684,703 12,196 4,002	11,616,484 15,631 19,447 416,742 7,950 3,035	20.85 20.98 21.05 21.18 21.30 21.53	557,146 745 924 19,676 373 141



ACCOUNT 311.00 STRUCTURES AND IMPROVEMENTS

YEAR (1)	COST	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBAE	OCK UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2042				
2002 2005 2011	1,627,331.27 85,476.56 84,957.62	768,028 36,113 25,077	799,780 37,606 26,114	941,464 53,854 64,791		42,872 2,440 2,911
	34,657,321.80	22,993,329	23,943,936	13,139,398		627,228
INTERI PROBAE	OCK UNIT 3 M SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2045				
	2,356.74 82,600.88 134,474,964.67 438,855.44 425,959.56	1,524 36,383 52,736,469 118,441 25,464	1,243 29,675 43,013,999 96,605 20,769	1,279 58,707 100,874,213 372,970 435,007		55 2,373 4,052,801 14,836 17,160
	135,424,737.29	52,918,281	43,162,292	101,742,177		4,087,225
INTERI PROBAE	OCK UNIT 4 M SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2049				
2009 2011	80,194,467.49 11,721,407.59	22,844,685 2,842,247	8,715,865 1,084,394	77,092,215 11,457,512	28.83 28.94	2,674,028 395,906
	91,915,875.08	25,686,932	9,800,259	88,549,727		3,069,934
INTERI PROBAE	OCK UNIT 1 SCRUB M SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 85-S EAR 6-2040				
2009	25,289,573.36	9,216,583	9,007,550	18,052,293	20.27	890,592
	25,289,573.36	9,216,583	9,007,550	18,052,293		890,592



ACCOUNT 311.00 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	OCK UNIT 2 SCRUE IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	7E IOWA 85-S 7EAR 6-2042				
2009	22,341,947.21	7,656,337	8,045,353	15,860,531	22.20	714,438
	22,341,947.21	7,656,337	8,045,353	15,860,531		714,438
	396,431,158.27	157,468,307	132,741,143	290,828,054		12,303,611
	COMPOSITE REMAIN	NING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	23.6	3.10



ACCOUNT 312.00 BOILER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
COOPFI	R COMMON					
	R COMMON IM SURVIVOR CURV	TE TOWA 55-S	0 5			
	BLE RETIREMENT Y					
	ALVAGE PERCENT					
1966	6,535,217.20	5,606,579	5,722,788	1,139,190	8.97	127,000
1967	35,392.35	30,280	30,908	6,254	9.01	694
1968	1,317.04	1,124	1,147	236	9.05	26
1969	33,840.06	28,791	29,388	6,144	9.08	677
1970	10,392,564.79	8,814,433	8,997,132	1,915,061	9.12	209,985
1972	15,563.20	13,115	13,387	2,955	9.19	322
1973	913,040.28	766 , 705	782 , 597	176 , 096	9.23	19,079
1974	94,861.59	79 , 382	81 , 027	18 , 577	9.26	2,006
1975	32,916.52	27,438	28 , 007	6 , 556	9.30	705
1976	156,100.40	129,625	132,312	31,594	9.33	3,386
1979	566,517.71	464,531	474,159	120,684	9.42	12,811
1980	7,589.87	6,193	6,321	1,648	9.46	174
1981	49,562.11	40,242	41,076	10,964	9.49	1,155
1982	194,559.58	157,152	160,409	43,878	9.52	4,609
1983	111,511.91	89,580	91,437	25,651	9.55	2,686
1984	48,748.87	38,949	39,756	11,430	9.57	1,194
1985	45,027.67	35,760	36,501	10,778	9.60	1,123
1986	632,293.02	498,874	509,214	154,693	9.63	16,064
1987	819,193.23	641,949	655,255	204,898	9.66	21,211
1989	1,275,004.67	984,641	1,005,050	333,705	9.71	34,367
1990	769,853.36	589,705	601,928	206,418	9.74	21,193
1991	211,474.63	160,574	163,902	58,146	9.77	5,951
1992	11,723.60	8,823	9,006	3,304	9.79	337
1993	17,247.35	12,850	13,116	4,993	9.82 9.85	508
1994	24,492,000.10 686,604.84	18,054,596	18,428,818	7,287,783		739,876
1996 1999	376,863.55	494,424 260,134	504,672 265,526	216,263 130,181	9.90 9.97	21,845 13,057
2000	801,466.74	544,157	555,436	286,104	9.99	28,639
2000	1,693,080.79	1,128,577	1,151,969	625,766	10.02	62,452
2001	546,144.29	356,922	364,320	209,132	10.02	20,830
2002	3,807,014.54	2,432,916	2,483,344	1,514,022	10.07	150,350
2003	1,837,110.98	1,146,057	1,169,812	759,155	10.09	75,238
2006	128,740.00	75,898	77,471	57 , 706	10.13	5 , 697
2007	141,338.25	80,517	82,186	66,219	10.16	6,518
2008	24,853,184.72	13,623,857	13,906,242	12,189,602	10.18	1,197,407
2009	2,093,125.39	1,098,341	1,121,107	1,076,675	10.20	105,556
2010	626,423.36	312,488	318,965	338,780	10.22	33,149
2011	1,234,900.67	580,871	592,911	703,735	10.24	68,724
2012	5,525,601.51	2,421,589	2,471,782	3,330,100	10.26	324,571
2013	4,005,131.86	1,609,486	1,642,846	2,562,542	10.29	249,032
2014	1,041,339.79	376,744	384,553	708,854	10.31	68,754
	•	•	•	•		•

ACCOUNT 312.00 BOILER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)			
INTERI PROBAE	COOPER COMMON INTERIM SURVIVOR CURVE IOWA 55-S0.5 PROBABLE RETIREMENT YEAR 6-2030 NET SALVAGE PERCENT5								
2015 2016 2017 2018	2,389,195.24 1,762,095.40 966,205.08 815,315.48	754,127 463,549 195,801 107,370	769,758 473,157 199,859 109,595	1,738,897 1,377,043 814,656 746,486	10.33 10.35 10.37 10.39	168,335 133,048 78,559 71,847			
	102,794,003.59	65,345,716	66,700,151	41,233,553		4,110,747			
INTER:	COOPER UNIT 1 INTERIM SURVIVOR CURVE IOWA 55-S0.5 PROBABLE RETIREMENT YEAR 6-2030 NET SALVAGE PERCENT5								
2015	14,959,125.04	4,721,706	4,819,574	10,887,507	10.33	1,053,970			
	14,959,125.04	4,721,706	4,819,574	10,887,507		1,053,970			
INTERI PROBAE	R UNIT 2 IM SURVIVOR CURVI BLE RETIREMENT YI ALVAGE PERCENT	EAR 6-2030							
2015 2017	135,710.76 1,340,347.23	42,836 271,621	43,724 277,251	98,772 1,130,113		9,562 108,979			
	1,476,057.99	314,457	320,975	1,228,886		118,541			
INTER:	COOPER UNIT 2 SCRUBBER INTERIM SURVIVOR CURVE IOWA 55-S0.5 PROBABLE RETIREMENT YEAR 6-2030 NET SALVAGE PERCENT5								
2012	194,151,378.75	85,086,648	86,850,257	117,008,691	10.26	11,404,356			
	194,151,378.75	85,086,648	86,850,257	117,008,691		11,404,356			

ACCOUNT 312.00 BOILER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER: PROBA	OCK COMMON IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2049				
1982 1987 1989 1990 1994 1995 1997 2000 2001 2004 2005 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	73,635.57 6,893.04 43,168.31 25,902.38 628,562.02 211,951.67 560,177.80 2,089,569.63 1,956,962.72 938,636.24 1,007,555.74 2,060,339.32 135,568.90 4,890,589.93 3,616,014.00 1,871,987.75 5,439,185.72 2,628,218.66 3,665,061.67 6,731,457.10 1,507,781.45 2,091,267.60 1,828,601.91 3,293,972.37	45,169 3,963 24,088 14,223 320,778 105,897 267,280 919,221 833,832 358,399 368,457 681,408 42,321 1,429,951 982,373 467,146 1,230,799 530,802 644,910 998,937 179,612 183,286 99,513 61,080	46,170 4,051 24,622 14,538 327,890 108,245 273,205 939,600 852,318 366,345 376,626 696,515 43,259 1,461,652 1,004,152 477,502 1,258,085 542,570 659,207 1,021,083 183,594 187,349 101,719 62,434	32,620 3,325 21,568 13,177 344,672 118,544 326,185 1,296,240 1,241,632 637,996 701,459 1,508,049 101,799 3,771,279 2,864,983 1,525,524 4,561,843 2,269,624 3,262,409 6,181,576 1,429,732 2,050,307 1,854,885 3,462,116	21.37 22.33 22.70 22.88 23.60 23.78 24.13 24.65 24.83 25.34 25.50 25.84 26.00 26.17 26.33 26.50 26.66 26.82 26.98 27.14 27.30 27.46 27.78	1,526 149 950 576 14,605 4,985 13,518 52,586 50,005 25,177 27,508 58,361 3,915 144,107 108,811 57,567 171,112 84,624 120,920 227,766 52,371 74,665 67,157 124,626
	47,303,061.50	10,793,445	11,032,732	39,581,544		1,487,587
INTER: PROBA	OCK UNIT 1 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT					
1960 1979 1980 1981 1982 1983 1984	20,387.21 56,988.07 43,319,513.68 294,613.06 16,908.30 242,330.25 8,193.20 33,499.92	16,114 40,197 30,308,567 204,367 11,629 165,172 5,530 22,387	15,606 38,929 29,352,264 197,919 11,262 159,960 5,356 21,681	6,209 22,049 16,999,615 117,317 6,830 99,333 3,411 14,164	13.92 16.31 16.42 16.53 16.63 16.73 16.84 16.94	446 1,352 1,035,299 7,097 411 5,937 203 836

ACCOUNT 312.00 BOILER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	OCK UNIT 1 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT.	YEAR 6-2040				
1986 1987 1988 1989 1990 1991 1992 1993 2000 2001 2003 2006 2007 2009 2011 2012 2013 2014 2016 2017 2018	23,472.40 97,938.52 148,635.22 113,340.96 6,634.87 223,462.36 197,206.56 58,304.70 264,715.70 830,097.20 122,941,488.67 10,982,998.37 1,181,538.34 11,718,114.51 1,495,874.74 1,110,295.11 8,626,358.93 739,109.75 91,818.12 519,065.92 1,709,427.95	15,522 64,055 96,117 72,399 4,184 139,030 120,949 35,206 138,989 424,348 59,179,226 4,717,881 484,788 4,308,690 476,558 323,473 2,260,015 170,198 14,631 61,766 127,085	15,032 62,034 93,084 70,115 4,052 134,643 117,133 34,095 134,604 410,959 57,311,990 4,569,021 469,492 4,172,741 461,522 313,267 2,188,706 164,828 14,169 59,817 123,075	10,083 42,760 65,955 51,160 3,047 104,461 93,878 28,291 148,642 477,245 74,235,403 7,182,787 794,754 8,365,641 1,139,064 874,749 7,041,498 626,020 84,076 495,583 1,706,013	17.04 17.14 17.23 17.33 17.43 17.52 17.61 17.71 18.34 18.43 18.60 18.86 18.94 19.10 19.27 19.35 19.43 19.51 19.66 19.74 19.82	592 2,495 3,828 2,952 175 5,962 5,331 1,597 8,105 25,895 3,991,151 380,848 41,962 437,992 59,111 45,207 362,403 32,087 4,277 25,106 86,075
INTER PROBA	OCK UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT.	YEAR 6-2042	30.5	120,840,041		6,574,732
	137,155,705.73 82,018.59 15,164.00 435,607.02 220,702.18 115,852.28 542,995.97 5,243,007.88 1,711,608.88 2,329,466.89 67,381,006.46	91,630,422 53,712 9,825 275,819 138,059 71,526 326,037 2,998,106 942,926 1,169,620 31,934,224	95,041,484 55,711 10,191 286,087 143,198 74,189 338,174 3,109,714 978,028 1,213,161 33,123,017	51,715,121 32,048 6,035 180,013 92,953 49,773 242,832 2,500,304 853,394 1,279,369 38,974,660	17.82 18.06 18.18 18.42 18.53 18.65 18.87 19.21 19.42 19.85 20.06	2,902,083 1,775 332 9,773 5,016 2,669 12,869 130,156 43,944 64,452 1,942,904

ACCOUNT 312.00 BOILER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	OCK UNIT 2 RIM SURVIVOR CURV BLE RETIREMENT Y BALVAGE PERCENT	YEAR 6-2042				
2003 2005 2006 2008 2010 2011 2012 2013 2014 2015 2016 2017 2019	4,578,249.51 6,210,998.41 5,622,106.07 887,162.40 8,346.55 8,814,555.59 153,990.13 2,589,158.46 5,188,392.67 524,515.00 4,477,930.26 9,409,721.30	149,229 1,948,763 2,532,902 2,071,430 307,770 2,702 2,638,294 42,080 635,059 1,116,978 95,757 661,067 1,036,643 22,422	154,784 2,021,308 2,627,193 2,148,542 319,227 2,803 2,736,508 43,646 658,700 1,158,559 99,322 685,676 1,075,233 23,257	193,287 2,877,419 4,018,576 3,867,112 630,037 6,128 6,695,067 121,123 2,111,700 4,393,021 461,909 4,105,709 8,993,168 972,838	20.16 20.36 20.46 20.66 20.76 20.86 21.05 21.15 21.24 21.34 21.34 21.43 21.52 21.71	9,588 141,327 196,411 187,179 30,349 294 319,421 5,754 99,844 206,828 21,645 191,587 417,898 44,811 6,988,909
INTER PROBA	OCK UNIT 3 RIM SURVIVOR CURV ABLE RETIREMENT Y BALVAGE PERCENT	YEAR 6-2045				
2005 2009 2011 2012 2013 2014 2015 2016 2017	3,968,914.66 1,996,016.99 2,808,692.32 2,833,570.13 8,495,716.71 1,000,269.75 94,291.34	63,069,842 1,273,002 549,696 703,391 634,551 1,665,001 165,820 12,611 207,079	51,398,505 1,037,428 447,972 573,226 517,125 1,356,886 135,134 10,277 168,758	118,596,486 3,209,311 1,687,766 2,432,075 2,514,795 7,733,531 935,154 90,614 2,069,449	22.65 23.15 23.40 23.53 23.65 23.77 23.89 24.01 24.13	5,236,048 138,631 72,127 103,361 106,334 325,348 39,144 3,774 85,762
	182,163,077.56	68,280,993	55,645,311	139,269,182		6,110,529

ACCOUNT 312.00 BOILER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)		
INTER PROBA	OCK UNIT 4 IM SURVIVOR CURVI BLE RETIREMENT YI ALVAGE PERCENT	EAR 6-2049	0.5					
2007 2008 2009 2010 2011 2012 2014 2015 2016 2018 2019	585,742.89 278,203,815.45 246.36 824,677.88 12,032,597.35 4,583,762.52 7,065,155.09 94,291.35 1,437,733.46 4,668,738.10	465,878 182,853 81,343,513 67 205,795 2,722,779 806,566 1,048,457 11,232 78,242 86,573	177,557 69,690 31,001,925 26 78,433 1,037,715 307,401 399,592 4,281 29,820 32,995	1,329,699 557,055 266,676,158 238 803,972 11,837,164 4,597,225 7,160,124 96,611 1,508,555 4,962,555	25.84 26.00 26.17 26.33 26.50 26.66 26.98 27.14 27.30 27.62 27.78	51,459 21,425 10,190,147 9 30,339 444,005 170,394 263,822 3,539 54,618 178,638		
INTER PROBA	310,905,410.86 OCK UNIT 1 SCRUBI IM SURVIVOR CURVI BLE RETIREMENT YI BALVAGE PERCENT	BER E IOWA 55-S(EAR 6-2040	33,139,434 0.5	299,529,356		11,408,395		
2009	102,930,250.29	37,846,918	36,988,548	73,146,820	19.10	3,829,676		
	102,930,250.29	37,846,918	36,988,548	73,146,820		3,829,676		
INTER PROBA	SPURLOCK UNIT 2 SCRUBBER INTERIM SURVIVOR CURVE IOWA 55-S0.5 PROBABLE RETIREMENT YEAR 6-2042 NET SALVAGE PERCENT7							
2009	157,598,866.33	54,673,474	57,451,408	111,179,379	20.76	5,355,461		
	157,598,866.33	54,673,474	57,451,408	111,179,379		5,355,461		
	1,586,308,057.02	660,835,757	601,803,456	1,089,278,554		58,442,903		
	COMPOSITE REMAIN	ING LIFE AND A	ANNUAL ACCRUA	L RATE, PERCENT	r 18.	6 3.68		



ACCOUNT 314.00 TURBOGENERATOR UNITS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBAE	R COMMON IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2030				
1966	4,860,178.43	4,259,018	4,347,296	755 , 892	7.94	95,201
1967	4,542.33	3 , 965	4,047	722	8.05	90
1968	1,058.71	921	940	172	8.16	21
1970	7,597,435.35	6,552,401	6,688,214	1,289,093	8.37	154,014
1972	6,362.15	5,440	5 , 553	1,128	8.57	132
1976	8,222.94	6,904	7,047	1,587	8.92	178
1982	146,098.34	118,803	121,265	32,138	9.34	3,441
1987	92,313.95	72,564	74,068	22,862	9.62	2 , 377
1989	7,635.92	5 , 907	6 , 029	1,988	9.71	205
1991 2000	357,895.46	272,012 393,196	277,650 401,346	98,140	9.79 10.07	10,025 20,759
2000	581,325.17 3,192,574.12	2,030,597	2,072,686	209,046 1,279,517	10.07	126,185
2003	3,791,952.99	1,974,132	2,072,000	1,966,500	10.14	191,854
2012	1,200,000.00	520,808	531,603	728,397	10.29	70,787
2012	1,069,909.60	334,730	341,668	781 , 737	10.32	75 , 750
2016	710,388.25	184,985	188,819	557,088	10.34	53 , 877
2017	87,063.07	17,439	17,800	73,616	10.35	7,113
	,	,	,	, ,		,
	23,714,956.78	16,753,822	17,101,082	7,799,623		812,009
INTERI PROBAE	OCK UNIT 1 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2040				
1979	90,183.19	65,980	63,903	32,593	14.92	2,185
1980	21,238,390.63	15,368,288	14,884,423	7,840,655	15.17	516,853
1981	50,427.89	36,088	34,952	19,006	15.41	1,233
1982	8,334.08	5,897	5,711	3,206	15.64	205
1984	4,038.88	2,792	2,704	1,618	16.07	101
1987	160,132.28	106,501	103,148	68,194	16.67	4,091
1989	88,195.62	57 , 025	55 , 230	39,140	17.04	2,297
1991	127,297.64	79 , 849	77,335	58 , 873	17.37	3,389
1996	6,725,856.46	3,852,519	3,731,224	3,465,443	18.09	191,567
2000	4,545,754.55	2,370,158	2,295,534	2,568,423	18.55	138,459
2007	341,932.27	138,078	133,731	232,137	19.17	12,109
2009	319,271.80	115,123	111,498	230,122	19.32	11,911
	33,699,815.29	22,198,298	21,499,392	14,559,410		884,400

ACCOUNT 314.00 TURBOGENERATOR UNITS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBAE	OCK UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2042				
1982 1984 1990 1991 1998 2000 2007 2009 2010 2013 2016 2017	34,342,579.86 10,917.52 91,451.87 156,182.28 13,718,618.15 131,890.57 324,996.98 300,913.39 252,558.47 56,336.50 44,949.83 10,705,741.18 60,137,136.60	23,768,410 7,363 56,461 94,813 7,213,075 65,775 124,073 102,273 79,980 13,462 6,448 1,138,298 32,670,431	24,751,060 7,667 58,795 98,733 7,511,283 68,494 129,203 106,501 83,287 14,019 6,715 1,185,358 34,021,115	11,995,500 4,014 39,058 68,382 7,167,638 72,629 218,544 215,476 186,951 46,261 41,382 10,269,785 30,325,621	16.55 17.07 18.43 18.63 19.80 20.07 20.84 21.01 21.10 21.32 21.51 21.57	724,804 235 2,119 3,671 362,002 3,619 10,487 10,256 8,860 2,170 1,924 476,114
INTERI PROBAE	OCK UNIT 3 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2045				
2005 2008 2015 2017	74,052,384.09 4,832,465.25 1,454,156.42 69,953.79	28,930,667 1,612,908 233,112 6,671	23,597,023 1,315,553 190,136 5,441	55,639,028 3,855,185 1,365,812 69,409	22.97 23.36 24.06 24.22	2,422,248 165,034 56,767 2,866
	80,408,959.55	30,783,358	25,108,153	60,929,434		2,646,915

ACCOUNT 314.00 TURBOGENERATOR UNITS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)			
SPURLOCK UNIT 4 INTERIM SURVIVOR CURVE IOWA 50-R2									
	IM SURVIVOR CURV BLE RETIREMENT Y								
NET S	ALVAGE PERCENT	- 7							
2009	55,374,618.46	15,754,206	5,848,121	53,402,721	26.56	2,010,645			
2017	201,780.13	16,929	6,284	209,621	27.62	7 , 589			
2019	24,662,665.66	438,322	162,710	26,226,343	27.83	942,377			
	80,239,064.25	16,209,457	6,017,115	79,838,684		2,960,611			
	278,199,932.47	118,615,366	103,746,857	193,452,772		8,910,196			
	COMPOSITE REMAIN	NING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	21.7	3.20			



ACCOUNT 315.00 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)		
INTERIN PROBABI	COMMON M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2030						
1966 1970 1972 1981 1984 1986 1990 1992 1994 2000 2004 2018	571,584.88 1,053,861.18 1,769.34 27,393.32 594,947.00 52,253.74 14,452.00 21,132.64 58,251.83 19,529.62 822,171.85 125,036.05 3,362,383.45	511,934 925,345 1,539 22,743 484,638 41,961 11,226 16,099 43,415 13,341 515,171 16,411	522,545 944,525 1,571 23,214 494,683 42,831 11,459 16,433 44,315 13,618 525,849 16,751	77,619 162,029 287 5,549 130,011 12,036 3,716 5,757 16,850 6,889 337,431 114,537	8.39 9.03 9.27 9.92 10.06 10.14 10.27 10.32 10.36 10.44 10.46	9,251 17,943 31 559 12,924 1,187 362 558 1,626 660 32,259 10,908		
INTERIN PROBABI	UNIT 1 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E IOWA 60-R EAR 6-2030	, ,	,		,		
2017 2018	42,969.95 65,169.15	8,677 8,553	8,857 8,730	36,262 59,697	10.50	3,454 5,685		
INTERIN PROBABI	108,139.10 17,230 17,587 95,959 9,139 COOPER UNIT 2 INTERIM SURVIVOR CURVE IOWA 60-R4 PROBABLE RETIREMENT YEAR 6-2030 NET SALVAGE PERCENT5							
2017 2018	42,969.95 65,299.14	8,677 8,571	8,857 8,749	36,261 59,815	10.50 10.50	3,453 5,697		
	108,269.09	17,248	17,606	96 , 077		9,150		



ACCOUNT 315.00 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	ORIGINAL COST (2)		ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)		ANNUAL ACCRUAL (7)
INTERI PROBAB	UNIT 2 SCRUBBE M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 60-R EAR 6-2030	4			
2012	12,060,627.85	5,279,480	5,388,909	7,274,750	10.49	693,494
	12,060,627.85	5,279,480	5,388,909	7,274,750		693,494
INTERI PROBAB	CK COMMON M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2049				
2019	657,912.36	11,777	7,870	696,096	29.38	23,693
	657,912.36	11,777	7,870	696,096		23,693
INTERI PROBAB	CK UNIT 1 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2040	4			
1980 1981 1990 2000 2003	6,882,149.94 10,833.94 10,196.54 57,564.24 3,710,110.99	7,864 6,572 30,290	4,894,370 7,616 6,365 29,336 1,725,713	2,469,530 3,976 4,545 32,257 2,244,106	17.55 19.17 20.06	227 237
	10,670,855.65	6,880,016	6,663,401	4,754,415		255,913
INTERI PROBAB	CK UNIT 2 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2042	4			
1982 1983 2002 2018	19,378,324.53 195,615.84 1,634,956.03 574,430.11	13,582,543 135,283 772,536 38,476	14,099,269 140,430 801,926 39,940	6,635,539 68,879 947,477 574,700	19.02 19.30 22.04 22.46	348,872 3,569 42,989 25,588
	21,783,326.51	14,528,838	15,081,564	8,226,595		421,018

ACCOUNT 315.00 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)		
INTER PROBA	OCK UNIT 3 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2045						
2005 2012	23,128,165.31 636,137.53		7,394,689 126,909	17,352,448 553,758		693,820 21,879		
	23,764,302.84	9,221,708	7,521,598	17,906,206		715,699		
INTER PROBA	OCK UNIT 4 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2049						
2009	12,751,242.41	3,622,710	1,382,162	12,261,667	28.99	422,962		
	12,751,242.41	3,622,710	1,382,162	12,261,667		422,962		
INTER PROBA	OCK UNIT 1 SCRUB IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 60-R EAR 6-2040						
2009	12,520,715.15	4,553,964	4,450,680	8,946,485	20.37	439,199		
	12,520,715.15	4,553,964	4,450,680	8,946,485		439,199		
INTER PROBA	SPURLOCK UNIT 2 SCRUBBER INTERIM SURVIVOR CURVE IOWA 60-R4 PROBABLE RETIREMENT YEAR 6-2042 NET SALVAGE PERCENT7							
2009	17,731,988.49	6,066,120	6,374,337	12,598,891	22.32	564,466		
	17,731,988.49	6,066,120	6,374,337	12,598,891		564,466		
	115,519,762.90	52,802,914	49,563,507	73,729,851		3,643,001		
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAI	RATE, PERCEN	г 20.2	3.15		

ACCOUNT 316.00 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CENTRA			1			
	M SURVIVOR CURVI LE RETIREMENT YI					
	LVAGE PERCENT					
NEI SA.	DVAGE IEKCENI	O				
1978	1,684.51	1,267	1,385	299	7.24	41
1980	3,223.96	2,401	2,625	599	7.39	81
1984	7,531.81	5 , 500	6,013	1,519	7.66	198
1987	37,677.15	27,032	29,552	8,125	7.86	1,034
1988	25,865.18	18,443	20,162	5 , 703	7.92	720
1989	7,059.45	5,001	5,467	1,592	7.98	199
1990	40,800.84	28,690	31,365	9,436	8.05	1,172
1991	36,575.50	25,528	27 , 908	8,667	8.11	1,069
1992	16,788.77	11,633	12,718	4,071	8.16	499
1993	55,481.45	38,115	41,669	13,813	8.22	1,680
1994	14,729.95	10,028	10,963	3,767	8.28	455
1995	78,085.75	52 , 647	57 , 555	20,530	8.34	2,462
1996	11,459.20	7 , 650	8,363	3,096	8.39	369
1997	33,398.23	22,046	24,101	9,297	8.45	1,100
1998	45,514.89	29 , 698	32,467	13,048	8.50	1,535
1999	119,063.15	76 , 699	83 , 850	35 , 213	8.55	4,118
2000	178,343.24	113,250	123,809	54 , 535	8.61	6,334
2004	17,516.45	10,357	11,323	6,194	8.82	702
2005	37 , 280.89	21,532	23,539	13,741	8.88	1,547
2006	68,584.51	38 , 573	42,169	26,415	8.94	2,955
2007	13,977.68	7,620	8,330	5 , 647	9.02	626
2008	33,599.11	17 , 666	19,313	14,286	9.10	1,570
2010	71,207.35	34,187	37,374	33,833	9.28	3,646
2011	5,798.00	2,630	2 , 875	2,923	9.37	312
2012	23,129.40	9,776	10,687	12,442	9.48	1,312
2013	35 , 217.93	13,673	14,948	20,270	9.58	2,116
2018	6,843.70	867	948	5 , 896	10.06	586
2019	85,116.23	3,924	4,290	80,826	10.14	7,971
	1,111,554.28	636,433	695,769	415,785		46,409
COOPER	COMMON					
	M SURVIVOR CURVI	E IOWA 30-L	1			
	LE RETIREMENT YI					
	LVAGE PERCENT					
1964	22,574.33	18,931	19,243	4,460	6.02	741
1967	2,376.44	1,967	1,999	496	6.32	78
1972	1,545.02	1,252	1,273	350	6.76	52
1974	9,912.01	7,963	8,094	2,313	6.93	334
	J, J±2.V±	,,,,,,,,	0,001	2,010	0.00	331

ACCOUNT 316.00 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIN PROBABI	COMMON M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2030				
1975	5,275.95	4,221	4,291	1,249	7.01	178
1976	2,426.00	1,932	1,964	583	7.09	82
1977	7,894.30	6,262	6,365	1,924	7.16	269
1978	5,395.95	4,260	4,330	1,336	7.24	185
1981	1,604.40	1,249	1,270	415	7.46	56
1982	5,012.12	3,882	3,946	1,317	7.53	175
1983	2,414.00	1,860	1,891	644	7.60	85
1984	29,319.75	22,479	22,849	7,937	7.66	1,036
1985	40,137.60	30,596	31,100	11,045	7.73	1,429
1986	14,546.34	11,027	11,209	4,065	7.79	522
1987	23,652.72	17 , 819	18,112	6 , 723	7.86	855
1988	40,328.77	30,194	30,691	11,654	7.92	1,471
1989	40,855.83	30,391	30,891	12,007	7.98	1,505
1990	49,869.26	36,820	37,426	14,936	8.05	1,855
1991	12,499.67	9,160	9,311	3,814	8.11	470
1992	50,003.22	36 , 379	36,978	15 , 525	8.16	1,903
1993	75,113.37	54,181	55,073	23,796	8.22	2,895
1994	130,817.83	93,514	95,054	42,305	8.28	5,109
1995	72,102.93	51,044	51,885	23,823	8.34	2,856
1996	52,853.47	37,049	37,659	17,837	8.39	2,126
1997	69,926.41	48,466	49,264	24,159	8.45	2,859
1998	56,917.68	38,995	39,637	20,126	8.50	2,368
1999	16,182.34	10,946	11,126	5,865	8.55	686
2000	8,834.22	5,890	5,987	3,289	8.61	382
2001	37,076.96	24,348	24,749	14,182	8.66	1,638
2002	15,135.30	9,775	9,936	5,956	8.71	684
2003	7,284.76	4,620	4,696	2,953	8.76	337
2004	6,784.00	4,212	4,281	2,842	8.82	322
2005	53,714.07 798,066.81	32,574	33,110	23,289	8.88	2,623
2010		402,318	408,943	429,027	9.28	46,231
2011	20,879.90	9,946	10,110	11,814	9.37	1,261
2013	61,490.00	25 , 067	25 , 480	39,085	9.58	4,080
2014 2015	41,221.75 61,723.31	15 , 126	15,375	27 , 908	9.68 9.78	2,883
		19,760	20 , 085			4,573
2016 2017	33,177.85 406,303.15	8,841 83,327	8,987 84,699	25,850 341,919	9.88 9.97	2,616 34,295
2017	313,316.55	15,166	15,416	313,567	10.14	30,924
2 U 1 3	313,310.33	13,100	10,410	313,307	10.14	30, 324
	2,706,566.34	1,273,809	1,294,786	1,547,109		165,029

ACCOUNT 316.00 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIN PROBABI	UNIT 2 SCRUBBEF M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	E IOWA 30-L EAR 6-2030				
2012	2,139,985.18	949,710	969 , 395	1,277,589	9.48	134,767
	2,139,985.18	949,710	969 , 395	1,277,589		134,767
INTERIN PROBABI	CK COMMON 1 SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2049				
1978	126,813.04	87,698	91,761	43,929	10.60	4,144
1979	24,284.44	16,583	17,351	8,633	10.84	796
1980 1981	29,786.64 54,356.29	20,081 36,163	21,011 37,838	10,860 20,323	11.08 11.32	980 1,795
1982	141,577.45	92,959	97 , 266	54,222	11.56	4,690
1983	46,357.42	30,027	31,418	18,184	11.80	1,541
1984	47,276.66	30,186	31,585	19,001	12.05	1,577
1985	95,945.94	60,407	63,206	39,456	12.29	3,210
1986	32,765.34	20,321	21,262	13,796	12.54	1,100
1987	87,579.94	53,491	55,969	37,741	12.79	2,951
1988	39,342.42	23,671	24,768	17,329	13.03	1,330
1989	51,661.45	30,586	32,003	23,275	13.28	1,753
1990	90,898.71	52,924	55,376	41,886	13.53	3,096
1991	27,535.27	15,761	16,491	12,972	13.78	941
1992	84,231.81	47,379	49,574	40,554	14.03	2,891
1993	71,148.30	39,290	41,110	35,018	14.28	2,452
1994	129,756.62	70,315	73,573	65,267	14.53	4,492
1995	44,418.54	23,602	24,695	22,832	14.78	1,545
1996	213,762.56	111,316	116,473	112,253	15.03	7,469
1997	102,102.08	52,041	54,452	54 , 797	15.28	3,586
1998	62,334.27	31,078	32 , 518	34,180	15.53	2,201
1999	115,734.06	56,359	58,970	64,865	15.78	4,111
2000	40,351.11	19,169	20,057	23,119	16.03	1,442
2001	5,671.00	2,626	2,748	3,320	16.28	204
2002	5,527.90	2,488	2,603	3,312	16.54	200
2003	239,474.99	104,696	109,547	146,692	16.79	8,737
2004	38,270.21	16,199	16,950	24,000	17.05	1,408
2005	486,910.32	198,764	207,973	313,021	17.33	18,062
2006	132,723.50	52 , 068	54,480	87,534	17.62	4,968
2007	30,091.57	11,281	11,804	20,394	17.93	1,137
2008	141,116.01	50,258	52 , 586	98,408	18.26	5,389

ACCOUNT 316.00 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERII PROBABI	CK COMMON M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2049				
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	129,027.24 62,102.03 131,612.48 18,958.26 64,826.40 1,100,347.24 179,605.87 36,606.04 67,732.67 84,573.16 59,444.80	43,322 19,452 38,109 4,990 15,268 225,820 31,141 5,073 6,934 5,310 1,294	45,329 20,353 39,875 5,221 15,975 236,282 32,584 5,308 7,255 5,556 1,354	92,730 46,096 100,951 15,064 53,389 941,089 159,594 33,860 65,219 84,937 62,252	18.61 18.99 19.38 19.80 20.23 20.69 21.15 21.64 22.12 22.62 23.11	4,983 2,427 5,209 761 2,639 45,485 7,546 1,565 2,948 3,755 2,694
	4,774,642.05	1,856,500	1,942,513	3,166,354		180,210
INTERII PROBABI	CK UNIT 1 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2040				
1975 1976 1977 1978 1980	3,685.90 105,847.18 40,660.71 2,674.55 29,694.36	2,710 77,110 29,345 1,911 20,808	2,625 74,682 28,421 1,851 20,153	1,319 38,575 15,086 1,011 11,620	9.35 9.53 9.71 9.90 10.26	141 4,048 1,554 102 1,133
	182,562.70	131,884	127,731	67,611		6,978
INTERII PROBAB	CK UNIT 3 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2045				
2005 2016 2018	196,710.01 1,010,076.23 985,683.41	84,440 151,461 68,185	68,873 123,538 55,615	141,607 957,243 999,067	16.24 19.88 20.69	8,720 48,151 48,287
	2,192,469.65	304,086	248,026	2,097,917		105,158

ACCOUNT 316.00 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER	OCK UNIT 4 IM SURVIVOR CURVI BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2049				
2009 2016 2019	1,713,517.24 1,007,682.17 1,243,021.41	575,322 139,662 27,066	211,495 51,341 9,950	1,621,969 1,026,879 1,320,083	18.61 21.64 23.11	87,156 47,453 57,122
	3,964,220.82	742,050	272 , 786	3,968,930		191,731
	17,072,001.02	5,894,472	5,551,006	12,541,295		830,282
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAI	RATE, PERCEN'	г 15.1	4.86



ACCOUNT 341.00 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI PROBAB	CT COMMON M SURVIVOR CURV BLE RETIREMENT Y LLVAGE PERCENT	EAR 6-2050	1			
1999 2001 2003 2004 2005 2008 2009 2010 2011 2013 2017	11,825,116.32 1,879,908.18 70,822.72 274,976.66 420,804.59 529,002.54 40,240.67 2,645,321.10 525,234.46 997,147.82 325,446.17	5,213,228 778,221 27,270 101,590 148,558 158,482 11,272 686,701 124,947 190,684 26,713	5,640,670 842,029 29,506 109,920 160,739 171,476 12,196 743,005 135,192 206,319 28,903	6,539,199 1,094,277 43,441 173,306 272,690 373,396 29,252 1,981,676 405,800 820,744 306,306	25.19 25.64 26.08 26.30 26.52 27.16 27.36 27.57 27.77 28.16 28.87	259,595 42,679 1,666 6,590 10,282 13,748 1,069 71,878 14,613 29,146 10,610
INTERI PROBAB	19,534,021.23 CT UNIT 1 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2034	8,079,954 1	12,040,088		461,876
1999 2001	715,236.19 1,951,483.62 2,666,719.81	438,869 1,147,077 1,585,946	422,440 1,104,137 1,526,577	321,405 925,406 1,246,812	13.53 13.64	23,755 67,845 91,600
INTERI PROBAB	CT UNIT 2 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2034	1			
1999 2001	715,236.19 1,951,483.62	438,869 1,147,077	428,100 1,118,930	315,746 910,613	13.53 13.64	23,337 66,760
	2,666,719.81	1,585,946	1,547,030	1,226,359		90,097



ACCOUNT 341.00 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERII PROBAB	CT UNIT 3 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2034				
1999 2001	715,236.19 1,951,483.62	438,869 1,147,077	425,362 1,111,772	318,484 917,771		23,539 67,285
	2,666,719.81	1,585,946	1,537,134	1,236,255		90,824
INTERII PROBAB	CT UNIT 4 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2041				
2001 2002 2016	683,504.01 1,244,977.47 9,275.93	337,487 596,296 1,381	328,432 580,297 1,344	382,412 714,480 8,303	19.48	
	1,937,757.41	935,164	910,073	1,105,195		56,828
INTERII PROBAB	CT UNIT 5 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2041				
2001	359,276.60	177,397	171,939	201,709		10,419
2002 2016	1,230,582.90 9,275.93	589,402 1,381	571,267 1,339	708,539 8,308		36 , 373 398
	1,599,135.43	768,180	744,544	918,557		47,190
INTERII PROBAB	CT UNIT 6 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2045				
2005 2016	294,248.85 9,275.93	115,568 1,204	110,222 1,148	195,797 8,499	22.94 24.47	8,535 347
	303,524.78	116,772	111,370	204,296		8,882

ACCOUNT 341.00 STRUCTURES AND IMPROVEMENTS

YEAR (1)	COST			FUTURE BOOK ACCRUALS (5)	LIFE	ACCRUAL
INTERII PROBABI	CT UNIT 7 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2045				
2005 2016	294,248.85 9,275.93		110,220 1,148	195,799 8,499	22.94 24.47	
	303,524.78	116,772	111,368	204,298		8,882
INTERII PROBABI	CT UNIT 9 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2050				
2010 2016 2019	,	1,046		3,777,851 8,861 10,782	28.70	309
	4,500,637.37	1,175,714	883,169	3,797,494		137,706
INTERII PROBABI	CT UNIT 10 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2050				
	79,570.63 9,275.94		20,956 1,051	61,797 8,596		
	88,846.57	21,902	22,007	70,393		2,541
INTERII PROBABI	ATIVE SOLAR M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2042				
2017	625,882.00	64,561	55,403	576 , 738	21.89	26,347
	625,882.00	64,561	55,403	576 , 738		26,347

ACCOUNT 341.00 STRUCTURES AND IMPROVEMENTS

	COST	ACCRUED		FUTURE BOOK ACCRUALS (5)	LIFE	ACCRUAL
INTERIN PROBABI	VALLEY LANDFILL M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E IOWA 55-S EAR 6-2038				
2003	1,119,860.80	548,284	495,454	646,804	17.16	37,693
	1,119,860.80	548,284	495,454	646,804		37,693
INTERIN PROBABI	RIDGE LANDFILL M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2038				
2003	1,200,486.53	587 , 758	531,124	693,372	17.16	40,406
	1,200,486.53	587,758	531,124	693 , 372		40,406
INTERIN PROBABI	AN LANDFILL M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2038				
2003	1,135,966.24	556,169	502 , 579	656,107	17.16	38,235
	1,135,966.24	556,169	502,579	656,107		38,235
INTERIN PROBABI	HOLLOW LANDFILL M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2041				
2006	1,465,228.09	591,925	534,890	959,643	19.93	48,151
	1,465,228.09	591,925	534,890	959,643		48,151

ACCOUNT 341.00 STRUCTURES AND IMPROVEMENTS

	COST	ACCRUED		FUTURE BOOK ACCRUALS (5)	LIFE	ACCRUAL
INTERIN PROBABI	TON COUNTY LAND M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E IOWA 55-S EAR 6-2042				
	312,160.26 1,721,492.10					
	2,033,652.36	156,080	141,041	1,933,284		88,263
INTERIN PROBABI	ASS OLDHAM COMMO 1 SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E IOWA 55-S EAR 6-2042				
2015	7,229,721.64	1,298,552	3,246,262	4,344,946	21.71	200,136
	7,229,721.64	1,298,552	3,246,262	4,344,946		200,136
INTERIN PROBABI	ASS OLDHAM UNIT 1 SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E IOWA 55-S EAR 6-2042				
2015	933,680.40	167,701	448,838	531,526	21.71	24,483
	933,680.40	167,701	448,838	531,526		24,483
INTERIN PROBABI	ASS OLDHAM UNIT 4 SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E IOWA 55-S EAR 6-2042				
2015	933,680.40	167,701	444,133	536,231	21.71	24,700
	933,680.40	167,701	444,133	536,231		24,700



ACCOUNT 341.00 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	RASS OLDHAM UNIT IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 55-S EAR 6-2042				
2015	933,680.40	167,701	448,802	531,562	21.71	24,485
	933,680.40	167,701	448,802	531,562		24,485
	53,879,445.86	19,666,440	22,321,752	33,459,960		1,549,325
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	1 21.6	2.88



ACCOUNT 342.00 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERI: PROBAB	CT COMMON M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2050				
1999 2001 2004 2005	3,702,254.72 959,717.40 6,952,014.84 2,152,133.55	1,706,424 410,735 2,610,030 768,795	1,894,718 456,057 2,898,031 853,627	1,918,605 532,452 4,262,544 1,363,071	25.63 26.78	77,426 20,775 159,169 50,261
	13,766,120.51	5,495,984	6,102,433	8,076,671		307,631
INTERI PROBAB	CT UNIT 6 M SURVIVOR CURVI LE RETIREMENT YE LVAGE PERCENT	EAR 6-2045				
2005	70,051.65	27,605	26,328	46,526	23.62	1,970
	70,051.65	27,605	26,328	46,526		1,970
INTERI PROBAB	CT UNIT 7 M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2045				
2005	70,051.65	27,605	26,327	46,527	23.62	1,970
	70,051.65	27,605	26,327	46,527		1,970
INTERI PROBAB	CT UNIT 9 M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2050				
2010	2,384,532.85	618,193	464,445	2,015,469	28.55	70,594
	2,384,532.85	618,193	464,445	2,015,469		70,594

ACCOUNT 342.00 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTEF PROB <i>P</i>	H CT UNIT 10 RIM SURVIVOR CURV ABLE RETIREMENT Y SALVAGE PERCENT	YEAR 6-2050				
2010	2,116,650.59	548,744	551,382	1,649,935	28.55	57 , 791
	2,116,650.59	548,744	551,382	1,649,935		57 , 791
INTER PROB <i>P</i>	L RIDGE LANDFILI RIM SURVIVOR CURV ABLE RETIREMENT Y SALVAGE PERCENT	YE IOWA 50-S YEAR 6-2038				
2003	106,294.19	52,232	47,199	61,221	17.62	3,475
	106,294.19	52,232	47,199	61,221		3,475
INTEF PROB <i>P</i>	RIAN LANDFILL RIM SURVIVOR CURV ABLE RETIREMENT Y SALVAGE PERCENT	YEAR 6-2038				
2003	357,670.24	175,757	158,822	206,002	17.62	11,691
	357,670.24	175 , 757	158,822	206,002		11,691
INTEF PROB <i>P</i>	GRASS OLDHAM COMM RIM SURVIVOR CURV ABLE RETIREMENT Y BALVAGE PERCENT	YE IOWA 50-S YEAR 6-2042				
2015	1,162,203.57	205,281	513,184	707,130	22.25	31,781
	1,162,203.57	205,281	513,184	707,130		31,781
	20,033,575.25	7,151,401	7,890,120	12,809,481		486,903
	COMPOSITE REMAIN	NING LIFE AND	ANNUAL ACCRUA	L RATE, PERCEN	т 26.3	3 2.43



ACCOUNT 343.00 PRIME MOVERS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER: PROBA	CT COMMON IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2050				
1999 2001 2003 2005 2006 2007 2009 2014 2015	3,787,362.11 11,631,511.86 516,514.68 610,199.36 3,062,247.99 1,024,264.10 602,816.70 395,422.38 32,444.41 21,662,783.59	1,684,835 4,822,733 197,557 212,843 1,014,174 320,454 165,259 63,887 4,401 8,486,143	1,870,747 5,354,893 219,356 236,329 1,126,082 355,814 183,494 70,937 4,887	2,030,236 6,625,564 312,654 392,176 2,028,033 699,178 437,407 336,348 28,531	25.57 26.24 26.85 27.38 27.62 27.85 28.26 29.08 29.21	79,399 252,499 11,644 14,323 73,426 25,105 15,478 11,566 977
INTER: PROBA	CT UNIT 1 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2034				
1999 2015	17,915,941.36 1,022,828.04	10,983,533 251,958	10,572,368 242,526	8,060,211 821,215	13.81 14.37	583,650 57,148
	18,938,769.40	11,235,491	10,814,894	8,881,426		640,798
INTER: PROBA	CT UNIT 2 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2034				
1999 2015	16,963,603.17 57,958.80	10,399,693 14,277	10,144,504 13,927	7,497,644 46,350	13.81 14.37	542,914 3,225
	17,021,561.97	10,413,970	10,158,430	7,543,994		546,139

ACCOUNT 343.00 PRIME MOVERS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER: PROBA	CT UNIT 3 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2034				
1999 2015	17,892,125.00 57,960.80	10,968,932 14,278	10,631,329 13,839	7,976,481 46,441	13.81 14.37	577,587 3,232
	17,950,085.80	10,983,210	10,645,167	8,022,922		580,819
INTER: PROBAI	CT UNIT 4 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2041				
2001 2003 2017	21,477,282.01 4,106,565.43 274,636.97	10,552,596 1,890,268 29,842	10,269,461 1,839,551 29,041	12,066,912 2,431,278 256,581	19.91 20.15 21.17	606,073 120,659 12,120
	25,858,484.41	12,472,706	12,138,053	14,754,771		738,852
INTER: PROBA	CT UNIT 5 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2041				
2001 2012	21,221,722.26 73,816.47	10,427,030 20,060	10,106,209 19,443	11,964,383 57,326	19.91 20.92	600,923 2,740
	21,295,538.73	10,447,090	10,125,651	12,021,709		603,663
INTER: PROBA	CT UNIT 6 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2045				
2005 2017	16,500,286.78 501,280.99	6,397,531 47,186	6,101,556 45,003	11,058,742 476,329	23.67 24.92	467,205 19,114
	17,001,567.77	6,444,717	6,146,559	11,535,072		486,319



ACCOUNT 343.00 PRIME MOVERS

YEAR (1)	ORIGINAL COST (2) CT UNIT 7	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER: PROBA	IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2045				
2005 2017	16,285,504.27 468,679.30	6,314,255 44,117	6,022,018 42,075	10,914,906 445,351	23.67 24.92	461,128 17,871
	16,754,183.57	6,358,372	6,064,093	11,360,258		478 , 999
INTER: PROBA	CT UNIT 9 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2050				
2010 2013	56,441,734.04 240,231.66	14,449,445 45,189	10,855,788 33,950	47,843,616 215,891	28.45 28.94	1,681,674 7,460
2015	481,979.64 572,624.88	66,011 46,100	49,594 34,635	451,665 560,895	29.21	15,463 19,052
	57,736,570.22	14,606,745		49,072,067		1,723,649
INTER: PROBA	CT UNIT 10 IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2050				
2010 2015 2017	54,005,111.59 794,932.17 210,938.71	13,825,654 108,872 16,982	13,892,125 109,395 17,064	42,273,191 717,334 202,313	28.45 29.21 29.44	1,485,877 24,558 6,872
	55,010,982.47	13,951,508	14,018,584	43,192,838		1,517,307
INTER: PROBA	VALLEY LANDFILL IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2038				
2003 2014	293,827.07 60,243.73	142,902 14,141	129,133 12,778	170,571 48,670	17.60 18.20	9,692 2,674
	354,070.80	157,043	141,911	219,241		12,366

ACCOUNT 343.00 PRIME MOVERS

	COST	ACCRUED		FUTURE BOOK ACCRUALS (5)	LIFE	ACCRUAL
INTERIM PROBABLE	IDGE LANDFILL SURVIVOR CURVI RETIREMENT YI AGE PERCENT	E IOWA 50-R EAR 6-2038				
2003	300,785.97	146,286	132,190	174,612	17.60	9,921
	300,785.97	146,286	132,190	174,612		9,921
INTERIM PROBABLE	LANDFILL SURVIVOR CURVI RETIREMENT YI AGE PERCENT	EAR 6-2038				
2003 2014	298,911.42 89,217.39		131,367 18,923	173,523 72,078		
	388,128.81	166,315	150,290	245,601		13,819
INTERIM PROBABLE	LLOW LANDFILL SURVIVOR CURVI RETIREMENT YI AGE PERCENT	E IOWA 50-R EAR 6-2041				
2006	201,654.60	80,588	72,823	132,865	20.46	6,494
	201,654.60	80,588	72,823	132,865		6,494
INTERIM PROBABLE	N COUNTY LAND SURVIVOR CURV RETIREMENT Y AGE PERCENT	E IOWA 50-R EAR 6-2042				
2007	275,099.08	101,847	92,033	188,568	21.43	8,799
	275,099.08	101,847	92,033	188,568		8,799



ACCOUNT 343.00 PRIME MOVERS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)			
INTER PROB <i>P</i>	GRASS OLDHAM COM RIM SURVIVOR CUR ABLE RETIREMENT S BALVAGE PERCENT.	VE IOWA 50-P YEAR 6-2042							
2015 2017 2019	1,734,202.06	49,405 183,639 8,933	118,949 442,133 21,507	174,936 1,378,779 392,046	22.11	7,944 62,360 17,660			
	2,407,952.29	241,977	582,589	1,945,761		87,964			
INTEF PROB <i>P</i>	BLUEGRASS OLDHAM UNIT 1 INTERIM SURVIVOR CURVE IOWA 50-R3 PROBABLE RETIREMENT YEAR 6-2042 NET SALVAGE PERCENT5								
2015 2017	46,665,248.38 59,708.40		22,046,049 16,923	26,952,462 45,771		1,223,999 2,070			
	46,724,956.78	8,243,463	22,062,972	26,998,232		1,226,069			
INTEF PROB <i>F</i>	GRASS OLDHAM UNIT RIM SURVIVOR CUR ABLE RETIREMENT T SALVAGE PERCENT.	VE IOWA 50-E YEAR 6-2042							
	43,969,980.77 1,538,665.58	7,761,383 162,933	20,554,994 431,506	25,613,486 1,184,092		1,163,192 53,555			
	45,508,646.35	7,924,316	20,986,500	26,797,578		1,216,747			
INTER PROB <i>P</i>	BLUEGRASS OLDHAM UNIT 3 INTERIM SURVIVOR CURVE IOWA 50-R3 PROBABLE RETIREMENT YEAR 6-2042 NET SALVAGE PERCENT5								
2015 2017		7,264,353 6,323	19,440,893 16,922	23,771,012 45,772	22.02	1,079,519 2,070			
	41,213,903.72	7,270,676	19,457,814	23,816,784		1,081,589			
	406,605,726.33	129,732,463	164,187,060	259,794,427		11,464,730			
	COMPOSITE REMAI	NING LIFE AND	ANNUAL ACCRUA	L RATE, PERCEN	IT 22.	7 2.82			

ACCOUNT 344.00 GENERATORS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIN PROBABI	CT COMMON M SURVIVOR CURVI LE RETIREMENT Y LVAGE PERCENT	EAR 6-2050				
2001 2016	152,509.33 232,778.62	62,212 25,026	71,912 28,928	85,173 210,834		3,283 7,313
	385,287.95	87 , 238	100,840	296,007		10,596
INTERIN PROBABI	CT UNIT 1 M SURVIVOR CURVI LE RETIREMENT Y LVAGE PERCENT	EAR 6-2034				
1997 1999 2018	449,510.78 4,647,137.73 313,157.85	284,221 2,827,802 30,546	284,812 2,833,681 30,610	182,679 1,999,343 295,075	13.70	13,452 145,937 20,635
	5,409,806.36	3,142,569	3,149,102	2,477,097		180,024
INTERIN PROBABI	CT UNIT 2 4 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2034				
1999 2000 2018	4,647,137.74 341,387.89 327,448.30	2,827,802 203,387 31,940	2,871,647 206,541 32,435	1,961,376 148,503 308,111	13.75	143,166 10,800 21,546
	5,315,973.93	3,063,129	3,110,623	2,417,990		175,512
INTERIN PROBABI	CT UNIT 3 4 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2034				
1999 2000 2018	4,647,137.74 341,387.90 380,302.76	2,827,802 203,387 37,095	2,853,277 205,219 37,429	1,979,747 149,824 358,086	13.70 13.75 14.30	144,507 10,896 25,041
	5,368,828.40	3,068,284	3,095,925	2,487,657		180,444

ACCOUNT 344.00 GENERATORS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIN PROBABI	CT UNIT 4 1 SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	AR 6-2041	2.5			
2001 2003 2016	7,338,334.95 372,892.55 501,114.91	3,570,188 169,988 73,009	3,617,021 172,218 73,967	4,014,847 215,590 447,193	19.67 19.90 20.87	204,110 10,834 21,428
	8,212,342.41	3,813,185	3,863,206	4,677,630		236,372
INTERIN PROBABI	CT UNIT 5 1 SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	AR 6-2041	2.5			
2001 2003 2016	7,327,273.73 380,158.71 448,485.96	3,564,807 173,300 65,342	3,596,958 174,863 65,931	4,023,407 220,502 400,494	19.67 19.90 20.87	204,545 11,081 19,190
	8,155,918.40	3,803,449	3,837,752	4,644,403		234,816
INTERIN PROBABI	CT UNIT 6 1 SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	AR 6-2045	2.5			
2005	4,831,725.68	1,853,118	1,839,937	3,185,058	23.33	136,522
	4,831,725.68	1,853,118	1,839,937	3,185,058		136,522
INTERIN PROBABI	CT UNIT 7 1 SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	AR 6-2045	2.5			
2005	4,838,938.32	1,855,884	1,842,648	3,189,848	23.33	136,727
	4,838,938.32	1,855,884	1,842,648	3,189,848		136,727



ACCOUNT 344.00 GENERATORS

YEAR (1)	COST				REM. LIFE (6)	ANNUAL ACCRUAL (7)		
INTERI PROBAB	CT UNIT 9 M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2050						
2010 2019	4,442,193.82 986,624.55	1,124,987 16,961	866,822 13,069	3,753,059 1,013,021		134,230 34,752		
	5,428,818.37	1,141,948	879 , 891	4,766,080		168,982		
INTERI PROBAB	CT UNIT 10 M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2050						
2010 2019	4,442,193.82 445,659.68	1,124,987 7,661	1,168,838 7,960	3,451,043 455,526		123,428 15,627		
	4,887,853.50	1,132,648	1,176,798	3,906,570		139,055		
INTERI PROBAB	COOPERATIVE SOLAR INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2042 NET SALVAGE PERCENT1							
2017	15,810,305.55	1,598,757	1,428,297	14,540,112	21.84	665,756		
	15,810,305.55	1,598,757	1,428,297	14,540,112		665,756		
INTERI PROBAB	VALLEY LANDFILL M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2038						
2003	1,098,205.33	529,896	498,493	621,676	17.40	35,729		
	1,098,205.33	529,896	498,493	621,676		35,729		



ACCOUNT 344.00 GENERATORS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIN PROBABI	RIDGE LANDFILL M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2038				
2003 2006	1,477,051.25 486,459.49	712,693 209,699	670,458 197,272	836,134 298,917		48,054 16,974
	1,963,510.74	922,392	867,730	1,135,051		65,028
INTERIN PROBABI	AN LANDFILL M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2038				
2003 2011 2016	1,453,451.26 1,162,564.91 1,909,012.67	701,306 373,153 308,981	659,745 351,039 290,670	822,775 834,777 1,656,523	17.88	47,286 46,688 91,622
	4,525,028.84	1,383,440	1,301,455	3,314,074		185,596
INTERIN PROBABI	HOLLOW LANDFILL M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	EAR 6-2041				
2006	1,285,806.38	509,199	479,024	832,499	20.20	41,213
	1,285,806.38	509,199	479,024	832,499		41,213
INTERIN PROBABI	TON COUNTY LANDE M SURVIVOR CURVE LE RETIREMENT YE LVAGE PERCENT	E IOWA 50-R EAR 6-2042				
2007	1,680,579.61	617,246	580,668	1,133,523	21.13	53,645
	1,680,579.61	617,246	580,668	1,133,523		53,645



ACCOUNT 344.00 GENERATORS

YEAR (1)	COST			FUTURE BOOK ACCRUALS (5)	LIFE	ACCRUAL			
INTERII PROBABI	N LANDFILL M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2046							
	429,901.31 2,563,852.56			333,754 2,232,807		13,404 88,253			
	2,993,753.87	485 , 927	457,130	2,566,561		101,657			
INTERII PROBABI	BLUEGRASS OLDHAM COMMON INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2042 NET SALVAGE PERCENT5								
2016	17,086.14	2,421	6,300	11,640	21.79	534			
	17,086.14	2,421	6,300	11,640		534			
INTERII PROBAB	ASS OLDHAM UNIT M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E IOWA 50-R EAR 6-2042							
2015	7,457,690.57	1,308,567	3,646,045	4,184,530	21.73	192,569			
	7,457,690.57	1,308,567	3,646,045	4,184,530		192,569			
INTERII PROBABI	ASS OLDHAM UNIT M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	E IOWA 50-R EAR 6-2042							
2015	7,457,690.57	1,308,567	3,607,830	4,222,745	21.73	194,328			
	7,457,690.57	1,308,567	3,607,830	4,222,745		194,328			



ACCOUNT 344.00 GENERATORS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	RASS OLDHAM UNIT IM SURVIVOR CURVI BLE RETIREMENT YI ALVAGE PERCENT	E IOWA 50-R EAR 6-2042				
2015	7,457,690.57	1,308,567	3,645,751	4,184,824	21.73	192,583
	7,457,690.57	1,308,567	3,645,751	4,184,824		192,583
	104,582,841.49	32,936,431	39,415,445	68,795,575		3,327,688
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	20.7	3.18



ACCOUNT 345.00 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)			
INTERIN PROBABI	CT COMMON M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2050							
1999 2001 2003 2005 2017		1,753,483 972,286 6,127 975,677 49,795	1,946,970 1,079,572 6,803 1,083,337 55,290	2,186,068 1,375,448 9,942 1,836,453 592,496	26.48 26.96	86,235 53,024 375 68,118 20,473			
	9,876,096.82	3,757,368	4,171,972	6,000,408		228,225			
INTERIN PROBABI	SMITH CT UNIT 1 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2034 NET SALVAGE PERCENT4								
1999	1,039,394.43	632,476	608 , 799	472 , 171	13.70	34,465			
	1,039,394.43	632,476	608,799	472 , 171		34,465			
INTERIN PROBABI	CT UNIT 2 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2034	2.5						
1999	1,039,395.53	632,476	616,956	464,015	13.70	33,870			
	1,039,395.53	632,476	616,956	464,015		33,870			
INTERIN PROBABI	CT UNIT 3 4 SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2034	2.5						
1999	1,039,395.53	632,476	613,009	467,962	13.70	34,158			
	1,039,395.53	632,476	613,009	467,962		34,158			

ACCOUNT 345.00 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	COST	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ACCRUAL		
INTERI PROBAB	CT UNIT 4 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2041						
2001	993,996.86	483,591	470,616	563,141	19.67	28,629		
	993,996.86	483,591	470,616	563,141		28,629		
INTERI PROBAB	SMITH CT UNIT 5 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2041 NET SALVAGE PERCENT4							
2001	993,996.86	483,591	468,711	565,046	19.67	28,726		
	993,996.86	483,591	468,711	565,046		28,726		
INTERI PROBAB	CT UNIT 6 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2045						
2005	1,251,472.92	479,979	457,774	843,758	23.33	36,166		
	1,251,472.92	479,979	457 , 774	843,758		36,166		
INTERI PROBAB	CT UNIT 7 M SURVIVOR CURVI LE RETIREMENT YI LVAGE PERCENT	EAR 6-2045						
2005	1,220,275.59	468,014	446,353	822,734	23.33	35,265		
	1,220,275.59	468,014	446,353	822,734		35,265		
INTERI PROBAB	SMITH CT UNIT 9 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2050 NET SALVAGE PERCENT4							
2010	12,040,203.14	3,049,186	2,290,836	10,230,975	27.96	365,915		
	12,040,203.14	3,049,186	2,290,836	10,230,975		365,915		



ACCOUNT 345.00 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIN PROBABI	CT UNIT 10 4 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2050				
2010	1,879,693.27	476,033	478,322	1,476,559	27.96	52,810
	1,879,693.27	476,033	478,322	1,476,559		52,810
INTERIN PROBABI	ATIVE SOLAR M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2042				
2017	779,800.00	78 , 854	67,669	719,929	21.84	32,964
	779,800.00	78 , 854	67,669	719,929		32,964
INTERIN PROBABI	VALLEY LANDFILL M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 50-R EAR 6-2038				
2003	344,891.29	166,414	150,379	201,410	17.40	11,575
	344,891.29	166,414	150,379	201,410		11,575
INTERIN PROBABI	RIDGE LANDFILL 1 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 50-R EAR 6-2038				
2003	386,164.65	186,329	168,375	225,513	17.40	12,961
	386,164.65	186,329	168,375	225,513		12,961



ACCOUNT 345.00 ACCESSORY ELECTRIC EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIN PROBABI	AN LANDFILL 1 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2038				
2003	357,452.26	172,475	155 , 856	208,745	17.40	11,997
	357,452.26	172,475	155 , 856	208,745		11,997
INTERIN PROBABI	HOLLOW LANDFILL 1 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 50-R EAR 6-2041				
2006	452,676.95	179,267	161,993	299,737	20.20	14,838
	452,676.95	179,267	161,993	299,737		14,838
INTERIN PROBABI	CON COUNTY LAND 1 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 50-R EAR 6-2042				
2007	406,784.25	149,404	135,008	279 , 912	21.13	13,247
	406,784.25	149,404	135,008	279,912		13,247
INTERIN PROBABI	ASS OLDHAM COMM 1 SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	E IOWA 50-R EAR 6-2042				
2015 2019	3,014,323.84 13,938.27		1,322,228 782	1,842,813 13,853		84,805 631
	3,028,262.11	529,223	1,323,010	1,856,665		85,436

ACCOUNT 345.00 ACCESSORY ELECTRIC EQUIPMENT

	ORIGINAL COST (2)	ACCRUED	RESERVE		LIFE	ACCRUAL		
INTER PROBA	RASS OLDHAM UNIT IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 50-F EAR 6-2042						
2015	386,034.41	67,736	181,290	224,046	21.73	10,310		
	386,034.41	67 , 736	181,290	224,046		10,310		
INTER PROBA	BLUEGRASS OLDHAM UNIT 2 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2042 NET SALVAGE PERCENT5							
2015	386,034.41	67,736	179,389	225,947	21.73	10,398		
	386,034.41	67,736	179,389	225,947		10,398		
BLUEGRASS OLDHAM UNIT 3 INTERIM SURVIVOR CURVE IOWA 50-R2.5 PROBABLE RETIREMENT YEAR 6-2042 NET SALVAGE PERCENT5								
2015	386,034.41	67,736	181,275	224,061	21.73	10,311		
	386,034.41	67,736	181,275	224,061		10,311		
	38,288,055.69	12,760,364	13,327,592	26,372,734		1,092,266		
	COMPOSITE REMAIN	NING LIFE AND	ANNUAL ACCRUA	L RATE, PERCEN	T 24.	1 2.85		

ACCOUNT 346.00 MISCELLANEOUS POWER PLANT EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)	
INTER:	CT COMMON IM SURVIVOR CURVI BLE RETIREMENT YI ALVAGE PERCENT	EAR 6-2050					
1995 1996 1997 1998 1999 2001 2002 2003 2005 2006 2007 2010 2011 2012 2013 2014 2015 2016 2018	85,357.01 52,583.01 16,528.84 139,322.00 487,162.16 60,587.56 32,816.49 41,749.87 420,283.23 2,139,646.40 2,141,224.39 5,935.33 17,808.00 284,572.19 5,287,580.02 104,487.04 515,751.73 3,653,912.77 34,822.06 6,505.52	50,359 30,086 9,157 74,569 251,400 28,862 14,952 18,150 164,421 789,282 741,145 1,915 4,889 70,994 1,185,149 20,672 87,949 519,969 3,938 330	55,916 33,406 10,167 82,797 279,140 32,047 16,602 20,153 182,564 876,375 822,926 2,126 5,428 78,828 1,315,923 22,953 97,654 577,344 4,373 366	32,002 20,755 6,857 60,704 222,637 30,358 17,199 22,850 250,328 1,327,461 1,382,535 3,987 12,914 214,282 4,130,284 84,669 433,571 3,186,186 31,494 6,334	16.90 17.54 18.18 18.83 19.48 20.78 21.43 22.06 23.30 23.89 24.46 25.01 26.03 26.50 26.93 27.34 27.72 28.07 28.38	1,894 1,183 377 3,224 11,429 1,461 803 1,036 10,744 55,566 56,522 159 496 8,086 153,371 3,097 15,641 113,509 1,110 219	
15,528,635.62 4,068,188 4,517,088 11,477,407 439,927 GREEN VALLEY LANDFILL INTERIM SURVIVOR CURVE IOWA 40-S2.5 PROBABLE RETIREMENT YEAR 6-2038 NET SALVAGE PERCENT2							
2003 2007	65,409.45 25,843.59	33,185 11,029	29,988 9,966	36,730 16,394	16.37 17.25	2,244 950	
	91,253.04	44,214	39,954	53,124		3,194	

ACCOUNT 346.00 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)		CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)		
INTER PROBA	L RIDGE LANDFILL IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 40-S EAR 6-2038						
2003 2015	,		7,829 15,765	9,589 72,317		586 3,969		
	103,431.55	26,110	23,594	81,906		4,555		
INTER PROBA	IAN LANDFILL IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	EAR 6-2038						
2003	60,998.54	30,947	27 , 965	34,254	16.37	2,092		
	60,998.54	30,947	27,965	34,254		2,092		
INTER PROBA	HOLLOW LANDFILI IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT	E IOWA 40-S EAR 6-2041						
2006	63,896.29	26,734	24,158	41,016	19.21	2,135		
	63,896.29	26,734	24,158	41,016		2,135		
INTER PROBA	PENDLETON COUNTY LANDFILL INTERIM SURVIVOR CURVE IOWA 40-S2.5 PROBABLE RETIREMENT YEAR 6-2042 NET SALVAGE PERCENT2							
2007 2016	50,361.67 91,631.70	19,557 12,849	17,673 11,611	33,696 81,853				
	141,993.37	32,406	29,284	115,549		5,398		
	15,990,208.41	4,228,599	4,662,043	11,803,256		457,301		

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.8 2.86

ACCOUNT 353.00 STATION EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
1955	627,730.74	594,249	521,816	262,847	14.56	18,053
1956	56.10	53	47	23	14.99	2
1958	640.08	588	516	284	15.90	18
1959	176,594.71	160,553	140,983	79 , 760	16.36	4,875
1960	810,232.41	728,531	639 , 730	373 , 061	16.84	22,153
1961	81,133.88	72,141	63,348	38,069	17.32	2,198
1962	38,373.13	33,720	29,610	18,356	17.82	1,030
1963	6,558.44	5 , 695	5,001	3 , 197	18.32	175
1964	94,939.87	81,411	71,488	47,187	18.84	2,505
1965	391,941.81	331,842	291,394	198,533	19.36	10,255
1966	1,541,562.38	1,287,840	1,130,864	796 , 089	19.90	40,004
1967	12,223.31	10,074	8,846	6,433	20.44	315
1968	283,275.78	230,162	202,107	151 , 988	21.00	7,238
1969	375 , 563.59	300,765	264,105	205,349	21.56	9,525
1970	1,605,743.97	1,266,531	1,112,153	895 , 027	22.14	40,426
1971	15,769.88	12,248	10,755	8 , 957	22.72	394
1972	240,307.70	183,685	161,296	139,089	23.31	5,967
1973	18,764.05	14,104	12,385	11,070	23.92	463
1974	32,951.72	24,350	21,382	19,808	24.53	808
1975	25,215.24	18,307	16,076	15,443	25.15	614
1976	100,253.52	71,472	62,760	62 , 557	25.78	2,427
1977	67,467.55	47,213	41,458	42,876	26.41	1,623
1978	4,147,239.46	2,846,043	2,499,137	2,684,912	27.06	99,221
1979	2,060,969.45	1,386,440	1,217,446	1,358,766	27.71	49,035
1980	4,120,154.18	2,714,152	2,383,322	2,766,871	28.38	97,494
1981	7,932,778.15	5,114,956	4,491,491	5,424,482	29.05	186,729
1982	9,616,033.25	6,064,111	5,324,953	6,695,089	29.73	225,196
1983	2,864,367.17	1,765,166	1,550,009	2,030,450	30.42	66 , 747
1984	1,393,127.61	838 , 489	736,285	1,005,125	31.11	32,309
1985	951 , 341.62	558 , 711	490,609	698 , 568	31.81	21,961
1986	1,396,580.50	799 , 542	702 , 085	1,043,641	32.52	32,092
1987	250,544.42	139 , 679	122,653	190 , 528	33.24	5,732
1988	118,878.71	64 , 466	56 , 608	91,990	33.97	2,708
1989	858,440.32	452 , 473	397 , 321	675 , 729	34.70	19,473
1990	630 , 870.39	322 , 793	283,448	505,140	35.44	14,253
1991	492,748.06	244,422	214,629	401,306	36.19	11,089
1992	1,393,987.23	669 , 689	588 , 060	1,154,424	36.94	31,251
1993	4,294,411.79	1,995,130	1,751,942	3,616,073	37.70	95 , 917
1994	6,521,330.79	2,925,061	2,568,524	5,583,139	38.47	145,130
1995	4,519,746.72	1,953,830	1,715,676	3,934,007	39.25	100,229
1996	926,241.90	385,351	338,380	819,422	40.03	20,470
1997	1,928,244.41	770 , 888	676 , 924	1,733,382	40.81	42,474
1998	401,062.57	153,657	134,928	366,400	41.61	8,806



ACCOUNT 353.00 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA ALVAGE PERCENT					
1999	246,784.63	90,437	79,414	229,067	42.41	5,401
2000	6,077,711.20	2,125,907	1,866,779	5,730,360	43.21	132,617
2001	1,929,138.50	642,234	563,952	1,847,471	44.02	41,969
2002	2,915,335.12	920,772	808,539	2,835,630	44.84	63,239
2003	4,169,566.37	1,244,772	1,093,046	4,118,912	45.67	90,189
2004	5,117,520.03	1,440,390	1,264,820	5,132,080	46.49	110,391
2005	16,840,276.45	4,445,201	3,903,373	17,146,973	47.33	362,286
2006	2,921,789.05	720,111	632,336	3,019,900	48.17	62,693
2007	24,195,511.66	5,539,865	4,864,607	25,379,783	49.01	517,849
2008	7,999,435.44	1,688,181	1,482,408	8,516,886	49.87	170,782
2009	40,859,511.46	7,899,676	6,936,779	44,137,610	50.72	870 , 221
2010	16,837,056.34	2,953,430	2,593,434	18,452,886	51.58	357,753
2011	29,178,341.20	4,589,388	4,029,985	32,442,942	52.45	618,550
2012	1,982,748.38	275 , 924	242,291	2,236,144	53.32	41,938
2013	5,385,700.15	650 , 795	571,469	6,160,656	54.20	113,665
2014	1,640,717.73	168,174	147,675	1,903,222	55.08	34,554
2015	18,027,426.20	1,517,233	1,332,297	21,201,986	55.96	378 , 878
2016	4,782,760.38	313,869	275,611	5,702,839	56.85	100,314
2017	8,693,949.46	407,529	357 , 855	10,509,582	57.75	181,984
2018	4,665,794.29	132,217	116,102	5,716,141	58.64	97 , 479
2019	1,933,465.70	18,126	15,916	2,400,916	59.55	40,318
	269,766,938.30	75,424,814	66,231,238	270,977,435		5,872,454

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 46.1 2.18

ACCOUNT 353.10 STATION EQUIPMENT - ENERGY CONTROL SYSTEM

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
1983	4,732,532.27	4,481,140	3,956,803	1,248,982	3.48	358,903
1984	43,564.80	40,733	35 , 967	11,954	3.75	3,188
1985	37,576.14	34,671	30,614	10,720	4.03	2,660
1986	198,301.87	180,439	159,326	58 , 806	4.32	13,612
1987	16,781.34	15,056	13,294	5,165	4.61	1,120
1988	81,739.61	72 , 255	63,800	26,114	4.91	5,319
1989	8,365.16	7,277	6,426	2,776	5.23	531
1990	7,794.92	6,671	5,890	2,684	5.55	484
1991	10,798.55	9,080	8,018	3,860	5.89	655
1992	172,178.62	142,123	125,493	63,903	6.24	10,241
1993	67,077.41	54,306	47 , 952	25 , 833	6.60	3,914
1994	38,755.24	30 , 728	27,133	15,498	6.98	2,220
1995	36,571.01	28 , 353	25,035	15,193	7.38	2,059
1996	31,380.82	23,749	20,970	13,549	7.80	1,737
1997	77,964.87	57 , 529	50 , 798	34,963	8.23	4,248
1999	57,682.83	40,203	35,499	27 , 952	9.16	3,052
2000	877 , 507.15	592 , 282	522 , 979	442,279	9.66	45 , 785
2001	39,511.11	25 , 747	22,734	20,728	10.19	2,034
2002	175,040.31	109,827	96 , 976	95 , 568	10.74	8,898
2003	55 , 836.15	33 , 633	29 , 698	31,722	11.31	2,805
2004	3,694.52	2,126	1,877	2,187	11.92	183
2008	17,347.46	7,908	6,983	12,099	14.64	826
2012	2,688,609.00	843,470	744 , 776	2,212,694	17.87	123,822
	9,476,611.16	6,839,306	6,039,041	4,385,231		598,296

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.3 6.31

ACCOUNT 354.00 TOWERS AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
1957	16,792.72	13,343	11,782	5,011	14.38	348
1959	9,766.14	7,580	6,693	3,073	15.67	196
1961	165,292.41	125,126	110,485	54,807	17.01	3,222
1967	206,320.09	143,599	126,797	79 , 523	21.28	3,737
1968	2,678.77	1,836	1,621	1,058	22.03	48
1977	374,381.34	218,051	192,537	181,844	29.23	6,221
1979	906,904.63	505,926	446,728	460,177	30.95	14,868
1981	2,169,999.82	1,156,306	1,021,006	1,148,994	32.70	35,137
1982	1,384.99	720	636	749	33.59	22
	3,853,520.91	2,172,487	1,918,285	1,935,236		63,799

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 30.3 1.66

ACCOUNT 355.00 POLES AND FIXTURES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA ALVAGE PERCENT					
1967	3,304,364.52	3,662,981	3,203,744	2,083,239	18.43	113,035
1968	980.10	1,074	939	629	18.90	33
1969	2,025,193.51	2,193,690	1,918,662	1,321,648	19.38	68,196
1970	737,245.33	788,947	690,035	489,558	19.87	24,638
1971	130,430.39	137,803	120,526	88,163	20.38	4,326
1972	69,648.16	72 , 638	63 , 531	47 , 906	20.89	2,293
1973	63,361.82	65 , 187	57,014	44,365	21.42	2,071
1974	459,460.63	466,077	407,644	327 , 493	21.96	14,913
1975	466,118.60	465 , 992	407,569	338,221	22.51	15,025
1976	345,469.37	340,124	297,482	255 , 269	23.08	11,060
1977	2,175,765.98	2,108,474	1,844,129	1,637,097	23.66	69,193
1978	946,577.67	902,399	789 , 263	725,261	24.25	29,908
1979	6,857,610.52	6,427,830	5,621,957	5,350,220	24.85	215,301
1980	475,570.21	437,905	383,004	377,908	25.47	14,837
1981	2,930,292.70	2,648,985	2,316,875	2,371,593	26.10	90,866
1982	570,879.34	506,183	442,722	470,685	26.75	17,596
1983	1,323,782.78	1,150,463	1,006,227	1,111,825	27.41	40,563
1984	1,682,737.23	1,431,888	1,252,369	1,440,011	28.09	51,264
1985	746,466.25	621,454	543,541	650,805	28.78	22,613
1986	3,004,299.17	2,444,298	2,137,850	2,669,029	29.49	90,506
1987	779,716.39	619,407	541,750	705,796	30.21	23,363
1988	2,176,877.18	1,686,366	1,474,942	2,008,061	30.95	64,881
1989	680,365.87	513,453	449,080	639,505	31.70	20,174
1990	996,038.62	731,220	639,545	954,117	32.47	29,385
1991	1,239,704.00	884,316	773,447	1,210,079	33.25	36,393
1992	1,162,403.53	804,383	703,535	1,156,311	34.05	33,959
1993 1994	2,441,722.91	1,636,931 346,778	1,431,705 303,302	2,475,052 552,580	34.86	71,000
1995	534,926.05 3,422,769.93	2,142,216	1,873,641	3,602,791	35.69 36.53	15,483 98,626
1996	1,194,161.85	719,994	629,726	1,280,933	37.39	34,259
1997	1,283,658.09	744,173	650,874	1,402,979	38.26	36,670
1998	867,220.14	482,410	421,929	965,623	39.14	24,671
1999	217,817.31	115,994	101,452	247,056	40.03	6 , 172
2000	2,169,856.14	1,102,877	964,606	2,507,164	40.94	61,240
2001	2,545,031.25	1,231,103	1,076,756	2,995,294	41.86	71,555
2002	3,155,480.06	1,448,138	1,266,581	3,782,187	42.79	88,390
2003	3,544,375.63	1,537,805	1,345,006	4,325,995	43.73	98,925
2004	7,894,347.84	3,225,062	2,820,728	9,810,229	44.68	219,566
2005	7,276,872.66	2,786,518	2,437,165	9,205,831	45.64	201,705
2006	2,207,045.60	788,639	689,765	2,841,508	46.60	60,977
2007	11,886,235.91	3,939,954	3,445,992	15,571,985	47.57	327,349
2008	6,543,017.68	1,997,767	1,747,302	8,721,526	48.55	179,640
2009	5,955,879.15	1,661,261	1,452,985	8,076,422	49.54	163,028
		•	•	•		•

ACCOUNT 355.00 POLES AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA					
NET S	ALVAGE PERCENT	-60				
2010	11,831,358.05	2,990,967	2,615,982	16,314,191	50.52	322,925
2011	10,016,446.25	2,267,723	1,983,413	14,042,901	51.51	272 , 625
2012	1,878,012.44	375 , 092	328,066	2,676,754	52.51	50 , 976
2013	3,034,222.18	525 , 916	459 , 980	4,394,775	53.50	82,145
2014	7,497,426.33	1,099,663	961 , 795	11,034,087	54.50	202,460
2015	8,483,776.53	1,018,053	890 , 417	12,683,625	55.50	228,534
2016	11,075,400.38	1,033,645	904,055	16,816,586	56.50	297,639
2017	2,030,993.07	135,410	118,433	3,131,156	57.50	54,455
2018	6,342,636.60	253 , 705	221,897	9,926,322	58.50	169,681
2019	5,484,510.11	73,098	63,934	8,711,282	59.50	146,408
	166,166,560.01	67,794,429	59,294,869	206,571,627		4,693,496

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 44.0 2.82

ACCOUNT 356.00 OVERHEAD CONDUCTORS AND DEVICES

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA					
1967	6,114,014.52	7,661,300	6,746,139	3,036,284	13.01	233,381
1968	28,657.63	35 , 406	31,177	14,675	13.67	1,074
1969	828,726.52	1,009,057	888,523	437,439	14.34	30,505
1970	864,509.99	1,036,956	913,089	470,127	15.02	31,300
1971	166,141.08	196,179	172,745	93,081	15.72	5,921
1972	81,427.71	94,629	83 , 325	46,959	16.42	2,860
1973	34,777.21	39 , 748	35,000	20,644	17.14	1,204
1974	704,406.44	791 , 381	696,849	430,201	17.87	24,074
1975	110,407.18	121,859	107,303	69,348	18.61	3,726
1976	30,498.97	33,045	29,098	19,700	19.37	1,017
1977	1,935,566.43	2,057,894	1,812,073	1,284,833	20.13	63 , 827
1978	1,128,341.62	1,176,183	1,035,685	769 , 662	20.91	36,808
1979	6,372,753.69	6,507,040	5,729,758	4,466,648	21.71	205,742
1980	604,212.73	604,048	531 , 893	434,847	22.51	19,318
1981	4,936,699.24	4,827,460	4,250,808	3,647,911	23.33	156,361
1982	611,792.93	584 , 708	514,863	464,006	24.16	19,206
1983	1,261,604.66	1,177,491	1,036,837	981 , 730	25.00	39 , 269
1984	1,640,604.64	1,494,053	1,315,585	1,309,382	25.85	50 , 653
1985	403,898.40	358 , 552	315 , 722	330 , 515	26.71	12,374
1986	3,294,196.84	2,847,082	2,506,991	2,763,724	27.59	100,171
1987	580,057.91	487,713	429,454	498,639	28.47	17,515
1988	584,537.35	477 , 609	420 , 557	514 , 703	29.36	17,531
1989	497,180.78	394 , 165	347,081	448,408	30.27	14,814
1990	2,060,760.45	1,583,752	1,394,569	1,902,648	31.18	61,021
1991	1,459,813.21	1,086,101	956 , 363	1,379,338	32.10	42,970
1992	1,456,305.79	1,047,375	922 , 263	1,407,826	33.03	42,623
1993	2,929,117.98	2,033,980	1,791,016	2,895,573	33.96	85 , 264
1994	405,579.97	271 , 466	239,039	409 , 889	34.90	11,745
1995	4,012,589.21	2,584,107	2,275,429	4,144,714	35.85	115,613
1996	1,807,741.44	1,118,399	984,803	1,907,583	36.80	51,836
1997	1,188,075.26	704,614	620,446	1,280,474	37.76	33,911
1998	1,326,165.60	752 , 562	662 , 667	1,459,198	38.72	37 , 686
1999	256,465.54	138,902	122,310	288,035	39.69	7,257
2000	4,200,052.21	2,166,085	1,907,341	4,812,743	40.66	118,366
2001	2,811,347.02	1,376,436	1,212,017	3,286,138	41.64	78 , 918
2002	4,856,797.44	2,250,990	1,982,104	5,788,772	42.62	135,823
2003	4,211,223.85	1,841,686	1,621,692	5,116,266	43.60	117,346
2004	2,652,899.49	1,090,872	960 , 565	3,284,074	44.58	73 , 667
2005	4,700,793.24	1,808,865	1,592,791	5,928,478	45.57	130,096
2006	867,507.51	310,915	273,775	1,114,237	46.56	23,931
2007	12,622,472.39	4,190,661	3,690,076	16,505,880	47.55	347,127
2008	4,247,628.42	1,298,075	1,143,017	5,653,188	48.54	116,465
2009	27,202,290.76	7,594,880	6,687,652	36,836,013	49.53	743,711

ACCOUNT 356.00 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVI	VOR CURVE IOWA	60-R4				
NET S	ALVAGE PERCENT	-60				
2010	3,259,976.25	824,122	725 , 678	4,490,284	50.52	88,881
2011	1,089,408.91	246,346	216 , 919	1,526,135	51.52	29,622
2012	283,242.95	56 , 572	49,814	403,375	52.51	7,682
2013	2,882,098.87	498,811	439,227	4,172,131	53.51	77,969
2014	774,811.14	113,432	99,882	1,139,816	54.51	20,910
2015	953,846.36	114,202	100,560	1,425,594	55.51	25,682
2016	2,634,096.47	245,835	216,470	3,998,084	56.50	70,763
2017	2,869,572.77	191,320	168,467	4,422,849	57.50	76,919
2018	1,410,891.29	56,436	49,694	2,207,732	58.50	37,739
2019	5,363,066.56	71,479	62,941	8,517,965	59.50	143,159
	139,611,652.82	71,682,836	63,120,142	160,258,503		4,043,353

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 39.6 2.90

ACCOUNT 359.00 ROADS AND TRAILS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE IOWA VAGE PERCENT					
1960 1969	16,171.94 7,115.71	12,399 4,800	10,948 4,238	5,224 2,878	16.33 22.78	320 126
	23,287.65	17,199	15,186	8,102		446

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.2 1.92

ACCOUNT 362.00 STATION EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWALVAGE PERCENT					
1959 1960 1961 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974	964.18 122,118.72 174.75 388.48 248.06 9,001.25 126,689.48 1,162,988.85 100,228.57 129,904.81 165,088.35 157,177.86 129,558.57 296,854.85 359,443.11 240,702.62	928 115,985 164 354 223 7,983 110,770 1,002,591 85,146 108,723 136,094 127,547 103,465 233,244 277,787 182,770	1,061 134,331 192 427 273 9,901 139,358 1,279,288 110,251 142,895 181,597 172,896 142,514 326,540 395,387 264,773			
1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1998 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001	666,413.00 685,221.60 1,363,012.12 977,430.13 841,769.23 1,094,457.58 910,949.35 1,663,158.62 726,027.69 854,779.06 786,515.88 563,610.53 1,191,398.60 1,645,854.66 1,131,283.44 2,270,614.44 4,160,160.08 2,089,454.65 1,124,752.25 2,614,151.22 3,218,416.03 5,801,818.26 5,620,637.97 249,128.22 12,829,245.59 4,841,837.51	497,223 501,993 979,696 689,035 581,494 740,569 603,231 1,076,774 459,324 527,888 473,619 330,711 680,353 913,494 609,762 1,186,746 2,106,368 1,022,466 531,649 1,190,484 1,410,049 2,441,562 2,266,393 95,994 4,713,465 1,690,639	733,054 753,744 1,487,049 1,045,864 882,631 1,124,086 915,625 1,634,400 697,193 801,264 718,891 501,976 1,032,686 1,386,563 925,538 1,801,323 3,197,188 1,551,968 806,973 1,806,997 2,140,268 3,705,968 3,440,085 145,706 7,154,416 2,566,166	12,264 29,309 43,315 79,817 86,419 195,074 101,437 138,993 146,276 117,996 277,852 423,877 318,874 696,353 1,378,988 746,432 430,254 1,068,569 1,399,990 2,676,032 2,742,617 128,335 6,957,754 2,759,855	12.13 12.57 13.02 13.47 13.93 14.40 14.87 15.35 15.84 16.33 16.83 17.34 17.85 18.37 18.89 19.43 19.96 20.51 21.06 21.61 22.17 22.74 23.31 23.89	1,011 2,332 3,327 5,926 6,204 13,547 6,822 9,055 9,235 7,226 16,509 24,445 17,864 37,907 73,001 38,416 21,556 52,100 66,476 123,833 123,708 5,644 298,488 115,523



ACCOUNT 362.00 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA ALVAGE PERCENT					
2003	6,231,261.18	1,948,634	2,957,768	3,896,619	25.05	155,554
2004	5,657,944.94	1,666,157	2,529,006	3,694,733	25.63	144,157
2005	5,472,603.64	1,510,143	2,292,197	3,727,667	26.22	142,169
2006	7,946,735.52	2,045,490	3,104,783	5,636,626	26.81	210,243
2007	9,371,697.17	2,235,581	3,393,316	6,915,551	27.41	252 , 300
2008	9,281,319.31	2,041,890	3,099,319	7,110,132	28.00	253,933
2009	10,905,401.44	2,193,578	3,329,561	8,666,381	28.60	303,020
2010	10,753,115.77	1,960,089	2,975,156	8,853,271	29.20	303,194
2011	7,557,915.09	1,235,167	1,874,820	6,438,887	29.80	216,070
2012	13,364,395.58	1,932,131	2,932,719	11,768,116	30.40	387,109
2013	6,591,269.60	826,545	1,254,586	5,995,811	31.01	193,351
2014	15,976,345.52	1,697,119	2,576,002	14,997,978	31.62	474,319
2015	14,361,733.59	1,250,246	1,897,707	13,900,200	32.23	431,281
2016	9,846,300.21	668 , 377	1,014,508	9,816,422	32.84	298 , 917
2017	8,324,422.71	405,558	615,583	8,541,282	33.45	255,345
2018	5,045,435.24	147,463	223,829	5,326,150	34.07	156,330
2019	13,620,505.10	132,745	201,490	14,781,066	34.69	426,090
	228,725,585.62	56,531,430	85,293,814	166,304,330		5,817,664

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 28.6 2.54

ACCOUNT 362.10 STATION EQUIPMENT - SCADA

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
1988	256,337.90	182,220	256,338			
1991	127,112.75	84,039	125,751	1,362	11.86	115
1992	15,350.76	9,877	14,779	572	12.48	46
1993	228,673.46	142,953	213,906	14,767	13.12	1,126
1994	141,860.89	86,049	128,758	13,103	13.77	952
1995	251,373.57	147,591	220,846	30,528	14.45	2,113
1997	603,822.61	330,376	494,354	109,469	15.85	6,907
1998	34,816.49	18,324	27,419	7,397	16.58	446
2000	187,783.67	90,833	135,917	51,867	18.07	2,870
2003	25,661.51	10,697	16,006	9,656	20.41	473
2004	999,301.74	393,435	588,711	410,591	21.22	19,349
2005	265,059.25	98,149	146,864	118,195	22.04	5,363
2006	1,653,076.06	572 , 907	857 , 262	795 , 814	22.87	34,797
2008	78,946.72	23,549	35,237	43,710	24.56	1,780
2009	400,485.60	109,505	163,857	236,629	25.43	9,305
2010	57,332.45	14,251	21,324	36,008	26.30	1,369
2011	531,401.95	118,731	177,662	353,740	27.18	13,015
2012	117,733.69	23,277	34,830	82,904	28.08	2,952
2013	33,317.54	5,731	8,576	24,742	28.98	854
2016	340,445.71	31,903	47,737	292,709	31.72	9,228
2019	902,166.00	12,116	18,130	884,036	34.53	25,602
	7,252,060.32	2,506,513	3,734,264	3,517,796		138,662

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.4 1.91

ACCOUNT 368.00 LINE TRANSFORMERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
1968	22,397.90	18,187	22,398			
1970	221,062.16	175,435	221,062			
1971	37,824.78	29,647	37,825			
1973	34,994.16	26,701	34,994			
1974	39,492.60	29,706	39,493			
1975	12,573.01	9,314	12,573			
1976	53,263.16	38,839	53,263			
1977	12,445.90	8,926	12,446			
1978	19,142.96	13,496	19,143			
1979	12,863.67	8,904	12,864			
1980	2,731.28	1,856	2,731			
1981	39,399.88	26,240	39,400			
1982	33,880.81	22,104	33,881			
1983	22,688.25	14,489	22,688			
1984	28,918.60	18,063	28 , 919			
1985	20,804.00	12 , 695	20,804			
1987	227,568.55	132,126	218,801	8 , 768	20.97	418
2000	185,484.45	68 , 258	113,036	72,448	31.60	2,293
2001	79,357.59	27 , 791	46,022	33,336	32.49	1,026
2002	119,881.84	39 , 849	65 , 990	53 , 892	33.38	1,614
2003	42,896.29	13,487	22,335	20,561	34.28	600
2004	36,594.46	10,839	17 , 949	18,645	35.19	530
2008	20,235.29	4,496	7,445	12,790	38.89	329
2012	511,196.30	74 , 737	123,765	387,431	42.69	9,075
2013	147,308.20	18 , 679	30,933	116,375	43.66	2,665
2018	428,989.89	12,698	21,028	407,962	48.52	8,408
	2,413,995.98	857 , 562	1,281,788	1,132,208		26,958

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 42.0 1.12

ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
1963	48,866.14	38,085	48,866			
1966	50,421.77	37 , 731	50,422			
1967	712.07	525	712			
1969	1,690.30	1,210	1,690			
1970	1,806,878.47	1,273,163	1,806,878			
1971	21,802.98	15,114	21,602	201	19.94	10
1972	7,842.15	5,346	7,641	201	20.69	10
1973	7,611.76	5,099	7,288	324	21.46	15
1974	8,563.32	5,635	8,054	509	22.23	23
1975	145,548.46	94,002	134,356	11,192	23.02	486
1976	23,645.42	14,984	21,416	2,229	23.81	94
1977	183,195.07	113,806	162,662	20,533	24.62	834
1978	9,889.35	6,019	8,603	1,286	25.44	51
1979	44,291.09	26,391	37 , 720	6 , 571	26.27	250
1980	45,324.53	26,414	37 , 753	7 , 572	27.12	279
1981	1,075,454.56	612,676	875 , 692	199,763	27.97	7,142
1982 1983	846,513.84	471,051	673,269	173,245	28.83 29.70	6,009
	13,677.60 21,035.02	7,428	10,617	3,061 5,114	30.58	103
1984 1985	50,271.61	11,139 25,933	15,921 37,066	5,114 13,206	31.47	167 420
1986	10,044.83	5,043	7,208	2,837	32.37	88
1987	5,641.70	2,753	3,935	1,707	33.28	51
1988	20,207.93	9 , 576	13,687	6 , 521	34.20	191
1989	1,800.75	828	1,183	618	35.12	18
1990	73,347.29	32,667	46,691	26,656	36.05	739
1991	1,221,312.21	526,288	752,218	469,094	36.99	12,682
1992	1,332,687.01	555,011	793,272	539,415	37.93	14,221
1993	19,539.06	7,852	11,223	8,316	38.88	214
1994	4,542,197.43	1,758,875	2,513,943	2,028,254	39.83	50,923
1997	133,311.63	45,695	65,311	68,001	42.72	1,592
1999	68,169.86	21,332	30,490	37,680	44.66	844
2000	2,139,604.81	637,281	910,860	1,228,745	45.64	26,923
2001	267,151.64	75,542	107,971	159,181	46.62	3,414
2002	204,958.23	54,865	78,418	126,540	47.60	2,658
2005	36,449.37	8 , 097	11,573	24,876	50.56	492
2007	60,281.10	11,555	16,515	43,766	52.54	833
2008	78,506.30	13,853	19,800	58 , 706	53.53	1,097
2009	85,487.20	13,770	19,681	65,806	54.53	1,207
2011	273,222.72	35 , 645	50,947	222,276	56.52	3,933
2012	708,747.64	81,669	116,729	592,019	57.51	10,294
2013	639,911.17	63 , 895	91,325	548,586	58.51	9,376
2014	197,626.05	16,691	23,856	173,770	59.51	2,920

ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA BALVAGE PERCENT					
2015	20,001.56	1,382	1,975	18,027	60.51	298
2016	164,576.00	8,862	12,667	151,909	61.50	2,470
2018	458,801.18	10,589	15,135	443,666	63.50	6,987
	17,176,820.18	6,791,367	9,684,841	7,491,979		170,358
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	44.0	0.99



ACCOUNT 391.00 OFFICE FURNITURE AND EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY	ACCRUED					
1976	1,856.28	1,856	1,856			
1984	5,422.46	5,422	5,422			
1985	21,465.29	21,465	21,465			
1986	10,015.47	10,015	10,015			
1987	15,071.93	15 , 072	15 , 072			
1988	6,682.20	6,682	6,682			
1989	65,870.43	65,870	65,870			
1990	6,557.32	6,557	6,557			
1991	51,102.98	51,103	51,103			
1992	14,087.11	14,087	14,087			
1993 1994	7,769.40 45,231.24	7,769 45,231	7,769 45,231			
1994	146,487.22	146,487	146,487			
1995	160,463.18	160,463	160,463			
1997	303,941.52	303,942	303,942			
1998	558,608.63	558,609	558,609			
1999	596,044.87	596,045	596,045			
	2,016,677.53	2,016,675	2,016,678			
AMORT	TZED					
	VOR CURVE 20-SÇ	DUARE				
	ALVAGE PERCENT					
2000	449,819.46	438,574	432,072	17,748	0.50	17,748
2001	37,731.82	34,902	34,385	3,347	1.50	2,231
2002	238,550.23	208,731	205,636	32,914	2.50	13,166
2003	86,715.47	71,540	70,479	16,236	3.50	4,639
2004	128,371.09	99,488	98,013	30,358	4.50	6,746
2005	80,710.72	58,515	57,647	23,063	5.50	4,193
2006	114,505.66	77,291	76,145	38,361	6.50	5,902
2007	164,357.59	102,723	101,200	63,158	7.50	8,421
2008	218,718.27	125,763	123,899	94,820	8.50	11,155
2009	324,609.63	170,420	167,893	156,716	9.50	16,496
2010	960,883.34	456,420	449,653	511,230	10.50	48,689
2011	326,335.83	138,693	136,637	189,699	11.50	16,496
2012	35,220.62	13,208	13,012	22,208	12.50	1,777
2013	132,940.55 137,236.12	43 , 206	42 , 565	90,375	13.50 14.50	6 , 694
2014 2015	1,086,764.00	37,740 244,522	37,180 240,897	100,056 845,867	15.50	6,900 54,572
2015	727,003.94	127,226	125,340	601,664	16.50	36,464
	,	, == 0	-,	,		,

ACCOUNT 391.00 OFFICE FURNITURE AND EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	IZED VOR CURVE 20-SÇ ALVAGE PERCENT	~				
2017 2018 2019	1,434,239.11 1,365,683.84 1,250,634.87	179,280 102,426 31,266	176,622 100,907 30,802	1,257,617 1,264,776 1,219,832	17.50 18.50 19.50	71,864 68,366 62,555
	9,301,032.16	2,761,934	2,720,987	6,580,045		465,074
	11,317,709.69	4,778,609	4,737,665	6,580,045		465,074
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUA	L RATE, PERCEN	г 14.1	4.11



ACCOUNT 391.10 OFFICE FURNITURE AND EQUIPMENT - PEOPLESOFT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY	ACCRUED					
1999 2000	1,353,562.97 1,418,242.17	1,353,563 1,418,242	1,353,563 1,418,242			
	2,771,805.14	2,771,805	2,771,805			
	ZED OR CURVE 15-S LVAGE PERCENT					
2005 2007 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	31,810.00 25,115.72 7,924,914.49 282,970.54 1,871,889.38 1,286,246.61 13,227.44 1,911,602.11 326,690.83 5,681.60 722,721.49 123,818.32	30,750 20,930 5,019,086 160,351 935,945 557,369 4,850 573,481 76,227 947 72,272 4,127	30,720 20,910 5,014,184 160,194 935,031 556,825 4,845 572,921 76,153 946 72,201 4,123	1,090 4,206 2,910,731 122,776 936,859 729,422 8,382 1,338,681 250,538 4,736 650,520 119,695	0.50 2.50 5.50 6.50 7.50 8.50 9.50 10.50 11.50 12.50 13.50 14.50	1,090 1,682 529,224 18,889 124,915 85,814 882 127,493 21,786 379 48,187 8,255
	14,526,688.53	7,456,335	7,449,052	7,077,637		968,596
	17,298,493.67	10,228,140	10,220,857	7,077,637		968,596

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.3 5.60

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIV	OR CURVE IOWA	11-T.1 5				
	LVAGE PERCENT					
1957	340.15	340	340			
1962	3,434.93	3,435	3,435			
1969	5,259.72	5,260	5,260			
1971	1,603.26	1,603	1,603			
1974	5 , 780.00	5 , 780	5 , 780			
1976	2 , 706.76	2,707	2,707			
1978	14,785.09	14,785	14,785			
1981	1,627.50	1,628	1,628			
1982	27,937.47	27,937	27,937			
1984	1,286.25	1,286	1,286			
1991	62,691.77	56,366	62,692			
1992 1993	48,433.00	42,885	48,433			
1993	28,336.66 2,251.44	24,730 1,932	28,337 2,251			
1994	42,202.76	35,642	42,203			
1996	58,193.16	48,247	58,193			
1997	37,837.07	30,751	37,837			
1998	179,030.88	142,573	179,031			
1999	120,252.50	93,578	120,252			
2000	47,520.39	36,115	47,520			
2001	115,256.37	85,395	115,256			
2002	58,719.50	42,278	58 , 720			
2003	81,844.05	57,216	81,844			
2004	428,683.00	289,944	428,683			
2005	210,354.82	137,496	210,355			
2006	318,336.73	200,842	310,075	8,262	4.06	2,035
2007	77 , 089.94	46,744	72 , 167	4,923	4.33	1,137
2008	63,882.86	37 , 226	57 , 472	6,411	4.59	1,397
2009	763,481.23	426,160	657,937	105,544	4.86	21,717
2010	645,510.73	343,883	530,912	114,599	5.14	22,296
2011	746,760.76	377,450	582,735	164,026	5.44	30,152
2012	726,201.12	343,958	531,027	195,174	5.79	33,709
2013	1,160,779.77	506,518	781,999	378,781	6.20	61,094
2014	1,802,226.94	707,789	1,092,736	709,491	6.68	106,211
2015 2016	1,777,983.86 1,673,924.24	602 , 897	930 , 797	847,187 959,719	7.27	116,532
2016	2,443,338.73	462 , 606	714,205	1,668,339	7.96 8.74	120,568
2017	1,722,045.53	501,984 220,732	775 , 000 340 , 782	1,381,264	9.59	190,885 144,032
2018	1,722,043.33	77,980	120,391	1,666,507	10.52	158,413
2019	1, 100,001.02	77,500	120,091	1,000,007	10.52	100,410
	17,294,828.56	6,046,678	9,084,603	8,210,226		1,010,178

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.1 5.84



ACCOUNT 393.00 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 25-S JAGE PERCENT	~				
1998	59,578.06	51,237	51,242	8,336	3.50	2,382
2001	41,556.18	30 , 752	30 , 755	10,801	6.50	1,662
2002	24,949.22	17,464	17,466	7,483	7.50	998
2019	6,890.00	138	138	6 , 752	24.50	276
	132,973.46	99,591	99,601	33,372		5,318

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.3 4.00

ACCOUNT 394.00 TOOLS, SHOP AND GARAGE EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY .	ACCRUED					
1965	1,079.44	1,079	1,079			
1968	1,114.31	1,114	1,114			
1970	5,234.82	5 , 235	5,235			
1971	4,598.57	4,599	4,599			
1974	3 , 210.75	3,211	3,211			
1976	1,110.42	1,110	1,110			
1978	3,718.01	3,718	3,718			
1979	1,172.87	1,173	1,173			
1980	12,455.82	12,456	12,456			
1981	89,554.06	89,554	89,554			
1982	17,053.56	17,054	17,054			
1983	19,926.99	19,927	19,927			
1984	19,149.41	19,149	19,149			
1985	36,671.17	36,671	36,671			
1986	8,917.22	8,917	8,917			
1987	4,030.85	4,031	4,031			
1988	1,396.50	1,396	1,397			
1989	23,724.39	23,724	23,724			
1990	11,041.96	11,042	11,042			
1991	22,112.78	22,113	22,113			
1992	41,953.86	41,954	41,954			
1993	25,727.13	25 , 727	25 , 727			
1994	91,136.68	91,137	91,137			
1995	33,359.31 35,568.11	33,359	33,359			
1996	64,571.33	35,568 64,571	35 , 568			
1997	101,405.42		64,571			
1998	91,165.59	101,405 91,166	101,405			
1999	91,103.39	91,100	91,165			
	772,161.33	772,160	772,161			
AMORTI	ZED					
SURVIV	OR CURVE 20-S	QUARE				
NET SA	LVAGE PERCENT	0				
2000	94,240.75	91,885	90,863	3 , 377	0.50	3 , 377
2001	26,246.74	24,278	24,008	2,239	1.50	1,493
2002	44,216.38	38,689	38,259	5,958	2.50	2,383
2003	81,896.80	67 , 565	66,814	15,083	3.50	4,309
2004	349,291.60	270 , 701	267,691	81 , 601	4.50	18,134
2005	17,906.58	12,982	12,838	5,069	5.50	922
2006	8,160.94	5 , 509	5,448	2,713	6.50	417

ACCOUNT 394.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	ZED DR CURVE 20-SQ LVAGE PERCENT	~				
2007	29,127.39	18,205	18,003	11,125	7.50	1,483
2008	34,152.73	19,638	19,420	14,733	8.50	1,733
2010	5,637.08	2,678	2,648	2,989	10.50	285
2013	12,476.20	4,055	4,010	8,466	13.50	627
2016	17,896.96	3,132	3,097	14,800	16.50	897
2017	76,257.87	9,532	9,426	66,832	17.50	3,819
2018	437,028.27	32,777	32,413	404,616	18.50	21,871
2019	306,452.17	7,661	7,576	298,876	19.50	15,327
	1,540,988.46	609 , 287	602,512	938,476		77,077
	2,313,149.79	1,381,447	1,374,673	938,476		77,077

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.2 3.33

ACCOUNT 395.00 LABORATORY EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY	ACCRUED					
1966 1970 1972 1975 1977 1980 1981 1982 1983 1984 1985 1986 1987 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999	1,945.00 9,101.60 5,781.84 3,738.54 2,711.05 2,634.02 27,183.51 29,233.82 7,182.85 11,313.26 2,415.04 17,325.50 7,433.84 2,290.56 27,904.60 18,714.02 82,214.17 33,133.06 118,995.34 33,920.80 121,184.47 49,488.84 61,520.75 288,851.62 285,060.85	1,945 9,102 5,782 3,739 2,711 2,634 27,184 29,234 7,183 11,313 2,415 17,326 7,434 2,291 27,905 18,714 82,214 33,133 118,995 33,921 121,184 49,489 61,521 288,852 285,061	1,945 9,102 5,782 3,739 2,711 2,634 27,184 29,234 7,183 11,313 2,415 17,326 7,434 2,291 27,905 18,714 82,214 33,133 118,995 33,921 121,184 49,489 61,521 288,852 285,061			
	1,251,278.95 IZED VOR CURVE 20-SO ALVAGE PERCENT		1,251,279			
2000 2001 2003 2004 2005 2006 2007 2008 2009 2010	84,221.24 115,256.75 57,302.05 53,452.52 320,439.35 94,815.50 200,074.92 169,114.52 192,200.05 9,335.37	82,116 106,612 47,274 41,426 232,319 64,000 125,047 97,241 100,905 4,434	81,567 105,900 46,958 41,149 230,767 63,572 124,211 96,591 100,231 4,404	2,654 9,357 10,344 12,303 89,673 31,243 75,863 72,523 91,969 4,931	0.50 1.50 3.50 4.50 5.50 6.50 7.50 8.50 9.50	2,654 6,238 2,955 2,734 16,304 4,807 10,115 8,532 9,681 470

ACCOUNT 395.00 LABORATORY EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)		
AMORTIZED SURVIVOR CURVE 20-SQUARE NET SALVAGE PERCENT 0								
2011 2012 2013 2014 2015 2016 2017 2018 2019	171,047.44 456,417.54 521,627.43 167,272.68 327,600.95 510,479.51 137,259.54	144,722 64,143 148,336 143,448 37,636 57,330 63,810 10,294 3,286	143,755 63,714 147,345 142,489 37,385 56,947 63,384 10,225 3,264	196,768 107,333 309,073 379,138 129,888 270,654 447,096 127,034 128,193	11.50 12.50 13.50 14.50 15.50 16.50 17.50 18.50 19.50	17,110 8,587 22,894 26,147 8,380 16,403 25,548 6,867 6,574		
	4,059,896.75	1,574,379	1,563,859	2,496,038		203,000		
	5,311,175.70 COMPOSITE REMAIN	2,825,661 ING LIFE AND	2,815,138 ANNUAL ACCRUAL	2,496,038 RATE, PERCEN'	г 12.3	203,000		

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
			(1)	(0)	(0)	(, ,
	OR CURVE IOWA					
NET SA	ALVAGE PERCENT	U				
1986	10,342.50	9,344	10,342			
1988	12,390.00	10,885	12,390			
1989	9,321.75	8,063	9,322			
1990	91,753.12	78,082	91,753			
1991	109,879.40	91,914	109,879			
1992	193,244.18	158,653	193,244			
1993	20,527.18	16,535	20,527			
1995	27,230.00	21,008	27,230			
1996	447,515.69	336,979	447,516			
1997	191,585.46	140,432	191,585			
1998	545,009.87	388 , 320	545,010			
1999	435,104.55	300,222	435,105			
2000	485,186.22	323 , 377	485,186			
2001	26,183.22	16,810	26,183			
2002	66,671.88	41,037	66 , 672			
2004	589,548.46	330,147	589,548			
2005	119,428.74	63 , 297	119,429			
2006	19,664.86	9,813	19,665			
2007	764,592.84	357 , 065	764,593			
2008	888,391.11	385 , 562	888,391			
2009	225,911.11	90,364	225,911			
2010	483,535.53	176,490	473,671	9,865	12.70	777
2011	2,972,103.01	979 , 308	2,628,306	343 , 797	13.41	25 , 637
2012	1,338,865.42	392,288	1,052,838	286,027	14.14	20,228
2013	1,330,729.91	340 , 667	914,296	416,434	14.88	27 , 986
2014	2,792,892.18	608,850	1,634,056	1,158,836	15.64	74,094
2015	1,041,821.90	187,528	503 , 295	538 , 527	16.40	32,837
2016	174,479.40	24,602	66,028	108,451	17.18	6,313
2017	2,090,149.37	212,150	569,377	1,520,772	17.97	84,628
2018	2,444,787.48	149,132	400,246	2,044,541	18.78	108,868
2019	736,752.14	15,103	40,534	696,218	19.59	35 , 539
	20,685,598.48	6,264,027	13,562,128	7,123,470		416,907

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.1 2.02



ACCOUNT 397.00 COMMUNICATION EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY .	ACCRUED					
1956	39,133.92	39,134	39,134			
1957	5,289.67	5 , 290	5 , 290			
1958	3,859.10	3 , 859	3 , 859			
1959	5 , 368.79	5 , 369	5 , 369			
1960	3,299.45	3,299	3,299			
1967	1,957.00	1,957	1,957			
1968	61,816.98	61,817	61,817			
1969	254,498.35	254,498	254,498			
1970	13,372.55	13,373	13,373			
1971	42,367.81	42,368	42,368			
1972	6,338.30	6,338	6,338			
1974	25,896.69	25 , 897	25 , 897			
1975	5,774.86	5 , 775	5 , 775			
1976	338,729.68	338 , 730	338 , 730			
1977	20,930.06	20,930	20,930			
1978	34,979.80	34 , 980	34,980			
1979	22 , 627.86	22,628	22,628			
1980	23,390.33	23,390	23,390			
1981	278,774.36	278 , 774	278 , 774			
1982	241,160.58	241,161	241,161			
1983	761 , 387.07	761 , 387	761 , 387			
1984	118,727.25	118,727	118,727			
1985	226,296.88	226 , 297	226 , 297			
1986	257 , 777.99	257 , 778	257 , 778			
1987	180,861.67	180,862	180,862			
1988	103,750.60	103,751	103,751			
1989	271,918.22	271 , 918	271,918			
1990	59,488.26	59,488	59,488			
1991	95,658.61	95 , 659	95,659			
1992	230,609.73	230,610	230,610			
1993	416,315.52	416,316	416,316			
1994	222,424.22	222,424	222,424			
1995	428,765.86	428,766	428,766			
1996	31,698.52	31,699	31,699			
1997	851,505.21	851,505	851,505			
1998	34,483.23	34,483	34,483			
1999	216,925.86	216,926	216,926			
2000	241,870.14	241,870	241,870			
2001	606,355.94	606,356	606,356			

ACCOUNT 397.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY	ACCRUED					
2002 2003 2004	5,720.64 503,451.62 15,981,177.70	5,721 503,452 15,981,178	5,721 503,452 15,981,178			
	23,276,736.88	23,276,740	23,276,737			
	IZED VOR CURVE 15-S ALVAGE PERCENT					
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019	747,985.54 458,326.24 181,678.71 1,274,465.45 30,209.10 183,024.10 415,912.20 6,360,561.93 350,235.17 2,328,951.18 3,262,498.47 1,272,985.40 1,476,402.21 3,932,442.56 1,239,019.61	723,055 412,494 151,398 977,094 21,146 115,915 235,685 3,180,281 151,767 853,957 978,750 297,026 246,072 393,244 41,297	713,858 407,247 149,472 964,666 20,877 114,441 232,687 3,139,831 149,837 843,095 966,301 293,248 242,942 388,242 40,772	34,127 51,079 32,206 309,799 9,332 68,583 183,225 3,220,731 200,399 1,485,856 2,296,197 979,737 1,233,460 3,544,200 1,198,248	0.50 1.50 2.50 3.50 4.50 5.50 6.50 7.50 8.50 9.50 10.50 11.50 12.50 13.50	34,127 34,053 12,882 88,514 2,074 12,470 28,188 429,431 23,576 156,406 218,685 85,195 98,677 262,533 82,638
	23,514,697.87	8,779,181	8,667,518	14,847,180	_ 1.00	1,569,449
	46,791,434.75	32,055,921	31,944,255	14,847,180		1,569,449

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.5 3.35

ACCOUNT 397.10 COMMUNICATION EQUIPMENT - ENERGY CONTROL SYSTEM

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY	ACCRUED					
1983	480,050.01	480,050	480,050			
1984	17,625.94	17,626	17,626			
1985	11,027.00	11,027	11,027			
1986	1,669.06	1,669	1,669			
1987	6 , 857.89	6 , 858	6 , 858			
1992	10,588.22	10,588	10,588			
1993	27,528.40	27 , 528	27 , 528			
1994	14,288.17	14,288	14,288			
1997	72,903.79	72,904	72,904			
	642,538.48	642,538	642,538			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

ACCOUNT 398.00 MISCELLANEOUS EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
FULLY	ACCRUED					
1972	6,340.79	6,341	6,341			
1977	1,417.50	1,418	1,418			
1983	7,350.00	7 , 350	7 , 350			
1984	7,227.43	7,227	7,227			
1985	2,415.00	2,415	2,415			
1986	1,597.78	1,598	1,598			
1987	11,506.39	11,506	11,506			
1988	13,021.58	13,022	13,022			
1989 1990	41,686.34 14,178.01	41,686	41,686			
1990	2,818.48	14,178 2,818	14,178 2,818			
1992	30,683.69	30,684	30,684			
1993	25,981.20	25,981	25,981			
1994	19,893.82	19,894	19,894			
1995	10,120.88	10,121	10,121			
1996	2,114.70	2 , 115	2,115			
1997	182,982.47	182 , 982	182,982			
1998	14,645.99	14,646	14,646			
1999	17,900.24	17,900	17,900			
	413,882.29	413,882	413,882			
AMORT						
	VOR CURVE 20-S ALVAGE PERCENT					
2000	90,437.07	88,176	87 , 527	2,910	0.50	2,910
2001	242,506.75	224,319	222,667	19,839	1.50	13,226
2004	35,241.42	27,312	27,111	8,131	4.50	1,807
2005	101,444.22	73,547	73,005	28,439	5.50	5,171
2006	15,381.61	10,383	10,307	5 , 075	6.50	781
2007	189,267.95	118,292	117,421	71,847	7.50	9,580
2008	8,651.60	4,975	4,938	3,713	8.50	437
2009	100,896.47	52 , 971	52,581	48,316	9.50	5,086
2010	69,142.10	32,842	32,600	36,542	10.50	3,480
2011	259,991.50	110,496	109,682	150,309	11.50	13,070
2012	88,086.98	33,033	32,790	55,297	12.50	4,424
2013	88,130.08	28,642	28,431	59,699	13.50	4,422
2014	187,088.94	51,449	51,070	136,019	14.50	9,381
2015	53,500.30	12,038	11,949	41,551	15.50	2,681
2016	94,340.89	16,510	16,388	77,952	16.50	4,724

ACCOUNT 398.00 MISCELLANEOUS EQUIPMENT

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	TIZED VOR CURVE 20-SÇ BALVAGE PERCENT	~				
2017 2018 2019	258,531.71 101,398.09 30,552.95	32,316 7,605 764	32,078 7,549 758	226,454 93,849 29,795	17.50 18.50 19.50	12,940 5,073 1,528
	2,014,590.63	925,670	918,854	1,095,737		100,721
	2,428,472.92	1,339,552	1,332,736	1,095,737		100,721
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCEN	г 10.9	4.15



Appendix A

JOHN SPANOS

DEPRECIATION EXPERIENCE

- Q. Please state your name.
- A. My name is John J. Spanos.
- Q. What is your educational background?
- A. I have Bachelor of Science degrees in Industrial Management and Mathematics from Carnegie-Mellon University and a Master of Business Administration from York College.
- Q. Do you belong to any professional societies?
- A. Yes. I am a member and past President of the Society of Depreciation Professionals and a member of the American Gas Association/Edison Electric Institute Industry Accounting Committee.
- Q. Do you hold any special certification as a depreciation expert?
- A. Yes. The Society of Depreciation Professionals has established national standards for depreciation professionals. The Society administers an examination to become certified in this field. I passed the certification exam in September 1997 and was recertified in August 2003, February 2008, January 2013 and February 2018.
- Q. Please outline your experience in the field of depreciation.
- A. In June 1986, I was employed by Gannett Fleming Valuation and Rate Consultants, Inc. as a Depreciation Analyst. During the period from June 1986 through December 1995, I helped prepare numerous depreciation and original cost studies for utility companies in various industries. I helped perform depreciation studies for the following telephone companies: United Telephone of Pennsylvania, United Telephone of New Jersey, and Anchorage Telephone Utility. I helped perform depreciation studies for the following

companies in the railroad industry: Union Pacific Railroad, Burlington Northern Railroad, and Wisconsin Central Transportation Corporation.

I helped perform depreciation studies for the following organizations in the electric utility industry: Chugach Electric Association, The Cincinnati Gas and Electric Company (CG&E), The Union Light, Heat and Power Company (ULH&P), Northwest Territories Power Corporation, and the City of Calgary - Electric System.

I helped perform depreciation studies for the following pipeline companies: TransCanada Pipelines Limited, Trans Mountain Pipe Line Company Ltd., Interprovincial Pipe Line Inc., Nova Gas Transmission Limited and Lakehead Pipeline Company.

I helped perform depreciation studies for the following gas utility companies: Columbia Gas of Pennsylvania, Columbia Gas of Maryland, The Peoples Natural Gas Company, T. W. Phillips Gas & Oil Company, CG&E, ULH&P, Lawrenceburg Gas Company and Penn Fuel Gas, Inc.

I helped perform depreciation studies for the following water utility companies: Indiana-American Water Company, Consumers Pennsylvania Water Company and The York Water Company; and depreciation and original cost studies for Philadelphia Suburban Water Company and Pennsylvania-American Water Company.

In each of the above studies, I assembled and analyzed historical and simulated data, performed field reviews, developed preliminary estimates of service life and net salvage, calculated annual depreciation, and prepared reports for submission to state public utility commissions or federal regulatory agencies. I performed these studies under the general direction of William M. Stout, P.E.

In January 1996, I was assigned to the position of Supervisor of Depreciation Studies. In July 1999, I was promoted to the position of Manager, Depreciation and

Valuation Studies. In December 2000, I was promoted to the position as Vice-President of Gannett Fleming Valuation and Rate Consultants, Inc., in April 2012, I was promoted to the position as Senior Vice President of the Valuation and Rate Division of Gannett Fleming Inc. (now doing business as Gannett Fleming Valuation and Rate Consultants, LLC) and in January of 2019, I was promoted to my present position of President of Gannett Fleming Valuation and Rate Consultants, LLC. In my current position I am responsible for conducting all depreciation, valuation and original cost studies, including the preparation of final exhibits and responses to data requests for submission to the appropriate regulatory bodies.

Since January 1996, I have conducted depreciation studies similar to those previously listed including assignments for Pennsylvania-American Water Company; Aqua Pennsylvania; Kentucky-American Water Company; Virginia-American Water Company; Indiana-American Water Company; Iowa-American Water Company; New Jersey-American Water Company; Hampton Water Works Company; Omaha Public Power District; Enbridge Pipe Line Company; Inc.; Columbia Gas of Virginia, Inc.; Virginia Natural Gas Company National Fuel Gas Distribution Corporation - New York and Pennsylvania Divisions; The City of Bethlehem - Bureau of Water; The City of Coatesville Authority; The City of Lancaster - Bureau of Water; Peoples Energy Corporation; The York Water Company; Public Service Company of Colorado; Enbridge Pipelines; Enbridge Gas Distribution, Inc.; Reliant Energy-HLP; Massachusetts-American Water Company; St. Louis County Water Company; Missouri-American Water Company; Chugach Electric Association; Alliant Energy; Oklahoma Gas & Electric Company; Nevada Power Company; Dominion Virginia Power; NUI-Virginia Gas Companies; Pacific Gas & Electric Company; PSI Energy; NUI - Elizabethtown Gas Company; Cinergy Corporation - CG&E; Cinergy Corporation - ULH&P; Columbia Gas of Kentucky; South Carolina Electric & Gas Company; Idaho Power Company; El Paso

Electric Company; Aqua North Carolina; Aqua Ohio; Aqua Texas, Inc.; Aqua Illinois, Inc.; Ameren Missouri; Central Hudson Gas & Electric; Centennial Pipeline Company; CenterPoint Energy-Arkansas; CenterPoint Energy - Oklahoma; CenterPoint Energy -Entex; CenterPoint Energy - Louisiana; NSTAR - Boston Edison Company; Westar Energy, Inc.; United Water Pennsylvania; PPL Electric Utilities; PPL Gas Utilities; Wisconsin Power & Light Company; TransAlaska Pipeline; Avista Corporation; Northwest Natural Gas; Allegheny Energy Supply, Inc.; Public Service Company of North Carolina; South Jersey Gas Company; Duquesne Light Company; MidAmerican Energy Company; Laclede Gas; Duke Energy Company; E.ON U.S. Services Inc.; Elkton Gas Services; Anchorage Water and Wastewater Utility; Kansas City Power and Light; Duke Energy North Carolina; Duke Energy South Carolina; Monongahela Power Company; Potomac Edison Company; Duke Energy Ohio Gas; Duke Energy Kentucky; Duke Energy Indiana; Duke Energy Progress; Northern Indiana Public Service Company; Tennessee-American Water Company; Columbia Gas of Maryland; Maryland-American Water Company; Bonneville Power Administration; NSTAR Electric and Gas Company; EPCOR Distribution, Inc.; B. C. Gas Utility, Ltd; Entergy Arkansas; Entergy Texas; Entergy Mississippi; Entergy Louisiana; Entergy Gulf States Louisiana; the Borough of Hanover; Louisville Gas and Electric Company; Kentucky Utilities Company; Madison Gas and Electric; Central Maine Power; PEPCO; PacifiCorp; Minnesota Energy Resource Group; Jersey Central Power & Light Company; Cheyenne Light, Fuel and Power Company; United Water Arkansas; Central Vermont Public Service Corporation; Green Mountain Power; Portland General Electric Company; Atlantic City Electric; Nicor Gas Company; Black Hills Power; Black Hills Colorado Gas; Black Hills Kansas Gas; Black Hills Service Company; Black Hills Utility Holdings; Public Service Company of Oklahoma; City of

Dubois; Peoples Gas Light and Coke Company; North Shore Gas Company; Connecticut Light and Power; New York State Electric and Gas Corporation; Rochester Gas and Electric Corporation; Greater Missouri Operations; Tennessee Valley Authority; Omaha Public Power District; Indianapolis Power & Light Company; Vermont Gas Systems, Inc.; Metropolitan Edison; Pennsylvania Electric; West Penn Power; Pennsylvania Power; PHI Service Company - Delmarva Power and Light; Atmos Energy Corporation; Citizens Energy Group; PSE&G Company; Berkshire Gas Company; Alabama Gas Corporation; Mid-Atlantic Interstate Transmission, LLC; SUEZ Water; WEC Energy Group; Rocky Mountain Natural Gas, LLC; Illinois-American Water Company; Northern Illinois Gas Company; Public Service of New Hampshire and Newtown Artesian Water Company.

My additional duties include determining final life and salvage estimates, conducting field reviews, presenting recommended depreciation rates to management for its consideration and supporting such rates before regulatory bodies.

Q. Have you submitted testimony to any state utility commission on the subject of utility plant depreciation?

A. Yes. I have submitted testimony to the Pennsylvania Public Utility Commission; the Commonwealth of Kentucky Public Service Commission; the Public Utilities Commission of Ohio; the Nevada Public Utility Commission; the Public Utilities Board of New Jersey; the Missouri Public Service Commission; the Massachusetts Department of Telecommunications and Energy; the Alberta Energy & Utility Board; the Idaho Public Utility Commission; the Louisiana Public Service Commission; the State Corporation Commission of Kansas; the Oklahoma Corporate Commission; the Public Service Commission of South Carolina; Railroad Commission of Texas – Gas Services Division; the New York Public Service Commission; Illinois Commerce Commission; the Indiana

Utility Regulatory Commission; the California Public Utilities Commission; the Federal Energy Regulatory Commission ("FERC"); the Arkansas Public Service Commission; the Public Utility Commission of Texas; Maryland Public Service Commission; Washington Utilities and Transportation Commission; The Tennessee Regulatory Commission; the Regulatory Commission of Alaska; Minnesota Public Utility Commission; Utah Public Service Commission; District of Columbia Public Service Commission; the Mississippi Public Service Commission; Delaware Public Service Commission; Virginia State Corporation Commission; Colorado Public Utility Commission; Oregon Public Utility Commission; South Dakota Public Utilities Commission; Wisconsin Public Service Commission; Wyoming Public Service Commission; Iowa Utility Board; Connecticut Public Utilities Regulatory Authority; New Mexico Public Regulation Commission; Commonwealth of Massachusetts Department of Public Utilities; Rhode Island Public Utilities Commission and the North Carolina Utilities Commission.

Q. Have you had any additional education relating to utility plant depreciation?

A. Yes. I have completed the following courses conducted by Depreciation Programs, Inc.: "Techniques of Life Analysis," "Techniques of Salvage and Depreciation Analysis," "Forecasting Life and Salvage," "Modeling and Life Analysis Using Simulation," and "Managing a Depreciation Study." I have also completed the "Introduction to Public Utility Accounting" program conducted by the American Gas Association.

Q. Does this conclude your qualification statement?

A. Yes.

LIST OF CASES IN WHICH JOHN J. SPANOS SUBMITTED TESTIMONY

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
01.	1998	PA PUC	R-00984375	City of Bethlehem – Bureau of Water	Original Cost and Depreciation
02.	1998	PA PUC	R-00984567	City of Lancaster	Original Cost and Depreciation
03.	1999	PA PUC	R-00994605	The York Water Company	Depreciation
04.	2000	D.T.&E.	DTE 00-105	Massachusetts-American Water Company	Depreciation
05.	2001	PA PUC	R-00016114	City of Lancaster	Original Cost and Depreciation
06.	2001	PA PUC	R-00017236	The York Water Company	Depreciation
07.	2001	PA PUC	R-00016339	Pennsylvania-American Water Company	Depreciation
08.	2001	OH PUC	01-1228-GA-AIR	Cinergy Corp – Cincinnati Gas & Elect Company	Depreciation
09.	2001	KY PSC	2001-092	Cinergy Corp – Union Light, Heat & Power Co.	Depreciation
10.	2002	PA PUC	R-00016750	Philadelphia Suburban Water Company	Depreciation
11.	2002	KY PSC	2002-00145	Columbia Gas of Kentucky	Depreciation
12.	2002	NJ BPU	GF02040245	NUI Corporation/Elizabethtown Gas Company	Depreciation
13.	2002	ID PUC	IPC-E-03-7	Idaho Power Company	Depreciation
14.	2003	PA PUC	R-0027975	The York Water Company	Depreciation
15.	2003	IN URC	R-0027975	Cinergy Corp – PSI Energy, Inc.	Depreciation
16.	2003	PA PUC	R-00038304	Pennsylvania-American Water Company	Depreciation
17.	2003	MO PSC	WR-2003-0500	Missouri-American Water Company	Depreciation
18.	2003	FERC	ER03-1274-000	NSTAR-Boston Edison Company	Depreciation
19.	2003	NJ BPU	BPU 03080683	South Jersey Gas Company	Depreciation
20.	2003	NV PUC	03-10001	Nevada Power Company	Depreciation
21.	2003	LA PSC	U-27676	CenterPoint Energy – Arkla	Depreciation
22.	2003	PA PUC	R-00038805	Pennsylvania Suburban Water Company	Depreciation
23.	2004	AB En/Util Bd	1306821	EPCOR Distribution, Inc.	Depreciation
24.	2004	PA PUC	R-00038168	National Fuel Gas Distribution Corp (PA)	Depreciation
25.	2004	PA PUC	R-00049255	PPL Electric Utilities	Depreciation
26.	2004	PA PUC	R-00049165	The York Water Company	Depreciation
27.	2004	OK Corp Cm	PUC 200400187	CenterPoint Energy – Arkla	Depreciation
28.	2004	OH PUC	04-680-El-AIR	Cinergy Corp. – Cincinnati Gas and	Depreciation
				Electric Company	·
29.	2004	RR Com of TX	GUD#	CenterPoint Energy – Entex Gas Services Div.	Depreciation
30.	2004	NY PUC	04-G-1047	National Fuel Gas Distribution Gas (NY)	Depreciation
31.	2004	AR PSC	04-121-U	CenterPoint Energy – Arkla	Depreciation
32.	2005	IL CC	05-ICC-06	North Shore Gas Company	Depreciation
33.	2005	IL CC	05-ICC-06	Peoples Gas Light and Coke Company	Depreciation
34.	2005	KY PSC	2005-00042	Union Light Heat & Power	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	Client Utility	<u>Subject</u>
35.	2005	IL CC	05-0308	MidAmerican Energy Company	Depreciation
36.	2005	MO PSC	GF-2005	Laclede Gas Company	Depreciation
37.	2005	KS CC	05-WSEE-981-RTS	Westar Energy	Depreciation
38.	2005	RR Com of TX	GUD#	CenterPoint Energy – Entex Gas Services Div.	Depreciation
39.	2005	US District Court	Cause No. 1:99-CV-1693- LJM/VSS	Cinergy Corporation	Accounting
40.	2005	ОК СС	PUD 200500151	Oklahoma Gas and Electric Company	Depreciation
41.	2005	MA Dept Tele- com & Ergy	DTE 05-85	NSTAR	Depreciation
42.	2005	NY PUC	05-E-934/05-G-0935	Central Hudson Gas & Electric Company	Depreciation
43.	2005	AK Reg Com	U-04-102	Chugach Electric Association	Depreciation
44.	2005	CA PUC	A05-12-002	Pacific Gas & Electric	Depreciation
45.	2006	PA PUC	R-00051030	Aqua Pennsylvania, Inc.	Depreciation
46.	2006	PA PUC	R-00051178	T.W. Phillips Gas and Oil Company	Depreciation
47.	2006	NC Util Cm.	G-5, Sub522	Pub. Service Company of North Carolina	Depreciation
48.	2006	PA PUC	R-00051167	City of Lancaster	Depreciation
49.	2006	PA PUC	R00061346	Duquesne Light Company	Depreciation
50.	2006	PA PUC	R-00061322	The York Water Company	Depreciation
51.	2006	PA PUC	R-00051298	PPL GAS Utilities	Depreciation
52.	2006	PUC of TX	32093	CenterPoint Energy – Houston Electric	Depreciation
53.	2006	KY PSC	2006-00172	Duke Energy Kentucky	Depreciation
54.	2006	SC PSC		SCANA	Accounting
55.	2006	AK Reg Com	U-06-6	Municipal Light and Power	Depreciation
56.	2006	DE PSC	06-284	Delmarva Power and Light	Depreciation
57.	2006	IN URC	IURC43081	Indiana American Water Company	Depreciation
58.	2006	AK Reg Com	U-06-134	Chugach Electric Association	Depreciation
59.	2006	MO PSC	WR-2007-0216	Missouri American Water Company	Depreciation
60.	2006	FERC	IS05-82-002, et al	TransAlaska Pipeline	Depreciation
61.	2006	PA PUC	R-00061493	National Fuel Gas Distribution Corp. (PA)	Depreciation
62.	2007	NC Util Com.	E-7 SUB 828	Duke Energy Carolinas, LLC	Depreciation
63.	2007	OH PSC	08-709-EL-AIR	Duke Energy Ohio Gas	Depreciation
64.	2007	PA PUC	R-00072155	PPL Electric Utilities Corporation	Depreciation
65.	2007	KY PSC	2007-00143	Kentucky American Water Company	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
66.	2007	PA PUC	R-00072229	Pennsylvania American Water Company	Depreciation
67.	2007	KY PSC	2007-0008	NiSource – Columbia Gas of Kentucky	Depreciation
68.	2007	NY PSC	07-G-0141	National Fuel Gas Distribution Corp (NY)	Depreciation
69.	2008	AK PSC	U-08-004	Anchorage Water & Wastewater Utility	Depreciation
70.	2008	TN Reg Auth	08-00039	Tennessee-American Water Company	Depreciation
71.	2008	DE PSC	08-96	Artesian Water Company	Depreciation
72.	2008	PA PUC	R-2008-2023067	The York Water Company	Depreciation
73.	2008	KS CC	08-WSEE1-RTS	Westar Energy	Depreciation
74.	2008	IN URC	43526	Northern Indiana Public Service Company	Depreciation
75.	2008	IN URC	43501	Duke Energy Indiana	Depreciation
76.	2008	MD PSC	9159	NiSource – Columbia Gas of Maryland	Depreciation
77.	2008	KY PSC	2008-000251	Kentucky Utilities	Depreciation
78.	2008	KY PSC	2008-000252	Louisville Gas & Electric	Depreciation
79.	2008	PA PUC	2008-20322689	Pennsylvania American Water Co Wastewater	Depreciation
80.	2008	NY PSC	08-E887/08-00888	Central Hudson	Depreciation
81.	2008	WV TC	VE-080416/VG-8080417	Avista Corporation	Depreciation
82.	2008	IL CC	ICC-09-166	Peoples Gas, Light and Coke Company	Depreciation
83.	2009	IL CC	ICC-09-167	North Shore Gas Company	Depreciation
84.	2009	DC PSC	1076	Potomac Electric Power Company	Depreciation
85.	2009	KY PSC	2009-00141	NiSource – Columbia Gas of Kentucky	Depreciation
86.	2009	FERC	ER08-1056-002	Entergy Services	Depreciation
87.	2009	PA PUC	R-2009-2097323	Pennsylvania American Water Company	Depreciation
88.	2009	NC Util Cm	E-7, Sub 090	Duke Energy Carolinas, LLC	Depreciation
89.	2009	KY PSC	2009-00202	Duke Energy Kentucky	Depreciation
90.	2009	VA St. CC	PUE-2009-00059	Aqua Virginia, Inc.	Depreciation
91.	2009	PA PUC	2009-2132019	Aqua Pennsylvania, Inc.	Depreciation
92.	2009	MS PSC	Docket No. 2011-UA-183	Entergy Mississippi	Depreciation
93.	2009	AK PSC	09-08-U	Entergy Arkansas	Depreciation
94.	2009	TX PUC	37744	Entergy Texas	Depreciation
95.	2009	TX PUC	37690	El Paso Electric Company	Depreciation
96.	2009	PA PUC	R-2009-2106908	The Borough of Hanover	Depreciation
97.	2009	KS CC	10-KCPE-415-RTS	Kansas City Power & Light	Depreciation
98.	2009	PA PUC	R-2009-	United Water Pennsylvania	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	Client Utility	<u>Subject</u>
99.	2009	OH PUC		Aqua Ohio Water Company	Depreciation
100.	2009	WI PSC	3270-DU-103	Madison Gas & Electric Company	Depreciation
101.	2009	MO PSC	WR-2010	Missouri American Water Company	Depreciation
102.	2009	AK Reg Cm	U-09-097	Chugach Electric Association	Depreciation
103.	2010	IN URC	43969	Northern Indiana Public Service Company	Depreciation
104.	2010	WI PSC	6690-DU-104	Wisconsin Public Service Corp.	Depreciation
105.	2010	PA PUC	R-2010-2161694	PPL Electric Utilities Corp.	Depreciation
106.	2010	KY PSC	2010-00036	Kentucky American Water Company	Depreciation
107.	2010	PA PUC	R-2009-2149262	Columbia Gas of Pennsylvania	Depreciation
108.	2010	MO PSC	GR-2010-0171	Laclede Gas Company	Depreciation
109.	2010	SC PSC	2009-489-E	South Carolina Electric & Gas Company	Depreciation
110.	2010	NJ BD OF PU	ER09080664	Atlantic City Electric	Depreciation
111.	2010	VA St. CC	PUE-2010-00001	Virginia American Water Company	Depreciation
112.	2010	PA PUC	R-2010-2157140	The York Water Company	Depreciation
113.	2010	MO PSC	ER-2010-0356	Greater Missouri Operations Company	Depreciation
114.	2010	MO PSC	ER-2010-0355	Kansas City Power and Light	Depreciation
115.	2010	PA PUC	R-2010-2167797	T.W. Phillips Gas and Oil Company	Depreciation
116.	2010	PSC SC	2009-489-E	SCANA – Electric	Depreciation
117.	2010	PA PUC	R-2010-22010702	Peoples Natural Gas, LLC	Depreciation
118.	2010	AK PSC	10-067-U	Oklahoma Gas and Electric Company	Depreciation
119.	2010	IN URC	Cause No. 43894	Northern Indiana Public Serv. Company - NIFL	Depreciation
120.	2010	IN URC	Cause No. 43894	Northern Indiana Public Serv. Co Kokomo	Depreciation
121.	2010	PA PUC	R-2010-2166212	Pennsylvania American Water Co WW	Depreciation
122.	2010	NC Util Cn.	W-218,SUB310	Aqua North Carolina, Inc.	Depreciation
123.	2011	OH PUC	11-4161-WS-AIR	Ohio American Water Company	Depreciation
124.	2011	MS PSC	EC-123-0082-00	Entergy Mississippi	Depreciation
125.	2011	CO PUC	11AL-387E	Black Hills Colorado	Depreciation
126.	2011	PA PUC	R-2010-2215623	Columbia Gas of Pennsylvania	Depreciation
127.	2011	PA PUC	R-2010-2179103	City of Lancaster – Bureau of Water	Depreciation
128.	2011	IN URC	43114 IGCC 4S	Duke Energy Indiana	Depreciation
129.	2011	FERC	IS11-146-000	Enbridge Pipelines (Southern Lights)	Depreciation
130.	2011	IL CC	11-0217	MidAmerican Energy Corporation	Depreciation
131.	2011	OK CC	201100087	Oklahoma Gas & Electric Company	Depreciation
132.	2011	PA PUC	2011-2232243	Pennsylvania American Water Company	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
133.	2011	FERC	RP11000	Carolina Gas Transmission	Depreciation
134.	2012	WA UTC	UE-120436/UG-120437	Avista Corporation	Depreciation
135.	2012	AK Reg Cm	U-12-009	Chugach Electric Association	Depreciation
136.	2012	MA PUC	DPU 12-25	Columbia Gas of Massachusetts	Depreciation
137.	2012	TX PUC	40094	El Paso Electric Company	Depreciation
138.	2012	ID PUC	IPC-E-12	Idaho Power Company	Depreciation
139.	2012	PA PUC	R-2012-2290597	PPL Electric Utilities	Depreciation
140.	2012	PA PUC	R-2012-2311725	Borough of Hanover – Bureau of Water	Depreciation
141.	2012	KY PSC	2012-00222	Louisville Gas and Electric Company	Depreciation
142.	2012	KY PSC	2012-00221	Kentucky Utilities Company	Depreciation
143.	2012	PA PUC	R-2012-2285985	Peoples Natural Gas Company	Depreciation
144.	2012	DC PSC	Case 1087	Potomac Electric Power Company	Depreciation
145.	2012	OH PSC	12-1682-EL-AIR	Duke Energy Ohio (Electric)	Depreciation
146.	2012	OH PSC	12-1685-GA-AIR	Duke Energy Ohio (Gas)	Depreciation
147.	2012	PA PUC	R-2012-2310366	City of Lancaster – Sewer Fund	Depreciation
148.	2012	PA PUC	R-2012-2321748	Columbia Gas of Pennsylvania	Depreciation
149.	2012	FERC	ER-12-2681-000	ITC Holdings	Depreciation
150.	2012	MO PSC	ER-2012-0174	Kansas City Power and Light	Depreciation
151.	2012	MO PSC	ER-2012-0175	KCPL Greater Missouri Operations Company	Depreciation
152.	2012	MO PSC	GO-2012-0363	Laclede Gas Company	Depreciation
153.	2012	MN PUC	G007,001/D-12-533	Integrys – MN Energy Resource Group	Depreciation
154.	2012	TX PUC	SOAH 582-14-1051/	Aqua Texas	Depreciation
			TECQ 2013-2007-UCR		
155.	2012	PA PUC	2012-2336379	York Water Company	Depreciation
156.	2013	NJ BPU	ER12121071	PHI Service Company— Atlantic City Electric	Depreciation
157.	2013	KY PSC	2013-00167	Columbia Gas of Kentucky	Depreciation
158.	2013	VA St CC	2013-00020	Virginia Electric and Power Company	Depreciation
159.	2013	IA Util Bd	2013-0004	MidAmerican Energy Corporation	Depreciation
160.	2013	PA PUC	2013-2355276	Pennsylvania American Water Company	Depreciation
161.	2013	NY PSC	13-E-0030, 13-G-0031,	Consolidated Edison of New York	Depreciation
			13-S-0032		
162.	2013	PA PUC	2013-2355886	Peoples TWP LLC	Depreciation
163.	2013	TN Reg Auth	12-0504	Tennessee American Water	Depreciation
164.	2013	ME PUC	2013-168	Central Maine Power Company	Depreciation
165.	2013	DC PSC	Case 1103	PHI Service Company – PEPCO	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
166.	2013	WY PSC	2003-ER-13	Cheyenne Light, Fuel and Power Company	Depreciation
167.	2013	FERC	ER13-2428-0000	Kentucky Utilities	Depreciation
168.	2013	FERC	ER130000	MidAmerican Energy Company	Depreciation
169.	2013	FERC	ER13-2410-0000	PPL Utilities	Depreciation
170.	2013	PA PUC	R-2013-2372129	Duquesne Light Company	Depreciation
171.	2013	NJ BPU	ER12111052	Jersey Central Power and Light Company	Depreciation
172.	2013	PA PUC	R-2013-2390244	Bethlehem, City of – Bureau of Water	Depreciation
173.	2013	OK CC	UM 1679	Oklahoma, Public Service Company of	Depreciation
174.	2013	IL CC	13-0500	Nicor Gas Company	Depreciation
175.	2013	WY PSC	20000-427-EA-13	PacifiCorp	Depreciation
176.	2013	UT PSC	13-035-02	PacifiCorp	Depreciation
177.	2013	OR PUC	UM 1647	PacifiCorp	Depreciation
178.	2013	PA PUC	2013-2350509	Dubois, City of	Depreciation
179.	2014	IL CC	14-0224	North Shore Gas Company	Depreciation
180.	2014	FERC	ER140000	Duquesne Light Company	Depreciation
181.	2014	SD PUC	EL14-026	Black Hills Power Company	Depreciation
182.	2014	WY PSC	20002-91-ER-14	Black Hills Power Company	Depreciation
183.	2014	PA PUC	2014-2428304	Borough of Hanover – Municipal Water Works	Depreciation
184.	2014	PA PUC	2014-2406274	Columbia Gas of Pennsylvania	Depreciation
185.	2014	IL CC	14-0225	Peoples Gas Light and Coke Company	Depreciation
186.	2014	MO PSC	ER-2014-0258	Ameren Missouri	Depreciation
187.	2014	KS CC	14-BHCG-502-RTS	Black Hills Service Company	Depreciation
188.	2014	KS CC	14-BHCG-502-RTS	Black Hills Utility Holdings	Depreciation
189.	2014	KS CC	14-BHCG-502-RTS	Black Hills Kansas Gas	Depreciation
190.	2014	PA PUC	2014-2418872	Lancaster, City of – Bureau of Water	Depreciation
191.	2014	WV PSC	14-0701-E-D	First Energy – MonPower/PotomacEdison	Depreciation
192	2014	VA St CC	PUC-2014-00045	Aqua Virginia	Depreciation
193.	2014	VA St CC	PUE-2013	Virginia American Water Company	Depreciation
194.	2014	OK CC	PUD201400229	Oklahoma Gas and Electric Company	Depreciation
195.	2014	OR PUC	UM1679	Portland General Electric	Depreciation
196.	2014	IN URC	Cause No. 44576	Indianapolis Power & Light	Depreciation
197.	2014	MA DPU	DPU. 14-150	NSTAR Gas	Depreciation
198.	2014	CT PURA	14-05-06	Connecticut Light and Power	Depreciation
199.	2014	MO PSC	ER-2014-0370	Kansas City Power & Light	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
200.	2014	KY PSC	2014-00371	Kentucky Utilities Company	Depreciation
201.	2014	KY PSC	2014-00372	Louisville Gas and Electric Company	Depreciation
202.	2015	PA PUC	R-2015-2462723	United Water Pennsylvania Inc.	Depreciation
203.	2015	PA PUC	R-2015-2468056	NiSource - Columbia Gas of Pennsylvania	Depreciation
204.	2015	NY PSC	15-E-0283/15-G-0284	New York State Electric and Gas Corporation	Depreciation
205.	2015	NY PSC	15-E-0285/15-G-0286	Rochester Gas and Electric Corporation	Depreciation
206.	2015	MO PSC	WR-2015-0301/SR-2015-0302	Missouri American Water Company	Depreciation
207.	2015	OK CC	PUD 201500208	Oklahoma, Public Service Company of	Depreciation
208.	2015	WV PSC	15-0676-W-42T	West Virginia American Water Company	Depreciation
209.	2015	PA PUC	2015-2469275	PPL Electric Utilities	Depreciation
210.	2015	IN URC	Cause No. 44688	Northern Indiana Public Service Company	Depreciation
211.	2015	OH PSC	14-1929-EL-RDR	First Energy-Ohio Edison/Cleveland Electric/ Toledo Edison	Depreciation
212.	2015	NM PRC	15-00127-UT	El Paso Electric	Depreciation
213.	2015	TX PUC	PUC-44941; SOAH 473-15-5257	El Paso Electric	Depreciation
214.	2015	WI PSC	3270-DU-104	Madison Gas and Electric Company	Depreciation
215.	2015	OK CC	PUD 201500273	Oklahoma Gas and Electric	Depreciation
216.	2015	KY PSC	Doc. No. 2015-00418	Kentucky American Water Company	Depreciation
217.	2015	NC UC	Doc. No. G-5, Sub 565	Public Service Company of North Carolina	Depreciation
218.	2016	WA UTC	Docket UE-17	Puget Sound Energy	Depreciation
219.	2016	NY PSC	Case No. 16-W-0130	SUEZ Water New York, Inc.	Depreciation
220.	2016	MO PSC	ER-2016-0156	KCPL – Greater Missouri	Depreciation
221.	2016	WI PSC		Wisconsin Public Service Corporation	Depreciation
222.	2016	KY PSC	Case No. 2016-00026	Kentucky Utilities Company	Depreciation
223.	2016	KY PSC	Case No. 2016-00027	Louisville Gas and Electric Company	Depreciation
224.	2016	OH PUC	Case No. 16-0907-WW-AIR	Aqua Ohio	Depreciation
225.	2016	MD PSC	Case 9417	NiSource - Columbia Gas of Maryland	Depreciation
226.	2016	KY PSC	2016-00162	Columbia Gas of Kentucky	Depreciation
227.	2016	DE PSC	16-0649	Delmarva Power and Light Company – Electric	Depreciation
228.	2016	DE PSC	16-0650	Delmarva Power and Light Company – Gas	Depreciation
229.	2016	NY PSC	Case 16-G-0257	National Fuel Gas Distribution Corp – NY Div	Depreciation
230.	2016	PA PUC	R-2016-2537349	Metropolitan Edison Company	Depreciation
231.	2016	PA PUC	R-2016-2537352	Pennsylvania Electric Company	Depreciation
232.	2016	PA PUC	R-2016-2537355	Pennsylvania Power Company	Depreciation

233. 2016 PA PUC R-2016-2537359 West Penn Power Company Depreciation 234. 2016 PA PUC R-2016-2529660 NiSource - Columbia Gas of PA Depreciation 235. 2016 KY PSC Case No. 2016-0085 KCPL Missouri Depreciation 236. 2016 MO PSC ER-2016-0285 KCPL Missouri Depreciation 237. 2016 AR PSC 16-052-U Oklahoma Gas & Electric Co Depreciation 238. 2016 PSCW 6680-DU-104 Wisconsin Power and Light Depreciation 240. 2016 OR PUC UM1801 Idaho Power Company Depreciation 240. 2016 OR PUC UM1801 Idaho Power Company Depreciation 241. 2016 IK Y PSC Case No. 2016-00370 Kentucky Utilities Company Depreciation 242. 2016 KY PSC Case No. 2016-00371 Louisville Gas and Electric Company Depreciation 243. 2016 KY PSC Case No. 2016-00371 Louisville Gas and Electric Compa		<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	Client Utility	<u>Subject</u>
235. 2016 KY PSC Case No. 2016-00063 Kentucky Utilities / Louisville Gas & Electric Co Depreciation Depre	233.	2016	PA PUC	R-2016-2537359	West Penn Power Company	Depreciation
236. 2016 MO PSC ER-2016-0285 KCPL Missouri Depreciation 237. 2016 AR PSC 16-052-U Oklahoma Gas & Electric Co Depreciation 238. 2016 PSCW 6680-DU-104 Wisconsin Power and Light Depreciation 239. 2016 ID PUC IPC-E-16-23 Idaho Power Company Depreciation 240. 2016 OR PUC UM1801 Idaho Power Company Depreciation 241. 2016 IL CC 16- MidAmerican Energy Company Depreciation 242. 2016 KY PSC Case No. 2016-00370 Kentucky Utilities Company Depreciation 243. 2016 KY PSC Case No. 2016-00371 Louisville Gas and Electric Company Depreciation 244. 2016 IN URC Cause No. 45029 Indianapolis Power & Light Depreciation 245. 2016 AL RC U-16-081 Chugach Electric Company Depreciation 246. 2017 MA DPU D.P.U. 17-05 NSTAR Electric Company Deprecia	234.	2016	PA PUC	R-2016-2529660	NiSource - Columbia Gas of PA	Depreciation
236. 2016 MO PSC ER-2016-0285 KCPL Missouri Depreciation 237. 2016 AR PSC 16-052-U Oklahoma Gas & Electric Co Depreciation 238. 2016 PSCW 6680-DU-104 Wisconsin Power and Light Depreciation 239. 2016 ID PUC IPC-E-16-23 Idaho Power Company Depreciation 240. 2016 OR PUC UM1801 Idaho Power Company Depreciation 241. 2016 IL CC 16- MidAmerican Energy Company Depreciation 242. 2016 KY PSC Case No. 2016-00370 Kentucky Utilities Company Depreciation 243. 2016 KY PSC Case No. 2016-00371 Louisville Gas and Electric Company Depreciation 244. 2016 IN URC Cause No. 45029 Indianapolis Power & Light Depreciation 245. 2016 AL RC U-16-081 Chugach Electric Company Depreciation 246. 2017 MA DPU D.P.U. 17-05 NSTAR Electric Company Deprecia	235.	2016	KY PSC	Case No. 2016-00063	Kentucky Utilities / Louisville Gas & Electric Co	Depreciation
238. 2016 PSCW 6680-DU-104 Wisconsin Power and Light Depreciation 239. 2016 ID PUC IPC-E-16-23 Idaho Power Company Depreciation 240. 2016 OR PUC UM1801 Idaho Power Company Depreciation 241. 2016 ILL CC 16- MidAmerican Energy Company Depreciation 242. 2016 KY PSC Case No. 2016-00370 Kentucky Utilities Company Depreciation 243. 2016 KY PSC Case No. 2016-00371 Louiswille Gas and Electric Company Depreciation 244. 2016 IN URC Cause No. 45029 Indianapolis Power & Light Depreciation 245. 2016 AL RC U-16-081 Chugach Electric Company Depreciation 246. 2017 MA DPU D.P.U. 17-05 NSTAR Electric Company and Western Depreciation 247. 2017 TX PUC PUC-26831, SOAH 973-17-2686 El Paso Electric Company Depreciation 248. 2017 WA UTC UE-17033 and UG-170034 <td< td=""><td>236.</td><td>2016</td><td>MO PSC</td><td>ER-2016-0285</td><td>KCPL Missouri</td><td>Depreciation</td></td<>	236.	2016	MO PSC	ER-2016-0285	KCPL Missouri	Depreciation
239. 2016 ID PUC IPC-E-16-23 Idaho Power Company Depreciation 240. 2016 OR PUC UM1801 Idaho Power Company Depreciation 241. 2016 ILL CC 16- MidAmerican Energy Company Depreciation 242. 2016 KY PSC Case No. 2016-00370 Kentucky Utilities Company Depreciation 243. 2016 KY PSC Case No. 2016-00371 Louisville Gas and Electric Company Depreciation 244. 2016 IN URC Cause No. 45029 Indianapolis Power & Light Depreciation 245. 2016 AL RC U-16-081 Chugach Electric Company Depreciation 246. 2017 MA DPU D.P.U. 17-05 NSTAR Electric Company Depreciation 247. 2017 TX PUC PUC-26831, SOAH 973-17-2686 El Paso Electric Company Depreciation 248. 2017 WA UTC UB-170334 Puget Sound Energy Depreciation 249. 2017 OH PUC Case No. 17-0032-EL-AIR Duke Energy Ohio<	237.	2016	AR PSC	16-052-U	Oklahoma Gas & Electric Co	Depreciation
240.2016OR PUCUM1801Idaho Power CompanyDepreciation241.2016ILL CC16-MidAmerican Energy CompanyDepreciation242.2016KY PSCCase No. 2016-00370Kentucky Utilities CompanyDepreciation243.2016KY PSCCase No. 2016-00371Louisville Gas and Electric CompanyDepreciation244.2016IN URCCause No. 45029Indianapolis Power & LightDepreciation245.2016AL RCU-16-081Chugach Electric AssociationDepreciation246.2017MA DPUD.P.U. 17-05NSTAR Electric Company and WesternDepreciation247.2017TX PUCPUC-26831, SOAH 973-17-2686El Paso Electric CompanyDepreciation248.2017WA UTCUE-17033 and UG-170034Puget Sound EnergyDepreciation249.2017OH PUCCase No. 17-0032-EL-AIRDuke Energy OhioDepreciation250.2017VA SCCCase No. PUE-2016-00413Virginia Natural Gas, Inc.Depreciation251.2017OK CCCase No. PUB-2016-00413Virginia Ratural Gas, Inc.Depreciation252.2017MD PSCCase No. PUB-2017-0090Dominion Virginia Electric and Power CompanyDepreciation253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation256.2017PA PUCR-2017-259	238.	2016	PSCW	6680-DU-104	Wisconsin Power and Light	Depreciation
241.2016ILL CC16-MidAmerican Energy CompanyDepreciation242.2016KY PSCCase No. 2016-00370Kentucky Utilities CompanyDepreciation243.2016KY PSCCase No. 2016-00371Louisville GompanyDepreciation244.2016IN URCCause No. 45029Indianapolis Power & LightDepreciation245.2016AL RCU-16-081Chugach Electric Company and WesternDepreciation246.2017MA DPUD.P.U. 17-05NSTAR Electric Company and WesternDepreciation247.2017TX PUCPUC-26831, SOAH 973-17-2686El Paso Electric CompanyDepreciation248.2017WA UTCUE-17033 and UG-170034Puget Sound EnergyDepreciation249.2017OH PUCCase No. 17-0032-EL-AIRDuke Energy OhioDepreciation250.2017VA SCCCase No. PUE-2016-00413Virginia Natural Gas, Inc.Depreciation251.2017OK CCCase No. PUE-2017-00413Virginia Natural Gas of MarylandDepreciation252.2017MD PSCCase No. 9447Columbia Gas of MarylandDepreciation253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation254.2017VA SCCCase No. PUR-2017-00090Dominion Virginia Electric and Power CompanyDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation256.2017PA PUC	239.	2016	ID PUC	IPC-E-16-23	Idaho Power Company	Depreciation
242.2016KY PSCCase No. 2016-00370Kentucky Utilities CompanyDepreciation243.2016KY PSCCase No. 2016-00371Louisville Gas and Electric CompanyDepreciation244.2016IN URCCause No. 45029Indianapolis Power & LightDepreciation245.2016AL RCU-16-081Chugach Electric AssociationDepreciation246.2017MA DPUD.P.U. 17-05NSTAR Electric Company and Western Massachusetts Electric CompanyDepreciation247.2017TX PUCPUC-26831, SOAH 973-17-2686El Paso Electric CompanyDepreciation248.2017WA UTCUE-17033 and UG-170034Puget Sound EnergyDepreciation249.2017OH PUCCase No. 17-0032-EL-AIRDuke Energy OhioDepreciation250.2017VA SCCCase No. PUE-2016-00413Virginia Natural Gas, Inc.Depreciation251.2017OK CCCase No. PUD201700151Public Service Company of OklahomaDepreciation252.2017MD PSCCase No. 9447Columbia Gas of MarylandDepreciation253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation254.2017VA SCCCase No. PUR-2017-00090Dominion Virginia Electric and Power CompanyDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation256.2017PA PUCR-2017-259853Pennsylvania American Water CompanyDeprecia	240.	2016	OR PUC	UM1801	Idaho Power Company	Depreciation
243.2016KY PSCCase No. 2016-00371Louisville Gas and Electric CompanyDepreciation244.2016IN URCCause No. 45029Indianapolis Power & LightDepreciation245.2016AL RCU-16-081Chugach Electric AssociationDepreciation246.2017MA DPUD.P.U. 17-05NSTAR Electric Company and WesternDepreciation247.2017TX PUCPUC-26831, SOAH 973-17-2686El Paso Electric CompanyDepreciation248.2017WA UTCUE-17033 and UG-170034Puget Sound EnergyDepreciation249.2017OH PUCCase No. 17-0032-EL-AIRDuke Energy OhioDepreciation250.2017VA SCCCase No. PUE-2016-00413Virginia Natural Gas, Inc.Depreciation251.2017OK CCCase No. PUB201700151Public Service Company of OklahomaDepreciation252.2017MD PSCCase No. PUD201700151Public Service Company of OklahomaDepreciation253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation254.2017VA SCCCase No. PUR-2017-00090Dominion Virginia Electric and Power CompanyDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation256.2017PA PUCR-2017-2595853Pennsylvania American Water CompanyDepreciation258.2017FERCER17-211-000Jersey Central Power & LightDepreciation2	241.	2016	ILL CC	16-	MidAmerican Energy Company	Depreciation
244.2016IN URCCause No. 45029Indianapolis Power & LightDepreciation245.2016AL RCU-16-081Chugach Electric AssociationDepreciation246.2017MA DPUD.P.U. 17-05NSTAR Electric Company and WesternDepreciation247.2017TX PUCPUC-26831, SOAH 973-17-2686El Paso Electric CompanyDepreciation248.2017WA UTCUE-17033 and UG-170034Puget Sound EnergyDepreciation249.2017OH PUCCase No. 17-0032-EL-AIRDuke Energy OhioDepreciation250.2017VA SCCCase No. PUE-2016-00413Virginia Natural Gas, Inc.Depreciation251.2017OK CCCase No. PUD201700151Public Service Company of OklahomaDepreciation252.2017MD PSCCase No. PUD201700151Public Service Company of OklahomaDepreciation253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation254.2017VA SCCCase No. PUR-2017-00090Dominion Virginia Electric and Power CompanyDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation255.2017PA PUCR-2017-2595853Pennsylvania American Water CompanyDepreciation258.2017FERCER17-217-000Jersey Central Power & LightDepreciation259.2017FERCER17-211-000Mid-Atlantic Interstate Transmission, LLCDepreciation260.	242.	2016	KY PSC	Case No. 2016-00370	Kentucky Utilities Company	Depreciation
245.2016AL RCU-16-081Chugach Electric AssociationDepreciation246.2017MA DPUD.P.U. 17-05NSTAR Electric Company and Western Massachusetts Electric CompanyDepreciation247.2017TX PUCPUC-26831, SOAH 973-17-2686El Paso Electric CompanyDepreciation248.2017WA UTCUE-17033 and UG-170034Puget Sound EnergyDepreciation249.2017OH PUCCase No. 17-0032-EL-AIRDuke Energy OhioDepreciation250.2017VA SCCCase No. PUE-2016-00413Virginia Natural Gas, Inc.Depreciation251.2017OK CCCase No. PUD201700151Public Service Company of OklahomaDepreciation252.2017MD PSCCase No. 9447Columbia Gas of MarylandDepreciation253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation254.2017VA SCCCase No. PUR-2017-00090Dominion Virginia Electric and Power CompanyDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation256.2017PA PUCR-2017-2595853Pennsylvania American Water CompanyDepreciation257.2017OR PUCUM1809Portland General ElectricDepreciation258.2017FERCER17-217-000Hence of the preciationHence of the preciationDepreciation260.2017MN PUCDocket No. G007/D-17-442Minnesota Energy Resources Corporation </td <td>243.</td> <td>2016</td> <td>KY PSC</td> <td>Case No. 2016-00371</td> <td>Louisville Gas and Electric Company</td> <td>Depreciation</td>	243.	2016	KY PSC	Case No. 2016-00371	Louisville Gas and Electric Company	Depreciation
246.2017MA DPUD.P.U. 17-05NSTAR Electric Company and Western Massachusetts Electric CompanyDepreciation247.2017TX PUCPUC-26831, SOAH 973-17-2686El Paso Electric CompanyDepreciation248.2017WA UTCUE-17033 and UG-170034Puget Sound EnergyDepreciation249.2017OH PUCCase No. 17-0032-EL-AIRDuke Energy OhioDepreciation250.2017VA SCCCase No. PUE-2016-00413Virginia Natural Gas, Inc.Depreciation251.2017OK CCCase No. PUD201700151Public Service Company of OklahomaDepreciation252.2017MD PSCCase No. 9447Columbia Gas of MarylandDepreciation253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation254.2017VA SCCCase No. PUR-2017-00090Dominion Virginia Electric and Power CompanyDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation256.2017PA PUCR-2017-2595853Pennsylvania American Water CompanyDepreciation257.2017OR PUCUM1809Portland General ElectricDepreciation259.2017FERCER17-217-000Jersey Central Power & LightDepreciation260.2017MN PUCDocket No. G007/D-17-442Minnesota Energy Resources CorporationDepreciation261.2017IL CCDocket No. 17-0124Northwest Natural Gas CompanyDepreciat	244.	2016	IN URC	Cause No. 45029	Indianapolis Power & Light	Depreciation
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247.2017TX PUCPUC-26831, SOAH 973-17-2686El Paso Electric CompanyDepreciation248.2017WA UTCUE-17033 and UG-170034Puget Sound EnergyDepreciation249.2017OH PUCCase No. 17-0032-EL-AIRDuke Energy OhioDepreciation250.2017VA SCCCase No. PUE-2016-00413Virginia Natural Gas, Inc.Depreciation251.2017OK CCCase No. PUD201700151Public Service Company of OklahomaDepreciation252.2017MD PSCCase No. 9447Columbia Gas of MarylandDepreciation253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation254.2017VA SCCCase No. PUR-2017-00090Dominion Virginia Electric and Power CompanyDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation256.2017PA PUCR-2017-2595853Pennsylvania American Water CompanyDepreciation257.2017OR PUCUM1809Portland General ElectricDepreciation258.2017FERCER17-217-000Jersey Central Power & LightDepreciation259.2017FERCER17-211-000Mid-Atlantic Interstate Transmission, LLCDepreciation260.2017MN PUCDocket No. G007/D-17-442Minnesota Energy Resources CorporationDepreciation261.2017IL CCDocket No. 17-0124Northern Illinois Gas CompanyDepreciation262.<	246.	2017	MA DPU	D.P.U. 17-05	NSTAR Electric Company and Western	Depreciation
248.2017WA UTCUE-17033 and UG-170034Puget Sound EnergyDepreciation249.2017OH PUCCase No. 17-0032-EL-AIRDuke Energy OhioDepreciation250.2017VA SCCCase No. PUE-2016-00413Virginia Natural Gas, Inc.Depreciation251.2017OK CCCase No. PUD201700151Public Service Company of OklahomaDepreciation252.2017MD PSCCase No. 9447Columbia Gas of MarylandDepreciation253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation254.2017VA SCCCase No. PUR-2017-00090Dominion Virginia Electric and Power CompanyDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation256.2017PA PUCR-2017-2595853Pennsylvania American Water CompanyDepreciation257.2017OR PUCUM1809Portland General ElectricDepreciation258.2017FERCER17-217-000Jersey Central Power & LightDepreciation259.2017FERCER17-211-000Mid-Atlantic Interstate Transmission, LLCDepreciation260.2017MN PUCDocket No. G007/D-17-442Minnesota Energy Resources CorporationDepreciation261.2017IL CCDocket No. 17-0124Northern Illinois Gas CompanyDepreciation262.2017OR PUCUM1808Northwest Natural Gas CompanyDepreciation263.2017 <td></td> <td></td> <td></td> <td></td> <td>Massachusetts Electric Company</td> <td></td>					Massachusetts Electric Company	
249.2017OH PUCCase No. 17-0032-EL-AIRDuke Energy OhioDepreciation250.2017VA SCCCase No. PUE-2016-00413Virginia Natural Gas, Inc.Depreciation251.2017OK CCCase No. PUD201700151Public Service Company of OklahomaDepreciation252.2017MD PSCCase No. 9447Columbia Gas of MarylandDepreciation253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation254.2017VA SCCCase No. PUR-2017-00090Dominion Virginia Electric and Power CompanyDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation256.2017PA PUCR-2017-2595853Pennsylvania American Water CompanyDepreciation257.2017OR PUCUM1809Portland General ElectricDepreciation258.2017FERCER17-217-000Jersey Central Power & LightDepreciation259.2017FERCER17-211-000Mid-Atlantic Interstate Transmission, LLCDepreciation260.2017MN PUCDocket No. G007/D-17-442Minnesota Energy Resources CorporationDepreciation261.2017IL CCDocket No. 17-0124Northern Illinois Gas CompanyDepreciation262.2017OR PUCUM1808Northwest Natural Gas CompanyDepreciation263.2017NY PSCCase No. 17-W-0528SUEZ Water Owego-NicholsDepreciation	247.	2017	TX PUC	PUC-26831, SOAH 973-17-2686	El Paso Electric Company	Depreciation
250. 2017 VA SCC Case No. PUE-2016-00413 Virginia Natural Gas, Inc. Depreciation 251. 2017 OK CC Case No. PUD201700151 Public Service Company of Oklahoma Depreciation 252. 2017 MD PSC Case No. 9447 Columbia Gas of Maryland Depreciation 253. 2017 NC UC Docket No. E-2, Sub 1142 Duke Energy Progress Depreciation 254. 2017 VA SCC Case No. PUR-2017-00090 Dominion Virginia Electric and Power Company Depreciation 255. 2017 FERC ER17-1162 MidAmerican Energy Company Depreciation 256. 2017 PA PUC R-2017-2595853 Pennsylvania American Water Company Depreciation 257. 2017 OR PUC UM1809 Portland General Electric Depreciation 258. 2017 FERC ER17-217-000 Jersey Central Power & Light Depreciation 259. 2017 FERC ER17-211-000 Mid-Atlantic Interstate Transmission, LLC Depreciation 260. 2017 MN PUC Docket No. G007/D-17-442 Minnesota Energy Resources Corporation Depreciation 261. 2017 IL CC Docket No. 17-0124 Northern Illinois Gas Company Depreciation 262. 2017 OR PUC UM1808 Northwest Natural Gas Company Depreciation 263. 2017 NY PSC Case No. 17-W-0528 SUEZ Water Owego-Nichols Depreciation	248.	2017	WA UTC	UE-17033 and UG-170034	Puget Sound Energy	Depreciation
251. 2017 OK CC Case No. PUD201700151 Public Service Company of Oklahoma Depreciation 252. 2017 MD PSC Case No. 9447 Columbia Gas of Maryland Depreciation 253. 2017 NC UC Docket No. E-2, Sub 1142 Duke Energy Progress Depreciation 254. 2017 VA SCC Case No. PUR-2017-00090 Dominion Virginia Electric and Power Company Depreciation 255. 2017 FERC ER17-1162 MidAmerican Energy Company Depreciation 256. 2017 PA PUC R-2017-2595853 Pennsylvania American Water Company Depreciation 257. 2017 OR PUC UM1809 Portland General Electric Depreciation 258. 2017 FERC ER17-217-000 Jersey Central Power & Light Depreciation 259. 2017 FERC ER17-211-000 Mid-Atlantic Interstate Transmission, LLC Depreciation 260. 2017 MN PUC Docket No. G007/D-17-442 Minnesota Energy Resources Corporation Depreciation 261. 2017 IL CC Docket No. 17-0124 Northern Illinois Gas Company Depreciation 262. 2017 OR PUC UM1808 Northwest Natural Gas Company Depreciation 263. 2017 NY PSC Case No. 17-W-0528 SUEZ Water Owego-Nichols Depreciation	249.	2017	OH PUC	Case No. 17-0032-EL-AIR	Duke Energy Ohio	Depreciation
252.2017MD PSCCase No. 9447Columbia Gas of MarylandDepreciation253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation254.2017VA SCCCase No. PUR-2017-00090Dominion Virginia Electric and Power CompanyDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation256.2017PA PUCR-2017-2595853Pennsylvania American Water CompanyDepreciation257.2017OR PUCUM1809Portland General ElectricDepreciation258.2017FERCER17-217-000Jersey Central Power & LightDepreciation259.2017FERCER17-211-000Mid-Atlantic Interstate Transmission, LLCDepreciation260.2017MN PUCDocket No. G007/D-17-442Minnesota Energy Resources CorporationDepreciation261.2017IL CCDocket No. 17-0124Northern Illinois Gas CompanyDepreciation262.2017OR PUCUM1808Northwest Natural Gas CompanyDepreciation263.2017NY PSCCase No. 17-W-0528SUEZ Water Owego-NicholsDepreciation	250.	2017	VA SCC	Case No. PUE-2016-00413	Virginia Natural Gas, Inc.	Depreciation
253.2017NC UCDocket No. E-2, Sub 1142Duke Energy ProgressDepreciation254.2017VA SCCCase No. PUR-2017-00090Dominion Virginia Electric and Power CompanyDepreciation255.2017FERCER17-1162MidAmerican Energy CompanyDepreciation256.2017PA PUCR-2017-2595853Pennsylvania American Water CompanyDepreciation257.2017OR PUCUM1809Portland General ElectricDepreciation258.2017FERCER17-217-000Jersey Central Power & LightDepreciation259.2017FERCER17-211-000Mid-Atlantic Interstate Transmission, LLCDepreciation260.2017MN PUCDocket No. G007/D-17-442Minnesota Energy Resources CorporationDepreciation261.2017IL CCDocket No. 17-0124Northern Illinois Gas CompanyDepreciation262.2017OR PUCUM1808Northwest Natural Gas CompanyDepreciation263.2017NY PSCCase No. 17-W-0528SUEZ Water Owego-NicholsDepreciation	251.	2017	OK CC	Case No. PUD201700151	Public Service Company of Oklahoma	Depreciation
254. 2017 VA SCC Case No. PUR-2017-00090 Dominion Virginia Electric and Power Company Depreciation 255. 2017 FERC ER17-1162 MidAmerican Energy Company Depreciation 256. 2017 PA PUC R-2017-2595853 Pennsylvania American Water Company Depreciation 257. 2017 OR PUC UM1809 Portland General Electric Depreciation 258. 2017 FERC ER17-217-000 Jersey Central Power & Light Depreciation 259. 2017 FERC ER17-211-000 Mid-Atlantic Interstate Transmission, LLC Depreciation 260. 2017 MN PUC Docket No. G007/D-17-442 Minnesota Energy Resources Corporation Depreciation 261. 2017 IL CC Docket No. 17-0124 Northern Illinois Gas Company Depreciation 262. 2017 OR PUC UM1808 Northwest Natural Gas Company Depreciation 263. 2017 NY PSC Case No. 17-W-0528 SUEZ Water Owego-Nichols	252.	2017	MD PSC	Case No. 9447	Columbia Gas of Maryland	Depreciation
255. 2017 FERC ER17-1162 MidAmerican Energy Company Depreciation 256. 2017 PA PUC R-2017-2595853 Pennsylvania American Water Company Depreciation 257. 2017 OR PUC UM1809 Portland General Electric Depreciation 258. 2017 FERC ER17-217-000 Jersey Central Power & Light Depreciation 259. 2017 FERC ER17-211-000 Mid-Atlantic Interstate Transmission, LLC Depreciation 260. 2017 MN PUC Docket No. G007/D-17-442 Minnesota Energy Resources Corporation Depreciation 261. 2017 IL CC Docket No. 17-0124 Northern Illinois Gas Company Depreciation 262. 2017 OR PUC UM1808 Northwest Natural Gas Company Depreciation 263. 2017 NY PSC Case No. 17-W-0528 SUEZ Water Owego-Nichols Depreciation	253.	2017	NC UC	Docket No. E-2, Sub 1142	Duke Energy Progress	Depreciation
256. 2017 PA PUC R-2017-2595853 Pennsylvania American Water Company Depreciation 257. 2017 OR PUC UM1809 Portland General Electric Depreciation 258. 2017 FERC ER17-217-000 Jersey Central Power & Light Depreciation 259. 2017 FERC ER17-211-000 Mid-Atlantic Interstate Transmission, LLC Depreciation 260. 2017 MN PUC Docket No. G007/D-17-442 Minnesota Energy Resources Corporation Depreciation 261. 2017 IL CC Docket No. 17-0124 Northern Illinois Gas Company Depreciation 262. 2017 OR PUC UM1808 Northwest Natural Gas Company Depreciation 263. 2017 NY PSC Case No. 17-W-0528 SUEZ Water Owego-Nichols Depreciation	254.	2017	VA SCC	Case No. PUR-2017-00090	Dominion Virginia Electric and Power Company	Depreciation
257. 2017 OR PUC UM1809 Portland General Electric Depreciation 258. 2017 FERC ER17-217-000 Jersey Central Power & Light Depreciation 259. 2017 FERC ER17-211-000 Mid-Atlantic Interstate Transmission, LLC Depreciation 260. 2017 MN PUC Docket No. G007/D-17-442 Minnesota Energy Resources Corporation Depreciation 261. 2017 IL CC Docket No. 17-0124 Northern Illinois Gas Company Depreciation 262. 2017 OR PUC UM1808 Northwest Natural Gas Company Depreciation 263. 2017 NY PSC Case No. 17-W-0528 SUEZ Water Owego-Nichols Depreciation	255.	2017	FERC	ER17-1162	MidAmerican Energy Company	Depreciation
258.2017FERCER17-217-000Jersey Central Power & LightDepreciation259.2017FERCER17-211-000Mid-Atlantic Interstate Transmission, LLCDepreciation260.2017MN PUCDocket No. G007/D-17-442Minnesota Energy Resources CorporationDepreciation261.2017IL CCDocket No. 17-0124Northern Illinois Gas CompanyDepreciation262.2017OR PUCUM1808Northwest Natural Gas CompanyDepreciation263.2017NY PSCCase No. 17-W-0528SUEZ Water Owego-NicholsDepreciation	256.	2017	PA PUC	R-2017-2595853	Pennsylvania American Water Company	Depreciation
259.2017FERCER17-211-000Mid-Atlantic Interstate Transmission, LLCDepreciation260.2017MN PUCDocket No. G007/D-17-442Minnesota Energy Resources CorporationDepreciation261.2017IL CCDocket No. 17-0124Northern Illinois Gas CompanyDepreciation262.2017OR PUCUM1808Northwest Natural Gas CompanyDepreciation263.2017NY PSCCase No. 17-W-0528SUEZ Water Owego-NicholsDepreciation	257.	2017	OR PUC	UM1809	Portland General Electric	Depreciation
260.2017MN PUCDocket No. G007/D-17-442Minnesota Energy Resources CorporationDepreciation261.2017IL CCDocket No. 17-0124Northern Illinois Gas CompanyDepreciation262.2017OR PUCUM1808Northwest Natural Gas CompanyDepreciation263.2017NY PSCCase No. 17-W-0528SUEZ Water Owego-NicholsDepreciation	258.	2017	FERC	ER17-217-000	Jersey Central Power & Light	Depreciation
261.2017IL CCDocket No. 17-0124Northern Illinois Gas CompanyDepreciation262.2017OR PUCUM1808Northwest Natural Gas CompanyDepreciation263.2017NY PSCCase No. 17-W-0528SUEZ Water Owego-NicholsDepreciation	259.	2017	FERC	ER17-211-000	Mid-Atlantic Interstate Transmission, LLC	Depreciation
262.2017OR PUCUM1808Northwest Natural Gas CompanyDepreciation263.2017NY PSCCase No. 17-W-0528SUEZ Water Owego-NicholsDepreciation	260.	2017	MN PUC	Docket No. G007/D-17-442	Minnesota Energy Resources Corporation	Depreciation
263. 2017 NY PSC Case No. 17-W-0528 SUEZ Water Owego-Nichols Depreciation	261.	2017	IL CC	Docket No. 17-0124	Northern Illinois Gas Company	Depreciation
	262.	2017	OR PUC	UM1808	Northwest Natural Gas Company	Depreciation
264. 2017 MO PSC GR-2017-0215 Laclede Gas Company Depreciation	263.	2017	NY PSC	Case No. 17-W-0528	SUEZ Water Owego-Nichols	Depreciation
·	264.	2017	MO PSC	GR-2017-0215	Laclede Gas Company	Depreciation
265. 2017 MO PSC GR-2017-0216 Missouri Gas Energy Depreciation	265.	2017	MO PSC	GR-2017-0216	Missouri Gas Energy	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
266.	2017	ILL CC	Docket No. 17-0337	Illinois-American Water Company	Depreciation
267.	2017	FERC	Docket No. ER18-22-000	PPL Electric Utilities Corporation	Depreciation
268.	2017	IN URC	Cause No. 44988	Northern Indiana Public Service Company	Depreciation
269.	2017	NJ BPU	BPU Docket No. WR17090985	New Jersey American Water Company, Inc.	Depreciation
270.	2017	RI PUC	Docket No. 4800	SUEZ Water Rhode Island	Depreciation
271.	2017	OK CC	Cause No. PUD 201700496	Oklahoma Gas and Electric Company	Depreciation
272.	2017	NJ BPU	ER18010029 & GR18010030	Public Service Electric and Gas Company	Depreciation
273.	2017	NC Util Com.	Docket No. E-7, SUB 1146	Duke Energy Carolinas, LLC	Depreciation
274.	2017	KY PSC	Case No. 2017-00321	Duke Energy Kentucky, Inc.	Depreciation
275.	2017	MA DPU	D.P.U. 18-40	Berkshire Gas Company	Depreciation
276.	2018	IN IURC	Cause No. 44992	Indiana-American Water Company, Inc.	Depreciation
277.	2018	IN IURC	Cause No. 45029	Indianapolis Power and Light	Depreciation
278.	2018	NC Util Com.	Docket No. W-218, Sub 497	Aqua North Carolina, Inc.	Depreciation
279.	2018	PA PUC	Docket No. R-2018-2647577	NiSource - Columbia Gas of Pennsylvania, Inc.	Depreciation
280.	2018	OR PUC	Docket UM 1933	Avista Corporation	Depreciation
281.	2018	WA UTC	Docket No. UE-108167	Avista Corporation	Depreciation
282.	2018	ID PUC	AVU-E-18-03, AVU-G-18-02	Avista Corporation	Depreciation
283.	2018	IN URC	Cause No. 45039	Citizens Energy Group	Depreciation
284.	2018	FERC	Docket No. ER18-	Duke Energy Progress	Depreciation
285.	2018	PA PUC	Docket No. R-2018-3000124	Duquesne Light Company	Depreciation
286.	2018	MD PSC	Case No. 948	NiSource - Columbia Gas of Maryland	Depreciation
287.	2018	MA DPU	D.P.U. 18-45	NiSource - Columbia Gas of Massachusetts	Depreciation
288.	2018	OH PUC	Case No. 18-0299-GA-ALT	Vectren Energy Delivery of Ohio	Depreciation
289.	2018	PA PUC	Docket No. R-2018-3000834	SUEZ Water Pennsylvania Inc.	Depreciation
290.	2018	MD PSC	Case No. 9847	Maryland-American Water Company	Depreciation
291.	2018	PA PUC	Docket No. R-2018-3000019	The York Water Company	Depreciation
292.	2018	FERC	ER-18-2231-000	Duke Energy Carolinas, LLC	Depreciation
293.	2018	KY PSC	Case No. 2018-00261	Duke Energy Kentucky, Inc.	Depreciation
294.	2018	NJ BPU	BPU Docket No. WR18050593	SUEZ Water New Jersey	Depreciation
295.	2018	WA UTC	Docket No. UE-180778	PacifiCorp	Depreciation
296.	2018	UT PSC	Docket No. 18-035-36	PacifiCorp	Depreciation
297.	2018	OR PUC	Docket No. UM-1968	PacifiCorp	Depreciation
298.	2018	ID PUC	Case No. PAC-E-18-08	PacifiCorp	Depreciation
299.	2018	WY PSC	20000-539-EA-18	PacifiCorp	Depreciation
300.	2018	PA PUC	Docket No. R-2018-3003068	Aqua Pennsylvania, Inc.	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
301.	2018	IL CC	Docket No. 18-1467	Aqua Illinois, Inc.	Depreciation
302.	2018	KY PSC	Case No. 2018-00294	Louisville Gas & Electric Company	Depreciation
303.	2018	KY PSC	Case No. 2018-00295	Kentucky Utilities Company	Depreciation
304.	2018	IN URC	Cause No. 45159	Northern Indiana Public Service Company	Depreciation
305.	2018	VA SCC	Case No. PUR-2019-00175	Virginia American Water Company	Depreciation
306.	2019	PA PUC	Docket No. R-2018-3006818	Peoples Natural Gas Company, LLC	Depreciation
307.	2019	OK CC	Cause No. PUD201800140	Oklahoma Gas and Electric Company	Depreciation
308.	2019	MD PSC	Case No. 9490	FirstEnergy – Potomac Edison	Depreciation
309.	2019	SC PSC	Docket No. 2018-318-E	Duke Energy Progress	Depreciation
310.	2019	SC PSC	Docket No. 2018-319-E	Duke Energy Carolinas	Depreciation
311.	2019	DE PSC	DE 19-057	Public Service of New Hampshire	Depreciation
312.	2019	NY PSC	Case No. 19-W-0168 & 19-W-0269	SUEZ Water New York	Depreciation
313.	2019	PA PUC	Docket No. R-2019-3006904	Newtown Artesian Water Company	Depreciation
314.	2019	MO PSC	ER-2019-0335	Ameren Missouri	Depreciation
315.	2019	MO PSC	EC-2019-0200	KCP&L Greater Missouri Operations Company	Depreciation
316.	2019	MN DOC	G011/D-19-377	Minnesota Energy Resource Corp.	Depreciation
317.	2019	NY PSC	Case 19-E-0378 & 19-G-0379	New York State Electric and Gas Corporation	Depreciation
318.	2019	NY PSC	Case 19-E-0380 & 19-G-0381	Rochester Gas and Electric Corporation	Depreciation
319.	2019	WA UTC	Docket UE-190529 / UG-190530	Puget Sound Energy	Depreciation
320.	2019	PA PUC	Docket No. R-2019-3010955	City of Lancaster	Depreciation
321.	2019	IURC	Cause No. 45253	Duke Energy Indiana	Depreciation
322.	2019	KY PSC	Case No. 2019-00271	Duke Energy Kentucky, Inc.	Depreciation
323.	2019	OH PUC	Case No. 18-1720-GA-AIR	Northeast Ohio Natural Gas Corp	Depreciation
324.	2019	NC Util. Com.	Docket No. E-2, Sub 1219	Duke Energy Carolinas	Depreciation
325.	2019	FERC	Docket No. ER20-277-000	Jersey Central Power & Light Company	Depreciation
326.	2019	MA DPU	D.P.U. 19-120	NSTAR Gas Company	Depreciation
327.	2019	SC PSC	Docket No. 2019-290-WS	Blue Granite Water Company	Depreciation
328.	2019	NC Util. Com.	Docket No. E-2, Sub 1219	Duke Energy Progress	Depreciation
329.	2019	MD PSC	Case No. 9609	NiSource Columbia Gas of Maryland, Inc.	Depreciation
330.	2020	NJ BPU	Docket No. ER20020146	Jersey Central Power & Light Company	Depreciation
331.	2020	PA PUC	Docket No. R-2020-3018835	NiSource - Columbia Gas of Pennsylvania, Inc.	Depreciation
332.	2020	PA PUC	Docket No. R-2020-3019369	Pennsylvania-American Water Company	Depreciation
333.	2020	PA PUC	Docket No. R-2020-3019371	Pennsylvania-American Water Company	Depreciation
334.	2020	MO PSC	GO-2018-0309, GO-2018-0310	Spire Missouri, Inc.	Depreciation
335.	2020	NM PRC	Case No. 20-00104-UT	El Paso Electric Company	Depreciation
336.	2020	MD PSC	Case No. 9644	Columbia Gas of Maryland, Inc.	Depreciation
337.	2020	MO PSC	GO-2018-0309, GO-2018-0310	Spire Missouri, Inc.	Depreciation
338.	2020	VA St CC	Case No. PUR-2020-00095	Virginia Natural Gas Company	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	Docket No.	Client Utility	<u>Subject</u>
339.	2020	SC PSC	Docket No. 2020-125-E	Dominion Energy South Carolina, Inc.	Depreciation
340.	2020	WV PSC	Case No. 20-0745-G-D	Hope Gas, Inc. d/b/a Dominion Energy West Virginia	Depreciation
341.	2020	VA St CC	Case No. PUR-2020-00106	Aqua Virginia, Inc.	Depreciation
342.	2020	PA PUC	Docket No. R-2020-3020256	City of Bethlehem – Bureau of Water	Depreciation
343.	2020	NE PSC	Docket No. NG-109	Black Hills Nebraska	Depreciation
344.	2020	NY PSC	Case No. 20-E-0428 & 20-G-0429	Central Hudson Gas & Electric Corporation	Depreciation
345.	2020	FERC	ER20-598	Duke Energy Indiana	Depreciation
346.	2020	FERC	ER20-855	Northern Indiana Public Service Company	Depreciation
347.	2020	OR PSC	UE 374	Pacificorp	Depreciation
348.	2020	MD PSC	Case No. 9490 Phase II	Potomac Edison – Maryland	Depreciation
349.	2020	IN URC	Case No. 45447	Southern Indiana Gas and Electric Company	Depreciation
350.	2020	IN URC	IURC Cause No. 45468	Indiana Gas Company, Inc. d/b/a Vectren Energy	Depreciation
351.	2020	KY PSC	Case No. 2020-00349	Kentucky Utilities Company	Depreciation
352.	2020	KY PSC	Case No. 2020-00350	Louisville Gas and Electric Company	Depreciation
353.	2020	FERC	Docket No. ER21- 000	South FirstEnergy Operating Companies	Depreciation
354.	2020	OH PUC	Case Nos 20-1651-EL-AIR, 20-1652-	Dayton Power and Light Company	Depreciation
			EL-AAM & 20-1653-EL-ATA		
355.	2020	OR PSC	UE 388	Northwest Natural Gas Company	Depreciation

East Kentucky Power Cooperative, Inc. Case No. 2021-00103 General Adjustment of Rates Filing Requirements / Exhibit List

Exhibit 16

807 KAR 5:001 Sec. 16(4)(b) Sponsoring Witness: Richard Macke

Description of Filing Requirement:

If the utility has gross annual revenues greater than \$5,000,000, the written testimony of each witness the utility proposes to use to support its application.

Response:

In support of its Application, EKPC provides written testimony from Richard J. Macke, Vice President, Economics, Rates, and Business Planning at Power System Engineering, Inc., whose testimony is included with this Exhibit 16.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

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THE ELECTRONIC APPLICATION OF EAST)
KENTUCKY POWER COOPERATIVE, INC.)
FOR A GENERAL ADJUSTMENT OF RATES,) Case No. 2021-00103
APPROVAL OF DEPRECIATION STUDY,)
AMORTIZATION OF CERTAIN REGULATORY	·)
ASSETS AND OTHER GENERAL RELIEF)

DIRECT TESTIMONY OF RICHARD J. MACKE VICE PRESIDENT, ECONOMICS, RATES, AND BUSINESS PLANNING POWER SYSTEM ENGINEERING, INC.

ON BEHALF OF EAST KENTUCKY POWER COOPERATIVE, INC.

Filed: April 1, 2021

1 PART I - QUALIFICATIONS

- 2 Q. Please state your name and business address.
- 3 A. My name is Richard J. Macke. My business address is 10710 Town Square Drive
- 4 NE, Suite 201, Minneapolis, Minnesota 55449.
- 5 Q. What is your profession?
- 6 A. I am a Vice President and lead the Economics, Rates, and Business Planning
- 7 Department at Power System Engineering, Inc. ("PSE"), which is headquartered at
- 8 1532 W. Broadway, Madison, Wisconsin 53713.
- 9 O. Please describe the business activities of PSE.
- 10 A. PSE is a consulting firm serving electric utilities across the country, but primarily in
- the Midwest. Our headquarters is in Madison, Wisconsin with regional offices in
- 12 Cincinnati, Ohio, Minneapolis, Minnesota; Marietta, Ohio; and Sioux Falls, South
- Dakota. PSE is involved in engineering and consulting services such as: power
- supply, transmission and distribution system planning; distribution, substation and
- transmission design; construction contracting and supervision; retail and wholesale
- 16 rate design and cost of service ("COS") studies; load forecasting; financial and
- 17 operating consultation; telecommunication and network design, mapping/GIS; and
- system automation, Demand Side Management ("DSM"), metering, and outage
- management systems.
- 20 Q. Please describe your responsibilities with PSE.
- 21 A. I lead and direct staff in Indiana, Minnesota, and Wisconsin who provide economic,
- 22 financial, and rate-related consulting services to investor-owned, cooperative, and
- 23 municipal utilities as well as regulators and industry associations. These services

1 include:

- Cost of Service Studies
- Capital Credit Allocations
- Demand Response
- Distributed Generation Rates
- Energy Efficiency
- Financial Forecasting
- Large Power Contract Rates/Proposals
- Line Extension Policies/Charges
- Load Management Analysis

- Load Forecasting
- Market and Load Research
- Merger Analysis
- Pole Attachment Charges
- Power Cost Adjustments
- Rate Consolidation
- Retail Rate Design and Analysis
- Statistical Performance Benchmarking

2 Q. What is your educational background?

- 3 A. I graduated from Bethel University in St. Paul, Minnesota in 1996 with a Bachelor of
- 4 Arts degree in Business, which included an emphasis in Finance and Marketing. In
- 5 2007, I received my Master of Business Administration degree, with an emphasis in
- 6 Finance and Strategic Management, from the Carlson School of Business at the
- 7 University of Minnesota in Minneapolis, Minnesota. I have also attended numerous
- 8 industry seminars/courses on cost of service, pricing, valuation, distributed
- 9 generation, etc.

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Q. What is your professional background?

- 11 A. From 1996 to 1998, I was employed by PSE in its Minneapolis, Minnesota office as
- a Financial Analyst in the Utility Planning and Rates Department. My work
- responsibilities primarily were focused on retail rate studies, including revenue
- requirements and bundled/unbundled COS studies. I also provided analyses used to
- support testimony, mergers and acquisitions, and financial forecasting.
- 16 From 1998 to 1999, I was employed as a Senior Analyst by Energy & Resource
- 17 Consulting Group, LLC in Denver, Colorado, a financial, engineering, and
- management consulting firm. I performed consulting services related to electric, gas,

and water rate studies. As part of the Legend Consulting Advisor Team contracted by the City Council of the City of New Orleans, Louisiana, I assisted in various electric and gas utility matters. I also provided general financial, management, and public policy support to clients.

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I rejoined PSE in 1999; and from 1999 to 2002, I held the position of Rate and Financial Analyst in the Rates and Financial Planning Department. From 2002 to March 2008, I held the position of Senior Rate and Financial Analyst in the Utility Planning and Rate Division. My responsibilities have included performing complex financial analyses, such as rate studies consisting of determination of revenue requirements, bundled and unbundled COS analysis, and rate design. responsibilities included performing analysis of special rates and programs, key account analyses, financial forecasting, merger and acquisition analysis, activitybased costing, policy development and evaluation, and other financial analyses for various PSE clients. Additional responsibilities included strategic planning, litigation support, regulatory compliance, capital expenditure and operational assessments, and advisement. From April 2008 to June 2010, I held the position of Leader, Rates and Financial Planning. In July 2010, I was named Vice President, Rates and Financial Planning. Since June 2011, I have held the position of Vice President, Economics, Rates, and Business Planning. In this capacity, I continue to provide, amongst other things: 1) rate, financial, and economic consulting services to clients, 2) management and leadership to the Economics, Rates, and Business Planning Department, and 3) management and leadership at the corporate level to PSE through participation on the Executive Committee and Board of Directors.

- 1 Q. Have you previously presented testimony before the Kentucky Public Service
- 2 Commission ("KPSC" or "Commission")?
- 3 A. Yes. I filed testimony in Case No. 2016-00365 on behalf of Farmers RECC and in
- 4 Case No. 2018-00129 on behalf of Inter-County Energy.
- 5 Q. Have you ever testified before other regulatory bodies relative to electric utility
- 6 matters?
- 7 A. Yes, on several occasions. A list of my experience in this regard is provided in my
- 8 curriculum vitae, attached as Exhibit (RJM-1).
- 9 Q. Do you have any other relevant experience?
- 10 A. Yes. I have directed well over 200 rate design and COS studies and numerous other
- rate and financial related projects. Many times, these projects were conducted for
- self-regulated electric utilities. I have also performed such analyses for state-
- regulated cooperatives in Iowa, Kansas, Michigan, Minnesota, New Hampshire, and
- 14 Texas. I have also conducted seminars and made presentations to utilities, consumers,
- and industry groups on a variety of topics related to utility rate design, economics,
- and financial matters.
- 17 Q. What is the purpose of your testimony on this case?
- 18 A. I, and my firm, have been retained by East Kentucky Power Cooperative, Inc.
- 19 ("EKPC") to prepare a COS and Rate Design Analysis in conjunction with this case.
- 20 Q. Are you sponsoring any exhibits?
- 21 A. Yes. I am sponsoring the following exhibits:
- Exhibit (RJM-1) Curriculum Vitae of Richard J. Macke
- Exhibit (RJM-2) Cost of Service Analysis

1		• Exhibit (RJM-3) – Proposed Rate Design
2	Q.	Are you sponsoring any filing requirements?
3	A.	Yes, the cost of service study meets the requirements contained in 807 KAR 5:001,
4		Section 16(4)(u). I have also developed information that was used to estimate the
5		effect that each new rate design will have upon the revenues of EKPC including the
6		amounts of revenues resulting from the increase and percentage of increase, as
7		required by 807 KAR 5:001, Section 16(4)(d), and a detailed analysis of customers'
8		bills demonstrating the revenues from the present and proposed rates for each
9		customer class of EKPC, as required by 807 KAR 5:001, Section 16(4)(g).
10	Q.	Were these exhibits and this filing requirement prepared by you or under your
11		direct supervision?
12	A.	Yes.
13		PART II TESTIMONY
14		COST OF SERVICE STUDY
15	Q.	Please provide a brief overview of the cost of service analysis you prepared.
16	A.	I followed the traditional and industry-accepted approach for preparing a fully
17		allocated, average embedded COS analysis for an electric utility, which may be
18		described as consisting of the following steps:
19		Step 1 - Functionalize the utility's Rate Base and Revenue Requirements into four
20		basic functional categories:
21		Production;
22		Transmission;
23		Distribution; and

General and/or Common.

Step 2 - Classify the utility's Rate Base and Revenue Requirements into the following categories:

- Direct -- Costs which are directly attributed to one specific classification (i.e. in this case, a single Owner-Member Cooperative ("owner-member") or contract customer). Expense associated with Steam Service is an example of the Direct Expense;
- Customer -- Costs which are a function of the number of customers served or delivery points (i.e., in this case, the ownermembers) that do not vary significantly with the demand imposed on the system or the amount of energy consumed. Expense associated with metering at the delivery points is an example of a customer-related cost;
- Capacity -- Costs resulting from providing and maintaining in readiness for operation facilities required to meet the peak demand imposed on the system; and Energy -- Costs related to the amount of energy used.

Step 3 - Allocate the classified costs to the various rate classes. Generation and transmission ("G&T") cooperatives, such as EKPC, typically have only a single class of service, namely its owner-members. Accordingly, the three steps are often merged into a consolidated process for simplicity. However, EKPC offers optional rate structures to its owner-members for service to their large industrial customers. To facilitate evaluating and updating these rates the COS treats these optional rates as

- 1 separate classes and allocates total revenue requirements based on appropriate criteria.
- 2 The allocation process is discussed in more detail later in my direct testimony.
- 3 Q. Please describe the COS analysis that you prepared on behalf of EKPC.
- 4 A. The COS analysis I prepared in conjunction with this case is presented in Exhibit
- 5 (RJM-2), and consists of the following schedules:
- Schedule A- Classification of Plant-in-Service;
- 7 Schedule B Classification of Payroll Expense;
- 8 Schedule C Classification of Accumulated Reserves for
- 9 Depreciation;
- Schedule D Classification of Rate Base;
- Schedule E Classification of Revenue Requirements;
- Schedule F Determination of Allocation Factors; and
- Schedule G Allocation of Revenue Requirements.
- 14 Q. Please describe the plant, expense and revenue data used in the COS study.
- 15 A. The COS study is based on actual EKPC plant, expense and revenue data for the year
- 16 2019 adjusted for pro forma test year adjustments as presented by other EKPC
- witnesses. Further, the data has been adjusted to eliminate plant related and operating
- expenses recovered through EKPC's Environmental Surcharge (Rate ES) and
- expenses recovered via the Fuel Adjustment Clause (FAC) as included in EKPC's
- 20 current KPSC tariff. The COS study reflects the remaining plant related and operating
- 21 expenses which are recovered through EKPC's base rates.
- 22 Q. Please describe how you classified Plant-in-Service as shown in Exhibit (RJM-
- 23 **2), Schedule A.**

- 1 A. First, consistent with normal COS methodology, I defined the relevant
- 2 functional/classification categories as follows:
- Production Capacity-related;
- 4 Production Energy-related;
- 5 Production Steam Service;
- 6 Transmission;

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- 7 Distribution substations; and
- 8 Distribution metering.

The plant accounts, defined on the basis of the Federal Energy Regulatory Commission's ("FERC") Uniform System of Accounts, were classified in a manner consistent with National Association of Regulatory Utility Commissioners' ("NARUC") Electric Utility Cost Allocation Manual ("EUCAM"). In the case of production, it was necessary to allocate a portion of the Steam Plant investment associated with Spurlock Units 1 and 2 to the Steam Service category. (Steam Service is provided to Inland Steam out of Spurlock Units 1 and 2.) This was done on the basis of ratios of the equivalent capacity and energy requirements of Inland Steam to the total capacity and energy output of Spurlock Units 1 and 2. The remainder of the investment in production facilities was assigned to the Production-Capacity and Production-Energy categories based on the Average and Excess Demand ("AED") methodology. Stated simply, the AED methodology posits that the portion of the utility's production plant necessary to serve its average system load should be classified as Production Energy. In contrast, the primary alternative, the FERC or 12-CP method, would result in virtually 100% of Production plant being classified as

Production Capacity. Using the AED method results in approximately 44.8% of EKPC's Production plant being classified as Production Energy with the remaining 55.2% being classified as Production Capacity. While certainly not used exclusively, "energy weighting methods" such as the AED method have widespread use amongst electric generating utilities for purposes of Production plant classification. In conjunction with EKPC personnel, I have concluded that the AED method is appropriate for EKPC's COS and believe that it will 1) result in an equitable allocation of Production plant-related costs among EKPC's owner-members, 2) reflect the reality that EKPC's baseload production resources serve not only a capacity but also energy function, 3) result in proposed rates that provide a reasonable price-signal related to capacity costs, and 4) result in proposed rates that provide for a reasonable degree of continuity with present rates.

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Please explain how you functionalized/classified investment in transmission Ο. 14 facilities.

In functionalizing and classifying transmission investment, based on data provided by EKPC, I identified the portion of transmission substation investment that was related to distribution substations and metering and assigned that to the appropriate Distribution category. Similar to Production Plant, a portion of account 353 was assigned to Steam Service on the basis of equivalent capacity requirements of Inland Steam to the total capacity and energy output of Spurlock Units 1 and 2. The remainder of the Transmission Plant investment (accounts 350 through 359), was classified as Transmission.

- 1 Q. Please explain how you functionalized/classified the investment in the
- 2 distribution accounts, Accounts 360 to 373.
- 3 A. Based on data provided by EKPC, the total investment in substations and metering
- 4 equipment included in accounts 360 and 362 was identified and assigned to the
- 5 respective classification. Any remaining investment in these two accounts was
- 6 allocated to all classifications based on labor expenses. Account 368, which consists
- 7 primarily of capacitor banks and serve a transmission function, were assigned to
- 8 Transmission.
- 9 Q. Please explain how you functionalized/classified investment in General Plant
- 10 facilities.
- 11 A. General Plant serves an overhead function, for which there exists no direct correlation
- with the functional/classification categories. Therefore, it is customary to
- functionalize/classify this investment based on a labor expense allocator. The
- rationale for this approach is that General Plant is related to administration and
- equipping employees to perform their respective job functions.
- 16 Q. Please explain how you functionalized/classified labor expense.
- 17 A. The functionalization/classification of labor expense is provided in Schedule B. As
- shown, I chose to functionalize/classify labor expense in the same manner that the
- 19 corresponding operation and maintenance ("O&M") expense was
- functionalized/classified. I will describe in more detail the methodology used to
- 21 classify O&M expense later in my testimony.
- 22 Q. Please explained how you functionalized/classified Accumulated Reserves for
- Depreciation, as shown in Schedule C.

- 1 A. EKPC, like most G&T cooperatives, does not maintain Accumulated Reserves for
- 2 Depreciation records by individual accounts corresponding to FERC defined plant
- accounts, but instead by functional category. Therefore, the first step was to allocate
- 4 the amount recorded for each functional category to subaccounts corresponding to the
- 5 plant accounts within that functional category. Second, the allocated Accumulated
- Reserves for Depreciation for each plant account were than allocated to each
- 7 functional/ classification category on the same basis as the corresponding investment.
- 8 Q. Please explain how you functionalized/classified Rate Base shown in Schedule
- 9 **D.**
- 10 A. The functionalization/classification of Plant-in-Service and Accumulated Reserves
- for Depreciation, presented in Exhibit (RJM-2), Schedules A and C, was described
- previously. Construction Work in Progress ("CWIP") was first broken down into
- appropriate categories, with the amounts in each category functionalized/classified in
- the same manner as the corresponding plant accounts. Similarly, Materials and
- Supplies ("M&S") were first broken down into relevant categories, and then
- functionalized/classified in the same manner as the corresponding plant accounts.
- Finally, working capital was determined using the customary 45 days (1/8) rule, and
- functionalized/classified in the same manner as the corresponding expense.
- 19 Q. Please explain how you functionalized/classified Revenue Requirements, as
- shown in Schedule E.
- 21 A. The first category of expenses to be functionalized/classified is Production Operations
- and Maintenance ("O&M") expense. After directly assigning Production O&M
- 23 expenses related to providing steam service to the steam category, the remaining

expenses were assigned based on the NARUC EUCAM, which assigns an expense account to either Production Capacity or Production Energy in a prescribed manner. This approach is intended to reflect the cost driver for the majority of the expense recorded in each account. Purchased Power expense was determined to be entirely related to energy purchases, and, thus, was assigned to the Production Energy category. Account 556, System Control and Dispatch was evaluated by EKPC staff and was functionalized/classified as Production Energy. Finally, Account 557, Other Expenses was determined to be roughly 50 percent capacity and 50 percent energy-related and was functionalized/classified accordingly.

Transmission and Distribution O&M expense was functionalized/classified, primarily based on the corresponding plant accounts. Customer Service and Information and Sales expense was deemed to be primarily associated with energy sales, and, thus, was assigned to the Production Energy category. Administrative and General ("A&G") expense was generally functionalized/classified based on the labor ratios developed in Schedule B.

Depreciation expense was functionalized/classified in accordance with the corresponding plant accounts. Amortization of Debt Expense and Discounts, Account 428, was functionalized/classified based on Total Rate Base.

Interest and Margin Requirements were functionalized/classified according to Rate Base, as shown in Schedule D.

Other Revenue and Non-Operating Income Credits were assigned based on an analysis of their respective sources. For example, revenue from off system sales (i.e., non-owner-member Sales) was determined to be energy sales and were assigned to

- the Production Energy component. Wheeling (i.e., transmission service) revenue was
 assigned to the Transmission category. Other Operating Revenue was directly
 assigned based on the source of the revenue, while Interest Income, Patronage Capital
 Allocations from Associated Organizations, Non-Operating, and Unbilled Revenues
 were assigned based on Rate Base.
- Q. Please summarize the results of your Classification and Functionalization
 analysis.
- 8 A. The results of the analysis may be found on page 5 of Exhibit (RJM-2), Schedule E,
 9 and are summarized below: 1

Function/Classification	Amount	Pct of Total
Production-Capacity	\$ 172,575,237	37%
Production-Energy	\$ 166,858,556	35%
Steam Service	\$ 4,820,197	1%
Transmission	\$ 105,007,730	22%
Distribution Substations	\$ 19,197,972	4%
Distribution Metering	\$ 2,444,085	1%
Total	\$ 470,903,778	100%

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- Q. Please provide an overview of how these Classified and Functionalized Revenue
- 12 Requirements were allocated to the rate classes for determination of proposed
- rates.
- 14 A. The allocation of EKPC's Revenue Requirements is shown in Exhibit RJM-2 on
- Schedules F and G. The first step of the allocation process is defining the rate classes.
- As noted previously, G&Ts often have only one rate class, i.e., its owner-members.
- However, G&T's may have optional rates for end-use customers that meet certain

¹ The cost of service study had been adjusted to exclude both the FAC and Environmental Surcharge Rider and so the results reflect the revenue requirement for base rates.

criteria, customers served pursuant to special contracts, and rate programs designed
to encourage retail participation in demand side management ("DSM"), energy
efficiency and similar programs. For EKPC, 4 rate classes for sales pursuant to
contract and 3 classes for contract customers were established for purposes of the
COS. These include:
■ Rate B
■ Rate C
■ Rate E
■ Rate G
■ Contract
Steam (Contract), and
Rate TGP (Contract)
Any rates in EKPC's current tariff that were not in use during the test year 2019,
e.g., Rate A, are not included. Rates and riders that are not based on average
embedded cost methods such as Rate D - Interruptible Demand Credits, and the
various DSM programs are not included. Any revenue impact resulting from these
rates and riders is eliminated from the revenue requirements allocation purposes.
They're added back for determination of total revenues under proposed rates so that
they equal the total revenues proposed.
With the rate classes established, the next step is to establish the proper basis for
allocating the revenue requirements. The following table summarizes the basis used
for allocating each function/classification.

Production-Energy On-Peak, Off-Peak, and Total MWh Energy

Steam Service Direct Assignment

Transmission 12 Month Average Coincident Peak kW Demand

Distribution Substations
Distribution Metering
Total Substations
Total Meters

Schedule F shows the determination of each of these allocators. The MW demand and MWh energy values are derived from EKPC's billing records and/or the underlying hourly load data for each rate class. On-peak and Off-peak energy periods are as defined in EKPC's current tariff. Note that Rates B and C include only submetered accounts that are served through substations where Rate E is the default applicable rate. Accordingly, related sub-station costs are allocated only to Rate E and not Rates B and C.

As previously discussed, Steam service is provided directly from EKPC's Spurlock Units 1 and 2 and, as a result, the cost of Steam service is based on a supplemental allocation of related costs. For Rate TGP (pipelines), EKPC delivers power purchased at market-based rates plus a fixed delivery (demand) charge. Accordingly, while both of these rates are included on Schedule F for informational purposes, they are not included in the calculation of the respective allocators used for allocation of revenue requirements to the individual rate classes.

Schedule G shows the allocation of EKPC's total revenue requirements as classified/functionalized on Schedule E (Line 210) using the appropriate allocator determined on Schedule F. Costs associated with Steam and Rate TGP are specifically assigned to these classes and remaining revenue requirements are allocated to Rates B, C, E, G and Contract. The total cost of service-based increase or decrease for each class is shown on Line 29. Line 30 shows the increase or decrease

1		as a percentage of base rate revenues excluding FAC and ES related costs.
2		The split between On and Off-Peak Fuel and Purchased Power costs shown on
3		Lines 11 and 12 is based on the average 2019 Local Market Price during the define
4		On and Off-Peak hours per the tariff.
5		Beginning on Line 33, Schedule G provides average cost data per billing unit was
6		used for guidance in developing EKPC's proposed rates.
7		PART III DIRECT TESTIMONY
8		RATE DESIGN STUDY
9	Q.	What is the overall revenue request and how was it established?
10	A.	The revenue requested by EKPC is approximately \$868,000,000. This represents a
11		revenue increase of \$42,990,177.2 It should be noted that this is less than the full
12		revenue requirements developed and included in Mr. Isaac Scott's testimony and that
13		which was allocated in the COS presented in my testimony and exhibits attached.
14	Q.	Did you also prepare rate design to implement the \$43,000,000 rate increase
15		requested by EKPC?
16	A.	Yes, I did. This has been provided in Exhibit (RJM-3) to my direct testimony.
17	Q.	Are you recommending that the Commission adopt the results of you COS
18		previously described as the sole basis for establishing EKPC's rate design and
19		revenue allocations?
20	A.	No, not directly. While I recommend that the Commission adopt the results of the
21		COS as an important factor in the design of EKPC's rates, I am not recommending

² The targeted base rate increase was \$43,000,000 but, due to rounding this was not exactly achieved and the resulting \$42,990,177 was deemed appropriate.

that the COS should be the <u>only</u> factor used by the Commission in setting EKPC's rates. Instead, as I will elaborate upon, there are other generally accepted rate design principles that guide my recommendations and ultimately EKPC, and its Board of Directors when establishing its rate design. I believe that these same principles are appropriate for the Commission to consider when approving rate design to implement the rate increase request.

7 Q. What objectives have you considered in developing the proposed rates?

- 8 A. There are many legitimate objectives that influence the design of rates. In my
 9 experience, some of the more important ones concerning wholesale rates are as
 10 follows:
 - 1. The proposed rates must produce adequate revenue.
 - 2. The proposed rates should reflect the cost of providing service. To the extent possible, no class or subclass should subsidize or be subsidized by another.
 - 3. The rate schedules should be simple and concise to facilitate acceptance and administration.
 - 4. Abrupt departures from historical rate practices and billing levels should be avoided if possible.
 - 5. The rate structure should be explainable.
 - 6. The rates should promote the efficient use of energy and capacity.

It is generally not possible to fully accomplish all the above objectives simultaneously in developing rates. Compromises based on judgment reflecting the policy of the utility must be made.

In developing the rate design recommendation contained herein, I employed my experience gained from conducting many other studies, combined with discussions with EKPC staff, its owner-members, and its Board of Directors to appropriately balance the previously stated objectives. The result is a rate design proposal that recovers the total revenue increase being requested and has been approved by the EKPC Board of Directors.

7 Q. Please explain your recommended rate increase.

A. The rate increase reflected in the rate design proposal is \$42,990,177. This represents an approximate 5.2 percent increase over present rate levels. Exhibit (RJM-3) contains supporting information for the rate design proposal. The breakdown by rate class is shown in the following table.

	Table 3: Summary of Proposed Rate Change by Rate Schedule							
Line		Present Rates	Proposed	Rates	As			
No.	Description	Amount	Amount	Increase	Percent			
1		\$	\$	\$				
2	Totals Revenues by Rate							
3	Rate B	59,815,719	62,102,004	2,286,285	3.8%			
4	Rate C	17,153,311	17,968,058	814,747	4.7%			
5	Rate E	664,081,280	699,007,015	34,925,736	5.3%			
6	Rate G	25,516,274	26,840,240	1,323,966	5.2%			
7	Contract	42,471,101	45,852,655	3,381,554	8.0%			
8	Steam	10,716,264	10,974,152	257,888	2.4%			
9	Rate TGP	6,349,849	6,349,849	-	0.0%			
10	Sub-Total Revenues	826,103,797	869,093,973	42,990,177	5.2%			
11	Rate H	49,170	49,170	-	0.0%			
12	DSM Riders	(1,109,853)	(1,109,853)	-	0.0%			
13	Total Revenues	825,043,114	868,033,290	42,990,177	5.2%			

Q. How did you establish the allocation of the increase between the EKPC rate schedule.

15 A. The COS analysis played an important role in establishing the targeted increase for

1	each schedule; however, other rate design objectives were also considered. After
2	consultation with EKPC the following general guidelines in distributing the requisite
3	rate increase to the various retail rate schedules:

- 1. Rate Schedules should generally be increased in relation to their performance relative to allocated cost as determined by the COS.
- 2. No rate schedule should increase more than 8.0 percent which represents about 1.5x's the system average.
- 3. Steam Service will be a direct pass through of the cost of service results
- 4. The TGP Rate is per contract and will not change due to the nature of this service being priced utilizing a formula that is tied to market prices.
- 5. Within the above limitations, Rate E will be used to "true-up" to the total rate increase requested.

Q. Within each rate class what principles were employed to establish the various rate components such as demand rates and energy rates?

A. Principals of cost causation and gradualism played significant roles in the design of the rate schedule components. Specifically, the COS indicates that EKPC's demand rates are low relative to the demand costs and energy rates are high relative to its energy costs. Fully implementing these COS results would have been an abrupt change that impacted the EKPC owner-members bills and the owner-member retail cost of service study significantly, causing greater disparity in both cases. Therefore, while it was not possible to exactly align rates with the costs – due to a preference for gradualism – the proposed rate design generally increased demand rates more than energy rates. For example, Rate E which is the main rate schedule that the owner-

members purchase under for the majority of their retail member consumers is proposed to experience a 9 percent increase in the demand rate and only a 4.5 percent increase in energy. For this rate (Rate E), Rate C, and Contract this is the proposed approach, i.e. an approximate 2:1 ratio of the increase between the demand and energy rates. In my opinion this strikes a reasonable balance between pursuing the COS results while keeping the principle of gradualism in mind in terms of bill impacts and cost structure changes for the member-owners.

Q. Rate Schedule E has both an Option 1 and Option 2. Are both options being usedand how did you establish rates for each option?

Currently, all EKPC owner-members purchase under Option 2 for Rate E. The difference between Option 1 and 2 for Rate E is that Option 1 has a higher demand rate and lower energy rate than Option 2. Although Option 1 is not currently being used, the rate was still developed in order to continue providing the options and yet ensure that it would produce adequate revenue should it be used by any owner-member. To achieve this the first step was to apply the present Option 1 versus Option 2 demand rate differential to the proposed Option 2 demand rate. This means that the Option 2 demand rate increases from \$7.99 to \$8.37 per kW and maintains its present "adder" over the Option 1 demand rates; both present and proposed. Next, a calculation was made to apply both Rate E options to all owner-members. The final step was to establish an energy rate for Option 2 that ensured that 1) the present on-peak to off-peak rate differential remained intact, and 2) would not produce less revenue from any owner-member. The last step was the essential one to ensure that, regardless of the Rate E option selected by an owner-member, EKPC's proposed

E option is at the discretion of the owner-member, i.e. EKPC cannot determine or even predict which option is selected, this approach neither harms the owner-member nor results in revenue erosion to EKPC.

5 Q. Did you also evaluate EKPC's Economic Development Rider?

A. Yes, I did. I recommend that the Economic Development Rider ("EDR") be continued
 under its current design.

8 Q. Please explain.

EKPC's EDR provides a discount against the standard demand charges. The demand charge discount starts at 50% in Year 1, steps down to 40% in Year 2, and continues to step down by 10% each year until, in year 6, there is no discount. Since the EDR customer pays all the other charges the same as if they didn't qualify for the EDR, the evaluation of the EDR only needs to focus on the result of applying the credit against the standard demand charges.

There are two customers being served under EKPC's Rate B that were receiving the EDR during the Test Year. One customer was in the fourth of five years at the end of the Test Year and was receiving a 20% discount and the other was in year three of five years at the end of the Test Year and was receiving a 30% discount. Again, the discount is only applied against the demand charges. The table below summarizes the annual billings and EDR discount provided to each customer.³

³ For purposes of these figures, the EDR discount percentage applicable at the end of the Test Year was annualized for the entire Test Year. It therefore may not exactly align with the actual EDR discounts provided during the Test Year.

Table 2: Summary of Test Year Billings - EDR Customers							
EDR at 20% Demand Charge Discount							
EDR Customer 1	В	efore EDR		EDR	A	After EDR	EDR %
Present Rates	\$	201,899	\$	(9,522)	\$	192,377	-4.7%
Proposed Rates	\$	209,337	\$	(9,943)	\$	199,394	-4.7%
EDR at 30% Demand Charge Discount							
EDR Customer 2	В	efore EDR		EDR	F	After EDR	EDR %
Present Rates	\$	183,371	\$	(14,197)	\$	169,175	-7.7%
Proposed Rates	\$	190,537	\$	(14,830)	\$	175,707	-7.8%

As can be observed in the above table, the amount of the EDR discount is equal to an approximate 5% and 8% decrease in annual bill for the two customers. This percent discount will decrease to 0% in 2021 for one customer and 2022 for the other.

To evaluate the EDR discount to the demand charges, I evaluated the resulting Rate B demand rate after the EDR discount versus the PJM Reliability Pricing Model (RMP) capacity auction results, which I use as indicative of EKCP's marginal cost of capacity. I find that, after the EDR discounts, the proposed Rate B demand rates are expected to recover EKPC's marginal cost of capacity. Below is a table comparing the Rate B demand rate under each level of the EDR to the marginal capacity costs.

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⁴ PJM Base Residual Auction (BRA) Resource Clearing Prices, System Marginal Price which reflects the clearing price for Capacity Performance Resources in an unconstrained area.

		Prop	osed Rate B	PJI	M BRA De	elivery	Years
Year	Discount	NET I	Demand Rate	202	20/2021	201	9/2020
		(\$	/kW-mo.)	(\$/k	(W-mo.)	(\$/k	W-mo.)
Year 1	50%	\$	3.75	\$	2.33	\$	3.04
Year 2	40%	\$	4.49	\$	2.33	\$	3.04
Year 3	30%	\$	5.24	\$	2.33	\$	3.04
Year 4	20%	\$	5.99	\$	2.33	\$	3.04
Year 5	10%	\$	6.74	\$	2.33	\$	3.04
Year 6	0%	\$	7.49	\$	2.33	\$	3.04

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On this basis, I conclude that the EDR demand charge discount schedule continues to be supported by an analysis of marginal capacity costs such that a load qualifying for the discount will likely pay something in excess of EKPC's marginal costs which should provide a positive contribution margin towards fixed costs for the benefit of EKPC's system.⁵

Q. What is your recommendation to the Commission?

A. I recommend that the Commission find that the COS provides an equitable allocation of EKPC's revenue requirement and that the proposed rate change and rate design by rate schedule be approved as just and reasonable based upon the evidence presented by EKPC.

12 Does that conclude your testimony?

13 A. Yes.

⁵ I use the term "likely" because future results of PJM BRA prices is unknown – however from the two year history included, there is over a 20% cushion between the resulting EDR demand rates and the marginal capacity cost history.

Exhibit RJM-1 Page 1 of 6



RICHARD J. MACKE VICE PRESIDENT, ECONOMICS, RATES, AND BUSINESS PLANNING

SUMMARY OF EXPERIENCE AND EXPERTISE

- Over 23 years of experience in electric utility consulting.
- Specialized expertise in financial advisement with particular emphasis on: cost of service analyses, wholesale and retail rate design, strategic planning, mergers and acquisitions, and financial modeling.
- Frequent speaker at industry events and utility board, commission, and staff meetings.
- Expert witness in regulatory cases concerning rates and distributed generation policies.

PROFESSIONAL EXPERIENCE

Power System Engineering, Inc. - Minneapolis, MN (1999-present)

Vice President, Economics, Rates, and Business Planning (June 2011-present) Vice President, Rates and Financial Planning (July 2010-May 2011) Various Other Positions (1999-June 2010)

As Vice President of the Economics, Rates, and Business Planning Department at PSE, responsibilities include managing the firm's economic and rate practice areas and providing senior level consulting services to clients in the areas of cost of service, rate design, financial planning and forecasting, merger and acquisition analysis, and support. Additional responsibilities include strategic planning, litigation support, expert witness, regulatory compliance, capital expenditure, and operational assessments and advisement.

Energy & Resource Consulting Group, LLC - Denver, CO (1998-1999) Senior Analyst

Senior Analyst for financial, engineering, and management consulting firm. Performed consulting services related to electric, gas, and water rate studies. Part of the Financial and Engineering Advisor Team contracted to the City Council of the City of New Orleans, LA to assist in various electric and gas utility matters. Provided expert testimony and participated in various regulatory proceedings involving the City Council, the Public Utilities Commission of Texas, and the Public Utilities Commission of Nevada. Provided general financial, management, and public policy support to clients.

Power System Engineering, Inc. - Blaine, MN (1996-1998) Financial Analyst

Financial Analyst in Utility Planning and Rates Division. Emphasis on retail rate studies, including revenue requirements, and bundled/unbundled cost of service studies. Provided analysis used to support testimony, mergers and acquisitions cases, and financial forecasting.

Curriculum Vitae

EDUCATION

University of Minnesota, Minneapolis, MN
Masters of Business Administration, 2007
Bethel University, St. Paul, MN
Bachelor of Arts Degree in Business, Minor in Economics, 1996

PRESENTATIONS AND PUBLICATIONS

Presentations at Industry Meetings

Торіс	Organization	Conference	Location	Date
Rate Design Virtual Workshop	Ohio's Electric	2020 Virtual Rate	Virtual	12/2020
	Cooperatives	Design Workshop		
Rate and Cost of Service Workshop	Sangre De Cristo	2020 Workshop	Buena Vista,	6/2020
1	Electric Association		CO	
The Rates of Change – Ratemaking Options for a	East River Electric	2020 Energize	Sioux Falls, SD	2/2020
Changing Industry		Forum		
Electric Service in Annexed Areas Legislative	South Dakota Rural	Oral Testimony to	Pierre, SD	8/2019
	Electric Association	the Legislative		
		Interim Study		
		Committee		
Trends in Rate Design - Panel	Minnesota Rural	2019 Energy Issues	St. Cloud, MN	7/2019
	Electric Association	Summit		
Electric Vehicle Development and Rate Trends	Iowa Association of	2019 Accountants	Des Moines, IA	5/2019
	Electric	Conference		
	Cooperatives			
Electric Vehicle Development and Rate Trends	Iowa Association of	2019 CEO	Des Moines, IA	4/2019
	Electric	Conference		
	Cooperatives			
Cost of Service and Rate Design Seminar	PSE/Minnesota	Spring 2018	Bloomington,	4/2018
	Rural Electric	Seminar	MN	
	Association			
Cost of Service and Rate Design Seminar	PSE/Kansas Electric	Fall 2017 Seminar	Salina, KS	10/2017
	Cooperatives			
Evolving Rate Structures	Wisconsin Electric	Fall Manager's	Wisconsin	10/2017
	Cooperative Assoc.	Meeting	Dells, WI	
Rate Design and Cost of Service Seminar	PSE/KEC	Fall 2017 Seminar	Salina, KS	10/2017
Cost of Service: Transforming Theory into Reality	APPA	Business and	Nashville, TN	9/2017
		Finance Conference		
The Case for Peak-Time Rebate (PTR) Programs	EUCI	Residential Demand	Charleston, SC	7/2017
		Charges Conference		_ /- /- /-
Power Cost Adjustment (PCA)	Iowa Association of	Managers and	Okoboji, IA	7/2017
	Electric	Board President's		
	Cooperatives	Summer Conference		
Distributed Generation Rate Design	Kansas Rural	Manager's	Wichita, KS	6/2017
	Electric	Association Spring		
NEW DAY AND ADDRESS OF THE PARTY OF THE PART	Cooperatives	Meeting	G 1' T/G	2/2015
NEM Policy Update and DG Rate Design	Kansas Electric	Regulatory Review	Salina, KS	3/2017
D. I. CHARLES	Cooperatives, Inc.	and Tax Committee	Cl. 1	6/2016
Rate Impact of Net Metering	Generation and	G&T Finance and	Charleston, SC	6/2016
	Transmission	Accounting		
	Finance and	Conference		
N. M. A. T. A.C. B	Accountants Assoc.	16 1 2 1	D 14 ' T'	1/0016
Net Metering and Fixed Cost Recovery	Iowa Association of	Manager's Spring	Des Moines, IA	4/2016



Curriculum Vitae

	Electric	Conference		
	Cooperatives			
Net Metering Deep Dive	Minnesota Rural	Annual Meeting	St. Paul, MN	3/2016
	Electric Assoc.		,	
Retail Rate Design and Industry Update	Association of	Manager's Fall	Branson, MO	9/2015
, ,	Missouri Electric	Conference		
	Cooperatives			
Rate Design and Cost of Service Seminar	Power System	Fall 2015 Seminar	Lexington, KY	9/2015
,	Engineering, Inc.			
Distributed Generation WI Survey Results	Dairyland Power	Solar Workshop	Plover, WI	9/2015
,	Cooperative	1	,	
Consumer-Owned Generation	Hoosier Energy	2015 Board	French Lick, IN	8/2015
		Strategic Issues		
		Forum		
Retail Rate Design and DG	National Rural	CEO Close-Up	St. Petersburg,	1/2015
C	Electric Cooperative	Conference	FL	
	Assoc.			
Evolution of Retail Rate Design	National Rural	NRECA Issues	Indianapolis, IN	10/2014
· C	Electric Cooperative	Summit	1	
	Assoc.			
Net Metering and Retail Rate Design	Kansas Electric	Accountant's	Wichita, KS	10/2014
	Cooperatives	Meeting		
DG Rate Considerations	Wisconsin Electric	Emerging Energy	Wisconsin	8/2014
	Cooperative Assoc.	Issues Summit		
Rate Design and Cost of Service Seminar	Power System	Spring 2014	Indianapolis, IN	5/2014
	Engineering, Inc.	Seminar		
Rate Trends and Facilities Charges	South Dakota Rural	Accountant's Fall	Mitchell, SD	10/2013
	Electric Assoc.	Conference		
Rate Design and Cost of Service Seminar	Power System	Fall 2013 Seminar	Bloomington,	10/2013
	Engineering, Inc.		MN	
Tackling New Trends in Rates and Facilities	Rural Electric	Fall Financial	Duluth, MN	8/2013
Charges	Managers Assoc.	Manager's Conf.		
Dynamic Pricing	National Rural	Accounting,	New Orleans,	7/2013
	Electric Cooperative	Finance and Tax	LA	
	Assoc.	Meeting		
Rate Trends	Wisconsin Electric	Manager's Meeting	Warrens, WI	7/2013
	Cooperative Assoc.			
Standby Rates	Iowa Association of	Manager's Spring	Des Moines, IA	4/2013
	Electric	Conference		
	Cooperatives			

Publications

Macke, Richard; Butz, Thomas; and Sonju, Erik. "Distributed Energy Resources: Trends and Impacts on G&Ts and Their Member Cooperatives." National Rural Electric Association, July 2019.

Macke, Richard and Butz, Thomas. "The Value of Distributed Solar Generation." National Rural Electric Association, 2016.

Mbiad, Garry and Macke, Richard. "Cooperative Rate Structures - Seven Case Studies." National Rural Electric Association, 2016.

Macke, Richard. "Survey: Electric Cooperative Fixed Cost Recovery." Power System Engineering, Inc., 2014. Mbiad, Garry and Macke, Richard. "NRECA Cooperative Solar Case Studies." National Rural Electric Association, 2014.

Macke, Richard. "G&T DER Whitepaper." Power System Engineering, Inc., 2013.



Curriculum Vitae

Macke, Richard, Fenrick, Steve, and Getachew, Lullit. "Performance Based Regulation for Electric and Gas Distributors." Power System Engineering, Inc., 2011.

EXPERT TESTIMONY

Case or Jurisdiction	Docket No.	Description
		Description CYV - F
Kansas	18-WSEE-328- RTS	In the Matter of the Joint Application of Westar Energy, Inc. and Kansas Gas and Electric Company for Approval to Make Certain Changes in their Charges for Electric Service. Filed comments, testimony at testified at hearing after Supreme Court remanded the case back to the KCC.
Kansas	20-SPEE-169-RTS	In the Matter of the Application of Southern Pioneer Electric Company for Approval to Make Certain Changes in its Charges for Electric Service. As part of the filing, Southern Pioneer proposes to implement a 3-year Rate Plan, including increasing its Customer Charge for certain rate classes, institute a Grid Access Charge for its DG customers, and update its LED lighting rates.
Kansas	19-SPEE-240-MIS	In the Matter of Southern Pioneer Electric Company's Application for Approval of the Continuation of its Debt Service Coverage and 34.5 kV Formula Based Ratemaking Plans.
Kansas	18-SPEE-477-RTS	Southern Pioneer Electric Company, Annual Filing for approval to make certain changes to its charges for electric services, pursuant to the Debt Service Coverage Formula Based Ratemaking Plan approved in Docket No. 13-MKEE-452-MIS and 34.5kV Formula Based Ratemaking Plan approved in Docket No. 16-MKEE-023-TAR. Testimony filed on behalf of Southern Pioneer.
Kansas	16-GIME-403- GIE	Kansas Electric Cooperatives and Southern Pioneer Electric Company, in the matter of the General Investigation to Examine Issues Surrounding Rate Design for Distributed Generation Customers. Testimony filed in support of Stipulation and Agreement on behalf of both entities.
Kansas	16-PLCE-490- TAR	Prairie Land Electric Cooperative, Inc., application for approval to update its Local Access Delivery Service Tariff pursuant to the 34.5kV Formula Based Rate Plan approved in Docket No. 16-MKEE-023-TAR. Testimony filed on behalf of Prairie Land.
Kansas	16-SPEE-501- TAR	Southern Pioneer Electric Company, Annual Filing for approval to make certain changes to its charges for electric services pursuant to the 34.5kV Formula Based Rate Plan approved in Docket No. 16-MKEE-023-TAR. Testimony filed on behalf of Southern Pioneer.
Kansas	16-VICE-494- TAR	The Victory Electric Cooperative Association, Inc., application for approval to update its Local Access Delivery Service Tariff pursuant to the 34.5kV Formula Based Rate Plan approved in Docket No. 16-MKEE-023-TAR. Testimony filed on behalf of Victory.



Curriculum Vitae

Kansas	16-WSTE-496- TAR	Western Cooperative Electric Association, Inc., application for approval to update its Local Access Delivery Service Tariff pursuant to the 34.5kV Formula Based Rate Plan approved in Docket No. 16-MKEE-023-TAR. Testimony filed on behalf of Western.
Kansas	16-MKEE-023- TAR	Mid-Kansas Electric Company, application for approval of individual 34.5kV formula-based rates. Testimony filed on behalf of Mid-Kansas, Southern Pioneer, Victory, and Western.
Kansas	15-SPEE-519-RTS	Southern Pioneer Electric Company, Annual Filing for approval to make certain changes to its charges for electric services, pursuant to the Debt Service Coverage Formula Based Ratemaking Plan approved in Docket No. 13-MKEE-452-MIS. Testimony filed on behalf of Southern Pioneer.
Kansas	15-SPEE-161-RTS	Southern Pioneer Electric Company, application for approval to make certain changes to its Local Access Charge Rate. Testimony filed on behalf of Southern Pioneer.
Kansas	14-SPEE-507-RTS	Southern Pioneer Electric Company, Annual Filing for approval to make certain changes to its charges for electric services pursuant to the Debt Service Coverage Formula Based Ratemaking Plan Approved in Docket No. 13-MKEE-452-MIS. Testimony filed on behalf of Southern Pioneer.
Kansas	13-MKEE-452- MIS	Mid-Kansas Electric Company, LLC, application for approval of a Debt Service Coverage Ratemaking Pilot Plan. Testimony filed on behalf of its member-owner, Southern Pioneer Electric Company.
Kansas	11-MKEE-380- RTS	Mid-Kansas Electric Company, LLC, application for revised rates, tariffs, and rate design changes. Testimony filed on behalf of its member-owner, Southern Pioneer Electric Company.
Kansas	11-MKEE-491- RTS	Mid-Kansas Electric Company, LLC, application for revised rates, tariffs, and rate design changes. Testimony filed on behalf of its member-owner, Western Cooperative Electric Assn., Inc.
Kansas	11-MKEE-439- RTS	Mid-Kansas Electric Company, LLC, application for revised rates, tariffs, and rate design changes. Testimony filed on behalf of its member-owner, Wheatland Electric Cooperative, Inc.
Kansas	09-MKEE-969- RTS	Mid-Kansas Electric Company, LLC, application for approval to make certain changes in the charges for electric services. Testimony filed on behalf of Mid-Kansas and its member-owners: Lane-Scott Electric Cooperative, Inc.; Prairie Land Electric Cooperative, Inc.; Southern Pioneer Electric Company; Victory Electric Cooperative Association, Inc.; Western Cooperative Electric Association, Inc.; and Wheatland Electric Cooperative, Inc.
Kansas	09-PNRE-563- RTS	Pioneer Electric Cooperative, Inc., application to increase rates. Testimony filed on behalf of Pioneer.
Kansas	09-WHLE-681- RTS	Wheatland Electric Cooperative, Inc., application to increase rates. Testimony filed on behalf of Wheatland.
Kentucky	2018-00129	Inter-County Energy, Application for Revised Rates, Tariffs, and Rate Design Changes



Curriculum Vitae

Kentucky	2016-00365	Farmers Rural Electric Cooperative Corporation, application for matter
		of adjustment of rates. Testimony filed on behalf of Farmers.
Maryland	S.B. 771	Oral Testimony before Maryland State Senate in support of Senate Bill 771.
Maryland	H.B. 996	Oral Testimony before Maryland House of Delegates in support of House Bill 996.
Minnesota	16-512	Oral Testimony provided on behalf of the Minnesota Rural Electric
		Association: In the Matter of a Commission Investigation into Fees Charged to Qualifying Facilities by Cooperative Electric Associations under the 2015 Amendments to Minn. Stat. § 216B.164, Subd. 3
Minnesota	E-111/GR-03-261	Dakota Electric Association, application to increase rates. Testimony filed on behalf of Dakota.
South Carolina	2014-246-E	Testimony in support of the Settlement Agreement submitted by the parties to the Commission as the generic net metering methodology required by S.C. Code §58-40- 20(F)(4) of Act 236 on behalf of Central Electric Power Cooperative, Inc. and the Electric Cooperatives of South Carolina.
South Dakota	Regarding Senate Bill 66	South Dakota Legislative Interim Study Committee - Electric Services in an Annexed Area. Presented oral testimony to the Legislative Committee at August 28, 2019 meeting. Testimony on behalf of South Dakota Rural Electric Association.
Texas	2150	North Star Steel, appropriateness of settlement rates being charged by Entergy Gulf States, Inc. Testimony filed on behalf of North Star Steel before the Public Utilities Commission of Texas.



East Kentucky Power Cooperative, Inc. Classification of Plant in Service Excluding Environmental Surcharge Costs TY 2019 - Pro Forma - Excludes ES and FAC

(a) Line	(b) Acct.	(c)	(d) Allocation	(e) Pro Forma	(f)	(g) Production	(h)	(i)	(j) Distribution	(k) Distribution	(1)
No.	No.	Description	Factor	Test Year 1	Capacity	Energy	Steam Direct	Transm.	Substations	Meters	Comments
1				(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	
2	201	Intangible Plant		5.040	2.107						
3	301	Organization	LABOR	5,040	2,186	1,584	61	1,023	119	66	
4	302	Franchises	LABOR	-	-	-	-	-	-	-	2
5	303	Misc. Intang. Plant	TRANS	2,330,311	2.107	1.504	(1	2,330,311	110		-
6 7		Subtotal - Intangible Plant		2,335,351	2,186	1,584	61	2,331,334	119	66	
8		Production Plant									
9		Steam									
10	310	Land & Land Rights	See Note	10,123,919	5,442,173	4,417,696	264,051				3
11	311	Struct. & Improve.	See Note	294,492,048	159,893,898	129,794,228	4,803,922				3
12	312	•	See Note	787,574,876			19,517,295				3
		Boiler Plant Equip.			423,930,805	344,126,777	19,317,293				3
13	313	Engines & Gen.	See Note	-	-	-	-				3
14	314	Turbogenerator Units	See Note	253,537,267	139,940,364	113,596,903	-				3
15	315	Access. Elec. Equip.	See Note	68,280,062	37,175,550	30,177,335	927,177				3
16	316	Misc. Plant Equipment	See Note	12,027,681	6,572,629	5,335,346	119,706				3
17	317	Asset Retirement	See Note	52,983,580	28,760,235	23,346,185	877,160				
18		Subtotal		1,479,019,434	801,715,653	650,794,469	26,509,311	-	-	-	
19		Nuclear									
20	320	Land & Land Rights		-							
21	321	Struct. & Improve.		-							
22	322	Reactor Plant Equip.		-							
23	323 324	Turbogenerator Units		-							
24 25	324	Access. Elec. Equip. Misc. Plant Equipment		-							
26	323	Subtotal									
27		Hydraulic									
28	330	Land & Land Rights		_							
29	331	Struct. & Improve.		-							
30	332	Rsrvr Dams & Strwys		-							
31	333	Wheels Turb. & Gen.		-							
32	334	Accessory Electrical Equip.		-							
33	335	Misc. Plant Equipment		-							
34	336	Rds RR & Bridges									
35		Subtotal		-	-	-	-	-	-	-	
36		Other									
37	340	Land & Land Rights	PROD_CAP	5,964,036	3,291,861	2,672,175	-	-	-	-	
38	341	Struct. & Improve.	PROD_CAP	52,871,798	29,182,687	23,689,111	-	-	-	-	
39	342	Prod. & Access.	PROD_CAP	20,033,575	11,057,569	8,976,006	-	-	-	-	
40 41	343 344	Prime Movers Generators	PROD_CAP PROD CAP	406,211,866 103,150,557	224,209,392 56,934,141	182,002,474 46,216,416	-	-	-	-	
41	345	Access. Elec. Equip.	PROD_CAP PROD CAP	38,288,056	21,133,163	17,154,892	-	-	-	-	
42	346	Misc. Plant Equip.	PROD_CAP PROD CAP	15,990,208	8,825,825	7,164,383	-	-	-	-	
44	570	Subtotal	TROD_CAI	642,510,096	354,634,638	287,875,458			<u>-</u>		
45		SubtotalProduction		2,121,529,530	1,156,350,291	938,669,928	26,509,311	-	_		
						2 2	,,				

Plant-in-Service as of December 31, 2019, excluding plant completed but not yet classified.

Intangible plant related to transmission interconnections with other utilities.

Investment in Steam Plant facilities has been assigned first directly to Inland Steam Service with the remainder allocated to Capacity and Energy based on Line 101.

East Kentucky Power Cooperative, Inc. Classification of Plant in Service Excluding Environmental Surcharge Costs TY 2019 - Pro Forma - Excludes ES and FAC (Continued)

					(Continued)					
(a) Line	(b) Acct.	(c)	(d) Allocation	(e) Pro Forma	(f)	(g) Production	(h)	(i)	(j) Distribution	(k) Distribution	(1)
		Description		Test Year 1	Camacita	Energy	Steam Direct	Tuanam			Comment
<u>No.</u> 46	No.	<u>Description</u> Transmission	<u>Factor</u>	(\$)	Capacity (\$)	(\$)	(\$)	Transm. (\$)	Substations (\$)	Meters (\$)	Commen
47	350	Land & Land Rights	See Note	60,408,008	(4)	(4)	(4)	60,408,008	(Φ)	(Φ)	
48	352	Struct. & Improve.	TRANS PLNT	00,408,008				00,400,000	-	-	
49	353	•	See Note	269 002 202			877,160	220 (00 100	20 220 025		4
		Station Equip.		268,903,393	-		8//,100	238,698,198	29,328,035		
50	353	Station EquipDistribution Meters	DIST_METERS	626,666				2 052 521		626,666	
51	354	Towers & Fixtures	TRANS_PLNT	3,853,521				3,853,521			
52	355	Poles & Fixtures	TRANS_PLNT	150,851,436				150,851,436			
53	356	OH Cond. & Devices	TRANS_PLNT	132,608,503				132,608,503			
54	357	UG Conduit	TRANS_PLNT	-				-			
55	358	UG Cond. & Devices	TRANS_PLNT	- 22 200				22.200			
56	359	Roads & Trails	TRANS_PLNT	23,288			055.160	23,288	20 220 025	(2////	
57		Subtotal - Transmission		617,274,815	-	-	877,160	586,442,954	29,328,035	626,666	
58 59		Distribution									
60	360	Land & Land Rights	See Note	10,063,490	98,401	71,296	_	46,061	9,844,751	2,981	5
61	361	Struct. & Improve.	See Note	10,000,770	70, 1 01	/1,290	-	70,001),0 11 ,/31	2,701	
62	362	•	Can Mata	210 226 570	9 540 562	6 104 561		4 002 020	106 200 152	2 271 272	5
		Station Equip.	See Note	218,326,578	8,549,562	6,194,561	-	4,002,030	196,309,152	3,271,273	
63 64	363 364	Stor. Battery Equip.		-							
		Poles Tower & Fix.		-							
65	365	OH Cond. & Devices		-							
66	366	UG Conduit		-							
67	367	UG Cond. & Devices		-							6
68	368	Line Transformers	See Note	1,985,006				1,985,006			· ·
69	369	Services		-							
70	370	Meters		-						-	
71	371	Install on Cust. Ld		-							
72	372	Leased Ld from Cust.		-							
73	373	Street Light & Signal		-	0.645.062			(022 005	204 152 004	2.251.251	
74		Subtotal - Distribution		230,375,075	8,647,963	6,265,857		6,033,097	206,153,904	3,274,254	
75		Subtotal - Prod, Trans, Dist Plant		2,969,179,420	1,164,998,254	944,935,785	27,386,472	592,476,051	235,481,938	3,900,920	
76		Comonal									
77 70	389	General Land & Land Rights	LABOR	1,835,603	706 222	576 001	22.216	272 710	42 220	24 122	
78 79	399	Land & Land Rights			796,223	576,901	22,316	372,710	43,330	24,122	
		Struct. & Improve.	LABOR	17,176,820	7,450,729	5,398,404	208,823	3,487,669	405,469	225,727	
80	391	Off. Furn. & Equip.	LABOR	28,195,510	12,230,267	8,861,405	342,779	5,724,959	665,571	370,528	
81	392 393	Transp. Equip.	LABOR	17,294,890	7,501,943	5,435,512	210,258	3,511,642	408,256	227,279	
82		Stores Equip.	LABOR	132,973	57,679	41,791	1,617	27,000	3,139	1,747	
83	394	Shop & Garage Equip.	LABOR	2,313,150	1,003,367	726,987	28,121	469,674	54,603	30,398	
84	395	Lab Equip.	LABOR	5,311,176	2,303,810	1,669,219	64,569	1,078,408	125,373	69,796	
85	396	Power Op. Equip.	LABOR	20,685,598	8,972,719	6,501,158	251,480	4,200,109	488,295	271,838	
86	397	Communication Equip.	LABOR	42,013,301	18,223,961	13,204,119	510,765	8,530,593	991,748	552,113	
87	398	Misc. Equip.	LABOR	2,428,473	1,053,390	763,231	29,524	493,089	57,325	31,914	
88	399	Other Tangible Prop.	LABOR	127 207 404	50 F04 000	42 170 720	1 670 251	27 905 952	2 242 111	1 005 463	
89		Subtotal-General Plant		137,387,494	59,594,089	43,178,728	1,670,251	27,895,853	3,243,111	1,805,463	
90		Constant		2 100 002 266	1,224,594,529	000 116 007	20.056.794	622 702 229	220 725 170	5 706 450	
91		Grand Total		3,108,902,266	1,224,394,329	988,116,097	29,056,784	622,703,238	238,725,168	5,706,450	

⁴ Includes 1) direct assigned amount associated with Distribution Substations serving Members, 2) an amount allocated to Steam Service, and 3) the remainder to Transmission.

⁵ Direct assign the investment in Distribution Substations that serve as delivery points to the Members and Meters. Assign any residual investment on the basis of LABOR2.

Investment in capacitor banks installed in distribution substations. This serves a transmission function.

East Kentucky Power Cooperative, Inc. Classification of Plant in Service Excluding Environmental Surcharge Costs TY 2019 - Pro Forma - Excludes ES and FAC

	(a) (b) (c) (d) (e) (f) (f) (i) (i) (i) (f) (f)												
(a) Line	(b) Acct.	(c)	(d) Allocation	(e) Pro Forma	(f)	(g) Production	(h)	(i)	(j) Distribution	(k) Distribution	(1)		
No.	No.	Description	Factor	Test Year 1	Capacity	Energy	Steam Direct	Transm.	Substations	Meters	Comments		
93					(\$)	(\$)	(\$)	(\$)	(\$)	(\$)			
94		Allocation Factors Based on Plant											
95	301-303	Intangible Plant	DIEG BLUE	2,335,351	2,186	1,584	61	2,331,334	119	66	L6		
96			INTG_PLNT	1.000000	0.000936	0.000678	0.000026	0.998280	0.000051	0.000028			
97 98	310-316	Production PlantSteam		1,479,019,434	801,715,653	650,794,469	26,509,311			_	L18		
98 99	310-310	Production PlantSteam	PROD STM PLNT	1.000000	0.542059	0.440018	0.017924	-	-	-	LIS		
100			TROD_STM_TENT	1.000000	0.342039	0.440018	0.01/924	-	-	-			
101		Average and Excess	PROD CAP	1.000000	0.551952	0.448048							
102		B			******								
	340-346	Production PlantOther		642,510,096	354,634,638	287,875,458	-	-	-	-	L44		
104			PROD_OTH_PLNT	1.000000	0.551952	0.448048							
105													
106	301-346	Total Production Plant		2,121,529,530	1,156,350,291	938,669,928	26,509,311	-	-	-	L45		
107			PROD_PLNT	1.000000	0.545055	0.442450	0.012495	0.000000	0.000000	0.000000			
108													
109	353	Transmission Stations		329,311,401	-	-	877,160	299,106,206	29,328,035	-	Sum(L47:L49)		
110			TRANS_STA	1.000000	0.000000	0.000000	0.002664	0.908278	0.089059	0.000000			
111	254 250	T		207 227 749				207.226.740			C(I.51.I.50)		
112 113	354-358	Transmission Lines	TRANS LINES	287,336,748 1.000000	0.000000	0.000000	0.000000	287,336,748 1.000000	0.000000	0.000000	Sum(L51:L56)		
113			IKANS_LINES	1.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000			
	350-359	Total Transmission Plant		617,274,815	_	_	877,160	586,442,954	29,328,035	626,666	L57		
116	550 557	Town Transmission Trans	TRANS PLNT	1.000000	0.000000	0.000000	0.001421	0.950052	0.047512	0.001015	20,		
117			-										
118	360-373	Distribution Plant		230,375,075	8,647,963	6,265,857	-	6,033,097	206,153,904	3,274,254	L74		
119			DIST_PLNT	1.000000	0.037539	0.027199	0.000000	0.026188	0.894862	0.014213			
120													
	301-373	Prod, Trans, Dist Plant		2,969,179,420	1,164,998,254	944,935,785	27,386,472	592,476,051	235,481,938	3,900,920	L75		
122			PTD_PLNT	1.000000	0.392364	0.318248	0.009224	0.199542	0.079309	0.001314			
123	201 202	T . 1.5 Pl .		2.100.002.255	1 22 1 50 1 55 5	000 116 60=	20.054.50:	<00 Too 000	220 525 4 52				
	301-399	Total Gross Plant	CROSS NINT	3,108,902,266	1,224,594,529	988,116,097	29,056,784	622,703,238	238,725,168	5,706,450	L91		
125			GROSS_PLNT	1.000000	0.39389933	0.31783440	0.00934632	0.20029682	0.07678761	0.00183552			
126													

East Kentucky Power Cooperative, Inc. Classification of Payroll Expense

TY 2019 - Pro Forma - Excludes ES and FAC

Note: Labor expense is functionalized/classified on the same basis as the corresponding expense.

(a) Line	(b) Acct.	(c)	(d) Allocation	(e) Pro Forma	(f)	(g) Production	(h)	(i)	(j) Distribution	(k) Distribution	(1)
<u>No.</u>	No.	Description	<u>Factor</u>	Test Year (\$)	Capacity (\$)	Energy (\$)	Steam Direct (\$)	Transm. (\$)	Substations (\$)	Meters (\$)	Comments
2		Power Production		(Ψ)	(Ψ)	(Ψ)	(4)	(Ψ)	(Ψ)	(Ψ)	
3		Steam									
4	500	Oper. Super. & Eng.		4,567,061	4,530,756	-	36,305	-	-	-	
5	501	Fuel		2,403,335	-	2,326,124	77,211	-	-	-	
6	502	Steam		5,226,834	5,097,809	-	129,025	-	-	-	
7	503	Steam-Other Sources		-							
8	504	Steam Transferred		-							
9	505	Electric		3,569,897	3,569,897	-	-	-	-	-	
10	506	Misc. Steam Power		3,374,252	3,304,195	-	70,056	-	-	-	
11	507	Rents		-							
12	510	Main. Super. & Eng.		2,283,826	-	2,208,150	75,676	-	-	-	
13	511	Main. Struct.		849,227	830,681	-	18,547	-	-	-	
14	512	Main. Boiler Plant		6,166,377	-	5,983,996	182,381	-	-	-	
15	513	Main. Electric Plant		1,720,812	-	1,672,758	48,053	-	-	-	
16	514	Main. Misc. Plant		-							
17											
18		Nuclear									
19	517	Oper. Super. & Eng.		-							
20	518	Nuclear Fuel		-							
21	519	Coolants & Water		-							
22	520	Steam Exp.		-							
23	521	Steam - Other Sources		-							
24	522	Steam Transferred		-							
25	523	Electric		-							
26	524	Misc. Nuclear Power		-							
27	525	Rents		-							
28	528	Main. Super. & Eng.		-							
29 30	529 530	Main. Struct. Main. Reactor Plant		-							
	531	Main. Electric Plant		-							
31 32	532	Main. Misc. Plant		-							
33	332	Maiii. Misc. Flaiit		-							
34		Hydraulic									
35	535	Oper. Super. & Eng.									
36	536	Water for Power		_							
37	537	Hydraulic		_							
38	538	Electric		_							
39	539	Misc. Hydr. Power		_							
40	540	Rents		-							
41	541	Main. Super. & Eng.		_							
42	542	Main. Struct.		_							
43	543	Main. Waterways		_							
44	544	Main. Electric Plant		_							
45	545	Main. Misc. Hydr. Plant		_							
		,									

East Kentucky Power Cooperative, Inc. Classification of Payroll Expense TY 2019 - Pro Forma - Excludes ES and FAC

(continued)

Line Acct. Allocation Pro Forma Production Distribution Distribution						(Continu	ieu)					
No. Description Pactor Test Year Capacity Steam Direct Tansm. Substations Meters Com	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)
Section Sect	Line	Acct.		Allocation	Pro Forma		Production		-	Distribution	Distribution	
		No.	Description	Factor		Capacity			Transm.	Substations		Comn
Note Section Section	46				(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	
\$\frac{4}{9} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \												
50 547 Fuel 84,558 - 84,558 - - - 51 548 Generation 1,399,757 1,399,757 - - - - - 52 549 Misc. Other Power 783,985 783,985 - - - - - - 55 550 Rents 25,389 295,389 -												
51 5.48 Gencration 1,399,757 1,399,757 - <td< td=""><td>49</td><td>546</td><td></td><td></td><td></td><td>1,607,921</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td></td></td<>	49	546				1,607,921	-	-	-	-	-	
52 549 Misc. Other Power 783,985 783,985 - <	50						84,558	-	-	-	-	
53 5.00 Main. Super. & Eng. 295,389 295,389 295,389 3	51	548	Generation		1,399,757	1,399,757	-	-	-	-	-	
54 551 Main. Super. & Eng. 295,389 295,389 -	52	549	Misc. Other Power		783,985	783,985	-	-	-	-	-	
55 522 Main. Struct. 289,876 289,876 -	53	550	Rents		-							
56 553 Main. Gen. & Elec. Plant 1,015,976 2,015,975,488 2 2 2 1,447 2 2 1,447 2 2 1,447 2 2 1,447 2 2 1,447 2 2 1,447 2 2 1,447 2 2 1,447 2 2 1,447 2 2 2,1447 2 2 1,447 2 2 1,447 2 2 2,1447 2 2 2,1447 2 2 2,1447 2 2 2,1447 2 2 2,1447<	54	551	Main. Super. & Eng.		295,389	295,389	-	-	-	-	-	
57 554 Main. Misc. Other Power 58	55	552	Main. Struct.		289,876	289,876	-	-	-	-	-	
Standard 56	553	Main. Gen. & Elec. Plant		1,015,976	1,015,976	-	-	-	-	-		
Standard Power Supply Standard Power (Net) Standard Power (Net	57	554	Main. Misc. Other Power		-							
Figure F	58				-							
61 556 System Control & Dispatch 2,596,935 - 2,575,488 - - - 21,447 62 557 Other Expenses 662,882 331,441 331,441 - - - 21,447 64 Subtotal - Production 38,898,901 23,057,684 15,182,516 637,254 - - 21,447 65 Transmission ************************************	59		Other Power Supply		-							
62 557 Other Expenses 662,882 331,441 331,441	60	555	Purchased Power (Net)		-	-	-	-	-	-	-	
Subtotal - Production Sa,898,901 23,057,684 15,182,516 637,254 - - 21,447	61	556	System Control & Dispatch		2,596,935	-	2,575,488	-	-	-	21,447	
Subtotal - Production Sa,898,901 23,057,684 15,182,516 637,254 - - 21,447	62	557	Other Expenses		662,882	331,441	331,441	-	-	-	-	
65 Transmission 67 560 Oper. Super. & Eng. 5,447,300 - - 3,609 5,127,091 112,425 204,175 68 561 Load Dispatching 2,522,595 - - -2,278,767 - 243,828 69 562 Oper. Station 1,121,063 - - 3,211 1,017,821 100,031 - 70 563 Oper. OH Line 722,407 - - - 722,407 - - 71 564 Oper. UG Line - - - - 722,407 -	63		· ·									
66 Transmission 67 560 Oper. Super. & Eng. 5,447,300 - - 3,609 5,127,091 112,425 204,175 68 561 Load Dispatching 2,522,595 - - 2,278,767 - 243,828 69 562 Oper. Station 1,121,063 - - 3211 1,017,821 100,031 - 70 563 Oper. OH Line 722,407 - - 2,278,767 - 243,828 71 564 Oper. UG Line - - - 722,407 - - 722,407 -	64		Subtotal - Production	_	38,898,901	23,057,684	15,182,516	637,254	-	-	21,447	
67 560 Oper. Super. & Eng. 5,447,300 - - 3,609 5,127,091 112,425 204,175 68 561 Load Dispatching 2,522,595 - - - 2,278,767 - 243,828 69 562 Oper. Station 1,121,063 - - 3,211 1,017,821 100,031 - 70 563 Oper. UG Line - - - 722,407 - - - 722,407 -	65											
68 561 Load Dispatching 2,522,595 - - - 2,278,767 - 243,828 69 562 Oper. Station 1,121,063 - - 3,211 1,017,821 100,031 - 70 563 Oper. OH Line 722,407 - - - 722,407 - - 71 564 Oper. UG Line - - - - - 722,407 -	66		Transmission									
69 562 Oper. Station 1,121,063 3,211 1,017,821 100,031 -	67	560	Oper. Super. & Eng.		5,447,300	-	-	3,609	5,127,091	112,425	204,175	
70 563 Oper. OH Line 722,407 - - 722,407 - - 722,407 -	68	561	Load Dispatching		2,522,595	-	-	-	2,278,767	-	243,828	
71 564 Oper. UG Line - 72 565 Trans of Electricity - Others -	69	562	Oper. Station		1,121,063	-	-	3,211	1,017,821	100,031	-	
71 564 Oper. UG Line	70	563	Oper. OH Line		722,407	-	-	-	722,407	-	-	
72 565 Trans of Electricity - Others - <	71	564	Oper. UG Line		-							
73 566 Misc. Transmission Oper. 180,660 - - - 180,660 - - - 180,660 - <td< td=""><td></td><td></td><td>*</td><td></td><td>-</td><td>_</td><td>-</td><td>-</td><td>-</td><td>-</td><td>_</td><td></td></td<>			*		-	_	-	-	-	-	_	
74 567 Rents -<					180,660	-	-	_	180,660	-	-	
75 568 Main. Super. & Eng. 159,499 - - 106 150,123 3,292 5,978 76 569 Main. Struct. - - - - 150,123 3,292 5,978 77 570 Main. Station Equip. 859,725 - - 2,061 653,291 64,205 140,168 78 571 Main. OH Lines 661,392 - - - 661,392 - - - 79 572 Main. UG Lines - - - - - 1,694 - - - 1,694 - - - - 1,694 -			-		-	_	-	-		-	_	
76 569 Main. Struct. - 77 570 Main. Station Equip. 859,725 - - 2,061 653,291 64,205 140,168 78 571 Main. OH Lines 661,392 - - - 661,392 - - 79 572 Main. UG Lines - - - - 1,694 - - - 1,694 -			Main. Super. & Eng.		159,499	-	_	106	150,123	3,292	5,978	
77 570 Main. Station Equip. 859,725 - - 2,061 653,291 64,205 140,168 78 571 Main. OH Lines 661,392 - - - 661,392 - - 79 572 Main. UG Lines - - - - 1,694 - - - 1,694 -										- 7	- ,- ,-	
78 571 Main. OH Lines 661,392 661,392 661,392 80 573 Main. Misc. Trans. Plant 1,694 1,694 81					859,725	-	_	2,061	653,291	64,205	140,168	
79 572 Main. UG Lines - 80 573 Main. Misc. Trans. Plant 1,694 1,694 81			* *			_	_					
80 573 Main. Misc. Trans. Plant 1,694 1,694 81									7			
81					1,694	-	_	_	1,694	-	_	
					-,-/				-,			
			Subtotal - Transmission	-	11,676,336	-	-	8,986	10,793,247	279,952	594,150	

East Kentucky Power Cooperative, Inc. Classification of Payroll Expense TY 2019 - Pro Forma - Excludes ES and FAC

(continued)

10	()	4.)	()	(1)	()	(Contin		4.)	(*)	(*)	4.)	(1)
No. Description Factor Test Vear (S)	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)
Signatur		D • •		_	G 1		G, D,					
		No.	Description	<u>Factor</u>								Comments
S80 Open Super, & Eng. S80 Open Super, & Eng. S82 Sation 484,044 S82,959 S82 Sation 484,044 S82,959 S82 Sation 484,044 S82,959 S83 Street Light & Signal Sys. S82 Street Light & Signal Sys. S82 S82			Distribution		(2)	(2)	(2)	(3)	(2)	(2)	(2)	
Section		500										
Station					01 204					(1 (75)	92.050	
S84						-	-	-	-			
September Sept					484,044	-	-	-	-	484,044	-	
90					-							
91 586 Meters					-							
92 587 Customer Installation 93 588 Misc, Distribution 94 589 Rents 95 590 Main, Struct 97 592 Main, Station Equipment 492,479 98 593 Main, OH Lines 99 594 Main, UG Lines 100 595 Main, Line Transf. 101 596 Main, Meters 102 597 Main, Meters 103 598 Main, Meters 104					-							
588					-							
94 589 Rents					-							
95 590 Main. Super. & Eng. -					-							
96 591 Main. Station Equipment 492,479 492,479 - 98 593 Main. OH Lines - 492,479 4					-							
Main. Station Equipment 492,479 -					-							
98 593 Main. OH Lines					-					402.450		
Main. UG Lines					492,479	-	-	-	-	492,479	-	
Main. Line Transf.					-							
101 596 Main. Street Light & Sig. -					-							
102 597 Main. Meters -					-							
103 598 Main. Misc. -			0 0		-							
104 105 Subtotal - Distribution 1,057,806 - - - 974,847 82,959 106 107 Customer Accounts -					-							
1,057,806 - - - 974,847 82,959		598	Main. Misc.		-							
106 107 Customer Accounts				_								
107 Customer Accounts			Subtotal - Distribution		1,057,806	-	-	-	-	974,847	82,959	
108 901 Supervision -												
109 902 Meter Reading -												
110 903 Cust. Rec. & Coll. -					-							
111 904 Uncollectible Accts. -					-							
112 905 Misc. Cust. Acets. -					-							
113 114 Subtotal - Cust. Acets.					-							
114 Subtotal - Cust. Accts.		905	Misc. Cust. Accts.		-							
115 116 Customer Service & Info. 117 907 Supervision - 118 908 Cust. Assistance 1,474,724 - 1,474,724 - 119 909 Advertising 29,404 - 29,404 - 120 910 Misc. Serv. & Info. - - - - 121 - - - - - -				_								
116 Customer Service & Info. 117 907 Supervision - 118 908 Cust. Assistance 1,474,724 - 1,474,724 - 119 909 Advertising 29,404 - 29,404 - 120 910 Misc. Serv. & Info. - - - - 121 - - - - - -			Subtotal - Cust. Accts.		-	-	-	-	-	-	-	
117 907 Supervision - 118 908 Cust. Assistance 1,474,724 - 1,474,724 - 119 909 Advertising 29,404 - 29,404 - 120 910 Misc. Serv. & Info. - - - - 121												
118 908 Cust. Assistance 1,474,724 - 1,474,724 - 119 909 Advertising 29,404 - 29,404 - 120 910 Misc. Serv. & Info. - - - - 121 - - - - -												
119 909 Advertising 29,404 - 29,404 - 120 910 Misc. Serv. & Info. - - - - 121 - - - - -					-							
120 910 Misc. Serv. & Info 121						-			-			
121					29,404	-	29,404		-			
	120	910	Misc. Serv. & Info.		-	-	-		-			
122 Subtotal - Cust. Service 1,504,128 - 1,504,128												
	122		Subtotal - Cust. Service	_	1,504,128	-	1,504,128	-	-	-	-	

East Kentucky Power Cooperative, Inc. Classification of Payroll Expense TY 2019 - Pro Forma - Excludes ES and FAC

(continued)

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)
Line	Acct.		Allocation	Pro Forma		Production			Distribution	Distribution	
No.	No.	Description	Factor	Test Year	Capacity	Energy	Steam Direct	Transm.	Substations	Meters	Comments
123				(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	
124		Sales									
125	911	Supervision		-							
126	912	Demo. & Selling		-							
127	913	Advertising		19,735	-	19,735		-			
128	916	Misc. Sales		-							
129											
130		Subtotal - Sales	_	19,735	-	19,735	-	-	-	-	
131											
132		Summary									
133		Total Labor (Excluding A&G)		53,156,906	23,057,684	16,706,379	646,241	10,793,247	1,254,799	698,556	
134											
135		Labor Allocator	LABOR	1.000000	0.433766	0.314284	0.012157	0.203045	0.023606	0.013141	
136		Labor Allocator (Excluding Steam)	LABOR2	1.000000	0.439105	0.318152		0.205544	0.023896	0.013303	

East Kentucky Power Cooperative, Inc. Classification of Accumulated Reserves for Depreciation Excluding Environmental Surcharge Costs TY 2019 - Pro Forma - Excludes ES and FAC

No. Description Factor Capacity Ca	(a) Line	(b) Acct.	(c)	(d) Allocation	(e) Pro Forma	(f)	(g) Production	(h)	(i)	(j) Distribution	(k) Distribution	(1)
		No.	<u>Description</u>	Factor								Comments
Organization Franchises			Intangible Plant		(Ψ)	(4)	(4)	(4)	(Ψ)	(4)	(4)	
Franchises					_	_	_	_	_	_	_	
Misc. Intang.Plant Subtotal - Intang.ible Plant Subtotal Subtotal - Intang.ible Plant Subtotal Su			•		_							
Production Plant Stream					_	_	_		_	_		
Production Plant Steam S				-								
Steam			Subtemi Immigrate Financ									
Steam	8		Production Plant									
108 Struct. & Improve. Sec Note 43,531,577 77,930,197 63,260,011 2,341,369												
108 Struct. & Improve. Sec Note 43,531,577 77,930,197 63,260,011 2,341,369	10	108	Land & Land Rights			-	-	-	_	_	-	
108 Boiler Plant Equip. See Note 383,853,704 206,618,335 167,722,895 9,512,474		108	•	See Note	143,531,577	77.930.197	63,260,011	2,341,369	_	_	_	1
108			•						_	_	_	1
14 108					_		,	-,,				1
15			•		123 570 751	68 205 105	55 365 646	_				1
108			•						_	_	_	1
17									-	-	-	1
108		108		See Note								
19					090,090,977	374,073,926	303,030,909	12,304,061	-	-	-	
108		108										
108												
Turbogenerator Units Access. Elec. Equip. Access. Elec. Equip.												
23 108												
Misc. Plant Equipment Subtotal												
Subtotal												
Hydraulic		100		-	_	_	_	_	_	_	_	
Land & Land Rights -												
28		108			-							
108	28	108			-							
108	29	108	Rsrvr Dams & Strwys		-							
108 Misc. Plant Equipment	30	108	Wheels Turb. & Gen.		-							
Rds RR & Bridges	31	108	Accessory Electrical Equip.		-							
34 Subtotal	32	108	Misc. Plant Equipment		-							
35 Other 36 108 Land & Land Rights 37 108 Struct. & Improve. See Note 21,599,315 11,921,782 9,677,533 1 38 108 Prod. & Access. See Note 8,184,165 4,517,265 3,666,900 1 39 108 Prime Movers See Note 165,946,656 91,594,564 74,352,092 1 40 108 Generators See Note 42,139,316 23,258,873 18,880,442 1 41 108 Access. Elec. Equip. See Note 15,641,529 8,633,371 7,008,158 1 42 108 Misc. Plant Equip. See Note 6,532,359 3,605,547 2,926,811 1 43 Subtotal 260,043,339 143,531,403 116,511,936 -		108		_	-							
36 108 Land & Land Rights 37 108 Struct. & Improve. See Note 21,599,315 11,921,782 9,677,533 -					-	-	-	-	-	-	-	
37 108 Struct. & Improve. See Note 21,599,315 11,921,782 9,677,533 -	35		Other									
38 108 Prod. & Access. See Note 8,184,165 4,517,265 3,666,900 - - - - - 39 108 Prime Movers See Note 165,946,656 91,594,564 74,352,092 - - - - - 40 108 Generators See Note 42,139,316 23,258,873 18,880,442 - - - - 41 108 Access. Elec. Equip. See Note 15,641,529 8,633,371 7,008,158 - - - - 42 108 Misc. Plant Equip. See Note 6,532,359 3,605,547 2,926,811 - - - - 43 Subtotal 260,043,339 143,531,403 116,511,936 - - - -	36	108	Land & Land Rights									
39 108 Prime Movers See Note 165,946,656 91,594,564 74,352,092 - <t< td=""><td>37</td><td>108</td><td>Struct. & Improve.</td><td>See Note</td><td>21,599,315</td><td>11,921,782</td><td>9,677,533</td><td>-</td><td>-</td><td>-</td><td>-</td><td>1</td></t<>	37	108	Struct. & Improve.	See Note	21,599,315	11,921,782	9,677,533	-	-	-	-	1
40 108 Generators See Note 42,139,316 23,258,873 18,880,442	38	108	Prod. & Access.	See Note	8,184,165	4,517,265	3,666,900	-	-	-	-	1
40 108 Generators See Note 42,139,316 23,258,873 18,880,442 -	39	108	Prime Movers	See Note	165,946,656	91,594,564	74,352,092	-	_	_	-	1
41 108 Access. Elec. Equip. See Note 15,641,529 8,633,371 7,008,158 - - - - 42 108 Misc. Plant Equip. See Note 6,532,359 3,605,547 2,926,811 - - - - - 43 Subtotal 260,043,339 143,531,403 116,511,936 - -	40	108	Generators					_	_	_	_	1
42 108 Misc. Plant Equip. See Note 6,532,359 3,605,547 2,926,811								_	_	_	_	1
43 Subtotal 260,043,339 143,531,403 116,511,936 -			• •							_		1
		100						<u> </u>				
			Subtotal Subtotal Subtotal Subtotal Subtotal	-	950,140,316	517,607,330	420,168,905	12,364,081		-		

Except as noted, prorate the accumulated depreciation for the category or class based on the plant investment in each account.

East Kentucky Power Cooperative, Inc. Classification of Accumulated Reserves for Depreciation Excluding Environmental Surcharge Costs

TY 2019 - Pro Forma - Excludes ES and FAC

(continued)

					(Conti	nucu)					
(a) Line	(b) Acct.	(c)	(d) Allocation	(e) Pro Forma	(f)	(g) Production	(h)	(i)	(j) Distribution	(k) Distribution	(1)
<u>No.</u> 45	No.	<u>Description</u> Transmission	Factor	Test Year 1 (\$)	Capacity (\$)	Energy (\$)	Steam Direct (\$)	Transm. (\$)	Substations (\$)	Meters (\$)	Comments
46	108	Land & Land Rights		(Φ)	(Φ)	(Φ)	(4)	(Φ)	(Φ)	(Φ)	
47	108	Struct. & Improve.									
48	108	Station Equip.	See Note	110,842,896	_	_	365,238	99,390,786	11,086,871		2
49	108	Station Equip. Metering	See Note	163,362			,	,,	,,	163,362	3
49	108	Towers & Fixtures		1,429,554	_	_	_	1,429,554	_	-	
50	108	Poles & Fixtures		55,961,880	_	_	_	55,961,880	_	_	
51	108	OH Cond. & Devices		49,194,236	_	_	_	49,194,236	_	_	
52	108	UG Conduit		· · ·							
53	108	UG Cond. & Devices		_							
54	108	Roads & Trails		8,639	_	_	_	8,639	_	_	
55		Subtotal - Transmission	_	217,600,567	-	-	365,238	205,985,095	11,086,871	163,362	
56											
57		Distribution									
58	108	Land & Land Rights			-	-	-	-	-	-	
59	108	Struct. & Improve.		-							
60	108	Station Equip.		98,750,774	3,564,442	2,582,607	-	1,668,507	90,827,229	107,988	4
61	108	Stor. Battery Equip.		-							
62	108	Poles Tower & Fix.		-							
63	108	OH Cond. & Devices		-							
64	108	UG Conduit		-							
65	108	UG Cond. & Devices		-							
66	108	Line Transformers		897,833	-	-	-	897,833	-	-	
67	108	Services		-							
68	108	Meters		-							
69	108	Install on Cust. Ld		-							
70	108	Leased Ld from Cust.		_							
71	108	Street Light & Signal		-							
72		Subtotal - Distribution	_	99,648,607	3,564,442	2,582,607	-	2,566,340	90,827,229	107,988	
73		Subtotal - Prod, Trans, Dist Plant	_	1,267,389,490	521,171,773	422,751,512	12,729,319	208,551,436	101,914,101	271,351	
74		General									
75	108	Land & Land Rights									
76	108	Struct. & Improve.		13,513,219	5,861,581	4,246,992	164,283	2,743,792	318,987	177,583	
77	108	Off. Furn. & Equip.		22,181,760	9,621,704	6,971,378	269,669	4,503,897	523,613	291,499	
78	108	Transp. Equip.		13,606,106	5,901,872	4,276,185	165,413	2,762,653	321,180	178,803	
79	108	Stores Equip.		104,612	45,377	32,878	1,272	21,241	2,469	1,375	
80	108	Shop & Garage Equip.		1,819,784	789,361	571,929	22,124	369,498	42,957	23,914	
81	108	Lab Equip.		4,178,368	1,812,436	1,313,195	50,797	848,397	98,633	54,910	
82	108	Power Op. Equip.		16,273,618	7,058,950	5,114,542	197,842	3,304,278	384,148	213,858	
83	108	Communication Equip.		33,052,388	14,337,018	10,387,845	401,825	6,711,124	780,221	434,354	
84	108	Misc. Equip.		1,910,510	828,715	600,443	23,227	387,920	45,099	25,107	
85	108	Other Tangible Prop.		-							
86 87	108	Subtotal-General Plant		106,640,363	46,257,014	33,515,388	1,296,451	21,652,799	2,517,307	1,401,403	
88		Grand Total	_	1,374,029,853	567,428,787	456,266,900	14,025,770	230,204,235	104,431,408	1,672,754	

Depreciation Reserves associated with Member Distribution Substations are direct assigned.

Depreciation Reserves associated with distribution meters are direct assigned.

Direct assign the Depreciation Reserves associated with the distribution substations, and allocate the remainder based on LABOR2.

East Kentucky Power Cooperative, Inc. Classification of Rate Base Excluding Environmental Surcharge Costs TY 2019 - Pro Forma - Excludes ES and FAC

(a) Line	(b) Acct.	(c)	(d) Allocation	(e) Pro Forma	(f)	(g) Production	(h)	(i)	(j) Distribution	(k) Distribution	(1)
No.	No.	Description	Factor	Test Year	Capacity	Energy	Steam Direct	Transm.	Substations	Meters	Comments
1		N . · · · · · ·		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	
2 3		Plant in Service Accum. Depr. Reserves		3,108,902,266 (1,374,029,853)	1,224,594,529 (567,428,787)	988,116,097 (456,266,900)	29,056,784 (14,025,770)	622,703,238 (230,204,235)	238,725,168 (104,431,408)	5,706,450 (1,672,754)	
4		Net Plant	-	1,734,872,412	657,165,742	531,849,197	15,031,014	392,499,003	134,293,760	4,033,696	•
5	107	Construction Work in Progress		1,701,072,112	037,103,712	221,012,127	10,001,011	3,2,.,,,,,	13 1,2/3,700	1,033,030	
6	107	Production Non-Steam Related	PROD_CAP	-	-	-	-	-	-	-	
7	107	Production-Steam Service Related	STEAM_SERV	40,416,226	21,907,975	17,783,848	724,403	-	-	-	
8	107	Production-Other	PROD_OTHER	31,087,430	17,158,765	13,928,665					
9 10	107	Transmission	TRANS	33,119,680				33,119,680	7.007.640		
10 11	107 107	Distribution Substations Ditstribution Meters	DIST_SUB DIST_METER	7,087,640					7,087,640	_	
12	107	General Plant	LABOR	401,024	173,951	126,036	4.875	81,426	9,466	5,270	
13	107	Total CWIP	Libor	112,112,000	39,240,691	31,838,549	729,278	33,201,106	7,097,106	5,270	
14	108	Retirement Work in Progress									
15	108	Production Non-Steam Related	PROD_CAP	128,188,526	128,188,526						
16	108	Production-Steam Service Related	STEAM_SERV	-			-	-	-	-	
17	108	Production-Other	PROD_OTHER	5,365,989	2,961,767	2,404,221		22.206.261			
18 19	108 108	Transmission Distribution Substations	TRANS DIST SUB	22,206,361 8,301,815				22,206,361	8,301,815		
20	108	Distribution Meters	DIST_SUB DIST_METER	0,301,613					0,301,613	_	
21	108	General Plant	LABOR	1,025,565	444,856	322,319	12,468	208,236	24,209	13,477	
22	108	Total RWIP		165,088,256	131,595,149	2,726,540	12,468	22,414,597	8,326,024	13,477	•
23		Adjusted Net Plant	-	1,681,896,157	564,811,283	560,961,205	15,747,825	403,285,512	133,064,843	4,025,489	•
24	165	Prepayments	NET_PLNT	13,709,018	5,192,945	4,202,690	118,776	3,101,540	1,061,194	31,874	
25	151	Fuel Stocks	FUEL_EXP	54,974,914	-	53,394,407	1,580,506	-	-	-	
26		Materials and Supplies 1									
27	154	Production-Steam	PROD_STM_PLNT	56,216,613	30,472,715	24,736,295	1,007,602	-	-	-	
28	154	Production-Other	PROD_OTH_PLNT	-	-	-	-	-	-	-	
29	154	Elect. Thermal Storage	PROD_OTHER	30,017	16,568	13,449					
30	154	Transmission	TRANS_PLNT	1,908,958	-	-	2,713	1,813,609	90,699	1,938	
31	154	Distribution Substation	DIST_PLNT	5,552,044	208,416	151,007	-	145,398	4,968,313	78,910	
32	154	Distribution Meters	DIST_METER	-						-	
33	154	General Plant	LABOR	25,292	10,971	7,949	307	5,135	597	332	
34		SubtotalM&S		63,732,924	30,708,670	24,908,700	1,010,623	1,964,142	5,059,609	81,180	
35		Cash Working Capital (1/8)									
36 37		Production Expense		22 252 274	0.014.205	12.024.002	200.052			5.022	
38		Total Less: Fuel		22,252,274 1,676,743	9,014,385	12,934,803 1,675,466	298,052 1,277	-	-	5,033	
39		Less: Purch. Power		3,719,441	-	3,719,441	1,2//	-	-	-	
40		Net Production	-	16,856,090	9,014,385	7,539,896	296,775	_	_	5,033	
41		Transmission O&M		7,207,037	-	-	2,650	6,954,593	88,593	161,201	
42		Distribution O&M		576,069	-	-	-	-	547,714	28,355	
43		Customer Accounts		-	-	-	-	-	-	-	
44		Customer Service & Info.		661,535	-	661,535	-	-	-	-	
45		Sales		4,242	2 170 007	4,242	- (1.0((1.010.004	110 571	-	
46 47		Administrative & General SubtotalCWC	-	5,022,994 30,327,968	2,178,807 11,193,192	1,578,648 9,784,321	61,066 360,491	1,019,894 7,974,487	118,571 754,878	66,009 260,599	•
48		SubiotaiC WC		30,327,900	11,193,192	9,764,321	300,491	7,974,407	734,676	200,399	
49		Total Rate Base	-	1,844,640,980	611,906,091	653,251,324	18,818,220	416,325,681	139,940,523	4,399,142	
50				,- ,	. , ,	,,	-,,	- / / /	/,	,,- 12	
51				1,734,872,412	657,165,742	531,849,197	15,031,014	392,499,003	134,293,760	4,033,696	
52			NET_PLNT	1.000000	0.378798	0.306564	0.008664	0.226241	0.077408	0.002325	
53				1,844,640,980	611,906,091	653,251,324	18,818,220	416,325,681	139,940,523	4,399,142	
54			RATE BASE	1.000000	0.331721	0.354135	0.010202	0.225695	0.075863	0.002385	
55			STEAM_SERV	1.000000	0.542059	0.440018	0.017924				See AED Plant Ex ESC
56			PROD OTHER	1.000000	0.551952	0.448048					See AED Plant Ex ESC

East Kentucky Power Cooperative, Inc. Classification of Revenue Requirements Excluding Environmental Surcharge Costs TY 2019 - Pro Forma - Excludes ES and FAC

(a) Line	(b) Acct.	(c)	(d) Allocation	(e) Pro Forma	(f)	(g) Production	(h)	(i)	(j) Distribution	(k) Distribution	(1)
No.	No.	Description	<u>Factor</u>	Test Year	<u>Capacity</u>	Energy	Steam Direct	Transm.	Substations	Meters	Comments
1		D D 1 d		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	
2 3		Power Production Steam									
4	500	Oper. Super. & Eng.	PROD CAP	8,641,075	8,572,384		68,691				1
5	501	Fuel	PROD ENG	12,007,369	0,372,304	11,997,153	10,216				1
6	502	Steam	PROD CAP	9,312,530	9,082,650	11,777,133	229,880				1
7	503	Steam-Other Sources	PROD_CAP	-	7,002,030		-				1
8	504	Steam Transferred	PROD_CAP	-		_	-				1
9	505	Electric	PROD CAP	5,990,204	5,990,204	-	-				1
10	506	Misc. Steam Power	PROD CAP	17,859,746	17,488,941		370,806				1
11	507	Rents	PROD CAP	17,839,740	-		-				1
12	509	Allowances	PROD ENG	60,283	-	59,547	736				1
13	510	Main. Super. & Eng.	PROD ENG	3,328,440		3,218,150	110,290				1
13	511	Main. Struct.	PROD_ENG PROD_CAP	6,414,594	6,274,503	3,218,130	140,091				1
			_		6,274,303	27 700 760					1
15	512	Main. Boiler Plant	PROD_ENG	38,849,810		37,700,760	1,149,051				1
16	513	Main. Electric Plant	PROD_ENG	10,909,960		10,605,301	304,659				1
17	514	Main. Misc. Plant	PROD_CAP	-	-		-				
18 19		Nuclear									
20	517	Oper. Super. & Eng.		_							
21	518	Nuclear Fuel		_							
22	519	Coolants & Water		_							
23	520	Steam Exp.		-							
24	521	Steam - Other Sources		-							
25	522	Steam Transferred		-							
26	523	Electric		-							
27	524	Misc. Nuclear Power		-							
28	525	Rents		-							
29	528	Main. Super. & Eng.		-							
30 31	529 530	Main. Struct. Main. Reactor Plant		-							
32	531	Main. Electric Plant									
33	532	Main. Misc. Plant		_							
34											
35		Hydraulic									
36	535	Oper. Super. & Eng.		-							
37	536	Water for Power		-							
38	537	Hydraulic		-							
39	538	Electric		-							
40	539	Misc. Hydr. Power		-							
41	540	Rents		-							
42 43	541	Main. Super. & Eng.		-							
43 44	542 543	Main. Struct. Main. Waterways		-							
45	544	Main. Electric Plant		-							
46	545	Main. Misc. Hydr. Plant		-							
		·									

Allocate O&M expense for the steam production related expenses to Steam Service. Assign the remainder to Production-Capacity and Production-Energy in accordance with standard methodology.

					(continued)						
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)
Line	Acct.		Allocation	Pro Forma		Production			Distribution	Distribution	
No.	No.	Description	<u>Factor</u>	Test Year	Capacity	Energy	Steam Direct	Transm.	<u>Substations</u>	Meters	Comments
47				(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	
48		Power Production (Con't.)									
49	546	Other	DDOD CAD	2 220 545	2 220 545						
50	546	Oper. Super. & Eng.	PROD_CAP	3,320,745	3,320,745						
51	547	Fuel	PROD_ENG	1,406,574		1,406,574					
52	548	Generation	PROD_CAP	5,812,372	5,812,372						
53	549	Misc. Other Power	PROD_CAP	3,912,841	3,912,841						
54	550	Rents	PROD_CAP	-	-						
55	551	Main. Super. & Eng.	PROD_CAP	422,731	422,731						
56	552	Main. Struct.	PROD_CAP	834,331	834,331						
57	553	Main. Gen. & Elec. Plant	PROD_CAP	8,786,862	8,786,862						
58	554	Main. Misc. Other Power		-	-						
59											
60		Other Power Supply									
61	555	Purchased Power	PROD ENG	29,755,528		29,755,528					
62	556	System Control & Dispatch	See Note	4,875,747		4,835,481				40,266	
63	557001	Long Term Power Supply	See Note	2,533,202	1,266,601	1,266,601				.,	1
64	557002	Load Forecasting	See Note	699,836	349,918	349,918					2
65	557003	Broker Fees	PROD ENG	2,282,256	3.5,510	2,282,256					3
66	559	Renewable Energy Credit Expenses	PROD ENG	1,155		1,155					
67	337	Subtotal - Production	TROD_LING	178,018,193	72,115,083	103,478,424	2,384,419			40,266	
68		Subtour Troduction		170,010,175	72,113,003	103,170,121	2,301,117			10,200	
69		Transmission									
70	560	Oper. Super. & Eng.	TRANS_OM	10,622,772	-	-	6,545	9,999,243	218,822	398,162	
71	561	Load Dispatching	See Note	4,215,255	_			3,807,818		407,437	4
72	562	Oper. Station	TRANS_STA	3,007,189	-	-	8,010	2,731,362	267,816	-	
73	563	Oper. OH Line	TRANS_LINES	6,676,964	-	-	-	6,676,964	-	-	
74	564	Oper. UG Line	TRANS_LINES	-	-	-	-	-	-	-	
75	565	Trans of Electricity - Others	TRANS	18,056,844				18,056,844			
76	566	Misc. Transmission Oper.	TRANS	404,559				404,559			
77	567	Rents	TRANS	446,269				446,269			
78	568	Main. Super. & Eng.	TRANS_OM	237,968	-	-	147	224,000	4,902	8,919	
79	569	Main. Structures	TRANS	-				-			
80	570	Main. Station Equipment	See Note	2,913,995	-	-	6,496	2,215,200	217,205	475,093	5
81	571	Main. OH Lines	TRANS_LINES	6,151,339	-	-	-	6,151,339	-	-	
82	572	Main. UG Lines	TRANS_LINES	176 100	-	-	-	-	-	-	5
83	573	Main. Misc. Trans. Plant	TRANS	176,182				176,182		-	3
84	575	Market Admin., Mon/Compliance	TRANS	4,746,964			21 100	4,746,964	700 746	1 200 612	
85		Subtotal - Transmission		57,656,297	-	-	21,198	55,636,742	708,746	1,289,612	

Split 50% to Production-Capacity and 50% to Production-Energy.

Split load forecasting expense 50% Production-Capacity and 50% Production-Energy.

Broker fees paid to ACES associated with market energy purchases. Assign to Production-Energy.

Direct assign metering expense. Assign the remainder to Transmission.

Direct assign metering expense. Assign the remainder based on investment in transmission stations (TRANS_STA).

Column Process						(continued))					
No. Description Factor Casal No.	(a)	(b)	(c)			(f)		(h)	(i)			(1)
Signature Sign												
St.		No.	<u>Description</u>	<u>Factor</u>								Comments
88 580 Oper-Stering DIST SUB			District.		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	
Section Sect		500		DICT CLID								
District			DIST_SOR						-		6	
91 583 OH Line				Dram arm							226,842	6
192 584 UG Line					1,484,408					1,484,408	-	6
93 585 Street Light & Signal System DIST SUB					-					-		
94 586 Meters DIST SUB					-					-		
S87 Customer Installation DIST SUB					-					-		
S88 Misc. Operations					-					-		
Second S					-					-		
98 590 Main. Super. & Eng. DIST_SUB -					-					-		
99 591 Main, Struct. DIST, SUB					-					-		
100 592 Main, Station Equipment DIST, SUB 2,901,885 2,901,885					-					-		
101 593 Main, UG Lines DIST SUB					2 001 995					2 001 995		
102 594 Main, UG Lines					2,901,883					2,901,883		
101 595 Main, Line Transf. DIST SUB					-					-		
104 596 Main. Street Light & Signal DIST_SUB -					-					-		
105 597 Main, Meters DIST SUB					-					_		
107										_		
108										_		
108		370	Wilse. Wallechance	DIST_SOB								
10			Subtotal - Distribution		4 608 554					4 381 712	226.842	
11			Subtour Distribution		1,000,551					1,501,712	220,012	
111 901 Supervision			Customer Accounts									
Meter Reading		901		PROD ENG	_		_					
114 904 Uncollectible Acets. PROD_ENG - - -			•		-		_					
114 904 Uncollectible Acets. PROD_ENG - - -				_	-		_					
115 905 Misc. Cust. Acets. PROD_ENG - - -	114	904			-		-					
117 Subtotal - Cust. Acets.	115	905	Misc. Cust. Accts.		-		_					
118 119 Customer Service & Info. PROD_ENG - - - - - - - - -	116			=								
119 Customer Service & Info. 120 907 Supervision PROD_ENG 5,252,121 5,252,121 122 908 Cust. Assistance PROD_ENG 5,252,121 5,252,121 122 909 Advertising PROD_ENG 15,250 15,250 15,250 123 910 Misc. Serv. & Info. PROD_ENG 24,907 24,907	117		Subtotal - Cust. Accts.		-	-	-	-	-	-	-	
120 907 Supervision PROD_ENG - - -	118											
121 908 Cust. Assistance PROD_ENG 5,252,121 5,252,121 122 909 Advertising PROD_ENG 15,250 15,250 15,250 123 910 Misc. Serv. & Info. PROD_ENG 24,907 24,907 125 Subtotal - Cust. Serv. & Info. 5,292,278 -	119		Customer Service & Info.									
122 909 Advertising PROD_ENG 15,250 15,250 15,250 123 910 Misc. Serv. & Info. PROD_ENG 24,907 24,907 124 125 Subtotal - Cust. Serv. & Info. 5,292,278 - 5,292,278 - - - - - - - - -	120	907	Supervision	PROD_ENG	-		-					
123 910 Misc. Serv. & Info. PROD_ENG 24,907 24,907	121	908	Cust. Assistance	PROD ENG	5,252,121		5,252,121					
124 125 Subtotal - Cust. Serv. & Info. 126 127 Sales 128 911 Supervision PROD_ENG 129 912 Demo. & Selling PROD_ENG - 130 913 Advertising PROD_ENG 33,939 131 916 Misc. Sales PROD_ENG - 132 132	122	909	Advertising	PROD ENG	15,250		15,250					
125 Subtotal - Cust. Serv. & Info. 5,292,278 - 5,292,278	123	910	Misc. Serv. & Info.	PROD ENG	24,907		24,907					
126 127 Sales 128 911 Supervision PROD_ENG - - 129 912 Demo. & Selling PROD_ENG - - 130 913 Advertising PROD_ENG 33,939 33,939 131 916 Misc. Sales PROD_ENG - - 132 - - -	124											
127 Sales 128 911 Supervision PROD_ENG - 129 912 Demo. & Selling PROD_ENG - 130 913 Advertising PROD_ENG 33,939 131 916 Misc. Sales PROD_ENG - 132	125		Subtotal - Cust. Serv. & Info.		5,292,278	-	5,292,278	-	-	-	-	
128 911 Supervision PROD_ENG - - 129 912 Demo. & Selling PROD_ENG - - 130 913 Advertising PROD_ENG 33,939 33,939 131 916 Misc. Sales PROD_ENG - - 132 - - -	126											
129 912 Demo. & Selling PROD_ENG - - 130 913 Advertising PROD_ENG 33,939 33,939 131 916 Misc. Sales PROD_ENG - - 132 - - -												
130 913 Advertising PROD_ENG 33,939 33,939 131 916 Misc. Sales PROD_ENG - - 132 - - -	128				-		-					
131 916 Misc. Sales PROD_ENG 132	129		Demo. & Selling	_	-							
132					33,939		33,939					
		916	Misc. Sales	PROD_ENG	-		-					
133 Subtotal - Sales 33,939 - 33,939												
	133		Subtotal - Sales		33,939	-	33,939	-	-	-	-	

Direct assign metering expense. Assign the remainder to Distribution Substations.

					(continued)						
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)
Line	Acct.		Allocation	Pro Forma		Production		_	Distribution	Distribution	_
No.	No.	Description	<u>Factor</u>	Test Year	<u>Capacity</u>	Energy	Steam Direct	Transm.	Substations	Meters	<u>Comments</u>
134 135		Administrative & General		(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	
136	920	Salaries	LABOR	16,640,596	7,218,133	5,229,877	202,304	3,378,791	392,811	218,681	
137	921	Off. Supplies & Exp.	LABOR	8,563,344	3,714,492	2,691,324	104,107	1,738,745	202,143	112,534	
138	922	Admin. Transferred	LABOR	6,505,544	3,714,472	2,071,324	104,107	1,730,743	202,143	112,554	
139	923	Outside Services	LABOR	2,634,944	1,142,950	828,122	32,034	535,012	62,199	34,627	
140	924	Outage Insurance	PROD ENG	2,03 .,5	1,112,700	-	32,03	555,012	02,177	3.,027	
141	925	Injuries & Damages	LABOR	1,462,318	634,304	459,584	17,778	296,916	34,519	19,217	
142	926	Pensions & Benefits	LABOR	2,327,206	1,009,464	731,404	28,292	472,528	54,935	30,583	
143	927	Franchise Req.	LABOR	-	-	-	-	-	-	-	
144	928	Reg. Commission	LABOR	1,766,937	766,438	555,320	21,481	358,768	41,710	23,220	
145	929	Duplicate Charges	LABOR	(476,963)	(206,891)	(149,902)	(5,799)	(96,845)	(11,259)	(6,268)	
146	930	Misc. General Expense	LABOR	4,533,337	1,966,410	1,424,757	55,113	920,472	107,012	59,574	
147	931	Rents	LABOR	-	-	-	-	-	-	-	
148	935	Main. Gen. Plant	LABOR	2,732,236	1,185,153	858,699	33,216	554,767	64,496	35,905	
149											
150		Subtotal - Administration & General	-	40,183,955	17,430,452	12,629,185	488,526	8,159,154	948,565	528,073	
151			_								
152		Subtotal - Operating Expense	_	285,793,216.5	89,545,536	121,433,826	2,894,143	63,795,896	6,039,023	2,084,793	
153											
154		Depreciation									
155	405	Intangible	INTG_PLNT	11,837,172	11,082	8,029	311	11,816,811	603	336	
156	403	Production-Steam	PROD STM PLNT	51,017,969	27,654,744.41	22,448,800.46	914,424.24	-	-	-	
157	403	Production-Other	PROD OTH PLNT	18,378,213	10,143,889	8,234,324	_	-	-	-	
158	403	Transmission	TRANS PLNT	14,871,778	· · · · · · ·	· · · · -	21,133	14,128,957	706,590	15,098	
159	403	Distribution	DIST PLNT	5,983,284	224,604	162,736		156,691	5,354,214	85,039	
160	403	General	LABOR	3,077,017	1,334,707	967,058	37,408	624,773	72,635	40,436	
161	403	General	LABOR	3,077,017	1,554,707	707,030	37,400	024,773	72,033	40,430	
162		Subtotal - Depreciation	-	105,165,434	39,369,026	31,820,949	973,276	26,727,233	6,134,041	140,909	
163		Subtour Depreciation		105,105,151	37,307,020	31,020,717	713,210	20,727,233	0,15 1,0 11	110,505	
164		<u>Taxes</u>									7
165	408	PropertyProduction									
				-							
166	408	PropertyTransmission		-							
167	408	PropertyDistribution		-							
168	408	PropertyGeneral Plant		-							8
169	408	Taxes Other States	PROD_ENG	120,195		120,195					8
170			_								
171		Subtotal - Taxes		120,195	-	120,195	-	-	-	-	
172										_	
173	431	Interest - Other	NET_PLNT	1,111	841	6	14	184	64	2	
174		04 8 1 4									
175	126	Other Deductions	FIFE EVD								
176	426	EPA Penalties	FUEL_EXP	690.229	257 672	209 527	- - 004	1.52 000	52 656	1 500	
177 178	428 426	Amort. Debt Exp. & Disc. Other	RATE_BASE LABOR	680,238	257,673	208,537	5,894	153,898	52,656	1,582	
	420			(441,770)	(191,625)	(138,841)	(5,371)	(89,699)	(10,428)	(5,805)	
179 180		Asset Retirement Obligations	PROD_CAP	(0) 391,318,425	(0) 128,981,451	153,444,672	3,867,955	90,587,512	12,215,356	2,221,479	
180		Total Expenses		391,318,423	120,901,431	133,444,0/2	3,807,933	90,387,312	12,213,336	2,221,4/9	

In accordance with RUS accounting standards, property tax is allocated back on EKPC's books to the functional areas in Accounts 500 to 935.

⁸ California Franchise Tax associated with EKPC's member/ownership of ACES. Assign to Production-Energy.

				11 2017 - 110) FUI IIIa - EXCII	aucs Es anu	1110				
(a)	(b)	(c)	(d)	(e)	(continued) (f)	(g)	(h)	(i)	(j)	(k)	(1)
Line	Acct.	(c)	Allocation	Pro Forma	(1)	Production	(11)	(1)	Distribution	Distribution	(1)
No.	No.	Description	Factor	Test Year	Capacity	Energy	Steam Direct	Transm.	Substations	Meters	Comments
182	110.	Description	<u>r actor</u>	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	Comments
183		Return Requirements		(4)	(Ψ)	(Ψ)	(4)	(Ψ)	(4)	(4)	
184		Rate Base		1,844,640,980	611,906,091	653,251,324	18,818,220	416,325,681	139,940,523	4,399,142	
185		Rate of Return		5.4210%	5.4210%	5.4210%	5.4210%	5.4210%	5.4210%	5.4210%	
186		Return Requirements		99,998,624	33,171,640	35,412,980	1,020,142	22,569,159	7,586,224	238,479	
187		Interest Expense	RATE BASE	67,557,327	22,410,182	23,924,392	689,190	15,247,330	5,125,121	161,112	
188		Margin Requirements	RATE BASE	32,441,297	10,761,458	11,488,588	330,952	7,321,829	2,461,103	77,367	
189		Total Return Requirements	_	99,998,624	33,171,640	35,412,980	1,020,142	22,569,159	7,586,224	238,479	
190											
191		Total Gross Revenue Requirements		491,317,049	162,153,091	188,857,651	4,888,098	113,156,670	19,801,580	2,459,959	
192		-									
193		Other Revenue/Non-Operating Income	Credits								
194		Sales for ResaleNon-Mem.	As Billed	18,926,954		18,926,954					9
195		Other Oper. IncWheeling	TRANS	6,330,056				6,330,056			
196		Rent from Electric Property	TRANS	175,386				175,386			
197		Facilities Charges-Dist	DIST SUB	98,671					98,671		
198		Rev. Sales of Renew. Credits	PROD ENG	715,062		715,062					
199		Rev. Ancillary Service No.1	TRANS	141,300				141,300			
200		Rev. Ancillary Service No.2	PROD CAP	87,602	87,602						
201		Misc. Operating Revenue	LABOR	-	-	-	-	-	-	-	
202		Interest Income	RATE_BASE	1,212,780	402,304	429,487	12,372	273,718	92,005	2,892	
203		Wheeling	RATE_BASE	3,576,825	1,186,508	1,266,678	36,489	807,270	271,350	8,530	
204		Income from Leased Property	RATE_BASE	634,843	210,591	224,820	6,476	143,281	48,161	1,514	
205		Cap. Credits & Pat.Dividend	RATE_BASE	2,418,758	802,353	856,566	24,675	545,901	183,495	5,768	
206		Other Non Operating Inc.	RATE_BASE	(1,187,321)	(393,859)	(420,472)	(12,113)	(267,972)	(90,074)	(2,832)	
206.1		Unbilled Revenues	RATE_BASE	-	-	-	-	-	-	-	
206.2		Unbilled ES Revenues	RATE_BASE	-	-	-	-	-	-	-	
207		Non-COS Revenues	PROD_CAP	(12,717,644)	(12,717,644)						
208		Subtotal - Rev. Credits		20,413,271	(10,422,146)	21,999,095	67,900	8,148,940	603,608	15,873	
209											
210		Net Member Revenue Requirements		470,903,778	172,575,237	166,858,556	4,820,197	105,007,730	19,197,972	2,444,085	
211			-								
212		Allocation Factors Based on Revenue F	Requirements								
213		Fuel Expense		13,413,943	-	13,403,727	10,216	-	-	-	
214			FUEL_EXP	1.000000	0.000000	0.999238	0.000762	0.000000	0.000000	0.000000	
215											
216		Transmission O&M		23,545,480	-	-	14,506	22,163,422	485,022	882,530	
217			TRANS_OM	1.000000	0.000000	0.000000	0.000616	0.941303	0.020599	0.037482	
218											

During 2019, all revenue from sales to third parties was attrbutable to energy sales.

East Kentucky Power Cooperative, Inc. Development of Allocation Factors TY 2019 - Pro Forma - Excludes ES and FAC

(a) Line	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)
No.		Units	<u>Total</u>	Rate B	Rate C	Rate E	Rate G	Contract	Steam	Rate TGP	Source
1	On-Peak Energy Allocation Factor (ON-	ENG)	<u> </u>							·	
2	Energy Sales (MWh)	MWh	6,334,881	500,569	132,160	4,998,177	223,845	294,907	100,594	84,629	See "Revenue Input" Worksheet
3	On-Peak Energy Allocation Factor		1.000000	0.079018	0.020862	0.788993	0.035335	0.046553	0.015879	0.013359	
4	- Excluding Steam and TGP		1.000000	0.081398	0.021491	0.812757	0.036400	0.047955			
5	Off-Peak Energy Allocation Factor (OF)	F-ENG)									
6	Energy Sales (MWh)	MWh	6,618,880	585,736	158,301	4,732,348	261,930	686,933	95,243	98,388	See "Revenue Input" Worksheet
7	Off-Peak Energy Allocation Factor		1.000000	0.088495	0.023917	0.714977	0.039573	0.103784	0.014390	0.014865	
8	- Excluding Steam and TGP		1.000000	0.091162	0.024637	0.736524	0.040766	0.106912			
9	Total Energy Allocation Factor (TOT-E	NG)									
10	Energy Sales (MWh)	MWh	12,953,761	1,086,305	290,461	9,730,525	485,775	981,841	195,837	183,017	L2 + L6
11	Energy Allocation Factor		1.000000	0.083860	0.022423	0.751174	0.037501	0.075796	0.015118	0.014128	
12	- Excluding Steam and TGP		1.000000	0.086387	0.023098	0.773805	0.038631	0.078079			
13	12 Coincidental Demand Allocation Fact	tor (AVG 12CP)								
14	Coincidental Demand	MW	2,448	136	37	1,995	57	163	33	27	See "Revenue Input" Worksheet
15	Demand Allocation Factor		1.000000	0.055749	0.015059	0.814870	0.023378	0.066473	0.013529	0.010942	
16	 Excluding Steam and TGP 		1.000000	0.057147	0.015437	0.835311	0.023964	0.068140			
17	Average and Excess Demand Allocation										
18	Energy Sales (MWh)	MWh	12,953,761	1,086,305	290,461	9,730,525	485,775	981,841	195,837	183,017	L10
19	Average Demand	MW	1,479	124	33	1,111	55	112	22	21	L18 /8760 hrs
20	Annual System CP	MW	3,105								WP-17
21	System Excess Demand	MW	1,626								L20 - L19
22	Maximum NCP Demand by Class	MW	3,115	156	62	2,590	67	175	37	29	See "Revenue Input" Worksheet
23	Class Excess Demand	MW	1,636	31	29	1,479	12	63	15	8	L22 - L19
24	Allocated System Excess Demand	MW	1,626	31	29	1,470	12	63	15	8	L23 * L21 / L23 Total Col.
25	Class Average and Excess Demand	MW	3,105	155	62	2,581	67	175	37	28	L19 + L24
26	AED Allocation Factor		1.000000	0.050020	0.019890	0.831141	0.021626	0.056244	0.011914	0.009164	Based on L25
27	- Excluding Steam and TGP		1.000000	0.051097	0.020318	0.849037	0.022092	0.057455			
28	Distribution Substations (SUB)										2
29	Net Plant Investment	\$	146,932,942	-	-	146,193,439	739,503	-	-	-	2
30	Substation Allocation Factor		1.000000	-	-	0.994967	0.005033	-	-	-	
31											
32	Meters (METER)		409	71	9	324	3	1	1		Input
33	Net Plant Investment	\$	1,756,528	304,923	38,652	1,391,479	12,884	4,295	4,295	-	
34	Meter Allocation Factor		1.000000	0.173594	0.022005	0.792176	0.007335	0.002445	0.002445	-	

Contract usage based on the same on- and off-peak hours as defined in Contract. Rate E used for all other classes.

The Net Plant investment in the substation used to serve Rate G is calculated at \$739,503.

(a) Line	(b)	(c) Alloc.	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
No.	<u>Description</u>	Factor	Total (\$)	Rate B (\$)	Rate C (\$)	Rate E (\$)	Rate G (\$)	Contract (\$)	Steam (\$)	Rate TGP (\$)
1	Revenue		(3)	(3)	(3)	(4)	(3)	(3)	(4)	(4)
2	Total Revenue		422,130,617	27,170,310	7,931,946	342,414,808	10,833,171	23,685,067	4,516,945	5,578,370
4	Allocation of Revenue Requirements									
5	Production Capacity			-						
6	Interruptible Credit 1	Direct								
7	Remaining Prod. Capacity Rev. Req.	AED	172,575,237	8,818,142	3,506,399	146,522,800	3,812,520	9,915,376		
8	Subtotal Production Capacity		172,575,237	8,818,142	3,506,399	146,522,800	3,812,520	9,915,376	-	-
9	Production Energy									
10	Energy Cost Assigned to Rate TGP	Direct	4,743,510							4,743,510
11	On-Peak F&PP ²	ON-ENG	24,129,992	1,964,131	518,568	19,611,815	878,322	1,157,155		
12	Off-Peak F&PP ²	OFF-ENG	19,029,264	1,734,737	468,832	14,015,505	775,742	2,034,449		
13	Remaining Energy Revenue Req.	TOT-ENG	118,955,791	10,276,200	2,747,700	92,048,576	4,595,323	9,287,992		
14	Subtotal Production Energy		166,858,556	13,975,067	3,735,100	125,675,896	6,249,388	12,479,595	-	4,743,510
15	Steam Service	Direct	4,820,197						4,820,197	
16	Transmission									
17	Transm. Cost Assigned to Rate TGP ³	Direct	834,860							834,860
18	Remaining Transm. Rev. Req.	12CP	104,172,870	5,953,203	1,608,084	87,016,749	2,496,450	7,098,384		
19	Subtotal Transmission	arm.	105,007,730	5,953,203	1,608,084	87,016,749	2,496,450	7,098,384	-	834,860
20	Distribution Substations	SUB	19,197,972	-	-	19,101,350	96,622	-	-	
21	Meters	METER	2,444,085	424,279	53,782	1,936,146	17,927	5,976	5,976	5 570 370
22 23	Subtotal Plus: FCA Factor Cost		470,903,778	29,170,691	8,903,365	380,252,941	12,672,907	29,499,331	4,826,173	5,578,370
23	Plus: FCA Factor Cost Plus: FCA Base Cost		-	-	-	-	-	-	-	-
25	Subtotal	_	470,903,778	29,170,691	8,903,365	380,252,941	12,672,907	29,499,331	4,826,173	5,578,370
26	Plus: Environmental Surcharge		-	29,170,091	6,903,303	300,232,941	12,072,907	29,499,331	4,620,173	5,576,570
27	Total Revenue Requirements	_	470.903.778	29,170,691	8,903,365	380,252,941	12,672,907	29,499,331	4,826,173	5,578,370
28	Total Ite venue Itequi enients		.,,,,,,,,,,	25,170,051	0,700,500	500,252,511	12,072,207	2,,.,,,,,,,	.,020,175	2,270,370
29	Revenue Requirements less Revenue		48,773,161	2,000,381	971,419	37,838,133	1,839,735	5,814,264	309,227	_
30	Increase (Decrease) as % of Present Rever	nue	11.6%	7.4%	12.2%	11.1%	17.0%	24.5%	6.8%	0.0%
31										
32										
33	Average Cost per Unit / Rate Design Data									
34	Production Capacity	/CP Billing kV	N	\$4.83	\$6.02	\$6.12	\$4.78	\$5.08	\$0.00	\$0.00
35	Production Energy - Total Average Billing									
36	All Hours	/MWh		\$12.81	\$12.68	\$12.92	\$12.86	\$12.59	\$0.00	\$25.92
37	On-Peak Hours	/MWh		\$13.33	\$13.19	\$13.38	\$13.38	\$13.26	\$0.00	\$0.00
38	Off-Peak Hours	/MWh	**	\$12.37	\$12.24	\$12.42	\$12.42	\$12.31	\$0.00	\$0.00
39	Transmission	/CP Billing kV	N	\$3.26	\$2.76	\$3.63	\$3.13	\$3.64	\$0.00	\$1.75
40	Substations (Average All Capacities)	/sub/mon.		#407.00	# 40 7 CC	\$4,928.11	\$8,051.83	£407.00	\$0.00	37/4
41 42	Metering Total Demand Charges	/meter/mon.	X 7	\$497.98	\$497.98 \$8.78	\$497.98	\$497.98 \$7.91	\$497.98	\$497.98 \$0.00	N/A
42	Total Demand Charges	/CP Billing kV	N	\$8.08	\$8.78	\$9.751	\$7.91	\$8.71	\$0.00	\$1.75

Interruptible Credits are removed from the cost data for evaluation pursuant supplemental analysis.

In 2019, 55.91% of fuel and purchased energy cost occurred during the on-peak period, with the remaining 44.09% occurring during the off-peak period.

Assign the demand (transmission) charge per contract directly to Rate TGP.

East Kentucky Power Cooperative, Inc.

Revenue Summary by Rate Class Present and Proposed Rate Revenues

	Table 3: Summary of Proposed Rate Change by Rate Schedule										
Line		Present Rates	Pro	oposed Rates							
No.	Description	Amount	Amount	Increase	As Percent						
1		\$	\$	\$							
2	Totals Revenues by Rate										
3	Rate B	59,815,719	62,102,004	2,286,285	3.8%						
4	Rate C	17,153,311	17,968,058	814,747	4.7%						
5	Rate E	664,081,280	699,007,015	34,925,736	5.3%						
6	Rate G	25,516,274	26,840,240	1,323,966	5.2%						
7	Contract	42,471,101	45,852,655	3,381,554	8.0%						
8	Steam	10,716,264	10,974,152	257,888	2.4%						
9	Rate TGP	6,349,849	6,349,849	-	0.0%						
10	Sub-Total COS Based Revenues	826,103,797	869,093,973	42,990,177	5.20%						
11	Rate H	49,170	49,170	-	0.00%						
12	DSM Riders	(1,109,853)	(1,109,853)	-	0.00%						
13	Total Revenues by Rate	825,043,114	868,033,290	42,990,177	5.21%						

Line				Present Rates		Propo	sed Rates
No.	Description		Units	Rate	Amount	Rate	Amount
1					\$		\$
2	Rate B						
3	Metering Charge	Meters	-	\$0.00			\$0.00
4	Demand Charges						
5	Demand Charge	CP kW	1,767,954	\$7.17	12,676,230	\$7.49	13,241,975
6	Excess Demand Charge	CP kW	59,568	\$9.98	594,489	\$10.38	618,316
7	Interruptible (400 Hrs)	CP kW	235,184	-\$5.60	(1,317,030)	-\$5.60	(1,317,030)
8	EDR Discount				(23,719)		(24,773)
9	Energy Charges				-		=
10	Energy Charge	kWh	1,090,848,453	\$0.038982	42,523,454	\$0.040541	44,224,087
11	Min kWh Adjustment	kWh	4,543,620	-\$0.026240	(119,225)	-\$0.026240	(119,225)
12	Sub-Total Base Rates			_	54,334,199	_	56,623,350
13	Net Buy Through Charge				77,890		77,890
14	Fuel Adjustment	kWh	1,086,304,833	-\$0.002702	(2,935,048)	-\$0.002702	(2,935,196)
15	Environmental Surcharge			16.200%	8,338,677	15.532%	8,335,959
16	Total Rate B				59,815,719	_	62,102,004
17				_		_	
18	Rate C						
19	Metering Charge	Meters	9	\$0.00			\$0
20	Demand Charges						
21	Demand Charge	CP kW	582,643	\$7.17	4,177,550	\$7.78	4,532,963
22	Energy Charges				-		
23	Energy Charge	kWh	294,670,389	\$0.038982	11,486,841	\$0.040541	11,946,232
24	Min kWh Adjustment	kWh	4,208,946	-\$0.026240	(110,443)	-\$0.026240	(110,443)
25	Sub-Total Base Rates			_	15,553,949	_	16,368,752
26	Fuel Adjustment	kWh	290,461,443	-\$0.002684	(779,575)	-\$0.002684	(779,599)
27	Environmental Surcharge			16.100%	2,378,938	15.260%	2,378,905
28	Total Rate C			_	17,153,311	_	17,968,058
				_		_	

Power Factor Penalty CP kW 15,979 \$6.02 96,194 \$6.56 104.83	Line				Prese	nt Rates	Proposed Rates		
Demand Charges Section Demand Charges CP kW 23,934,636 \$6.02 144,086,507 \$6.56 157,011,2 \$1.00 \$	No.	Description		Units	Rate	Amount	Rate	Amount	
Demand Charge	29	Rate E						_	
Power Factor Penalty CP kW 15,979 \$6.02 96,194 \$6.56 104.83	30	Demand Charges							
Second Energy Charges Sub-Total Base Rates Second Energy Charge Sub-Station Charges Sub-Station Char	31	Demand Charge	CP kW	23,934,636	\$6.02	144,086,507	\$6.56	157,011,211	
On-Peak Energy Charge kWh 4,998,176,543 \$0.049379 246,804,960 \$0.051566 257,735,97	32	Power Factor Penalty	CP kW	15,979	\$6.02	96,194	\$6.56	104,822	
35 Off-Peak Energy Charge KWh 4,732,348,143 \$0.040654 192,388,881 \$0.042841 202,738,55 36 Metering Charge Meters 328 \$144.00 566,208 \$151.20 594,5 37 Sub-Station Charges Subs 3 \$1,088.00 39,168 \$1,142.40 41,15 39 3000-7499 kVa Subs 39 \$2,737.00 1,280,916 \$2,873.85 1,344,9 40 7500-14999 kVa Subs 224 \$3,292.00 8,848,896 \$3,456.60 9,291,3 41 15000 kVa and Up Subs 57 \$5,310.00 3,632,040 \$5,575.50 3,813,6 42 Sub-Total Base Rates 597,743,770 632,676,15 43 Special Adjustments kWh 9,730,524,686 -\$0.002698 (26,249,938) -\$0.002698 (26,259,938) -\$0.002698 45 Environmental Surcharge Meters 1 \$144.00 1,728 \$151.20 \$1,814 46 Total Rate E 664,081,280 639,007,0 47	33	Energy Charges							
36 Metering Charge Meters 328 \$144.00 \$566,208 \$151.20 \$594,5 37 Sub-Station Charges 3 \$1,088.00 39,168 \$1,142.40 41,12 38 1000-2999 kVa \$ubs 39 \$2,737.00 1,280,916 \$2,873.85 1,344,91 40 7500-14999 kVa \$ubs 224 \$3,292.00 \$8,848,896 \$3,456.60 9,291,33 41 15000 kVa and Up \$ubs 57 \$5,310.00 3,632,040 \$5,575.50 3,813,66 42 \$ub-Total Base Rates \$ull,17,842 \$117,842 \$117,842 \$117,842 45 Fuel Adjustment kWh 9,730,524,686 -\$0.002698 \$(26,249,938) -\$0.002698 \$(26,249,938) -\$0.002698 \$(26,249,938) -\$0.002698 \$(26,249,938) -\$0.002698 \$(26,249,938) -\$0.002698 \$(26,249,938) -\$0.002698 \$(26,249,938) -\$0.002698 \$(26,249,938) -\$0.002698 \$(26,249,938) -\$0.002698 \$(26,249,938) -\$0.002698 \$(26,249,938) -\$0.00269	34	On-Peak Energy Charge	kWh	4,998,176,543	\$0.049379	246,804,960	\$0.051566	257,735,972	
37 Sub-Station Charges 38 1000-2999 kVa Subs 3 \$1,088.00 39,168 \$1,142.40 41,139 3000-7499 kVa Subs 39 \$2,737.00 1,280,916 \$2,873.85 1,344,94 1,5000 kVa and Up Subs 57 \$5,310.00 3,632,040 \$5,575.50 3,813,6 1,117,842 1,117,842 1,117,842 1,117,842 1,117,842 1,117,842 1,117,842 1,117,842 1,117,842 1,117,842 1,117,844 Fuel Adjustments kWh 9,730,524,686 -\$0.002698 (26,249,938) -\$0.002698 (26,252,93,144) 1,117,842,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,947,933 1,117,	35	Off-Peak Energy Charge	kWh	4,732,348,143	\$0.040654	192,388,881	\$0.042841	202,738,527	
38 1000-2999 kVa	36	Metering Charge	Meters	328	\$144.00	566,208	\$151.20	594,518	
39 3000-7499 kVa Subs 39 \$2,737.00 1,280,916 \$2,873.85 1,344,90 40 7500-14999 kVa Subs 224 \$3,292.00 8,848,896 \$3,456.60 9,291,33 41 15000 kVa and Up Subs 57 \$5,310.00 3,632,040 \$5,575.50 3,813,63 42 Sub-Total Base Rates 632,676,12 597,743,770 632,676,12 43 Special Adjustments kWh 9,730,524,686 -\$0.002698 (26,249,938) -\$0.002698 (26,252,92) 45 Environmental Surcharge 16.225% 92,705,290 15.287% 92,701,69 46 Total Rate E 664,081,280 15.287% 92,701,69 47 Metering Charge Meters 1 \$144.00 1,728 \$151.20 \$1,814 50 Sub-Station Charges Subs 1 \$5,310.00 63,720 \$5,575.50 \$66,906 51 Demand Charges Subs 1 \$5,310.00 63,720 \$5,575.50 \$66,906 <	37	Sub-Station Charges							
40 7500-14999 kVa Subs 224 \$3,292.00 8,848,896 \$3,456.60 9,291,334 41 15000 kVa and Up Subs 57 \$5,310.00 3,632,040 \$5,575.50 3,813,60 42 Sub-Total Base Rates 597,743,770 632,676,12 632,676,12 43 Special Adjustments kWh 9,730,524,686 -\$0.002698 (26,249,938) -\$0.002698 (26,252,938) 45 Environmental Surcharge 16.225% 92,705,290 15.287% 92,701,69 46 Total Rate E 664,081,280 699,007,0 47 8 8 1 \$144.00 1,728 \$151.20 \$1,814 50 Sub-Station Charge Subs 1 \$5,310.00 63,720 \$5,575.50 \$66,906 51 Demand Charges Subs 1 \$5,310.00 63,720 \$5,575.50 \$66,906 52 Demand Charges Subs 1 \$5,310.00 63,720 \$7,29 5,813,75 53 Inte	38	1000-2999 kVa	Subs	3	\$1,088.00	39,168	*	41,126	
1 15000 kVa and Up	39	3000-7499 kVa	Subs	39	\$2,737.00	1,280,916	\$2,873.85	1,344,962	
Sub-Total Base Rates Sp7,743,770 G32,676,11	40	7500-14999 kVa	Subs	224	\$3,292.00	8,848,896	\$3,456.60	9,291,341	
Special Adjustments		*	Subs	57	\$5,310.00		\$5,575.50	3,813,642	
44 Fuel Adjustment kWh 9,730,524,686 -\$0.002698 (26,249,938) -\$0.002698 (26,252,9) 45 Environmental Surcharge 16.225% 92,705,290 15.287% 92,701,61 46 Total Rate E 664,081,280 699,007,0 47 48 Rate G 664,081,280 699,007,0 49 Metering Charge Meters 1 \$144.00 1,728 \$151.20 \$1,814 50 Sub-Station Charges Subs 1 \$5,310.00 63,720 \$5,575.50 \$66,906 51 Demand Charges Subs 797,497 \$6.98 5,566,529 \$7.29 5,813,75 53 Interruptible (200 Hrs) CP kW 83,048 -\$4.20 (348,802) -\$4.20 (348,802) 54 Energy Charges kWh 485,775,112 \$0.036947 17,947,933 \$0.039158 19,021,93 56 Sub-Total Base Rates 23,231,109 24,155,66 57 Net Buy Through Charge 24,178 24,17	42	Sub-Total Base Rates				597,743,770		632,676,121	
16.225% 92,705,290 15.287% 92,701,61	43	Special Adjustments				(117,842)		(117,842)	
Total Rate E 664,081,280 699,007,0 48 Rate G 49 Metering Charge Meters 1 \$144.00 1,728 \$151.20 \$1,814 50 Sub-Station Charges Subs 1 \$5,310.00 63,720 \$5,575.50 \$66,906 51 Demand Charges CP kW 797,497 \$6.98 5,566,529 \$7.29 5,813,73 53 Interruptible (200 Hrs) CP kW 83,048 -\$4.20 (348,802) -\$4.20	44		kWh	9,730,524,686	-\$0.002698	(26,249,938)	-\$0.002698	(26,252,956)	
48 Rate G 49 Metering Charge Meters 1 \$144.00 1,728 \$151.20 \$1,814 50 Sub-Station Charges Subs 1 \$5,310.00 63,720 \$5,575.50 \$66,906 51 Demand Charges 52 Demand Charge CP kW 797,497 \$6.98 5,566,529 \$7.29 5,813,73 53 Interruptible (200 Hrs) CP kW 83,048 -\$4.20 (348,802) -\$4.20 (348,802) 54 Energy Charges 55 Energy Charge kWh 485,775,112 \$0.036947 17,947,933 \$0.039158 19,021,933 56 Sub-Total Base Rates 57 Net Buy Through Charge 58 Fuel Adjustment kWh 485,775,112 -\$0.002710 (1,316,649) -\$0.002710 (1,316,435) 59 Environmental Surcharge 16.310% 3,577,636 15.395% 3,576,835	45	Environmental Surcharge			16.225%	92,705,290	15.287%	92,701,692	
48 Rate G 49 Metering Charge Meters 1 \$144.00 1,728 \$151.20 \$1,814 50 Sub-Station Charges Subs 1 \$5,310.00 63,720 \$5,575.50 \$66,906 51 Demand Charges Demand Charges 5 \$1,814 <td>46</td> <td>Total Rate E</td> <td></td> <td></td> <td></td> <td>664,081,280</td> <td></td> <td>699,007,015</td>	46	Total Rate E				664,081,280		699,007,015	
49 Metering Charge Meters 1 \$144.00 1,728 \$151.20 \$1,814 50 Sub-Station Charges Subs 1 \$5,310.00 63,720 \$5,575.50 \$66,906 51 Demand Charges Demand Charges \$729 \$5,813,73 52 Demand Charge CP kW 797,497 \$6.98 5,566,529 \$7.29 5,813,73 53 Interruptible (200 Hrs) CP kW 83,048 -\$4.20 (348,802) -\$4.20 (348,802) 54 Energy Charges kWh 485,775,112 \$0.036947 17,947,933 \$0.039158 19,021,93 56 Sub-Total Base Rates 23,231,109 24,555,63 57 Net Buy Through Charge 24,178 24,178 58 Fuel Adjustment kWh 485,775,112 -\$0.002710 (1,316,649) -\$0.002710 (1,316,649) 59 Environmental Surcharge 16.310% 3,577,636 15.395% 3,576,83	47								
50 Sub-Station Charges Subs 1 \$5,310.00 63,720 \$5,575.50 \$66,906 51 Demand Charges 52 Demand Charge CP kW 797,497 \$6.98 5,566,529 \$7.29 5,813,72 53 Interruptible (200 Hrs) CP kW 83,048 -\$4.20 (348,802) -\$4.20 (348,802) 54 Energy Charges kWh 485,775,112 \$0.036947 17,947,933 \$0.039158 19,021,932 56 Sub-Total Base Rates 23,231,109 24,555,632 57 Net Buy Through Charge 24,178 24,178 58 Fuel Adjustment kWh 485,775,112 -\$0.002710 (1,316,649) -\$0.002710 (1,316,649) 59 Environmental Surcharge 16.310% 3,577,636 15.395% 3,576,83	48	Rate G							
51 Demand Charges Demand Charges 52 Demand Charge CP kW 797,497 \$6.98 5,566,529 \$7.29 5,813,73 53 Interruptible (200 Hrs) CP kW 83,048 -\$4.20 (348,802) -\$4.20 (348,802) 54 Energy Charges Energy Charges kWh 485,775,112 \$0.036947 17,947,933 \$0.039158 19,021,93 56 Sub-Total Base Rates 23,231,109 24,555,63 57 Net Buy Through Charge 24,17 24,17 58 Fuel Adjustment kWh 485,775,112 -\$0.002710 (1,316,649) -\$0.002710 (1,316,649) 59 Environmental Surcharge 16.310% 3,577,636 15.395% 3,576,83	49	Metering Charge	Meters	1	\$144.00	1,728	\$151.20	\$1,814.40	
52 Demand Charge CP kW 797,497 \$6.98 5,566,529 \$7.29 5,813,72 53 Interruptible (200 Hrs) CP kW 83,048 -\$4.20 (348,802) -\$4.20 (348,802) 54 Energy Charges Energy Charges 17,947,933 \$0.039158 19,021,93 56 Sub-Total Base Rates 23,231,109 24,555,63 57 Net Buy Through Charge 24,17 24,17 58 Fuel Adjustment kWh 485,775,112 -\$0.002710 (1,316,649) -\$0.002710 (1,316,649) 59 Environmental Surcharge 16.310% 3,577,636 15.395% 3,576,83	50	Sub-Station Charges	Subs	1	\$5,310.00	63,720	\$5,575.50	\$66,906.00	
53 Interruptible (200 Hrs) CP kW 83,048 -\$4.20 (348,802) -\$4.20 (348	51	Demand Charges							
54 Energy Charges kWh 485,775,112 \$0.036947 17,947,933 \$0.039158 19,021,933 56 Sub-Total Base Rates 23,231,109 24,555,63 57 Net Buy Through Charge 24,178 24,17 58 Fuel Adjustment kWh 485,775,112 -\$0.002710 (1,316,649) -\$0.002710 (1,316,649) 59 Environmental Surcharge 16.310% 3,577,636 15.395% 3,576,83	52	Demand Charge	CP kW	797,497	\$6.98	5,566,529	\$7.29	5,813,753	
55 Energy Charge kWh 485,775,112 \$0.036947 17,947,933 \$0.039158 19,021,933 56 Sub-Total Base Rates 23,231,109 24,555,63 57 Net Buy Through Charge 24,178 24,17 58 Fuel Adjustment kWh 485,775,112 -\$0.002710 (1,316,649) -\$0.002710 (1,316,649) 59 Environmental Surcharge 16.310% 3,577,636 15.395% 3,576,83	53	Interruptible (200 Hrs)	CP kW	83,048	-\$4.20	(348,802)	-\$4.20	(348,802)	
56 Sub-Total Base Rates 23,231,109 24,555,63 57 Net Buy Through Charge 24,178 24,17 58 Fuel Adjustment kWh 485,775,112 -\$0.002710 (1,316,649) -\$0.002710 (1,316,649) 59 Environmental Surcharge 16.310% 3,577,636 15.395% 3,576,83	54	Energy Charges							
57 Net Buy Through Charge 24,178 24,17 58 Fuel Adjustment kWh 485,775,112 -\$0.002710 (1,316,649) -\$0.002710 (1,316,649) 59 Environmental Surcharge 16.310% 3,577,636 15.395% 3,576,83	55	Energy Charge	kWh	485,775,112	\$0.036947		\$0.039158	19,021,982	
58 Fuel Adjustment kWh 485,775,112 -\$0.002710 (1,316,649) -\$0.002710 (1,316,649) 59 Environmental Surcharge 16.310% 3,577,636 15.395% 3,576,83	56	Sub-Total Base Rates				23,231,109		24,555,654	
59 Environmental Surcharge 16.310% 3,577,636 15.395% 3,576,83	57	Net Buy Through Charge				24,178		24,178	
		•	kWh	485,775,112	-\$0.002710	(1,316,649)	-\$0.002710	(1,316,451)	
60 Total Pata C 25 516 274 26 840 2	59	Environmental Surcharge			16.310%	3,577,636	15.395%	3,576,859	
25,510,274 20,640,25	60	Total Rate G				25,516,274	_	26,840,240	

Line				Prese	nt Rates	Propos	ed Rates	
No.	Description		Units	Rate	Amount	Rate	Amount	
61	Contract	I	_	<u> </u>		<u> </u>	_	
62	Metering Charge	Meters	1	\$0.00		\$0.00	\$0.00	
63	Demand Charges							
64	Demand Charge	CP kW	1,952,466	\$6.92	13,511,065	\$7.64	14,916,840	
65	Interruptible (10 Min)	CP kW	1,440,000	-\$6.22	(8,956,800)	-\$6.22	(8,956,800)	
66	Interruptible (90 Min)	CP kW	332,466	-\$4.20	(1,396,357)	-\$4.20	(1,396,357)	
67	Energy Charges				-		-	
68	On-Peak Energy Charge	kWh	297,565,905	\$0.038905	11,576,802	\$0.040929	12,179,075	
69	Off-Peak Energy Charge	kWh	693,442,687	\$0.035477	24,601,266	\$0.037501	26,004,794	
70	Min kWh Adjustment	kWh	9,167,968	-\$0.026240	(240,567)	-\$0.026240	(240,567)	
71	Sub-Total Base Rates				39,095,408		42,506,985	
72	Load Following Charge				34,539		34,539	
73	Net Buy Through Charge				148,228		148,228	
74	Fuel Adjustment	kWh	981,840,624	-\$0.002737	(2,680,816)	-\$0.002737	(2,680,816)	
75	Environmental Surcharge			16.130%	5,873,742	14.736%	5,843,719	
76	Total Gallatin				42,471,101		45,852,655	
77				(0.0027304)				
78	Steam							
79	Metering Charge	Meters	1	\$0.00		\$0.00	\$0.00	
80	Demand Charges							
81	Demand Charge	CP kW	397,389					
82	x MMBTU Conversion		0.00917					
83	x Steam Adjustment		1.01600	\$577.15	2,136,440	\$582.18	2,154,508	
84	Energy Charges							
85	Energy Charge	kWh	195,836,964					
86	x MMBTU Conversion		0.00917					
87	x Steam Adjustment	kWh	1.01600	\$4.166 <u> </u>	7,605,674	\$4.30	7,845,179	
88	Sub-Total Base Rates				9,742,113		9,999,687	
89	Fuel Adjustment	kWh	198,970,355	-\$0.002662	(529,973)	-\$0.002662	(529,659)	
90	Environmental Surcharge			16.328%	1,504,124	15.883%	1,504,124	
91	Total Steam				10,716,264	<u> </u>	10,974,152	
92								
93	Rate TGP							
94	Metering Charge	Meters	-	\$0.00		\$0.00		
95	Demand Charges							
96	Demand Charge	CP kW	477,063	\$1.75	834,860	\$1.75	834,860	
97	Energy Charges (Averaged)				-		-	
98	On-Peak Energy Charge	kWh	84,629,228	\$0.030160	2,552,749	\$0.030160	2,552,749	
99	Off-Peak Energy Charge	kWh	98,387,617	\$0.022270	2,190,711	\$0.022270	2,190,711	
100	Sub-Total Base Rates				5,578,320		5,578,320	
101	Net Buy Through Charge				218,754		218,754	
102	Fuel Adjustment	kWh	183,016,845	\$0.000000	-	\$0.000000	-	
103	Environmental Surcharge			9.909%	552,775	9.909%	552,775	
104	Total Rate TGP				6,349,849	_	6,349,849	

Line	Line			Present Rates		Propo	sed Rates
No.	Description		Units	Rate	Amount	Rate	Amount
105	Rate E1 - RATE DESI	GN ON	LY THERE I	S CURREN	TLY NO LOAI	ON THIS	RATE
106	Demand Charges						
107	Demand Charge	CP kW	23,934,636	\$7.99	191,237,740	\$8.37	200,298,881
108	Power Factor Penalty	CP kW	15,979	\$7.99	127,672	\$8.37	133,722
109	Energy Charges						
110	On-Peak Energy Charge	kWh	4,998,176,543	\$0.041232	206,084,815	\$0.043419	217,015,827
111	Off-Peak Energy Charge	kWh	4,732,348,143	\$0.040654	192,388,881	\$0.042841	202,738,527
112	Metering Charge	Meters	328	\$144.00	566,214	\$151.20	594,524
113	Sub-Station Charges						
114	1000-2999 kVa	Subs	3	\$1,088.00	39,168	\$1,142.40	41,126
115	3000-7499 kVa	Subs	39	\$2,737.00	1,280,916	\$2,873.85	1,344,962
116	7500-14999 kVa	Subs	224	\$3,292.00	8,848,896	\$3,456.60	9,291,341
117	15000 kVa and Up	Subs	57	\$5,310.00	3,632,040	\$5,575.50	3,813,642
118	Sub-Total Base Rates			_	604,206,342	<u>-</u>	635,272,553
119	Special Adjustments		-		(117,842)		(117,842)
120	Fuel Adjustment	kWh	9,730,524,686	-\$0.002698	(26,252,956)	-\$0.002698	(26,252,956)
121	Environmental Surcharge		-		92,705,290	15.222%	92,704,963
122	Total Rate E			-	670,540,835		701,606,718
				-	664,081,280	-	699,007,015

East Kentucky Power Cooperative, Inc. Case No. 2021-00103 General Adjustment of Rates Filing Requirements / Exhibit List

Exhibit 17

807 KAR 5:001 Sec. 16(4)(b) Sponsoring Witness: Thomas Stachnik

Description of Filing Requirement:

If the utility has gross annual revenues greater than \$5,000,000, the written testimony of each witness the utility proposes to use to support its application.

Response:

In support of its Application, EKPC provides written testimony from Mr. Thomas Stachnik, EKPC's Vice President of Finance and Treasurer, whose testimony is included with this Exhibit 17.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:	
THE ELECTRONIC APPLICATION OF EAST) KENTUCKY POWER COOPERATIVE, INC.) FOR A GENERAL ADJUSTMENT OF RATES,) APPROVAL OF DEPRECIATION STUDY,) AMORTIZATION OF CERTAIN REGULATORY) ASSETS AND OTHER GENERAL RELIEF)	Case No. 2021-00103

DIRECT TESTIMONY OF THOMAS J. STACHNIK VICE PRESIDENT OF FINANCE AND TREASURER ON BEHALF OF EAST KENTUCKY POWER COOPERATIVE, INC.

Filed: April 1, 2021

I. INTRODUCTION

- 2 Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.
- 3 A. My name is Thomas J. Stachnik. I am the Vice President and Treasurer for East
- 4 Kentucky Power Cooperative, Inc. ("EKPC"). My business address is 4775
- 5 Lexington Road, Winchester, Kentucky 40391.
- 6 Q. PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE.
- 7 A. I have a Bachelor's degree in Chemical Engineering from the University of Illinois
- and an MBA from the University of Chicago; additionally, I hold the Chartered
- 9 Financial Analyst and Certified Treasury Professional designations. Prior to
- 10 establishing a career in finance, I enjoyed work as a chemical engineer for
- approximately ten (10) years. I worked in the Treasury Department of Brown-
- Forman Corporation for thirteen (13) years before assuming my current role at
- EKPC in August 2015.

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- 14 Q. PLEASE DESCRIBE YOUR DUTIES AS VICE PRESIDENT AND
- 15 TREASURER FOR EKPC.
- 16 A. I am responsible for the management and direction of the treasury area including
- borrowing, investing, and cash management. I also oversee the financial
- forecasting, budgeting, and risk management functions. I report directly to EKPC's
- 19 Executive Vice President and Chief Financial Officer, Ms. Ann Bridges.
- 20 Q. HAVE YOU TESTIFIED BEFORE THE KENTUCKY PUBLIC SERVICE
- 21 COMMISSION BEFORE? IF SO, IN WHAT CASES?
- 22 A. I have provided written testimony pertaining to financing issues in several cases,
- including Case No. 2017-00376 Coal Combustion Residuals and Effluent

- Limitation Guidelines (CCR/ELG),¹ and Case No. 2018-00292 (Bluegrass Dual Fuel).² I have also assisted in the preparation of financing applications and responded to the respective data requests in Case No. 2016-00116 (refinancing of the Credit Facility)³ and Case No. 2018-00115 (private placement financing).⁴
- 5 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS
- 6 **PROCEEDING?**
- 7 A. The purpose of my testimony is to discuss: (1) EKPC's current credit ratings; and
 8 (2) EKPC's requested rate of return, including the criteria it considers in targeting
 9 an appropriate return, such as:
- the ability to attract capital;
- meeting debt covenants; and
- building and maintaining a sufficient equity cushion to be able to weather
 financial storms and potential stranded assets which could result from early
 retirements of coal assets due to environmental regulations.

15 O. ARE YOU SPONSORING ANY EXHIBITS?

¹ See In the Matter of the Application of East Kentucky Power Cooperative, Inc. for Approval to Amend its Environmental Compliance Plan and Recover Costs Pursuant to its Environmental Surcharge, Settlement of Certain Asset Retirement Obligations and Issuance of a Certificate of Public Convenience and Necessity and Other Relief, Order, Case No. 2017-00376 (Ky. P.S.C. May 18, 2018).

² See In the Matter of the Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of Backup Fuel Facilities at its Bluegrass Generating Station, Order, Case No. 2018-00292 (Ky. P.S.C. Feb. 28, 2019).

³ See In the Matter of the Application of East Kentucky Power Cooperative, Inc. for Approval of the Amendment and Extension or Refinancing of an Unsecured Revolving Credit Agreement in an Amount of up to \$800,000,000 of which up to \$100,000,000 may be in the Form of an Unsecured Renewable Term Loan and \$200,000,000 of which will be in the Form of a Future Increase Option, Order, Case No. 2016-00116 (Ky. P.S.C. April 11, 2016).

⁴ See In the Matter of the Application of East Kentucky Power Cooperative, Inc. for Approval of the Authority to Issue up to \$300,000,000 of Secured Private Placement Debt and/or Secured Tax Exempt Bonds and for the Use of Interest Rate Management Instruments, Order, Case No. 2018-00115 (Ky. P.S.C. July 24, 2018).

2 Exhibit TJS-1 is EKPC's credit rating history; Exhibit TJS-2 is a comparable analysis of the rated Generation and 3 4 Transmission Cooperative ("G&T") peer universe; Exhibits TJS-3A, TJS-3B and TJS-3C provide analyses of EKPC's Return on 5 6 Capital; Exhibit TJS-4 is the most recent Credit Report from Fitch Ratings ("Fitch"); 7 and 8 9 • Exhibit TJS-5 is the most recent Credit Report from Standard & Poor's ("S&P"). 10 WERE THE EXHIBITS THAT ARE ATTACHED TO YOUR TESTIMONY 11 Q. PREPARED BY YOU OR SOMEONE WORKING UNDER YOUR 12 **SUPERVISION?** 13 Exhibits TJS-1, TJS-2, TJS-3A TJS-3B and TJS-3C were prepared by myself. 14 A. Exhibits TJS-4 and TJS-5 are true and correct copies of reports I received from 15 third-party credit rating agencies. 16 0. ARE YOU SPONSORING ANY FILING REQUIREMENTS? 17 18 A. No. II. EKPC'S CREDIT RATING 19 20 Q. DOES EKPC HAVE A CREDIT RATING FROM ANY OF THE NATIONAL **RATING AGENCIES?** 21 22 A. Yes. 23 Q. WHAT IS THE CURRENT CREDIT RATING FOR EKPC?

1

Α.

Yes.

1 A. EKPC currently holds investment grade ratings of 'A (Stable Outlook)' by S&P
2 and 'BBB+ (Stable Outlook)' by Fitch.

3 Q. HOW HAS EKPC'S CREDIT RATING CHANGED FROM ITS LAST

RATE CASE IN 2010?

A. EKPC's rating history is shown graphically in Exhibit TJS-1. At the time of the last rate case EKPC was not rated, and would likely not have achieved investment-grade ratings at that time. After the significant improvement in financial condition following that rate case, EKPC obtained initial ratings of 'BBB (Stable Outlook)' from S&P in October 2011 and 'BBB (Stable Outlook)' from Fitch in November 2011.

S&P upgraded EKPC to 'BBB (Positive Outlook)' in March 2014, then upgraded EKPC by another two notches to 'A- (Stable Outlook)' in September 2014 and to 'A (Stable Outlook)' in March 2017. This is where EKPC stands today.

Fitch upgraded EKPC to 'BBB+ (Stable Outlook)' in October 2014 and to 'A- (Stable Outlook)' in October 2016. In 2019, Fitch updated their rating methodology to put more of a focus on one particular leverage ratio, Net Adjusted Debt / Adjusted Funds Available for Debt Service ("FADS"). While Fitch conceded that EKPC's credit profile did not deteriorate and had actually improved, applying the new methodology resulted in a downgrade in June 2019 to 'BBB+ (Stable Outlook)'. The details of how their methodology resulted in this action are further discussed below. Fitch expected leverage to increase in the next few years as EKPC issues additional debt to finance its expanded capital improvement plan. The downgrade from Fitch briefly led to an increase in borrowing costs, however,

- 1 EKPC promptly negotiated with its bank group to base its pricing grid solely on
- 2 S&P's rating.

3 Q. WHAT ARE THE IMPORTANT FACTORS CONSIDERED BY RATING

4 AGENCIES IN ASSESSING A COOPERATIVE'S RISK?

- 5 A. The three major rating agencies each have different ways of stating their criteria,
- 6 however, they all are considering the ability of each borrowing entity to meet its
- debt service requirements. Moody's and Fitch have more rigid frameworks within
- 8 a scorecard approach that assigns sub-ratings to several categories. S&P looks at a
- 9 similar set of factors, discussed later in my testimony, but how they arrive at a given
- rating involves more judgment by the rating analysts.

11 Q. WHAT FACTORS DOES MOODY'S CONSIDER IN ITS RATINGS?

- 12 A. Moody's methodology is detailed in its publication, "Rating Methodology: US
- Electric Generation & Transmission Cooperatives", dated August 10, 2018. They
- break their analysis down to the five key rating factors below.
- Wholesale Power Contracts ("WPCs") and Regulatory Status (20%):
- 16 Considers strength of WPCs, % of member load served under WPCs, whether
- or not state regulated and supportiveness of state commission.
- Rate Flexibility (20%): Considers board involvement and rate adjustment
- mechanisms, capital expenditure requirements relative to existing asset base,
- reliance on purchased power, and potential for rate shock exposure.
- Member / Owner Profile (10%): Considers % of member sales that are
- residential and members' consolidated Equity to Capitalization

- <u>G&T Financial Metrics (40%)</u>: Moody's considers five key financial ratios:

 Times Interest Earned Ratio ("TIER"), defined as the sum of Net Margin plus

 Interest Expense divided by Interest Expense; Debt Service Coverage ("DSC"),

 defined as the sum of Net Margin plus Interest Expense plus Depreciation

 divided by Interest Expense plus scheduled Principal payments; Funds from

 Operation ("FFO") / Debt; FFO / Interest; and Equity / Total Capitalization.
 - Size (10%): Megawatt-hour Sales and Net Property Plant & Equipment.

Moody's uses objective criteria and a scorecard approach to assign ratings in each of these categories to arrive at an indicated rating. However, it also considers other factors and adjusts the rating up or down accordingly. Other factors include Management Quality, Governance, Financial Controls, Liquidity Management, and Event Risk.

13 Q. WHAT FACTORS DOES FITCH CONSIDER IN ITS RATINGS?

- A. On April 3, 2019, Fitch issued new "U.S. Public Power Rating Criteria," which took a more rigid approach than the agency's previous methodology. Fitch's analysis is broken down into four main components:
 - Revenue Defensibility: Considers strength of wholesale power contracts, reliance on revenue from competitive business lines, service area demographics and economics, competitiveness of retail rates, and ability to adjust rates without outside regulatory approval. Several factors are then given a rating (aa, a, bbb, or bb) based on observations and averaged out to an assigned 'Revenue Defensibility' rating.

Operating Risk: Considers operating cost burden and flexibility, capital expenditure requirements, resource diversity, and other operating characteristics. Several factors are then given a rating (aa, a, bbb, or bb) based on observations and averaged out to an assigned 'Operating Risk' rating.

Financial Profile: Fitch places heavy emphasis on one ratio, Net Adjusted Debt to Adjusted FADS. Net Debt is Total Debt minus cash equivalents and short-term investments (including the RUS Cushion of Credit). FADS is the sum of Net Margin, Depreciation, and Interest Expense, essentially the same as the numerator of DSC. Fitch's calculation of FADS may also include other adjustments for noncash and non-recurring items. "Adjusted" in their definition refers to the fact that they add a factor to the numerator and denominator to adjust for the debt-like quality of relying heavily on purchased power and capital leases. This adjustment does not materially affect EKPC in the calculation of this ratio as it would for cooperatives that rely more heavily on these items.

Depending upon the results of the 'Revenue Defensibility' and 'Operating Risk' ratings, Fitch assigns an acceptable level of Net Adjusted Debt to Adjusted FADS for each rating. For example, given the 'a' rating that Fitch assigns to each of these two factors for EKPC, a Net Adjusted Debt to Adjusted FADS of 6-8x is expected to maintain an 'a' Financial Profile. EKPC's current value for this ratio is a little over 8x, which places it in the 'bbb' range. If EKPC had a Revenue Defensibility of 'aa' as most of its unregulated peers do, the range for an 'a' Financial Profile would be 8-10, and EKPC would maintain a rating in the 'A'

range. Fitch secondarily considers a borrower's liquidity profile and coverage of full obligations ("COFO"), a ratio similar to DSC.

A.

EKPC's Net Adjusted Debt / Adjusted FADS was 8.2x for 2019. For 2020-2021, EKPC expects this ratio to be slightly over 9x due to the additional Net Debt resulting from increased capital spending for the CCR / ELG and Bluegrass dual fuel projects. Within the next 2-3 years, as EKPC's capital spending returns to more normal levels and FADS improves following the implementation of the rates proposed in this application, EKPC does expect this ratio to return to levels below 8x, which could result in an upgrade.

Asymmetric Factors: After arriving at an indicated rating from the Financial Profile matrix, other items are considered which could lead the analyst to adjust the rating downward, but these items are not used to consider an upward ratings adjustment (hence the 'asymmetric'). These factors include debt structure, management and governance, legal and regulatory, information quality.

Q. WHAT FACTORS DOES S&P CONSIDER IN THEIR RATINGS?

S&P's methodology considers many of the same factors as the other two agencies. Their written methodology is less specific as to how they arrive at a given rating than the other two agencies ("Applying Key Rating Factors to U.S. Cooperative Utilities", dated November 21, 2007), allowing for more judgment by the rating analysts. They evaluate business risk qualitatively and then perform financial metrics analyses. The strength of the qualitative measures determines what financial metrics are required in order to maintain a given rating.

Business risk is divided into six areas:

1 Regulatory environment and ratemaking flexibility – The degree of
2 regulation of G&T and distribution members, ability to adjust rates to
3 preserve margins, and strength of pass-through adjustment mechanisms;

- 2) <u>Markets served by the utility</u> The quality of revenues derived from the member distribution cooperatives, with emphasis placed on the long-term, wholesale, power supply contracts between the G&T and its member systems;
 - 3) <u>Management team and risks of business strategies</u> The policies and strategic philosophies of board members are important financial performance and credit quality determinants, as is cohesiveness among board members;
 - 4) Operational profile A consideration of owned and contracted plant; diversity within the supply portfolio; market exposure; hedging policies and risk management strategies; and capital needs and third –party resource-procurement processes;
 - 5) <u>Competitive posture</u> A consideration of pursuits beyond the core business of providing customers with attractively priced, reliable electricity through affiliate or subsidiary companies; and
 - Bondholder/lender protections in legal documents The legal protections contained in the wholesale power contracts, which bind distribution cooperatives to G&Ts, benefit cooperative utilities' lenders and trade creditors by enhancing prospects for the recovery of investments in these utilities and the receipt of trade receivables.

After evaluating business risk qualitatively, S&P performs a Financial Analysis, in which they calculate several metrics, which entail debt service coverage, liquidity, and leverage. The two ratios concentrate upon EKPC's DSC (or Fixed Charge Coverage, which is similar to DSC with adjustments for leases and purchased power agreements) and Debt to Total Capitalization.

While the methodology does not specify how S&P arrives at a given rating, the specific reports on EKPC detail which factors were considered when arriving at the rating. S&P has repeatedly praised EKPC's DSC ratio being at or above 1.25x and the fact that its Equity to Capitalization ratio has been steadily increasing for several years.

The most recent credit rating agency reports from Fitch and S&P are included as Exhibit TJS-4 and Exhibit TJS-5 to my testimony.

13 Q. DOES EKPC'S FINANCIAL CONDITION ALLOW IT TO OBTAIN 14 CAPITAL AT THE MOST REASONABLE COST?

- 15 A. Yes. EKPC's 'A' rating from S&P allows it to access attractively priced debt
 16 capital. At this time, an upgrade from that rating is largely limited by EKPC's size
 17 and exposure to fossil-fuel related risks.
- Q. PLEASE DISCUSS THE IMPORTANCE OF MAINTAINING A GOOD
 CREDIT POSITION FOR A GENERATION AND TRANSMISSION
 COOPERATIVE SUCH AS EKPC AND HOW THIS HAS RESULTED IN
 COST SAVINGS SINCE THE LAST RATE CASE.
- 22 A. Under EKPC's Indenture, it is required to be rated by two nationally recognized statistical rating organizations, which include S&P, Fitch, and Moody's. Holding

these ratings is also essential in obtaining any financing from the capital markets. EKPC's S&P rating directly affects the price it pays in interest costs and undrawn fees on its credit facility. EKPC's current pricing grid in the credit facility is as follows:

į	5	S&P Rating	Facility fee (on \$500 million) Drawn Pricing, LIBOR +
6	5	>A+	
7	7	A	
8	3	A-	
g	e	BBB+	
10)	BBB	
13	1	<bbb< td=""><td></td></bbb<>	

At EKPC's current 'A' Rating, the amount EKPC pays on drawn credit facility borrowings is lower than it would be if it did not hold an investment-grade rating. Given the credit facility balance that EKPC has maintained and the savings resulting from each upgrade over the past 10 years, EKPC has saved an estimated million in credit facility interest expense annually.

EKPC also achieved better pricing in the debt private placement market due to its improved credit ratings. With a lower rating, EKPC would have paid higher interest rates on these long tenor issuances. It is estimated that EKPC is paying about million less in annual interest expense on its private placements than would have been achieved with the credit profile it had at the time of its last rate increase.

These calculations are conservative since they only consider the savings based on this current rating grid. However, at the time of the last rate case, given the concerns of EKPC's bank group and the state of the economy, EKPC faced a much more difficult refinancing situation. EKPC had a facility that was set to expire on September 2, 2010, which had a very favorable rate. This facility bore a facility fee of bps on the \$650 million commitment, with a drawn pricing of LIBOR + bps (thus 100 bps all-in), not dependent on a current rating. The new three-year facility, which was put into place on July 14, 2020 bore a bps (thus bps all-in), in addition to an up-front fee of bps. At the time, approximately million was drawn, so the incremental cost of the facility versus the prior one was on the order of million. This is also when the covenants were changed to an every-year requirement versus only requiring the covenants be met every two out of three years.

Thankfully, this unfavorable facility was short-lived. After establishing new base rates and being well on target to achieve equity targets, EKPC negotiated a five-year facility which closed on August 9, 2011, with initial all-in drawn pricing of LIBOR + bps, with a ratings grid that allowed for automatic pricing savings as EKPC's ratings were upgraded. Two years later, in October 2013, another renegotiation of the credit facility resulted in an additional bps reduction in the all-in drawn pricing. EKPC has maintained this favorable pricing grid to the present time, and at least through July 4, 2023, with further renegotiations and extensions.

1 Q. HOW ELSE HAS EKPC ACHIEVED COST SAVINGS ON ITS INTEREST

2 EXPENSE SINCE THE LAST RATE INCREASE?

- 3 A. As Ms. Bridges discusses in her testimony, the 2018 Farm Bill phased out EKPC's ability to earn 5% on deposits in the Cushion of Credit but allowed it to prepay 4 Rural Utilities Service ("RUS") / Federal Financing Bank ("FFB") debt with no 5 6 penalty with the remaining funds in the Cushion of Credit. Overall, EKPC prepaid a total principal of \$497 million in RUS / FFB debt with an average interest rate of 7 4.94%, for a total initial annual interest expense savings of \$24.6 million. This 8 9 savings offset the \$25 million that EKPC could typically earn at 5% on its typical 10 balance of \$500 million in the Cushion of Credit. In addition, these prepayments greatly reduced the amount of scheduled principal due each year, which has had a 11 positive effect on DSC. 12
- 13 Q. DO YOU EXPECT EKPC'S CREDIT RATINGS TO CHANGE IN THE

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NEXT YEAR?

15 A. No. S&P recently affirmed EKPC's rating in January 2021. While EKPC's metrics
16 for S&P could potentially support an upgrade, EKPC's rating is limited by company
17 size and coal asset exposure. Fitch will be reviewing EKPC in late spring 2021.
18 EKPC does not expect a change in rating at that time, as its credit metrics have
19 remained stable. As previously discussed, an upgrade is possible over the next few
20 years as EKPC's Net Adjusted Debt / Adjusted FADS improves to below 8x.

III. REQUESTED RETURN

Q. HOW IS AN ELECTRIC COOPERATIVE'S RETURN CALCULATED

DIFFERENTLY THAN AN INVESTOR OWNED UTILITY'S RETURN?

- 1 A. An investor owned utility is owned by stockholders who are generally not customers, creating a conflict of interest in setting rates. State regulatory 2 3 commissions mediate between the owners and ratepayers to ensure that rates are fair, just and reasonable. Since an electric cooperative is owned and directed by its 4 ratepayers, interests are more aligned. For a member-owned cooperative, achieving 5 6 a certain return on an investment is not a primary concern as all profits of the cooperative ultimately belong to the ratepayers. The main concern is that capital is 7 used efficiently on behalf of the owner-member, and that the cooperative remains 8 9 financially strong. If excess revenues are collected, a generation and transmission cooperative can take action and distribute those earnings to shareholders in the form 10 of capital credits. As a result of these dynamics, and the fact they are generally 11 highly debt-financed, cooperatives have historically used coverage ratios, such as 12 TIER, to define their required returns. 13
- 14 Q. IN YOUR OPINION, WHAT WOULD BE A REASONABLE RATE OF
 15 RETURN FOR EKPC?
- 16 A. Based upon my analysis, EKPC should retain its current target of 1.50 TIER.
- 17 Q. HAVE YOU PREPARED ANY ANALYSIS TO SUPPORT YOUR
 18 OPINION? IF SO, PLEASE DESCRIBE IT.
- 19 A. Yes. I performed both a detailed comparable analysis with other G&Ts, as well as
 20 some calculations which show how reasonable EKPC's rate of return is when
 21 viewed on a return on total capital basis. These analyses are discussed in more
 22 detail below.

1 Q. AT A HIGH LEVEL PLEASE EXPLAIN WHY AN ADEQUATE RETURN

2 IS ESSENTIAL FOR EKPC?

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3 A. EKPC must earn revenue sufficient to meet all operating and fixed costs, with sufficient margin to allow debt investors to be comfortable that all debt obligations 4 can be satisfied. Without this assurance, EKPC's ability to access debt becomes 5 6 more costly, which ultimately results in higher rates. The two main factors that allow EKPC to continue to have access to reasonably priced debt capital are: (1) 7 the ability to meet the covenant obligations in EKPC's existing debt agreements; 8 and (2) achieving credit ratings that demonstrate to lenders EKPC's financial 9 strength and ability to satisfy debt covenants. 10

11 Q. LET'S DISCUSS EKPC'S DEBT AGREEMENTS FIRST. CAN YOU 12 DESCRIBE THEM AND WHAT THEY REQUIRE?

EKPC maintains an unsecured syndicated credit facility, led by the National Rural Utilities Cooperative Finance Corporation ("CFC"), with five other financial institutions participating (Bank of America, U.S. Bank, KeyBank, PNC Bank, and CoBank). The credit facility has a covenant that EKPC must maintain every year in order to maintain compliance. This covenant that EKPC has to satisfy every calendar year is a margins for interest ("MFI") ratio of 1.1x, [calculated as (Margins + Interest Expense on Secured Debt) / Interest Expense on Secured Debt]. MFI is practically the same as TIER, but only considers the interest expense on debt secured by the Indenture. Even though the Credit Facility is unsecured, this ratio is used in order to be consistent with the Indenture requirements, discussed below. The two measures usually differ by only about 0.02x, so this is roughly equivalent

to a TIER of 1.1x. EKPC must satisfy this covenant every year or it would be in default on the Credit Facility. Thus, it is necessary to target a TIER high enough such that it would never be expected to fall below 1.1x, even in a year with unfavorable weather or operating results.

In addition to the Credit Facility, EKPC's debt agreements include an Indenture, which governs all secured debt, which includes all RUS / FFB debt, Private Placements, and CFC loans. The Indenture is the agreement, overseen by US Bank as the Trustee, which pledges assets as collateral for EKPC's secured debt and ensures that EKPC has sufficient assets to back up these pledges. The Indenture requires that EKPC set rates sufficient to maintain the MFI ratio at a minimum of 1.1x, but does not result in an immediate default if EKPC fails to meet the covenant for a single year. However, EKPC would need to demonstrate that it is taking the necessary measures to bring the covenant into compliance. In addition to the Indenture, there are also separate loan agreements with RUS, CFC, and the Private Placement Holders. Some of these agreements do contain additional covenants (such as a requirement in EKPC's CFC loan agreements to maintain a DSC of 1.05x for two out of every three years), but none of them are as stringent as the one contained in the Credit Facility.

EKPC must also target results that support its investment-grade credit rating by maintaining strong coverage and equity ratios. One way to ensure this is to set a TIER level that is comparable to that of similar rated G&T cooperatives.

1	Q.	WITH REGARD TO OTHER G&T COOPERATIVES, PLEASE IDENTIFY
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- 2 THOSE IN THE PROXY GROUP YOU REVIEWED AND DESCRIBE
- 3 HOW THERE WERE SELECTED.
- 4 A. The proxy group used was all of the G&Ts with at least one investment-grade rating
- from one of Moody's, S&P, or Fitch. This group excludes some of the smaller
- 6 G&T's and those with a smaller scope that may be part of a larger G&T group such
- as the transmission-only cooperatives in Missouri that are members of Associated.
- 8 Using only rated G&Ts provides a good benchmark for EKPC since maintaining a
- 9 strong credit rating is important to its ability to attract reasonably priced capital.
- The complete list of G&Ts included in my analysis is set forth in Exhibit TJS-2.

11 Q. HOW DOES EKPC COMPARE TO THIS PROXY GROUP?

- 12 A. EKPC, with ratings of "A" from S&P and "BBB+" from Fitch are very comparable
- to the larger group. The average rating given to this group is between an "A" and
- "A-". EKPC's current TIER and DSC are lower than the group medians, which are
- very close to EKPC's targets for these measures.
- 16 Q. ARE THERE ANY SIGNIFICANT DIFFERENCES BETWEEN EKPC AND
- 17 THE OTHER G&T COOPERATIVES IN THE PROXY GROUP THAT
- 18 WOULD AFFECT EKPC'S RELATIVE RISK PROFILE?
- 19 A. The biggest difference is that the majority of EKPC's peers are not rate-regulated
- and their Boards have the ability to adjust rates unilaterally as needed to achieve
- 21 financials covenants and targets. The latitude most cooperatives possess to set their
- own rates in response to changing costs is a key driver of credit quality.
- Autonomous ratemaking authority sets these utilities apart from rate-regulated

utilities and enables cooperative utilities to respond quickly to changing circumstances and preserve sound financial margins without exposure to the regulatory delays or disallowances that can negatively influence the financial performance of regulated utilities. Since EKPC cannot increase rates without seeking regulatory approval, it is prudent that a 1.5 target TIER be retained so that EKPC's favorable credit ratings can be maintained.

7 Q. HOW DOES CFC DEVELOP ITS COMPARISON GROUP OF G&TS?

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A. Each year CFC publishes a Key Performance Indicators ("KPI") report, which

EKPC understands to be based upon data CFC gathers from publicly available

filings, such as the RUS Form 12. CFC's analysis provides another perspective on

where EKPC stands relative to its peers.

Q. HOW DOES EKPC COMPARE TO CFC's ENTIRE POPULATION OF G&TS?

A. As indicated in the comparisons below, EKPC's TIER and MFI are lower than those of all G&T members and A Rated or Higher G&Ts.

TIED 2015 2016 2015 2010 2010

16	TIER	2015	2016	2017	2018	2019
17	EKP (C 1.44	1.48	1.19	1.35	1.39
18	All	1.64	1.60	1.63	1.59	1.63
19	A	1.57	1.57	1.59	1.62	1.59
20						
21	MFI	2015	2016	2017	2018	2019
22	EKPO	C 1.44	1.50	1.20	1.38	1.42
23	All	1.51	1.64	1.54	1.65	1.65
24	A	1.58	1.70	1.66	1.78	1.66

- 1 Q. LET US TRANSITION TO TALKING ABOUT EKPC'S FINANCIAL
- 2 METRICS. WHAT IS EKPC'S CURRENT EQUITY TO ASSET RATIO?
- 3 A. As of December 31, 2019, EKPC had an equity to asset ratio of 18.9% on a GAAP
- basis. Preliminary results indicate an equity to asset ratio of 21.2% as of December
- 5 31, 2020.
- 6 Q. DOES EKPC'S EQUITY TO ASSET RATIO TYPICALLY INCREASE BY
- 7 OVER 2 PERCENTAGE POINTS EACH YEAR?
- 8 A. No. The increase from 2019 to 2020 was mostly due to the fact that EKPC used
- 9 \$320 million of the RUS cushion of credit to make penalty-free repayments of its
- FFB debt. Holding a large balance in the cushion of credit lowers the equity to asset
- ratio by increasing both assets and debt. If EKPC did not have a cushion of credit
- balance in 2019, the equity ratio would have been 20.8%, so the increase from 2019
- to 2020 would only have been 0.3 percentage points. Historically, in years of
- modest capital spending, EKPC has seen gradual increases in the equity to asset
- ratio of 1-2%. In 2019 and 2020, with larger than usual capital expenditures, the
- equity ratio grew more modestly.
- 17 Q. HOW DOES EKPC'S EQUITY TO ASSET RATIO COMPARE TO OTHER
- 18 G&T COOPERATIVES OF WHICH YOU ARE AWARE?
- 19 A. EKPC is a little below the average of 23.2% for other rated G&T's. The
- comparison can be seen in Exhibit TJS-2. The CFC KPI report indicates that all
- G&Ts and A Rated or Higher G&Ts have an equity percentage of 26.03 and 24.72,
- respectively, for 2019.

1	Q.	IN PRACTICAL TER	IS, DOES IT MATTEI	R THAT EKPC'S EQUITY TO
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2 ASSET RATIO IS BELOW THE AVERAGE AND WHAT IS CONSIDERED

3 WHEN SETTING A TARGET FOR EQUITY TO ASSET RATIO?

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A. Rating agencies consider this ratio when considering a G&Ts credit rating. While it is not an absolute necessity to be above the industry average, rating agencies consider 20% to be a reasonable equity target to maintain an investment-grade rating. Furthermore, EKPC's Indenture requires that Equity to Total Capital (which generally runs slightly higher than Equity / Assets) be 20% before considering

paying distributions to members in the form of capital credits.

EKPC has improved its equity ratio substantially since the last rate increase, but it is important to maintain strong equity in order to provide a buffer against unexpected events or asset impairments that could result from future carbon regulations.

14 Q. WHAT ROLE DO INTEREST RATES PLAY IN SETTING A 15 COOPERATIVE'S RATE OF RETURN?

A. Since EKPC seeks a return based on a TIER, which is multiple of interest rates, they are directly and critically related. Since cooperatives are heavily debt-financed, low interest rates correspond to lower costs of capital and lower required returns.

20 Q. CAN YOU DESCRIBE EKPC'S MIX OF SHORT-TERM AND LONG-21 TERM DEBT?

22 A. Under GAAP, all of EKPC's interest-bearing debt is considered to be long-term as 23 its Credit Facility's final maturity is over one-year away. However, EKPC's Credit Facility is fully pre-payable at each monthly payment period and bears a variable rate on interest. Other than the credit facility, EKPC holds the majority of its debt at fixed rates in order to have a stable level of interest costs. At December 31, 2019, EKPC's variable rate debt represented only 7% of total debt.

5 Q. WHAT IS EKPC'S BLENDED COST OF DEBT?

At December 31, 2019, EKPC's blended cost of debt was 3.85%. At December 31, 2020, the blended cost of debt declined to 3.45%. The drop in interest rates in 2020 was mainly due to the prepayment of \$320 million of its highest-rate Federal Financing Bank ("FFB") debt with no penalty, which was allowed under the 2018 Farm Bill. At the time of the last rate case in 2010, EKPC's blended cost of debt was 4.83% (as of 8/31/2010).

12 Q. HOW DID YOU ARRIVE AT THAT FIGURE?

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13 A. EKPC calculates its blended cost of debt by taking an average of each debt

14 issuance's interest rate, weighted by its principal amount outstanding.

15 Q. HOW DO THE RETURNS ON A TIER-BASED APPROACH DIFFER 16 FROM A RETURN ON EQUITY APPROACH?

To compare return on equity to TIER, I performed an analysis of how the two correspond. EKPC's total capital is a mix of equity and debt. The return to the debt portion of capital is the weighted-average interest rate and the return on the equity portion is the annual margin, which accrued to the owner-members in the form of an increase in equity, which is available to be paid out as capital credits. Using 2019 year-end values for equity and debt, a weighted-average interest weight of 3.85% and a target TIER of 1.5x implies that EKPC is seeking a return on equity

of 6.6% and a return on total capital of 4.5%. Because EKPC retired an additional \$320 million of its highest-interest rate debt in 2020, the weighted-average interest rate declined to 3.45%. Applying this interest rate to the 2020 preliminary balance sheet results, these numbers translate to a 5.9% return on equity and a 4.0% return on total capital. This calculation is included in Exhibit TJS-3A.

These calculations illustrate how EKPC's capital structure results in very efficient use of capital. If EKPC were to use a more market-based approach to what its return on equity should be, rates would have to be set much higher. Using TIER as the benchmark allows cooperatives to ensure financial results that maintain financial strength and available liquidity efficiently. Exhibit TJS-3B, shows that if the target were a 9.5% return on equity (as would be typical for an investor-owned utility), EKPC's TIER requirement would be higher, on the order of 1.7-1.8x.

Finally, I did an analysis that asked the question, "What would EKPC's returns look like if it targeted a much higher Equity to Capital ratio of 40%?" In order to achieve this, EKPC would have to target much higher margins, and thus higher rates. At this point, the implied Return on Equity is very low, even lower than the assumed cost of debt. This indicates that the owner-members' capital would not be utilized very efficiently, and lower rates and/or capital credits would be in order. While the TIER requirement after reaching higher equity could be lowered, it would take years of requiring a higher TIER, and a minimum positive margin would still be required in order to maintain debt covenant ratios. Our current equity ratio in the area of 20% strikes a good balance of protecting against

- 1 negative financial shocks while maintaining a reasonably inexpensive capital
- 2 structure. This analysis is included in Exhibit TJS-3C.

3 Q. DID THE METHODOLOGY USED IN THIS PROCEEDING CHANGE

4 FROM EKPC'S 2010 RATE PROCEEDING?

- 5 A. The methodology is essentially the same as the prior rate case: justifying a TIER
- 6 that is comparable to the G&T universe which meets EKPC's financial goals.
- 7 EKPC had been considering using DSC instead of TIER. For several years, DSC
- 8 was EKPC's main target because of its importance to the rating agencies. However,
- 9 after prepayment of FFB debt under the Farm Bill provision, the dynamics of DSC
- have changed. The prepayments reduced debt service to the point at which TIER
- became more of a limiting factor. For example, EKPC could potentially meet a
- DSC of 1.3x, while still failing to meet its financial covenant of 1.1x MFI.

13 Q. WHY DID YOU USE DSC RATIOS IN THIS ANALYSIS?

- 14 A. DSC is still a very important ratio from the perspective of the rating agencies. To
- maintain its credit rating, it is EKPC's strategic finance policy to target a DSC of
- 1.35x in order to ensure that DSC remains about 1.25x. Given the structure of
- EKPC's debt service after the substantial prepayments of amortizing FFB debt,
- maintaining a TIER of 1.5x will achieve this objective.

19 Q. WHAT IS YOUR RECOMMENDATION AS TO THE TIER THAT

20 SHOULD BE USED IN THIS CASE?

- 21 A. I recommend that EKPC continue to target a TIER of 1.5x. This results in a
- reasonable return that is consistent with that of its peers and supports EKPC's credit
- ratings, debt covenants, and financial strength.

IV. CONCLUSION

2 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

- A. Over the last decade, EKPC has made strategic financial decisions that enabled it to obtain, and continue to receive, solid credit ratings and access to the capital markets. In order to continue EKPC's strong financial performance, EKPC should continue to target a 1.5 TIER. This is supported by peer comparisons and an analysis of EKPC's cost of capital.
- 8 Q. DOES THIS CONCLUDE YOUR TESTIMONY?
- 9 A. Yes.

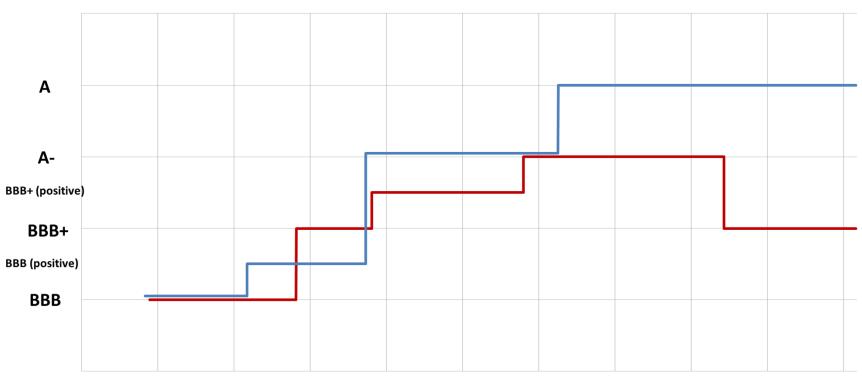
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EXHIBITS

- Exhibit TJS-1 EKPC's Credit Rating History
- Exhibit TJS-2 Comparably Analysis of the Rated G&T Peer Universe
- Exhibit TJS-3 Analysis of EKPC's Return on Capital
- Exhibit TJS-4 Fitch Ratings Report on EKPC (dated June 2, 2020)
- Exhibit TJS-5 S&P Ratings Report on EKPC (dated January 25, 2021)

EKPC Rating History





Dec-2010 Dec-2011 Dec-2012 Dec-2013 Dec-2014 Dec-2015 Dec-2016 Dec-2017 Dec-2018 Dec-2019 Dec-2020



RATED G&T UNIVERSE FINANCIAL COMPARISON

	Secured Financial Ratings Information		12/31/2019	2017-2019	2017-2019		
Cooperative	Moody's	Fitch	S&P	Equity Ratio	Avg. DSC	Avg. TIER	State Regulated?
Arizona Electric Power Cooperative, Inc.		Α	Α	40.20%	1.25	1.82	Yes
Arkansas Electric Cooperative Corporation	Aa3	AA-	AA	35.32%	1.89	2.04	Yes
Associated Electric Cooperative, Inc.	Aa3	AA-	AA	23.78%	1.34	1.62	No
Basin Electric Power Cooperative	A3	Α	Α	21.35%	1.75	1.35	No
Big Rivers Electric Corporation	Baa3	BBB-	BB+	38.71%	1.36	1.39	Yes
Brazos Electric Cooperative, Inc.		A+	Α	25.13%	1.23	1.59	Transmission Only
Buckeye Power, Inc.	A2	Α	Α	27.31%	1.39	1.68	No
Central Electric Power - South Carolina			A+	13.14%	1.18	1.50	No
Central Iowa Power Cooperative		A-	Α	28.60%	1.56	1.89	No
Chugach Electric Association, Inc.		Α	Α	23.30%	1.24	1.26	Yes
Cooperative Energy	A2	Α		22.22%	1.69	1.50	No
Corn Belt Power Cooperative			Α	31.91%	1.84	2.76	No
Dairyland Power Cooperative	A2		A+	23.79%	1.34	1.55	No
Georgia Transmission Corporation	A1	AA-	AA-	12.33%	1.34	1.18	No
Golden Spread Electric Cooperative	A1	AA-	AA-	39.79%	2.06	2.17	Transmission Only
Great River Energy	A3	A-	A-	18.03%	1.25	1.21	No
Hoosier Energy Rural Electric Cooperative, Inc.	A2		A+	23.16%	1.43	1.52	No
Minnkota Power Cooperative, Inc.	Baa1		A-	13.94%	1.29	1.33	No
North Carolina Electric Membership Corporation		Α	A-	15.58%	1.24	1.45	No
Oglethorpe Power Corporation	Baa1	BBB+	BBB+	7.83%	0.93	1.22	No
Old Dominion Electric Cooperative	A2	A+	A+	20.34%	1.09	1.30	No
PowerSouth Energy Cooperative	А3	BBB+	BBB+	19.73%	1.27	1.21	No
San Miguel Electric Cooperative, Inc.		A+	Α	23.95%	2.32	1.17	No
Seminole Electric Cooperative, Inc.	А3		A-	20.96%	1.26	1.41	No
South Texas Electric Cooperative, Inc.		A+	Α	26.03%	1.43	1.75	Transmission Only
Square Butte Electric Cooperative	Baa1		A-	13.29%	1.11	1.14	No
Tri-State G&T Association, Inc.	A3	Α	A-	22.44%	1.47	1.33	No
Wabash Valley Power Association, Inc.			Α	19.71%	1.43	1.59	No
Western Farmers Electric Cooperative		A-	A-	27.06%	1.28	1.37	No
Wolverine (Peninsula sub is rated entity)			Α	24.40%	1.43	1.78	No
Median				23.23%	1.34	1.48	
Average				23.44%	1.42	1.54	
East Kentucky Power Cooperative, Inc.		BBB+	Α	18.94%	1.33	1.31	Yes

Sources:

 $G\&T\ Credit\ Ratings\ as\ of\ January\ 2021,\ sourced\ directly\ from\ \ Moody's,\ Fitch,\ and\ S\&P\ websites$

Financial data and Regulatory status from G&T Accounting and Finance Association Annual Directories or directly from individual Financial Statements

EKPC Return on Total Capital AnalysisWhat Returns on Equity and Total Capital does 1.5x TIER imply?

\$ Million	2019	2020 (unaudited)
Equity	715.4	744.3
Debt (RUS basis - net of cushion of credit)	2,463.9	2,560.8
Total Capital (Equity + Debt)	3,179.3	3,305.0
Equity to Total Capital	22.5%	22.5%
Avg. Interest Rate (Return on Debt)	3.85%	3.45%
Projected Interest (Debt x Average Rate)	94.9	88.3
Target TIER	1.50x	1.50x
Target Margin (1- Target TIER) * Interest	47.4	44.2
Implied ROE (Margin / Equity)	6.6%	5.9%
Target Return on Total Capital (Margin + Interest) / Total Capital	4.5%	4.0%

EKPC Return on Total Capital Analysis What TIER would a 9.5% Return on Equity imply?

\$ Million	2019	2020 (unaudited)
Equity	715.4	744.3
Debt (RUS basis - net of cushion of credit)	2,463.9	2,560.8
Total Capital (Equity + Debt)	3,179.3	3,305.0
Equity to Total Capital	22.5%	22.5%
Avg. Interest Rate (Return on Debt)	3.85%	3.45%
Projected Interest (Debt x Average Rate)	94.9	88.3
CALCULATED TIER	1.72x	1.80x
Target Margin (1- Target TIER) * Interest	68.0	70.7
ASSUMED ROE (Margin / Equity)	9.5%	9.5%
Target Return on Total Capital (Margin + Interest) / Total Capital	5.1%	4.8%

EKPC Return on Total Capital Analysis What would a 1.5xTIER imply at a theoretical 40% equity?

\$ Million	2019	2020 (unaudited)
Equity	1,272	1,322
Debt	1,908	1,983
Total Capital (Equity + Debt)	3,179.3	3,305.0
Equity to Total Capital (Input)	40.0%	40.0%
Avg. Interest Rate (Return on Debt)	3.85%	3.45%
Projected Interest (Debt x Average Rate)	73.4	68.4
Target TIER	1.50x	1.50x
Target Margin (1- Target TIER) * Interest	36.7	34.2
Implied ROE (Margin / Equity)	2.9%	2.6%
Target Return on Total Capital (Margin + Interest) / Total Capital	3.5%	3.1%



RATING ACTION COMMENTARY

Fitch Affirms East Kentucky Power Cooperative's Bonds at 'BBB+'; Outlook Stable

Tue 02 Jun, 2020 - 8:49 AM ET

Fitch Ratings - Austin - 02 Jun 2020: Fitch Ratings has affirmed East Kentucky Power Cooperative's (EKPC) Issuer Default Rating (IDR) and the underlying ratings on the utility's \$2.7 million Pulaski County, KY solid waste disposal revenue bonds series 1993B at 'BBB+'.

The Rating Outlook is Stable.

ANALYTICAL CONCLUSION

EKPC's rating reflects the utility's leverage profile, which is expected to remain above 8.0x in the near term as the cooperative continues an expanded capital improvement plan to address environmental regulations. EKPC's revenue defensibility assessment and rating further consider the aggregate credit quality of the cooperative's members. Member service territories are diverse, both economically and geographically, but the aggregate credit quality is approaching midrange. Fitch believes EKPC's low cost

power supply is diversified and, together with wholesale market purchases, is sufficient to meet members' peak energy demands.

The recent outbreak of the coronavirus creates an uncertain environment for the public power sector in the near term. While EKPC's performance through most recently available data has not indicated significant impairment, material changes in revenue and cost profiles could worsen in the coming weeks and months if economic activity suffers further and government restrictions are maintained or expanded.

Fitch expects the EKPC's current liquidity levels and overall financial performance will remain supportive of the current rating. EKPC's operating cash flows would likely narrow following a severe decline in member energy sales, but Fitch's scenario analysis assumes management would implement a base rate increase to ensure financial metrics return to current levels. Fitch's ratings are forward looking, and Fitch will monitor developments related to the severity and duration of the virus outbreak and incorporate revised expectations for future performance and assessment of key rating drivers.

CREDIT PROFILE

EKPC provides wholesale power and energy to 16 member distribution cooperatives, which in turn provide retail electric service to 545,476 energy meters across 87 counties in Kentucky. Member territories are reasonably diverse and located throughout central and eastern Kentucky. The territories served include mountainous coal mining areas, rolling farmlands and the more suburban areas surrounding the state's largest cities.

KEY RATING DRIVERS

Revenue Defensibility: 'a'

Unconditional Power Sales Contracts; Rate Regulated

EKPC's revenue defensibility assessment reflects the very strong revenue source characteristics of its all-requirements long-term wholesale power agreements with its members that extend through Jan. 1, 2051. Aggregate member credit quality is assessed as strong, but is approaching midrange as service territory economic metrics vary widely. Wholesale electric rates and those of its members are regulated by the Kentucky Public Service Commission (PSC) limiting rate flexibility.

Operating Risk: 'a'

Ample and Low Cost Power Supply

EKPC's operating risk assessment of strong is based on the utility's history of providing a consistently low cost power supply to its members. EKPC owns a diverse generating fleet and supplements its power supply with economic purchases from the PJM wholesale market. Ongoing capital expenditures related to environmental capital improvements totaling \$262 million are expected to be largely complete in 2020 and are funded through a combination of operational cash flow and additional debt. Fitch expects capex levels to return to historical levels in fiscals 2021 through 2024.

Financial Profile: 'bbb'

Leverage Expected to Remain Elevated Over the Near Term

EKPC's leverage profile remained stable at 8.1x at FYE 2019. Fitch expects leverage to increase in fiscals 2020 and 2021 as EKPC issues additional debt to finance its expanded capital improvement plan. Declining operating margins resulting from a severe decline in energy sales could further pressure metrics, but Fitch believes EKPC's leverage profile will remain supportive of the financial profile assessment. EKPC's liquidity profile is neutral to the rating assessment.

ASYMMETRIC ADDITIONAL RISK CONSIDERATIONS

No asymmetric additional risk considerations affected this rating determination.

RATING SENSITIVITIES

Factors that could, individually or collectively, lead to positive rating action/upgrade:

- -- A sustainable decline in net leverage below 8.0x due to lower than anticipated debt issuance;
- --An increase in operating cash flow through rate increases or reduced discretionary expenditures.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

- --An inability, or unwillingness, to increase member rates, which leads to weakened operating margins;
- --Increased debt issuance resulting from an increase in capex.

BEST/WORST CASE RATING SCENARIO

International scale credit ratings of Public Finance issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of three notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit https://www.fitchratings.com/site/re/10111579.

SECURITY

The solid waste disposal revenue bonds are secured by a mortgage interest in substantially all of EKPC's tangible and certain of its intangible assets.

REVENUE DEFENSIBILITY

EKPC's revenue source characteristics are very strong. The wholesale power agreements extend through Jan. 1, 2051 and require members to serve their entire load through purchases from EKPC. The agreements were reaffirmed following an order by the PSC in September 2018 nullifying parts of the 2003 amendment, which previously allowed members to purchase off-system power up to 15% of their three-year average rolling peak as long as it did not exceed 5% of EKPC's peak demand. The PSC order also prohibited any future efforts by members to purchase power from suppliers other than EKPC. Fitch believes the PSC decision strengthens EKPC's revenue source characteristics and it mitigates the need for EKPC to reallocate fixed costs resulting from lost member load.

Energy sales to members accounted for 96% of EKPC's total 2019 energy sales, with the remaining energy sold primarily through EKPC's PJM interconnection. EKPC's 2019 sales to PJM represent a small decline from 2018 levels due to unfavorable weather and market prices. Fitch does not believe that the PJM market sales and other off-system sales warrant an asymmetric risk consideration. Non-member sales account for approximately 2-3% of total annual sales in EKPC's forecast.

Rate Flexibility

EKPC's wholesale electric rates and those of its members are regulated by the PSC. The PSC has a history of being supportive of EKPC, but Fitch believes regulatory oversight limits rate flexibility. EKPC's last rate case, approved in January 2011, targeted a times interest earning ratio (TIER) of 1.50x. It was intended to help support the cooperative as it moved forward with its strategic plan. Additional filings with the PSC have resulted in an allowance of an economic development rider, an environmental surcharge that recovers costs for coal-related environmental

expenditures including funding for the transfer of ash storage, and support for a fuel adjustment clause (FAC) proposal. EKPC management believes that its relationship with the PSC remains healthy and that the commission will likely remain supportive of the cooperative and its members.

The EKPC board is required to review its wholesale rate at least annually, and to seek revisions as necessary to ensure covenant compliance. The utility attempts to mitigate the risks related to rate regulation through a multi-year budgeting process. Given the anticipated time frame for PSC approval and implementation of rate increases (up to 10 months), the cooperative seeks to anticipate the need for rate relief well in advance of any projected revenue shortfall, to maintain minimum annual TIER and DSC metrics. Timelier rate adjustments may be permitted if the PSC finds that EKPC's credit quality or operations will be materially impaired by a failure to implement rate changes.

Purchaser Credit Quality

Fitch assesses EKPC's Purchaser Credit Quality (PCQ) as strong based on the aggregate credit quality of its members. EKPC's member distribution cooperatives provide retail electric service throughout territories that are reasonably diverse, both economically and geographically, and sometimes weak. EKPC's members serve many of the communities surrounding Cincinnati, Lexington and Louisville, which have experienced higher rates of economic and population growth. However, EKPC's members also serve many of the coal-mining communities in east Kentucky where average household income has reached 42% of the national average and unemployment is approximately more than twice the national average (e.g., Owsley County).

In accordance with criteria, Fitch evaluated the credit quality of EKPC's top five members, which accounted for approximately 58% of 2019 revenue. EKPC's top five members received a weighted average score of 2.33, which indicates a rating factor assessment of strong but approaches the midrange threshold of 2.5. The scoring assessment evaluates wholesale members based on their ability to absorb rates, leverage and cash flow (measured by net margin and cash cushion). Member scores ranged from 2 to 3 (higher scores reflect weaker credit quality), with the lower credit quality members reflecting weak economic metrics and lower liquidity levels. Rate

competitiveness remained strong at each of the top five members, but affordability remains tempered by below average median household income levels.

Energy sales to members accounted for 96% of EKPC's total 2019 energy sales, with the remaining energy sold primarily through EKPC's PJM interconnection. EKPC's 2019 sales to PJM represent a small decline from 2018 levels due to unfavorable weather and market prices. Fitch does not believe that the PJM market sales and other off-system sales warrant an asymmetric risk consideration. Nonmember sales account for approximately 2%-3% of total annual sales in EKPC's forecast.

OPERATING RISK

EKPC has consistently maintained low-cost energy to its members, averaging an operating cost burden of 5.8 cents/kWh during the past five years. EKPC's operating cost burden remained low in fiscal 2019 with a cost burden of 5.6 cents/kWh.

EKPC's operating cost burden reflects the utility's low cost baseload coal power plants, which have been increasingly supplemented with economic purchased power through EKPC's participation with the PJM marketplace. EKPC's strategy is to temper its exposure to coal and keep production costs low through optimization of its asset portfolio and flexible generation dispatching. As natural gas prices have declined, EKPC better utilized its gas-fired generation along with wholesale market purchases to hold down costs. Purchased power accounted for approximately 24% of EKPC's operating expenses in fiscal 2019, up from approximately 16% in fiscal 2016, due to lower PJM power costs.

EKPC owns a diverse generating fleet of coal-fired, natural gas-fired, landfill gas and solar facilities, totaling more than 3,400 MWs, which is sufficient to meet EKPC's peak load (2019 peak load of 3,073 MW). The cooperative's power supply is primarily coal, but EKPC has taken steps to diversify its power mix through optimization of its asset portfolio and flexible generation dispatching. EKPC purchased a 594 MW natural gas-fired facility from Bluegrass Generation Co. LLC (Bluegrass) in December 2015. As natural gas prices have declined, EKPC has been able to utilize its gas-fired generation, along with wholesale market purchases, to hold down costs. Market

purchases accounted for approximately 48% of energy supplied during fiscal 2019, up from 34% in fiscal 2018 and significantly higher than 6% in fiscal 2011.

EKPC's owned coal based facilities include Spurlock and Cooper. Spurlock is the cooperative's largest plant, with 1,346 MWs of rated capacity. Cooper provides an additional 341 MWs of capacity. EKPC purchases coal for its generating plants under long-term contracts. EKPC's 2019 owned power supply capacity remains unchanged from 2018 with coal, natural gas and renewable (landfill and solar) representing 57% 42% and 1%, respectively.

In addition to its coal and natural gas facilities, the cooperative has rights to 170 MWs of hydroelectric power from the Southeastern Power Administration.

Capital Planning and Management

EKPC's capital planning and management assessment of very strong reflects EKPC's low average age of plant and its continued investment in the utility's generation and transmission assets. Historical capital spending has shown some variability spiking in 2015 following EKPC's acquisition of the natural gas-fired facility from Bluegrass. EKPC's historical five-year average capital spending has remained broadly in line or above its historical five-year average depreciation.

EKPC is in the midst of undertaking several investments aimed at addressing environmental regulations associated with both Coal Combustion Residuals (CCRs) and the Effluent Limitations Guidelines (ELG). Management estimates that compliance expenditures at Spurlock will total approximately \$262 million through fiscal 2024. Emissions at Spurlock were previously reduced following the addition of flue gas desulphurization (FGD) systems, electrostatic precipitators, selective catalytic reduction units and new low-NOx burners. Similar equipment was installed in 2015 at Cooper unit No. 1, with a tie into a new air quality control system for unit No. 2 that brought the unit into compliance with the Mercury and Air Toxics (MATS) rule.

Capex rose to \$203 million in fiscal 2019 and are expected to climb to approximately \$225 million in fiscal 2020 before declining to an average annual amount of approximately \$108 million in fiscals 2021 through 2024. EKPC will fund its capital plan through a combination of operational cash flow and debt; however, an

environmental surcharge included in EKPC's wholesale rates will be used to substantially recover all costs related to the Spurlock compliance capex.

Management believes that it is well positioned to meet the Environmental Protection Agency's Affordable Clean Energy (ACE) rule, which is not expected to negatively affect EKPC financially or operationally.

FINANCIAL PROFILE

EKPC's financial profile remained relatively stable in fiscal 2019 as the cooperative's leverage ratio remained at 8.1x in FY 2019. Despite EKPC's issuance of an additional \$250 million in debt in 2019, funds were used to primarily pay down borrowings on the cooperative's credit facility. EKPC previously used the credit facility to finance the CCR and ELG capital improvements at the Spurlock facility. Leverage has steadily declined from 9.2x in fiscal 2015 when EKPC purchased the Bluegrass facility.

Energy sales declined by approximately 3% in fiscal 2019, primarily due to weather and unfavorable PJM market conditions. However, EKPC's decline in operating revenues were more than offset by declines in EKPC's combined purchased power and fuel costs, which resulted in improved operating margins in fiscal 2019. Management reports that 2020 member energy sales have not been materially affected by the recent coronavirus. March and April 2020 energy sales declined relative to budgeted sales as Kentucky instituted a statewide shutdown due to the coronavirus, but yoy energy sales remained relatively stable. Additionally, EKPC's members have continued to make monthly payments to EKPC despite some increases in retail customer arrearages.

Liquidity remained healthy with 103 days cash on hand (DCOH) at FYE 2019, up from 94 days at FYE 2018. Management has historically targeted 80 to 100 days cash on hand. The cooperative also maintains a \$600 million syndicated credit facility, which provides an additional source of liquidity. Management reports the utility borrowed an additional \$80 million from its credit facility during the first quarter of 2020 -- raising DCOH to approximately 150 days -- to address any unanticipated liquidity needs resulting from the coronavirus. The utility currently has \$325 million available on its credit facility.

Fitch Analytical Stress Test (FAST) Scenarios

The FAST base case scenario represents Fitch's expectation of EKPC's financial performance through the five-year period ending in 2024. Under Fitch's base case, leverage is expected to increase to 9.2x in fiscal 2020 as EKPC issues additional debt to finance the remaining CCR and ELG capital improvements at the Spurlock facility (totaling \$262 million). Operating cash flow is expected to narrow in fiscal 2020 as energy sales remain relatively in line with 2019 sales. The base case does not include any wholesale base rate increases.

Fitch expects leverage to decline after 2021 to approximately 8.2x as capex return to historical levels and debt continues to amortize. EKPC plans to use the remaining \$353 million in its cushion of credit to prepay debt owed to RUS in fiscal 2020, which was permitted following the passage of the Farm Bill in 2018. The base case also includes an additional 50-60MW of load in fiscals 2021 and 2022 as one of EKPC's major industrial customers is currently undergoing a plant expansion. Fitch assumed energy sales increase by 3.8% and 5% in fiscals 2021 and 2022, respectively to account for the increased customer load.

Fitch applied additional sensitivities to its base case to consider a more sustained slowdown resulting from the spread of the coronavirus and resulting economic slowdown. Fitch assumed a stress of a 9% decline in energy sales in fiscal 2020, followed by year over year recoveries of 5%, 3% and 1% in fiscals 2021, 2022 and 2023, respectively. The stress in sales was overlaid on EKPC's assumed annual load growth and no stress was applied to the 2024 base case energy sales growth assumption. The sensitized base case assumes management would respond to a decline in energy sales by reducing costs and increasing rates (upon PSC approval). Fitch assumed rate increases would provide an additional \$20 million of annual revenue starting in fiscal 2021. Under the sensitized base case, net leverage could increase to over 11x in the near term, but would decline to current levels by 2022. Any additional operating cash flow provided by approved rate increases would further reduce the leverage metric in the near term.

Debt Profile

EKPC's debt profile is neutral to the rating. The cooperative's reported total debt of \$2.7 billion at Dec. 31, 2019, most of which (\$2.2 billion) has been funded pursuant to the RUS loan program at conservatively fixed interest rates. Amortization of the RUS program debt extends through 2051. EKPC also has first mortgage bonds (\$329)

million) and first-mortgage promissory notes (\$100 million). The cooperative's remaining debt has largely been funded through tax-exempt bonds (\$21.9 million), and through credit facility with National Rural Utilities Cooperative Finance Corp. (CFC) and a syndicate of banks (\$190.6 million).

All of the cooperative's debt is secured under its existing indenture, except for the CFC-led facility and \$5.6 million National Cooperative Services Corporation fixed rate notes. Approximately \$185 million, or 6.8% of EKPC's total debt, was variable rate at Dec. 31, 2019, exposing the cooperative to manageable interest rate risk.

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG CONSIDERATIONS

The highest level of ESG credit relevance, if present, is a score of 3. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity(ies), either due to their nature or to the way in which they are being managed by the entity(ies). For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

		RATING ACTIONS	
RATIN	G		
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ENTITY/DEBT	RATIN	NG		1 age 12 01 10
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Cooperative (KY) /Pollution				
Control Revenues/1 VIEW ADDITIONAL R	ATING D	ETAILS		•

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APPLICABLE CRITERIA

Public Sector, Revenue-Supported Entities Rating Criteria (pub. 27 Mar 2020) (including rating assumption sensitivity)

U.S. Public Power Rating Criteria (pub. 30 Mar 2020) (including rating assumption sensitivity)

APPLICABLE MODELS

Numbers in parentheses accompanying applicable model(s) contain hyperlinks to criteria providing description of model(s).

FAST Public Power - Fitch Analytical Stress Test Model, v1.1.3 (1)

ADDITIONAL DISCLOSURES

Dodd-Frank Rating Information Disclosure Form

Solicitation Status

Endorsement Policy

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Pulaski County (KY)

EU Endorsed

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Utilities and Power US Public Finance North America United States





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Summary:

East Kentucky Power Cooperative; Rural Electric Coop

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Stable Outlook

Credit Opinion

Related Research

Summary:

East Kentucky Power Cooperative; Rural Electric Coop

Credit Profile

East Kentucky Pwr Coop ICR

Long Term Rating A/Stable Affirmed

Rating Action

S&P Global Ratings affirmed its 'A' issuer credit rating on East Kentucky Power Cooperative Inc. (EKPC). The outlook is stable.

Credit overview

The rating reflects favorable regulatory support of this rate-regulated generation and transmission (G&T) cooperative electric utility. Regulatory support includes a formulaic monthly fuel adjustment clause and an environmental remediation cost surcharge. Rate decisions and adjustment mechanisms yielded fixed charge coverage (FCC) of about 1.35x in 2018-2019.

Long-term contracts with 16 member distribution cooperatives extend through 2050 and members account for about 95% of revenues. Member distribution cooperatives serve more than 545,000 retail customers in 87 of Kentucky's 120 counties. The members derive two-thirds of their revenues from residential customers. In 2019, EKPC was among the 10 largest G&T cooperatives in the U.S. as measured by member energy sales.

Tempering the cooperative's strengths are the utility's significant reliance on coal generation assets that accounted for 88%-93% of self-production since 2017 and 46%-60% of those years' energy supply. We attribute additional credit exposures to the regional economy's reliance on coal mining, which underlies low income levels. Retrenchment in coal mining operations by utility customers exposes remaining customers to reallocations of fixed costs. We also believe the utility is vulnerable to the outmigration of those seeking employment outside the service territory. Mine closures also create the potential growth in customers relying on transfer payments to support basic needs, which could make electric bills more burdensome.

In 2019, the cooperative produced 52% of the energy it sold, compared with 66% in 2018 and 59% in 2017. The declines principally reflect the utility's increasing reliance on market purchases from resources with lower variable costs than its predominantly coal-fired generation assets.

EKPC reported \$860 million of fiscal 2019 operating revenues and \$2.8 billion of debt at fiscal year-end (Dec. 31).

The stable outlook reflects our expectations that with moderate base rate increases and energy sales growth, the utility is capable of perpetuating consistently strong FCC of at least 1.35x and modestly improving leverage measures relative to 2019's 80% debt-to-capitalization ratio.

Environmental, social and governance factors

We believe the utility faces significant environmental exposures because of its coal fleet. EKPC produces slightly more than half of its customers' electricity needs. Although 90% of its self-production is from coal resources, purchases halve coal's contribution to total energy sales. We believe that market purchases of electricity produced with natural gas that has a lower carbon intensity than coal also present environmental exposures.

Although weighted-average retail rates are in line with the state average, we believe that the prevalence of low income levels within the service territory presents social risks and can limit financial flexibility, particularly because the economy is closely tied to the economically vulnerable coal mining industry. The pandemic's recessionary pressures could compound this exposure.

We believe the utility faces limited governance risk because it has a cohesive board and because it operates under the state's favorable regulatory framework.

Stable Outlook

Downside scenario

We could lower the rating if financial margins erode due to the costs of complying with more stringent emissions regulations or economic dislocations within the customer base due to the region's mining industry or the pandemic's recessionary pressures.

Upside scenario

Although FCC has been consistently favorable, we do not expect to raise the rating during our two-year outlook period because we believe the utility's carbon intensity creates a financial vulnerability to further regulation, the regional economy is closely tied to the struggling coal mining industry, and due to the ongoing negative economic pressures attributable to the pandemic.

Credit Opinion

S&P Global Ratings calculated favorable FCC of 1.34x in 2018 and 1.37x in 2019. S&P Global Ratings' FCC calculation treats portions of purchased power expense as debt service to reflect our view that actual and imputed capacity payments fund generation suppliers' recovery of capital investments in assets dedicated to serving EKPC. The utility's FCC ratio closely mirrors its debt service coverage ratio because energy purchases from others are primarily opportunistic economy purchases from power markets, rather than bilateral arrangements. We view debt to capitalization of 80% in 2019 as high, but consistent with that of many other G & T cooperative utilities. Debt to capitalization in 2019 was three percentage points lower than in 2017 and the utility projects further reductions to 74% by 2023, in part due to the application of cushion of credit balances to debt reduction. Liquidity levels are very strong. Unrestricted cash and investments at Dec. 31, 2019, provided 2.5 months' operating expenses, net of depreciation expense. Liquidity facilities' undrawn balances added access to liquidity equivalent to another eight months' operating expenses.

Related Research

• Through The ESG Lens 2.0: A Deeper Dive Into U.S. Public Finance Credit Factors, April 28, 2020

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

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East Kentucky Power Cooperative, Inc. Case No. 2021-00103 General Adjustment of Rates Filing Requirements / Exhibit List

Exhibit 18

807 KAR 5:001 Sec. 16(4)(b) Sponsoring Witness: Scott Drake

Description of Filing Requirement:

If the utility has gross annual revenues greater than \$5,000,000, the written testimony of each witness the utility proposes to use to support its application.

Response:

In support of its Application, EKPC provides written testimony from Mr. Scott Drake, EKPC'S Manager of Corporate Technical Services, whose testimony is included with this Exhibit 18.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the	Watter of:	
	THE ELECTRONIC APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR A GENERAL ADJUSTMENT OF RATES, APPROVAL OF DEPRECIATION STUDY, AMORTIZATION OF CERTAIN REGULATORY ASSETS AND OTHER GENERAL RELIEF) Case No. 2021-00103))

DIRECT TESTIMONY OF SCOTT DRAKE MANAGER OF CORPORATE TECHNICAL SERVICES ON BEHALF OF EAST KENTUCKY POWER COOPERATIVE, INC.

Filed: April 1, 2021

I. INTRODUCTION

- 2 Q. PLEASE STATE YOU NAME, TITLE AND BUSINESS ADDRESS.
- 3 A. My name is Gregory Scott Drake. I generally go by Scott. I am the Manager of
- 4 Corporate Technical Services for East Kentucky Power Cooperative, Inc.
- 5 ("EKPC"). My business address is 4775 Lexington Road, Winchester, Kentucky
- 6 40391.

1

- 7 Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL
- 8 EXPERIENCE.
- 9 A. I have a bachelor's of science degree in Electrical Engineering from the University
- of Kentucky. I'm a licensed professional engineer in Kentucky. I have been
- employed by EKPC in various capacities for thirty years. I assumed my current
- position in 2009.
- 13 Q. PLEASE DESCRIBE YOUR DUTIES AT EKPC.
- 14 A. Since 2009, I have been responsible for working with EKPC's Owner-Member
- 15 Cooperatives ("owner-members") to develop and implement energy efficiency and
- demand response programs. I direct and approve consultants' services for
- determining the costs and benefits of these programs. I lead the development of all
- energy efficiency and demand response programs and work directly with EKPC's
- and owner-member cooperatives' member services teams to implement those
- programs. In 2020, I finished my sixth year as a Board member of the Midwest
- Energy Efficiency Alliance. Also in 2020, I finished 5 years as the Chair of the
- Distributed Energy Resources ("DER") Committee of Generation & Transmission
- 23 ("G&T") DER experts that provide information and advice to the G&T Managers'

Association. I am still a member of that committee. For the last 12 years I have served on National Rural Electric Cooperative Association's Business, Technology and Strategy committee for DER applications. DER applications include energy efficiency, demand response, and beneficial electrification.

5 Q. HAVE YOU EVER TESTIFIED BEFORE THE COMMISSION

6 PREVIOUSLY?

7 A. Yes. I previously testified in Case No. 2013-00259, which was an application for a certificate of public convenience for a new air quality control system at EKPC's Cooper Station. I also offered testimony in Case No. 2019-00096, EKPC's 2019

Integrated Resource Plan filing. 2

11 Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.

12 A. The purpose of my testimony is to provide information responsive to the filing
13 requirement set forth in Case No. 2008-00408,³ wherein the Commission directed
14 each utility to provide a discussion of its consideration of cost-effective efficiency
15 resources as part of its resource planning. My testimony also is responsive to the
16 filing requirement set forth in Case No. 2019-00059,⁴ which requires EKPC to
17 support the value of DSM programs.

¹ See In the Matter of the Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for Alteration of Certain Equipment at the Cooper Station and Approval of a Compliance Plan Amendment for Environmental Surcharge Cost Recovery, Case No. 2013-00259.

² See In the Matter of East Kentucky Power Cooperative, Inc.'s 2019 Integrated Resource Plan, Case No. 2019-00096.

³ See In the Matter of Consideration of the New Federal Standards of the Energy Independence and Security Act of 2007, Rehearing Order, Case No. 2008-00408 (Ky. P.S.C. July 24, 2012).

⁴ In the Matter of the Demand Side Management Filing of East Kentucky Power Cooperative, Inc., Order, Case No. 2019-00059 (Ky. P.S.C. Nov. 26, 2019).

1	Q.	ARE YOU SPONSORING ANY EXHIBITS TO YOUR TESTIMONY?
2	A.	Yes. EKPC's 2019 Annual Demand Side Management ("DSM") Report is attached
3		as Exhibit GSD-1.
4	Q.	WAS THIS EXHIBIT PREPARED BY YOU OR BY SOMEONE WORKING
5		UNDER YOUR SUPERVISION?
6	A.	Yes.
7		II. EKPC'S SUPPORT FOR ENERGY EFFICIENCY
8	Q.	ARE YOU FAMILIAR WITH THE COMMISSION'S ORDERS IN CASE
9		NO. 2008-00408 AND CASE NO. 2019-00059?
LO	A.	Yes. As part of its review of the impact of the Energy Independence and Security
l1		Act of 2007, the Commission ordered each electric utility to provide certain
12		information as part of each application for an adjustment of base rates. Specifically,
L3		the Commission stated:
L4 L5		"Each electric utility shall integrate energy efficiency resources into its plans and shall adopt policies establishing
L6		cost-effective energy efficiency resources with equal
L7		priority as other resource options. In each integrated
L8		resource plan, certificate case, and rate case, the subject
19 20		electric utility shall fully explain its consideration of cost- effective energy efficiency resources as defined in the
21		Commission's IRP regulation (807 KAR 5:058)." ⁵
22		In my role with EKPC, I am directly responsible for overseeing and directing
23		EKPC's efforts to develop cost-effective energy efficiency resources and
24		incorporating them into its plans and policies.

3

⁵ *Id.*, p. 10.

1	The Order in Case No. 2019-00059 required EKPC provide testimony in its next
2	base rate case to support the value of DSM programs upon EKPC's system. It also
3	required EKPC to provide testimony on why DSM expenses should continue to be
4	in base rates; Mr. Scott addresses this in his direct testimony.

5 Q. IN YOUR OPINION, HAS EKPC INTEGRATED ENERGY EFFICIENCY

RESOURCES INTO ITS PLANS AND POLICIES SINCE ITS LAST RATE

7 CASE IN 2010?

6

- Yes. EKPC evaluates new and existing energy efficiency resources or programs in the same manner as supply-side resources are evaluated. The benefits of energy efficiency resources or programs are derived from the avoided energy and capacity costs in the PJM markets. All of the energy efficiency resources or programs are evaluated alongside the supply-side resources for the Integrated Resource Plan ("IRP") development, which is EKPC's long-term plan to supply the energy needs of EKPC's owner-members.
- Q. DESCRIBE THE ENERGY EFFICIENCY RESOURCES THAT EKPC
 CURRENTLY ENCOURAGES AND SUPPORTS.
- 17 A. <u>Button-up Weatherization</u> The program offers incentives to End-Use Retail
 18 Members ("retail member") who add insulation in the attic and use weatherization
 19 techniques to reduce heat loss in the home.
- Touchstone Energy Home The program offers an incentive to encourage new homes to be built to higher standards for thermal integrity and equipment efficiency including high-efficient air-to-air heat pumps or geothermal heat pumps.

- 1 <u>Community Assistance Resources for Energy Savings ("CARES")</u> The program
- 2 provides an incentive to enhance weatherization and energy efficiency services
- provided to the retail member by the Kentucky Community Action Agencies
- 4 network.
- 5 <u>Heat Pump Retrofit</u> The program provides an incentive to retail members to
- 6 convert the home from less efficient resistive heat sources to more efficient air-to-
- 7 air heat pumps, geothermal heat pumps, or mini-split heat pumps.
- 8 <u>ENERGY STAR® Manufactured Home</u> The program provides an incentive to the
- 9 retail member to purchase a new manufactured home constructed to ENERGY
- 10 STAR[®] standards for manufactured homes.

11 Q. HOW DOES EKPC DETERMINE WHETHER A PARTICULAR ENERGY

12 EFFICIENCY RESOURCE IS COST-EFFECTIVE?

- 13 A. EKPC performs the industry standard cost-effectiveness tests known as the
- 14 California Tests. The California Tests consist of the Participant Test, Total
- Resource Cost ("TRC") Test, Rate Impact Measure Test and the Utility Cost Test.
- EKPC and its owner-members deem a program or measure to be cost-effective if
- the Participant Test and the TRC are both at 1.0 or above with an exception for low-
- income programs or measures. Program or measure cost-effectiveness test results
- are provided every three (3) years in the EKPC IRP. EKPC's last IRP filing was
- 20 the EKPC 2019 IRP Case No. 2019-00096.

21 Q. HOW DO YOU PLAN FOR THE PROGRAM COSTS?

- 22 A. Based on past program participation, EKPC forecasts future program participation
- and the resulting costs. The forecasted costs are budgeted annually. For new

- programs not having a history of costs at EKPC, EKPC obtains typical program costs from Technical Resource Manuals available from neighboring states. EKPC then forecasts participation levels resulting in a forecasted annual program cost.
- 4 Q. DOES EKPC TRACK PROGRAM PARTICIPATION LEVELS AND
 5 COSTS ANNUALLY?
- 6 A. Yes, EKPC and its owner-members utilize a Distributed Energy Resources ("DER") program tracking software system for all energy efficiency programs plus 7 newer DER programs (i.e. Cooperative Solar). It tracks program participation, 8 energy efficiency improvement measures implemented, and costs incurred by 9 EKPC including rebates paid, implementation cost reimbursements to the owner-10 members, and lost-revenues provided to the owner-members. It also tracks the 11 energy and demand savings for each program. Additionally, EKPC produces an 12 annual DSM Report that includes the costs associated with the DSM programs 13 14 broken down by program. The latest, EKPC's 2019 DSM Report, is attached to my testimony as Exhibit GSD-1. 15
- 16 Q. SMART GRID IS A TERM THAT HAS CAPTURED A LOT OF
 17 ATTENTION IN RECENT YEARS. WHAT ACTIVITIES HAS EKPC
 18 PURSUED PERTAINING TO SMART GRID AT THE RETAIL LEVEL?
- 19 A. The term Smart Grid has a wide definition that includes activities on the retail
 20 member's side of the electric meter. For Smart Grid activities on the retail
 21 member's side of the meter, demand response (i.e. direct load control switches,
 22 controllable thermostats, interruptible) programs are evaluated and developed when
 23 cost-effective. EKPC and all of EKPC's owner-members have these programs in

1	place, which lower the demand on the grid when needed. Additionally, EKPC's
2	staff is very engaged in gaining knowledge and evaluating other options for Smart
3	Grid technologies that include batteries, electric vehicle charge management, etc.
4	EKPC's staff also communicates information about these technologies to the EKPC
5	owner-members. When the benefit of implementing these and other new
6	technologies overcomes the associated costs, EKPC and the owner-members plans
7	to develop programs, subject to Commission approval, to promote their adoption
8	by the retail members.

9 Q. DOES EKPC GIVE EQUAL PRIORITY TO ENERGY EFFICIENCY AS IT 10 DOES OTHER RESOURCE OPTIONS?

- 11 A. Yes. The benefit of a well-designed energy efficiency or demand response program
 12 is the avoided costs EKPC achieves in PJM's energy and capacity markets. The
 13 PJM energy and capacity market costs are evaluated on the same basis that EKPC
 14 evaluates investment in supply-side resources.
- 15 Q. HOW DOES EKPC PLAN TO ENCOURAGE THE DEVELOPMENT OF
 16 ENERGY EFFICIENCY RESOURCES IN THE FUTURE?
- A. EKPC will continue evaluating potential energy efficiency programs and offer programs that are applicable to the service territory, the programs owner-members suggest are important for their retail members, and that are cost-effective.

20 III. CONCLUSION

21 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. EKPC and its owner-members offer cost-effective energy efficiency programs. The development and implementation of cost-effective energy efficiency programs are

- given equal priority to supply-side resources. Because the program benefits are greater than implementation costs, energy efficiency programs help to mitigate upward pressure on energy and capacity costs from PJM, and that benefits all retail members.
- 5 Q. DOES THIS CONCLUDE YOUR TESTIMONY?
- 6 A. Yes.

Exhibit

Exhibit GSD-1 – EKPC's 2019 Annual DSM Report







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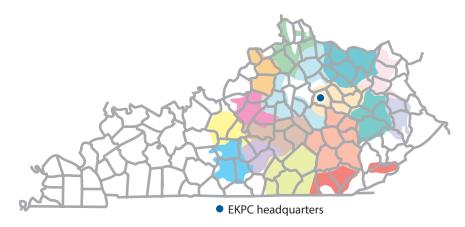
In 2019, the Kentucky Public Service Commission approved requests to sunset several Demand Side Management programs. Throughout the years, programs have been added, changed and discontinued to meet ever-evolving needs. When a program is no longer cost-effective for the membership, it becomes necessary to eliminate it. Our responsibility has always been to provide members with affordable energy, and we will continue to do so.

Discontinued programs include: HVAC Duct Sealing, ENERGY STAR Appliance Rebates, Appliance Recycling, commercial and industrial advanced lighting and industrial compressed air.

Who We Are

Located in the heart of the Bluegrass state, East Kentucky Power Cooperative is a not-for-profit generation and transmission (G&T) electric utility with headquarters in Winchester, Ky. Our cooperative has a vital mission: to safely generate and deliver affordable, reliable electric power to 16 owner-member cooperatives serving more than one million Kentuckians.

Together, with our 16 owner-members, we're known as Kentucky's Touchstone Energy Cooperatives. The member co-ops distribute energy to over 530,000 Kentucky homes, farms, businesses and industries across 87 counties. We're leaders in energy efficiency and environmental stewardship. And we're committed to providing power to improve the lives of people in Kentucky.



Sixteen distribution cooperatives, which are called the member systems, own EKPC. The 16 co-ops include:

- Big Sandy RECC
- Blue Grass Energy Cooperative
- Clark Energy Cooperative
- Cumberland Valley Electric
- Farmers RECC
- Fleming-Mason Energy Cooperative
- Grayson RECC
- Inter-County Energy

- Jackson Energy Cooperative
- Licking Valley RECC
- Nolin RECC
- Owen Electric Cooperative
- Salt River Electric Cooperative
- Shelby Energy Cooperative
- South Kentucky RECC
- Taylor County RECC

East Kentucky Power Generation

Coal	Generation	Natural Gas	Generation	Landfill	Generation
Spurlock	1,346 net MW	Smith	Summer	Bavarian	4.6 net MW
Cooper	341 net MW	Combustion	753 net MW	Laurel Ridge	3.0 net MW
•		Turbine	Winter	Green Valley	2.3 net MW
Total	1,687 net MW	Units	989 net MW	Pearl Hollow	2.3 net MW
				Pendleton	3.0 net MW
		Bluegrass**	Summer	Glasgow***	0.9 net MW
		Combustion	501 net MW		
		Turbine	Winter	Total Landfill	16.1 net MW
Hydro Southeastern	Generation 170 MW	Units	567 net MW		
Power Adm. (SEPA)		Total Natural Gas Summer Total Natural Gas Winter	1,254 net MW 1,556 net MW	SolarGeneration Cooperative Solar	8.5 net MW

^{**} Under an existing agreement, which continues until April 2019, a third party receives the output of one Bluegrass Generating Station unit.

^{***} Under an existing agreement, a third party receives the output of Glasgow in a 10-year power purchase agreement.

Residential Lighting:

Since 2003, EKPC and its owner-member cooperatives have provided more than one million compact fluorescent lights (CFL) and light-emitting diodes (LED) bulbs to members.

In 2019, cooperatives provided more than 53,540 LEDs to its members. Each member who participated in a free, online energy audit called BillingInsights™ received an LED, along with Annual Meeting attendees. These LEDs are expected to result in a lifetime savings of 10,280 MWh and 20,559,360 pounds of carbon dioxide emissions.



HVAC Duct Sealing:*

Since the 1990s, EKPC and its owner-member cooperatives have offered this program to reduce the energy loss through a home's HVAC duct system. This program provides incentives to members who seal ductwork through traditional mastic sealers. Duct loss measurement requires the use of a blower door test (before and after the duct sealing work is performed). Duct leakage per system must be reduced to below 10 percent of the fan's rated capacity. All joints in the duct system must be sealed with foil tape and mastic. This program was targeted to single-family homes using electric furnaces or electric heat pumps. All participating homes must have duct systems that are at least two years old to qualify for the incentive. The program was offered only to homes that had centrally-ducted heating systems in unconditioned areas.

In 2019, 7 HVAC Duct Sealing rebates were provided to members, resulting in a lifetime savings of 100 MWh and 199,296 pounds of carbon dioxide emissions.

* This program was discontinued in 2019.



Button-Up Weatherization:*

Since the early 1990s, EKPC and its owner-member cooperatives have offered this program to improve a home's energy efficiency, comfort, and reduce energy use. This program offers incentives to members who add insulation materials or use other weatherization techniques to reduce heat loss in the home. Any member who resides in a site-built or manufactured home that is at least two years old and uses electricity as their primary source of heat is eligible.

This program offers a whole-house approach with multiple levels.

-20 -20 -20 -20 -2 -3 -3 -4 -4 -4 -4

Button-Up Weatherization with Air Sealing:

This version of the Button-Up encourages members to air seal the envelope of their home in addition to the regular Button-Up improvements. A blower door test is required to demonstrate the impact in kW demand reduction, and an added incentive is paid based on that reduction.

Advanced Weatherization Level 2:

Level 2 encourages homeowners to address all of their home's inefficiencies at one time. The resulting BTUh savings can be as much as 150 percent of Button- Up Level I. Achieving this level of savings results in a greater incentive.

Advanced Weatherization Level 3:

This version represents the highest level. Level 3 also encourages homeowners to address all of their home's inefficiencies at one time. The resulting BTUh savings can be as much as 200 percent of Button-Up Level I.

Achieving this level of savings results in an even greater incentive.

Levels 2 and 3 of this program are targeted to members who currently heat their home with electricity, particularly homes with unfinished basements, homes that have partition walls separating a crawl space or garage, and Cape Cod style homes (1.5 stories).

In 2019, 140 Button-Up rebates were provided to members, resulting in a lifetime savings of 4,975 MWh and 9,950,591 pounds of carbon dioxide emissions.

* This program was adjusted to one level in 2019, the Button-Up Weatherization with Air Sealing.

Touchstone Energy Home:

Since 2003, EKPC and its owner-member cooperatives have offered this program to increase energy efficiency in new-home construction. This program is designed to encourage new homes to be built to higher standards for thermal integrity and equipment efficiency, as well as to choose a geothermal or an air-source heat pump, rather than less efficient forms of heating and cooling. Homes built to Touchstone Energy Home standards typically use 30 percent less energy than the same home built to typical construction standards. Plans are submitted before the home is built, a pre-drywall inspection is made, and a blower door test is administered after the home is built to verify that the home meets the standard.

This program is targeted towards the residential new construction market and members who are constructing new site-built homes.

In 2019, 298 Touchstone Energy Home rebates were provided to members, resulting in a lifetime savings of 17,645 MWh and 35,291,520 pounds of carbon dioxide emissions.

EKPC's owner-members have also used this program to partner with Kentucky's affordable housing builders. Relationships with these organizations have led to improved efficiency in affordable housing and lower monthly energy costs for recipients of these homes.



CARES:

The Community Assistance Resources for Energy Savings (CARES) program began in early 2015, and provides an incentive to enhance the weatherization and energy efficiency services provided to the end-use members by the Kentucky Community Action Agencies (CAA) network. EKPC and its owner-members provide an incentive to the CAA implementing the project on behalf of the end-use member.

This program is available to end-use members who qualify for weatherization and energy-efficiency services through their local CAA in all service territories of participating cooperatives. The maximum incentive possible per household is \$2,000.

In 2019, 53 CARES incentives were provided, resulting in a lifetime savings of 3,761 MWh and 7,522,290 pounds of carbon dioxide emissions.



Heat Pump Retrofit:

For decades, EKPC and its owner-member cooperatives have offered this program to lower the cost of heating homes and increase comfort. This program provides incentives for members to replace their existing resistance heat source with a high-efficiency heat pump through three levels of rebates.

Level 1 offers a rebate for a 13 SEER/7.5 HSPF heat pump. Level 2 offers a rebate for a 14 SEER/8.0 HSPF heat pump. Level 3 offers a rebate for a 15 SEER/8.5 HSPF or higher heat pump. The existing heating system must be two years or older to qualify for incentives unless the heat pump is being installed in a new manufactured home. New manufactured homeowners who install a heat pump qualify based on the levels above.

The program is targeted to members who currently use a resistance heat source. Incentives are offered when the homeowner's primary source of heat is an electric resistance furnace, ceiling cable heat, or baseboard heat in both site-built and manufactured homes.

In 2019, 380 Heat Pump Retrofit rebates were provided to members, resulting in a lifetime savings of 14,669 MWh and 29,337,400 pounds of carbon dioxide emissions.



Direct Load Control:*

Since 2008, EKPC and its owner-member cooperatives have offered this program to manage peak usage. This program offers incentives to members who enroll central air-conditioners and electric water heaters. Switches are installed and, during periods of high demand, the utility briefly cycles the appliance off in order to reduce system peaks and save on costs for peak power. Although EKPC's system typically peaks in winter, member's heating appliances are not interrupted to lower peak. Member comfort and safety are top priority.

This program is targeted to any member with central air-conditioning, heat pump or electric tank water heaters, 40 gallons or greater.

In 2019, 75 switches were installed, resulting in a reduction of 0.070 MW during the summer months and 0.004 MW in the winter.

* Electric water heater switches are no longer being installed, due to program changes.



Appliance Recycling:*

The Appliance Recycling program began in 2014 in an effort to encourage members to recycle old, inefficient refrigerators and freezers. Members receive a \$50 incentive for recycling refrigerators and/or freezers that meet qualifying conditions. The appliances must be in working condition, plugged in and running at scheduled pick-up, between 7.75 and 30 cubic feet, and empty and defrosted with water lines disconnected.

EKPC and its owner-member cooperatives partner with Appliance Recycling Centers of America, Inc. (ARCA) for proper recycling procedures that meet all federal and state requirements.

This program was available to all end-use members who qualify.

In 2019, 117 incentives were provided to members, resulting in a lifetime savings of 624 MWh and 1,247,232 pounds of carbon dioxide emissions.

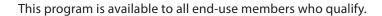


^{*} This program was discontinued in 2019.

ENERGY STAR Manufactured Home:

The ENERGY STAR Manufactured Home program began in 2014. An upstream program, EKPC works directly with the manufacturer to automatically upgrade the home to ENERGY STAR certified standards. EKPC utilizes a third-party administrator, Systems Building Research Alliance (SBRA), to verify information and ensure quality control.

Once the installation address is verified to be on a participating cooperative's service lines, the member will automatically receive the upgrade. An ENERGY STAR certified manufactured home is a home that has been designed, produced and installed by the home manufacturer to meet ENERGY STAR requirements for energy efficiency. These manufactured homes feature efficient heating and cooling equipment, water heaters, properly installed insulation, high-performance windows, tight construction and sealed ducts.



In 2019, 20 rebates were provided to members, resulting in a lifetime savings of 3,347 MWh and 6,694,980 pounds of carbon dioxide emissions.



ENERGY STAR Appliance Rebate:*

The ENERGY STAR Appliance Rebate program began in 2014 in an effort to encourage members to purchase new, energy-efficient appliances. EKPC and its owner-member cooperatives provide the incentives to members who purchase and install the ENERGY STAR certified appliances listed in the table.

This program was available to all end-use members who qualify.

In 2019, 1,979 rebates were provided to members, resulting in a lifetime savings of 7,862 MWh and 15,725,866 pounds of carbon dioxide emissions.

ENERGY STAR Appliances	Rebate
Refrigerator	\$100
Freezer	\$50
Dishwasher	\$50
Clothes Washer	\$75
Heat Pump Water Heater	\$300
Heat Pump	\$300
Central Air Conditioning	\$300

^{*} This program was discontinued in 2019.

Commercial Program:

Commercial & Industrial Advanced Lighting

For several years, EKPC and its owner-member cooperatives have offered this program to improve lighting in commercial or industrial facilities. This program offers incentives to install high-efficiency lamps and ballasts, including, but not limited to, LED exit signs, T-5 fluorescent fixtures and advanced controls.

This program was targeted to any existing commercial or industrial facility in the service territory of a distribution cooperative. The facility and its lighting must have been in service for at least two years.

In 2019, 81 C&I Advanced Lighting rebates were provided to members, resulting in a lifetime savings of 60,814 MWh and 121,628,063 pounds of carbon dioxide emissions.



Impact Measures:

System summary of 2019 DSM program savings

DSM program totals for installed measures in 2019

All programs	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Lifetime energy savings (MWh)	Cost of demand saved (\$/kW)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
All DSM Programs	57,001	10,623	1.845	2.168	\$3,707,613	\$1,150	125,375	0.031	250,750,124

Appliance Recycling

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
Appliance Recycling	117	89	0.013	0.009	\$38,786	7	624	\$0.41	1,247,232

Button-Up Weatherization

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
Button-Up level 1	129	238	0.056	0.184	\$100,492	15	3,576	\$0.03	7,152,232
Button-Up level 2	1	5	0.001	0.004	\$2,085	15	78	\$0.03	156,673
Button-Up level 3	10	88	0.021	0.068	\$26,250	15	1,321	\$0.02	2,641,686

CARES

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
CARES	53	251	0.038	0.076	\$129,972	15	3,761	\$0.03	7,522,290

^{*} Includes \$817,777 program administration and promotional expenses.

Commercial and Industrial

C&I programs	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
Lighting upgrade	81	6,081	1.110	0.737	\$695,691	10	60,814	\$0.011	121,628,063

Direct Load Control

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Cost of Demand saved (\$/KW)
DLC Air Conditioner	67	0.335	0.067	0	\$71,864.38	\$1,072.60
DLC Water Heater	8	0.08	0.003	0.004	\$8,580.82	\$2,898.93
DLC total	75	0.415	0.070	0.004	\$80,445.20	\$1,149.87

Energy Audits

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
In-home	1	162	0.000	0.000	\$428	8	1,294	\$0.00	2,587,744
Online	310	1	0.000	0.000	\$132,572	5	3	\$45.86	5,782

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ENERGY STAR® Appliance Rebate

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
ES Heat Pump	359	293	0.110	0.000	\$218,731	15	4,402	\$0.05	8,803,800
ES Central Air Conditioner	59	21	0.020	0.000	\$16,261	15	309	\$0.05	618,930
ES Clother Washer	354	94	0.008	0.019	\$34,610	12	1,126	\$0.03	2,251,200
ES Dishwasher	494	35	0.004	0.004	\$36,093	10	352	\$0.10	704,680
ES Freezer	82	4	0.001	0.000	\$4,308	12	46	\$0.09	91,656
ES Heat Pump Water Heater	74	86	0.008	0.020	\$17,909	13	1,115	\$0.02	2,230,800
ES Refrigerator	557	43	0.002	0.004	\$97,069	12	512	\$0.19	1,024,800

ENERGY STAR® Manufactured Home

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
ES Manufactured Home	20	223	0.010	0.053	\$81,680	15	3,347	\$0.02	6,694,980

Heat Pump Retrofit

Residential program	Participation	Annual Energy Savings (MWh)		Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
Heat Pump	380	733	0.036	0.000	\$696,895	20	14,669	\$0.05	29,337,400

HVAC Duct Seal

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
HVAC Duct Sealing	7	8	0.002	0.008	\$4,000	12	100	\$0.04	199,296

Residential Lighting

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
LEDs	53,540	1,285	0.128	0.214	\$49,809	8	10,280	\$0.00	20,559,360

Touchstone Energy Home

Residential program	Participation	Annual Energy Savings (MWh)	Summer Demand Savings (MW)	Winter Demand Savings (MW)	2019 program costs	Measure life (years)	Lifetime energy savings (MWh)	Cost of energy saved (\$/kWh)	Lifetime CO2 savings (lbs)
TSE Home Prescriptive	73	195	0.048	0.181	\$102,350	20	3,903	\$0.03	7,806,560
TSE Home Performance	225	687	0.158	0.582	\$323,400	20	13,742	\$0.02	27,484,960

DSM Annual Report 2019

2019 Basic Program Assumptions ¹

Measure:	Button-U	Jp Leve	1
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Annual kWh Saved:	2,205
Winter Demand Savings:	1.71
Summer Demand Savings:	0.52
Lifetime of Savings:	15 years
Installation Rate:	100%
TRC: ²	1.45

Measure: Button-Up Level 2

Annual kWh Saved:	4,567
Winter Demand Savings:	3.53
Summer Demand Savings:	1.07
Lifetime of Savings:	15 years
(Weighted mix of measures)	
Installation Rate:	100%
TRC:	1.52

Measure: Button-Up Level 3

Annual kWh Saved:	6,090
Winter Demand Savings:	4.71
Summer Demand Savings:	1.43
Lifetime of Savings:	15 years
(Weighted mix of measures)	
Installation Rate:	100%
TRC:	1.56

Measure: Button-Up w/Air Seal

Annual kWh Saved:	3,045
Winter Demand Savings:	2.35
Summer Demand Savings:	0.720
Lifetime of Savings:	15 years
Installation Rate:	100%
TRC:	1.44

Measure: HVAC Duct Sealing

For a typical heat pump in typical residence to same home reduced by 12% savings

Annual kWh Saved:	1,038
Winter Demand Savings:	1.07
Summer Demand Savings:	0.40
Lifetime of Savings:	12 years
Installation Rate:	100%
TRC:	1.15

Measure: Heat Pump SEER 13

From Electric Furnace and Central Air to ENERGY STAR SEER 13, HSPF 7.5

Annual kWh Saved:	7,174
Winter Demand Savings:	0
Summer Demand Savings:	0.15
Lifetime of Savings:	20 years
Installation Rate:	100%
TRC:	1.52

Measure: Heat Pump SEER 14

From Electric Furnace and Central Air to ENERGY STAR SEER 14, HSPF 8.0

Annual kWh Saved:	7,533
Winter Demand Savings:	0
Summer Demand Savings:	0.32
Lifetime of Savings:	20 years
Installation Rate:	100%
TRC:	1.32

Measure: Heat Pump SEER 15

From Electric Furnace and Central Air to ENERGY STAR SEER 15, HSPF 8.5

Annual kWh Saved:	7,978
Winter Demand Savings:	0
Summer Demand Savings:	0.45
Lifetime of Savings:	20 years
Installation Rate:	100%
TRC:	1.08

Measure: Touchstone Energy Home

Prescriptive and Performance Level #2 – Encourages new homes to be built to a standard of at least SEER 14.5, HSPF 8.2; HERS Rating of 79 and below

Annual kWh Saved:	2,568
Winter Demand Savings:	2.48
Summer Demand Savings:	0.66
Lifetime of Savings:	20 years
Installation Rate:	100%
TRC:	1.98

Measure: Touchstone Energy Home

Performance Level #1 – Encourages new homes to be built to a standard of at least SEER 14.5, HSPF 8.2; HERS rating of 80-85

Annual kWh Saved:	1,758
Winter Demand Savings:	1.7
Summer Demand Savings:	0.45
Lifetime of Savings:	20 years
Installation Rate:	100%
TRC:	2.06

Measure: LEDs

Annual kWh Saved:	24
Winter Demand Savings:	0.0040
Summer Demand Savings:	0.0024
Lifetime of Savings:	8 years
Installation Rate:	80%
TRC:	2.13

Measure: Commercial Advanced Lighting

Unit is 1 kW connected load saving	JS
Annual kWh Saved:	4,252
Winter Demand Savings:	0.45
Summer Demand Savings:	0.85
Lifetime of Savings:	10 years
Installation Rate:	100%
TRC:	2.22

Measure: Industrial Compressed Air

Annual kWh Saved:	3,800
Winter Demand Savings:	0.30
Summer Demand Savings:	0.75
Lifetime of Savings:	7 years
Installation Rate:	0
TRC:	1.62

Measure: Water Heater >40 gals

Annual kWh Saved:	10
Winter Demand Savings:	0.52
Summer Demand Savings:	0.37
Lifetime of Savings:	20 years
Installation Rate:	100%

Measure: Central Air Conditioning

Annual kWh Saved:	5
Winter Demand Savings:	0.0
Summer Demand Savings:	1.0
Lifetime of Savings:	20 years
Installation Rate:	100%

TRC for Load Control Program 2.68

DSM Annual Report 2019

Measure: ENERGY STAR® Appliances

TRC: 1.49 in aggregate

Measure: ENERGY STAR® Heat Pump

Annual kWh Saved: 804
Winter Demand Savings: 0.00
Summer Demand Savings: 0.30
Lifetime of Savings: 20 years
Installation Rate: 100%

Measure: ENERGY STAR® Central Air

Annual kWh Saved: 529
Winter Demand Savings: 0.00
Summer Demand Savings: 0.52
Lifetime of Savings: 15 years
Installation Rate: 100%

Measure: ENERGY STAR® Clothes Washer

Annual kWh Saved: 350
Winter Demand Savings: 0.07
Summer Demand Savings: 0.03
Lifetime of Savings: 12 years
Installation Rate: 100%

Measure: ENERGY STAR® Dish Washer

Annual kWh Saved: 79
Winter Demand Savings: 0.01
Summer Demand Savings: 0.01
Lifetime of Savings: 10 years
Installation Rate: 100%

Measure: ENERGY STAR® Freezer

Annual kWh Saved: 67
Winter Demand Savings: 0.01
Summer Demand Savings: 0.01
Lifetime of Savings: 12 years
Installation Rate: 100%

Measure: ENERGY STAR® Refrigerator

Annual kWh Saved: 100
Winter Demand Savings: 0.01
Summer Demand Savings: 0.01
Lifetime of Savings: 12 years
Installation Rate: 100%

Measure: ENERGY STAR® Heat Pump Water Heater

Annual kWh Saved: 2,200
Winter Demand Savings: 0.51
Summer Demand Savings: 0.20
Lifetime of Savings: 13 years
Installation Rate: 100%

Measure: Appliance Recycling

Annual kWh Saved: 696
Winter Demand Savings: 0.07
Summer Demand Savings: 0.10
Lifetime of Savings: 7 years
Installation Rate: 100%
TRC: 2.01

Measure: CARES

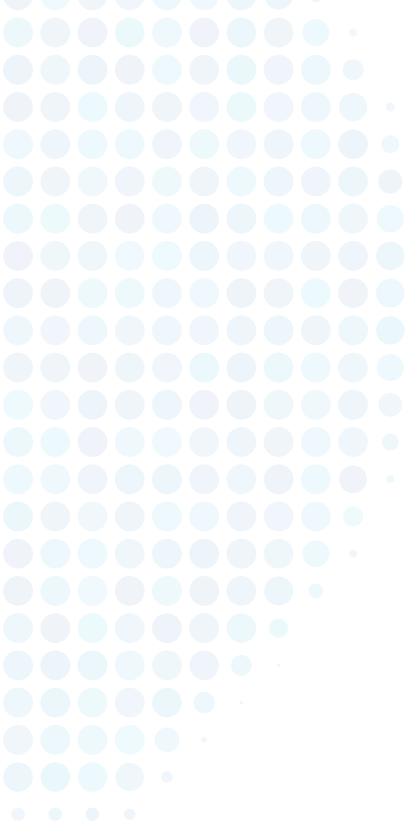
Annual kWh Saved: 4,731
Winter Demand Savings: 1.44
Summer Demand Savings: 0.72
Lifetime of Savings: 15 years
Installation Rate: 100%
TRC: 1.34

Measure: ENERGY STAR® Manufactured Home

Annual kWh Saved: 11,947
Winter Demand Savings: 2.88
Summer Demand Savings: 0.51
Lifetime of Savings: 15 years
Installation Rate: 100%
TRC: 4.09

¹ Savings numbers are "ex ante" or as planned gross savings except where noted.

² Total Resource Cost (TRC) is an overall program benefits/costs analysts ratio.





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East Kentucky Power Cooperative, Inc. Case No. 2021-00103 General Adjustment of Rates Filing Requirements / Exhibit List

Exhibit 19

807 KAR 5:001 Sec. 16(4)(b) Sponsoring Witness: Patrick Woods

Description of Filing Requirement:

If the utility has gross annual revenues greater than \$5,000,000, the written testimony of each witness the utility proposes to use to support its application.

Response:

In support of its Application, EKPC provides written testimony from Mr. Patrick Woods, EKPC's Director of Regulatory and Compliance Services, whose testimony is included with this Exhibit 19.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:	
THE ELECTRONIC APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR A GENERAL ADJUSTMENT OF RATES, APPROVAL OF DEPRECIATION STUDY, AMORTIZATION OF CERTAIN REGULATORY ASSETS AND OTHER GENERAL RELIEF)) Case No. 2021-00103))

DIRECT TESTIMONY OF PATRICK C. WOODS DIRECTOR OF REGULATORY AND COMPLIANCE SERVICES ON BEHALF OF EAST KENTUCKY POWER COOPERATIVE, INC.

Filed: April 1, 2021

2	Q.	PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.
3	A.	My name is Patrick C. Woods and my business address is East Kentucky Power
4		Cooperative, Inc. ("EKPC"), 4775 Lexington Road, Winchester, Kentucky 40391.
5		I am EKPC's Director of Regulatory and Compliance Services.
6	Q.	PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL
7		EXPERIENCE.
8	A.	I received a Bachelor's degree in Mass Communications (Public Relations) from
9		Eastern Kentucky University in Richmond, Kentucky. I have been employed by
LO		EKPC since November 1990 and have held my current position within the EKPC
l1		organization since April 2013.
L2	Q.	PLEASE DESCRIBE YOUR DUTIES AS DIRECTOR OF REGULATORY
L3		AND COMPLAINCE SERVICES FOR EKPC.
L4	A.	I am responsible for managing all contact and filings with the Kentucky Public
L5		Service Commission as well as overseeing the implementation and management of
L6		all NERC Reliability standards applicable to EKPC for the protection of the Bulk
L7		Electric System. I report directly to EKPC's Executive Vice President and Chief
18		Financial Officer.
L9	Q.	HAVE YOU TESTIFIED PREVIOUSLY BEFORE THE KENTUCKY
20		PUBLIC SERVICE COMMISSION? IF SO, PLEASE LIST THE CASES.
21	A.	I have provided testimony in the following cases before the Kentucky Public
22		Service Commission:

I. INTRODUCTION

23		PROCEEDING.	
22	Q.	PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY IN T	THIS
21		30, 2016, Case No. 2016-00231.	
20		Kentucky Power Cooperative, Inc. from November 1, 2015 through	April
19		• An Examination of the Application of the Fuel Adjustment Clause of	`East
L8		2015, Case No. 2016-00002; and	
L7		Kentucky Power Cooperative, Inc. from May 1, 2015 through Octobe	r 31,
L6		• An Examination of the Application of the Fuel Adjustment Clause of	`East
L5		30, 2015, Case No. 2015-00233;	
L4		Kentucky Power Cooperative, Inc. from November 1, 2014 through	April
L3		• An Examination of the Application of the Fuel Adjustment Clause of	`East
12		31, 2014, Case No. 2014-00451;	
l1		Kentucky Power Cooperative, Inc. from November 1, 2012 through Oct	tober
LO		• An Examination of the Application of the Fuel Adjustment Clause of	`East
9		30, 2014, Case No. 2014-00226;	
8		Kentucky Power Cooperative, Inc. from November 1, 2013 through	April
7		• An Examination of the Application of the Fuel Adjustment Clause of	`East
6		2013, Case No. 2013-00445;	
5		Kentucky Power Cooperative, Inc. from May 1, 2013 through Octobe	r 31,
4		• An Examination of the Application of the Fuel Adjustment Clause of	`East
3		30, 2013, Case No. 2013-00262;	
2		Kentucky Power Cooperative, Inc. from November 1, 2012 through	April
1		• An Examination of the Application of the Fuel Adjustment Clause of	East

- 1 A. The purposes of my testimony are to: (1) support certain filing requirements and
- 2 exhibits required by the Commission's regulations; (2) describe the method by
- which EKPC informed its Owner-Member Cooperatives ("owner-members") of the
- 4 proposed rate adjustment and gave timely notice to the Commission and Attorney
- 5 General; and (3) request relief for certain existing reporting obligations.

II. SPONSORED FILING REQUIREMENTS

7 Q. ARE YOU SPONSORING ANY FILING REQUIREMENTS?

- 8 A. Yes. I am sponsoring the following exhibits to the application which fulfill various
- 9 filing requirements set forth in the Commission's regulations:

- 10 1. 807 KAR 5:001, Section 14(1) Business contact information
- 2. 807 KAR 5:001, Section 14(2) Certificate of Good Standing
- 3. 807 KAR 5:001, Section 16(1)(b)2 No Assumed Names
- 4. 807 KAR 5:001, Section 16(1)(b)5 Customer Notice
- 5. 807 KAR 5:001, Section 16(2) Notice of Intent
- 15 6. 807 KAR 5:001, Section 17 Copy of Notice
- 7. 807 KAR 5:001, Section 16(4)(c), (f), (l), (s), (t) and (v) and 807 KAR
- 5:001, Section 16(5)(b) and (c) Non-Applicability to EKPC
- 8. 807 KAR 5:051 Non-Applicability to this Rate Filing.
- 19 Q. FOR SEVERAL OF THESE FILING REQUIREMENTS, YOU STATE
- 20 THAT THEY ARE NOT APPLICABLE. PLEASE EXPLAIN WHY THAT
- 21 IS THE CASE FOR EACH OF THESE FILING REQUIREMENTS.
- A. Of course. The requirements in 807 KAR 5:001, Section 16(4)((b) and (c) are really
- alternative requirements. Because EKPC has gross annual revenues greater than

\$5,000,000, it is required to file testimony pursuant to Section 16(4)(b). By contrast, utilities with gross annual revenues less than \$5,000,000 have the option to file testimony to support an application under Section 16(4)(c). Due to the magnitude of its gross annual revenues, EKPC is required to file testimony and Section 16(4)(c) does not apply.

Similarly, the filing requirements in 807 KAR 5:001, Section 16(4)(f) only apply to incumbent local exchange carriers. EKPC is not an incumbent local exchange carrier. A similar reason exists for not filing copies of audit reports submitted to the Federal Energy Regulatory Commission or Federal Communications Commission under 807 KAR 5:001, Section 16(4)(l) or (s). EKPC has not been audited by either federal agency, therefore, there are no records to provide to the Commission pursuant to Section 16(4)(l). Likewise, EKPC is also not a publicly traded company and does not make filings with the U.S. Securities Exchange Commission. Thus, EKPC has not prepared and does not have any Form 10-K annual reports, Form 8-K reports or Form 10-Q reports to file pursuant to Section 16(4)(s).

Continuing on, 807 KAR 5:001, Section 16(4)(t) applies to utilities that have amounts charged or allocated to it by any affiliate or general or home office or paid monies to an affiliate or general or home office during the test period. EKPC does not have any affiliates that charge or allocate costs to EKPC, nor does it have a higher general or home office. Thus, there are no charges, allocations or monies paid that could be reported and Section 16(4)(t) is also inapplicable.

1 I would also point out that 807 KAR 5:001, Section 16(4)(v)			
2	to local exchange carriers with more than 50,000 access lines. Because EKPC is		
3	not a local exchange carrier, this filing requirement is similarly inapplicable.		

- 4 Q. WHAT ABOUT THE FILING REQUIREMENT IN 807 KAR 5:001,
 5 SECTION 16(5) THAT YOU SAY IS NOT APPLICABLE?
- A. A utility is permitted to make certain adjustments to a test period when using a historical test period, however, it must support those adjustments with additional information in its application. 807 KAR 5:001, Section 16(5)(b) and (c) apply to pro forma adjustments to accommodate recent capital construction budgets and plant additions. EKPC is not proposing either type of adjustment in its application and, therefore, no additional information is required under either of these provisions.
- 13 Q. YOU ALSO SAY THAT 807 KAR 5:051 IS NOT APPLICABLE. PLEASE
 14 EXPLAIN THAT STATEMENT.
- In 807 KAR 5:051, Section 2, an electric utility is required to "transmit to each of its consumers a clear and concise explanation of any proposed change in the rate schedule applicable to the consumer." However, pursuant to 807 KAR 5:001, Section 16(3), notice given pursuant to 807 KAR 5:001, Section 17 satisfies the requirements of 807 KAR 5:051, Section 2. As set forth in my other Exhibits, EKPC has complied with the notice requirements of 807 KAR 5:001, Section 17, therefore, no additional action is required to satisfy 807 KAR 5:051.
- Q. FOR THE FILING REQUIREMENTS AND EXHIBITS THAT ARE
 APPLICABLE AND FOR WHICH YOU ARE THE SPONSOR, WERE

1		THESE DOCUMENTS PREPARED BY YOU OR UNDER YOUR			
2		SUPERVISION?			
3	A.	The Certificate of Good Standing was obtained from the office of the Kentucky			
4		Secretary of State and is a copy of an official public record for which no additional			
5		authentication is required. The Customer Notice and Notice of Intent were prepared			
6		under my supervision. All of these are official records of EKPC, and I can vouch			
7		for their authenticity.			
8		III. NOTICE REQUIREMENTS			
9	Q.	HAS EKPC COMPLIED WITH THE REQUIREMENT RELATING TO			
LO		THE GIVING OF STATUTORY NOTICE REGARDING ITS RATE			
l1		FILING?			
L2	A.	Yes. In accordance with KRS 278.180, EKPC filed its statutory Notice of Intent			
L3		with the Commission on February 26, 2021. A copy of the Notice of Intent was			
L4		contemporaneously sent via mail and e-mail to the Attorney General's Office of			
L5		Rate Intervention. A copy of the Notice of Intent is set forth in Volume I, Tab 9 of			
L6		the Application.			
L7	Q.	DID EKPC GIVE TIMELY NOTICE OF THE RATE FILING TO ITS			
L8		OWNER-MEMBERS?			
L9	A.	Yes. EKPC has sixteen (16) customers. In accordance with 807 KAR 5:001,			
20		Section 17(2)(a)(1), EKPC mailed a written notice of the proposed rate increase to			
21		each of its owner-members prior to the date the Application is being submitted to			
22		the Commission. A copy of the notice to owner-members and an affidavit attesting			

to its mailing is set forth in Volume I, Tab 8, Attachment 1 of the Application.

1 Q. HAS EKPC PROVIDED NOTICE IN OTHER WAYS AS WELL?

- Yes. In compliance with 807 KAR 5:001, Section 17(1)(a) and (b), EKPC is posting a copy of the required notice at its place of business. Likewise, EKPC is posting on its website a copy of the public notice and a hyperlink to the location on
- 5 the Commission's website where the case documents are available.

IV. RELIEF FROM CERTAIN REPORTING OBLIGATIONS

7 Q. WHAT OTHER RELIEF IS EKPC SEEKING IN ITS RATE FILING?

- 8 A. There are several other forms of relief that are included in EKPC's rate Application.
- 9 As it pertains to my role with EKPC, I would like to address our request to be
- relieved of certain existing reporting obligations which are no longer necessary or
- would appear to have fulfilled their intended purpose.

12 Q. PLEASE IDENTIFY THE EXISTING REPORTING OBLIGATIONS THAT

- 13 EKPC BELIEVES SHOULD BE ELIMINATED.
- 14 A. EKPC is seeking relief from several existing reporting requirements. The following
 15 describes the existing filing requirements:
- 16 1. Monthly financial reporting relating to 12-month margins, budgets, and the
- 17 calculation of 12-month TIER and DSC from Case No. 1995-00135 and
- 18 Case No. 2006-00472;¹

¹ See In the Matter of General Adjustment of Electric Rates of East Kentucky Power Cooperative, Inc., Order, Case No. 2006-00472, ordering paragraph 6 (Ky. P.S.C. Apr. 1, 2007); Order, Case No. 2006-00472, ordering paragraph 8 (Ky. P.S.C. Dec. 5, 2007); In the Matter of the Application of East Kentucky Power Cooperative, Inc. for the Approval of Financing in the Amount of Approximately \$6,734,000 for Transmission Facilities and System Improvements, Order, Case No. 1995-00135, ordering paragraph 3 (Ky. P.S.C. May 26, 1995).

- 2. Semi-annual reports summarizing the status of mitigation efforts to reduce 1 the balance of the Smith 1 regulatory asset from Case No. 2010-00449;² 2 An annual report of Dale Station Projects 5 and 10 and Regulatory Asset 3 3. Authority from Case No. 2015-00302;³ 4 4. An annual comprehensive report detailing transmission rights, hedging 5 6 strategies, and benefits and costs of joining PJM Interconnection, LLC ("PJM") from Case No. 2012-00169;⁴ 7
 - 5. An annual report detailing the prior calendar year's interruptions or change in load of Gallatin Steel from Case No. 2013-00174;⁵
- 6. Annual operating reports setting forth details of the performance of the Bluegrass Station from Case No. 2015-00267;⁶

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² See In the Matter of Application of East Kentucky Power Cooperative, Inc. for an Order Approving the Establishment of a Regulatory Asset for the Amount Expended on Its Smith 1 Generating Unit, Order, Case No. 2010-00449, ordering paragraph 3 (Ky. P.S.C. Feb. 28, 2011).

³ See In the Matter of the Application of East Kentucky Power Cooperative, Inc. for an Order Approving the Establishment of a Regulatory Asset for the Undepreciated Balance of the William C. Dale Generation Station, Order, Case No. 2015-00302, ordering paragraph 7 (Ky. P.S.C. Feb. 11, 2016).

⁴See In the Matter of Application of East Kentucky Power Cooperative, Inc. to Transfer Functional Control of Certain Transmission Facilities to PJM Interconnection, LLC, Order, Case No. 2012-00169, ordering paragraph 6 (Ky. P.S.C. Dec. 20, 2012).

⁵ See In the Matter of Application of East Kentucky Power Cooperative, Inc. for Approval of a Special Contract Between EKPC, Owen Electric Cooperative, and Gallatin Steel Company, Order, Case No. 2013-00174, ordering paragraph 3 (Ky. P.S.C. Feb. 27, 2014).

⁶ See In the Matter of Application of East Kentucky Power Cooperative, Inc. for Approval of the Acquisition of Existing Combustion Turbine Facilities from Bluegrass Generation Company, LLC at the Bluegrass Generating Station in LaGrange, Oldham County, Kentucky and for Approval of the Assumption of Certain Evidences of Indebtedness, Order, Case No. 2015-00267, ordering paragraphs 3 and 4 (Ky. P.S.C. Dec. 1, 2015).

1	7.	An annual report detailing the prior calendar	year's interruption of AGC
2		from Case No. 2015-00422; ⁷ and	

A.

- 8. A detailed discussion of the consideration given to price elasticity in the forecasted demand, energy and reserve margin information provided with the Annual Admin 387 resource assessment.
- Q. PLEASE DESCRIBE THE REQUESTED RELIEF FROM THE
 REPORTING REQUIREMENT FROM CASE NO. 1995-00135 AND CASE
 NO. 2006-00472 IN MORE DETAIL.
 - In Case No. 1995-00135, the Commission directed EKPC to include its current interest rates on its outstanding variable loans in its monthly financial report to the Commission. EKPC has complied and filed the requested interest rate statements monthly for over 25 years. In Case No. 2006-00472, in order to monitor EKPC's margins, the Commission directed EKPC to add to the monthly report an accounting of expenses and revenues, monthly budget information, as well as a rolling 12-month calculation of its TIER and DSC. EKPC has complied and filed the monthly reporting for over 13 years.

Over the past twenty-five years of filings, EKPC has demonstrated its ability to manage its fixed and variable interest rate debt portfolio effectively. Further, interest rates and the volatility associated with variable interest rates have changed considerably since this order was issued in 1995. EKPC currently only has two variable rate debt obligations, which generally represent less than ten

⁷ See In the Matter of Application of East Kentucky Power Cooperative, Inc. for the Approval of a Special Contract, Order, Case No. 2015-00422, ordering paragraph 2 (Ky. P.S.C. Mar. 14, 2016).

remained stable over the years and are currently at an all-time low. Therefore, providing the above-mentioned monthly report of variable interest rates on outstanding loans provides limited additional value to the Commission and creates an administrative burden for both the Commission and EKPC.

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Similarly, since the Order requiring additional monthly reporting was issued in Case No. 2006-00472, EKPC's financial condition has improved considerably. EKPC's equity to assets ratio has improved from 6.8% at December 31, 2008 to 18.9% at December 31, 2019. EKPC has since reached its goal of 20% equity and retired capital credits for the first time in the history of the organization while also controlling the costs to its owner-members and foregoing a rate increase for 10 years. From 2008 to 2019, EKPC's TIER increased from 1.25 to 1.39, while its DSC increased from 1.04 to 1.39. Further, EKPC maintains investment-grade credit ratings with both Standard and Poor's and Fitch. These agencies periodically review and update EKPC's rating, which should provide assurance to the Commission of EKPC's overall financial stability. Therefore, given the improvements to EKPC's financial performance over the past ten years, EKPC believes the filing of its monthly financial report, annual report, and audited financial statements, as required of all other utilities under the Commission's jurisdiction, should be sufficient to monitor EKPC's performance. Accordingly, EKPC respectfully requests relief from filing monthly reports to monitor EKPC's variable interest rates, margins, revenues and expenses, budget information, as well

- as the rolling 12-month calculation of its TIER and DSC as prescribed in Case No.
- 2 1995-00135 and Case No. 2006-00472.
- 3 Q. PLEASE DESCRIBE THE REQUESTED RELIEF FROM THE
- 4 REPORTING REQUIREMENT FROM CASE NO. 2010-00449 IN MORE
- **DETAIL.**

A.

In Case No. 2010-00238, the Commission found that EKPC no longer had an immediate need for the base load generation afforded by the addition of the Smith 1 Generating Unit to its fleet, and approved EKPC's request to relinquish its CPCN and abandon the construction of the unit. Subsequently, in Case No. 2010-00449, EKPC requested permission to establish a regulatory asset for expenditures made on its Smith 1 Generating Unit. In approving the request for a regulatory asset, the Commission ordered that EKPC file quarterly reports summarizing the status of its mitigation efforts to reduce the balance of the regulatory asset through the sale of Smith 1 physical assets. Then, in a July 1, 2015 letter from the PSC, EKPC was directed to submit said reports on a semi-annual basis instead of quarterly, which it duly began to do. Since the original Order, EKPC has filed 28 such reports.

EKPC has exhausted all efforts to mitigate the regulatory asset balance by either selling, scrapping, or dedicating certain compatible parts to be utilized by Spurlock Units 3 and 4. Accordingly, there will be no further mitigation efforts to report to the Commission. Further, as specified in the Stipulation and Recommendation Agreement approved in Case No. 2015-00358 related to the "Smith Solution," EKPC is requesting an adjustment in this base rate case to amortize the remaining balance of this regulatory asset through December 2026,

- the remaining months of the 10-year amortization period that began on January 1,
- 2 2017. In light of these developments, the reporting obligation from case No. 2010-
- 3 00449 is now unnecessary and serves no substantial purpose.
- 4 Q. PLEASE DESCRIBE THE REQUESTED RELIEF FROM THE
- 5 REPORTING REQUIREMENT FROM CASE NO. 2015-00302 IN MORE
- 6 **DETAIL.**
- 7 A. In Case No. 2015-00302, EKPC was authorized to establish a regulatory asset for
- 8 the undepreciated plant-in-service balance of the William C. Dale Generation
- 9 Station due to EKPC's decision to cease all generation activities at the plant. The
- Final Order in that case directed EKPC to establish a separate regulatory asset for
- Projects 5 and 10 (Project 5 Low Nitrogen Oxide Burners at Dale Units 1 and 2;
- and Project 10 Dale Continuous Monitoring Equipment), which were included in
- EKPC's environmental compliance plan, receiving cost recovery through the
- 14 environmental surcharge instead of base rates. EKPC was also ordered to file an
- annual report related to Projects 5 and 10, detailing the beginning balance, the
- monthly carrying costs, the total monthly costs incurred by account, and the
- monthly ending balance. EKPC is requesting amortization of the regulatory asset
- over a two-year period as part of this base rate case proceeding, which should
- 19 negate the need for further reporting.
- 20 Q. PLEASE DESCRIBE THE REQUESTED RELIEF FROM THE
- 21 REPORTING REQUIREMENT FROM CASE NO. 2012-00169 IN MORE
- DETAIL.

Α. In Case No. 2012-00169, EKPC sought Commission approval to transfer functional control of certain EKPC transmission facilities to PJM. Ordering paragraph 5 of the Final Order directed EKPC to file an annual, "comprehensive report setting forth in detail the amount of transmission rights awarded and purchased; a description of hedging plans and strategies to address transmission congestion and market prices for capacity and energy; a breakdown by category of the prior years' benefits and costs of PJM membership; and a projection of future benefits and costs reflecting the most recent PJM capacity auction results," to ensure that EKPC's continued membership in PJM was beneficial to EKPC's owner-members and the end-use retail members, and that EKPC's participation maximized all available RTO benefits. Continuing to compare actual experience to what might have happened if EKPC had not joined PJM requires EKPC to model its system based on what would have happened to its dispatch if it had not joined PJM, which is difficult to estimate based on transmission availability assumptions that must be made about available purchases from surrounding systems. EKPC has repeatedly demonstrated that the decision to integrate with PJM was advantageous to its owner-members and retailmembers and has exceeded all expected benefits. Therefore, EKPC should be relieved from continuing to provide this increasingly speculative "what-if" analysis.

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Q. PLEASE DESCRIBE THE REQUESTED RELIEF FROM THE
REPORTING REQUIREMENT FROM CASE NO. 2013-00174 IN MORE
DETAIL.

In Case No. 2013-00174, EKPC applied to the Commission for approval of a new special contract between EKPC, Owen Electric Cooperative, and Gallatin Steel (now Nucor Steel Gallatin or "Nucor") to reflect changes resulting from integration into PJM and addressing Firm and Interruptible Demand and Buy Through; PJM Limited Demand Response, Emergency — Capacity Only Program ("Demand Response Program"); and Economic Load Response Program. In Ordering paragraph 3 of the Final Order, the Commission directed EKPC to file an annual report on Nucor's participation in the Demand Response Program and the Load Response Program under the New Contract. Specifically, EKPC was to include information for each program on: the date and type of interruption or change in load; the start and end times of each interruption or change in load; the estimated cost savings, if any, to EKPC during each interruption or change in load; and whether Nucor exercised the buy-through option during each interruption.

A.

EKPC has demonstrated that it follows the interruptible tariff obligations and has shown that any interruptions have not impacted the ability of Nucor to manufacture its product. The special contract approved by the Commission continues to be a valuable tool for both EKPC and Nucor. This special contract was entered into to reflect changes resulting from EKPC's integration into PJM and as there have been no problems from that integration, EKPC respectfully requests it be relieved of the reporting obligations outlined in the Order.

Q. PLEASE DESCRIBE THE REQUESTED RELIEF FROM THE
REPORTING REQUIREMENT FROM CASE NO. 2015-00267 IN MORE
DETAIL.

In Case No. 2015-00267, EKPC sought approval to acquire and operate three simple-cycle combustion turbines at the Bluegrass Generating Station ("Bluegrass Station") located near LaGrange in Oldham County, Kentucky. In its final Order approving the purchase of the Bluegrass Station, the Commission directed EKPC to file an annual operating report to provide the Commission with updates on the performance of the Bluegrass Station units and EKPC's assessment of any potential changes in existing or potential environmental regulation that would impact them. The report was also to include unplanned system outages, heat rate, budgeted and actual capital expenditures for the prior year and budgeted capital expenditures for the reporting year, budgeted and actual operation and maintenance ("O&M") expenditures for the reporting year and budgeted O&M expenses for the next year. Additionally, EKPC was to include in the report an evaluation of how the Bluegrass Station units would qualify as a Capacity Performance product in PJM and how EKPC would address the related risk exposure.

A.

Following Commission approval and EKPC's subsequent 2016 purchase of the Bluegrass Generating Station, EKPC has been very pleased with the performance and reliability of the three units. The starting reliability for the units has remained at 100% since 2018, while the equivalent forced outage rate has remained below 3% for the past four years. The units have exceeded EKPC's expectations for the general overall condition of the turbines, generators and plant auxiliaries. EKPC has recently made substantial investments in the units by making them dual-fuel capable, performed a hot gas path inspection on each, upgraded the

distributed control system and completed several other smaller projects to ensure the units' reliability for years to come.

From an environmental perspective, Bluegrass Station is, and has been, complying with the Clean Air Act, Clean Water Act, and Spill Prevention, Control and Countermeasure ("SPCC") since EKPC's ownership began. Under state regulations implementing authority delegated by the United States Environmental Protection Agency ("EPA"), the station complies with current regulations pursuant to its Title V air permit, Kentucky Pollution Discharge Elimination System water permit, and SPCC regulations. The most recent modifications to Bluegrass Station were permitted as a minor permit revision by the Kentucky Division of Air Quality and approved by the Commission for the facility to become a dual-fuel facility. Should EPA regulations change, EKPC will work with state and federal regulators to maintain compliance.

Regarding the Commission's initial concern about the Bluegrass Station units qualifying as a Capacity Performance product in PJM and how EKPC addresses any related risk exposure, EKPC points out that all three (3) Bluegrass units have received payments from the PJM Reliability Pricing Model auctions as capacity performance units since becoming part of EKPC's generation fleet, and to address risk exposure, EKPC has added dual-fuel capability to the plant to ensure its availability during capacity performance events.

For all of the above reasons that point to the continued excellent performance of the Bluegrass Station units, the continued environmental compliance and monitoring of the units, and the demonstrated value of the units to

1	EKPC and its owner-members as a Capacity Performance product, EKPC should
2	be relieved of the reporting duties associated with this Order

- Q. PLEASE DESCRIBE THE REQUESTED RELIEF FROM THE
 REPORTING REQUIREMENT FROM CASE NO. 2015-00422 IN MORE
 DETAIL.
- In Case No. 2015-00422, EKPC sought approval of a revised Special Contract with interruptible service between EKPC, Nolin RECC and AGC Automotive Americas ("AGC"). In approving the Special Contract, the Commission ordered EKPC to file an annual report detailing the prior calendar year's interruptions of AGC, including the date and type of each interruption, the start and end times of each interruption and whether AGC exercised its buy-through option during each economic interruption.

EKPC has demonstrated that it follows the interruptible tariff obligations and has shown that any interruptions have not impacted the ability of AGC to manufacture its product. The revised special contract approved by the Commission continues to be a valuable tool for both EKPC and AGC. The revised special contract was entered into to reflect changes resulting from EKPC's integration into PJM and as there have been no problems from that integration, EKPC respectfully requests it be relieved of the reporting obligations outlined in the Order.

20 Q. PLEASE DESCRIBE THE REQUESTED RELIEF FROM
21 PROVIDING A DETAILED DISCUSSION OF PRICE ELASTICITY WITH
22 THE ANNUAL ADMIN 387 RESOURCE ASSESSMENT.

A. In a letter from the Commission's Executive Director to EKPC dated May 31, 2013, the Commission requested that EKPC "provide a detailed discussion of the consideration given to price elasticity in the forecasted demand, energy and reserve margin information provided with the annual Admin 387 resource assessments." EKPC has complied with this request by providing a study by GDS Associates ("GDS") conducted for EKPC in 2015. Because GDS believes the same conclusions and recommendations made in its 2015 study are still reasonable today, and remain consistent with the U.S. Energy Information Administration's longterm forecast (https://www.eia.gov/outlooks/aeo/assumptions/pdf/commercial.pdf, page 10), EKPC has provided this same study as a supplement to its Admin 387 filing every year since 2016. Unless EIA's long-term energy forecast changes, which is unlikely in the near future, EKPC will continue to provide the same GDS study as a supplement to its Admin 387 filing. EKPC believes that continuing to file a study, which has been filed five years in a row and is unlikely to change, is a redundant practice from which it respectfully requests it be relieved.

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16 Q. WHAT IS THE BENEFIT OF HAVING THESE REPORTING 17 OBLIGATIONS TERMINATED?

While the circumstances at the time sufficiently justified each of the reporting obligations I described earlier, as time has passed, the value and relevance of these reporting obligations has significantly diminished. There has been no Commission follow-up on any of the reports EKPC has filed for several years. Nevertheless, EKPC and the Commission continue to expend time and resources in preparing, submitting, receiving and maintaining these various reports. While EKPC is

always willing to provide information responsive to the Commission's needs, the value of these particular reports appears to be very minimal at this point. Eliminating the requirement to file these reports would enable both EKPC and the Commission to focus upon more pressing matters and save the cost of submitting these reports.

V. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. In my testimony I have indicated which Exhibits to the Application I am supporting and offered further support for EKPC having given the appropriate statutory Notice of Intent and customer notices. A significant portion of my testimony has been devoted to describing various reporting obligations which appear to no longer be necessary and describing why the Commission should eliminate those filing requirements.

14 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

15 A. Yes.

Exhibit 20

807 KAR 5:001 Sec. 16(4)(b) Sponsoring Witness: Denver York

Description of Filing Requirement:

If the utility has gross annual revenues greater than \$5,000,000, the written testimony of each witness the utility proposes to use to support its application.

Response:

In support of its Application, EKPC provides written testimony from Mr. Denver York, EKPC's Senior Vice President of Power Delivery and System Operations, whose testimony is included with this Exhibit 20.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:	
THE ELECTRONIC APPLICATION OF EAST (KENTUCKY POWER COOPERATIVE, INC.) FOR A GENERAL ADJUSTMENT OF RATES, (APPROVAL OF DEPRECIATION STUDY, (AMORTIZATION OF CERTAIN REGULATORY) ASSETS AND OTHER GENERAL RELIEF ()	Case No. 2021-00103

DIRECT TESTIMONY OF DENVER YORK SENIOR VICE PRESIDENT OF POWER DELIVERY AND SYSTEM OPERATIONS ON BEHALF OF EAST KENTUCKY POWER COOPERATIVE, INC.

Filed: April 1, 2021

1 I. INTRODUCTION

- 2 Q. PLEASE STATE YOU NAME, TITLE AND BUSINESS ADDRESS.
- 3 A. My name is Denver York and I am the Senior Vice President of Power Delivery
- and System Operations. My business address is East Kentucky Power Cooperative,
- 5 Inc., 4775 Lexington Road, Winchester, Kentucky 40391.
- 6 Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL
- 7 EXPERIENCE.
- 8 A. I have a Bachelor of Science in Electrical Engineering from the Florida Institute of
- 9 Technology, a Master of Science in Electrical Engineering from the Georgia
- Institute of Technology, and a Master of Business Administration from Eastern
- 11 Kentucky University. I am a registered Professional Engineer in the state of
- 12 Kentucky.
- I have worked in the electric power industry at East Kentucky Power since 1997. I
- have worked in various areas of the company as an engineer and in leadership.
- These areas include SCADA (Supervisory Control and Data Acquisition), EMS
- 16 (Energy Management System) support, Balancing Authority operations, and
- 17 (currently) as VP over operations and maintenance of the transmission system.

18 Q. PLEASE DESCRIBE YOUR DUTIES AT EKPC

- 19 A. My current duties include providing oversight and direction for the operations and
- 20 maintenance activities for the EKPC transmission system. This includes four
- service center locations, the energy control center, EMS support, telecom,
- protection and control, and a reliability team.

1	Q.	HAVE YOU EVER TESTIFIED BEFORE THE COMMISSION
2		PREVIOUSLY?
3	A.	No.
4	Q.	PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.
5	A.	The purpose of my testimony is to provide information responsive to the filing
6		requirement set forth in the June 7, 2016 letter from the Commission's Executive
7		Director to all jurisdictional electric utilities in Case No. 2012-00428, wherein the
8		Commission directed a utility to identify specific smart grid investments as part of
9		its application for an adjustment or rates.
10	Q.	ARE YOU SPONSORING ANY EXHIBITS TO YOUR TESTIMONY?
11	A.	No.
12	Ι	I. DISCUSSION OF SMART GRID INVESTMENTS PURSUANT TO
13		COMMISSION'S ORDER IN CASE NO. 2012-00428
14	Q.	ARE YOU FAMILIAR WITH THE COMMISSION'S ORDER IN CASE NO.
15		2012-00428?
16	A.	Yes. The case was an administrative case involving the Commission's
17		consideration of new and emerging smart grid and smart meter technologies.
18	Q.	HOW WOULD YOU DESRIBE SMART GRID TECHNOLOGY?
19	A.	Smart grid technology is a term broadly applied to a number of technologies,

applications and systems that allow an electric system to operate more efficiently

while giving the operator greater awareness of the systems' functioning, and

consumers greater knowledge as to their own consumption habits. While there are

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¹ See In the Matter of the Consideration of the Implementation of Smart Grid and Smart Meter Technologies, Order, Case No. 2012-00428 (Ky. P.S.C. Apr. 13, 2016); Letter from Talina R. Mathews (June 7, 2016).

1		aspects of smart grid that apply at the bulk transmission grid level, we generally
2		think of "smart grid" as being primarily applied in distribution and customer
3		contexts.
4	Q.	HAS EKPC MADE ANY INVESTMENTS IN SMART GRID
5		TECHNOLOGY SINCE ITS LAST RATE CASE?
6	A.	Yes. EKPC has, since its last rate case, installed devices at multiple sites across its
7		electric power system that could be considered smart grid technology. These
8		devices provide digital information and control technology that improves
9		reliability, security, and efficiency of the electric grid.
LO	Q.	CAN YOU GIVE EXAMPLES OF WHAT THESE INVESTMENTS
l1		INCLUDE:
L2	A.	Certainly. EKPC has installed:
L3		• 832 electronic, microprocessor-based relays which provide additional
L4		functionality beyond what traditional electromechanical relays offer,
L5		including transfer trip, fault location, and event recording capabilities.
L6		• 6 digital fault recorders that capture data at a high sample rate to aid in
L7		analysis of transmission system disturbances.
L8		• 72 Power Quality ("PQ") meters to facilitate investigation of customer
L9		service complaints. EKPCs current revenue metering package includes a
20		meter with some level of PQ data capture and also supports investigation of
21		customer service complaints.
22		• 68 remotely controlled, motored-power switch operators on its transmission

system which allow quicker service restoration than can be provided by

1		manually operated switches which require the presence of a field switchman
2		onsite to control.
3		• In addition to these listed devices, EKPC has installed other advance
4		technology devices such as travelling wave relays and online dissolved gas
5		and bushing monitors for key transformers.
6	Q.	CAN YOU ESTIMATE THE TOTAL COST OF THESE INVESTMENTS?
7	A.	An exact number is difficult to obtain because in most cases, these devices were
8		installed as a portion of a larger project and were not accounted for separately.
9		Based on current pricing and installation costs for these items, an estimate would
10		be approximately \$15,290,000.

11 Q. IS IT POSSIBLE TO QUANTIFY THE VALUE THAT THIS INVESTMENT

IN SMART GRID TECHNOLOGY YIELDS FOR EKPC?

It's not really feasible to quantify the value of greater reliability, security and efficiency within the electric grid. However, I can say that I'm very pleased with how EKPC's system is performing. Since 2011, EKPC's System Average Interruption Duration Index has decreased by more than 20%. The five-year average dropped from 31.7 minutes to 25.2 minutes. The smart grid investments discussed above provided greater visibility and control for the system operators to more readily locate faults and restore service.

III. CONCLUSION

21 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

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22 A. EKPC has been diligent in adopting smart grid devices where the capabilities 23 provided by those devices assist in improving reliability, security, or efficiency of

- the electric grid. EKPC will continue to deploy devices as it believes the utility
- 2 provided is value-added. Additionally, EKPC will continue to monitor new devices
- available to the industry to determine if the value proposition warrants including
- 4 them on the system.

5 Q. DOES THAT CONCLUDE YOUR TESTIMONY?

6 A. Yes.

Exhibit 21

807 KAR 5:001 Sec. 16(4)(c) Sponsoring Witness: Patrick Woods

Description of Filing Requirement:

If a utility has gross annual revenues less than \$5,000,000, the written testimony of each witness the utility proposes to use to support its application or a statement that the utility does not plan to submit written testimony.

Response:

This filing requirement is not applicable to EKPC since it has gross annual revenues greater than \$5 million.

Exhibit 22

807 KAR 5:001 Sec. 16(4)(d) Sponsoring Witness: Richard Macke

Description of Filing Requirement:

A statement estimating the effect that each new rate will have upon the revenues of the utility including, at minimum, the total amount of revenues resulting from the increase or decrease and the percentage of the increase or decrease

Response:

of 5 thereof.

EKPC is requesting an increase in its revenues of \$43,000,000. The application of the proposed rates to the applicable billing determinants will usually not result in the exact amount of requested revenues. In this case, the proposed revenue resulting from the proposed rates equals \$42,990,177. For the statement of the effect on revenues for each new rate, see Exhibit 16 of the Application, the Direct Testimony of Richard J. Macke, specifically Exhibit RJM-3, page 1

Exhibit 23

807 KAR 5:001 Sec. 16(4)(e) Sponsoring Witnesses: Isaac Scott

Description of Filing Requirement:

If the utility provides electric, gas, water, or sewer service, the effect upon the average bill for each customer classification to which the proposed rate change will apply

Response:

The effect upon the average bill for each customer classification to which the proposed rate change will apply is as follows:

Rate Schedule	Proposed Increase	Customers*	Average Monthly Bill Increase
Rate B	\$2,286,285	11	\$17,320
Rate C	\$814,747	5	\$13,579
Rate E, Option 2	\$34,925,736	16	\$181,905
Rate G	\$1,323,966	3	\$36,777
Special Contracts:			
Contract	\$3,381,554	1	\$281,796
Steam	\$257,888	1	\$21,491
TGP	\$0	1	\$0

^{*}The number of wholesale or special contract customers taking service under the listed rate.

Exhibit 24

807 KAR 5:001 Sec. 16(4)(f) Sponsoring Witnesses: Patrick Woods

Description of Filing Requirement:

If the utility is an incumbent local exchange company, the effect upon the average bill for each customer class for the proposed rate change in basic local service.

Response:

EKPC is not an incumbent local exchange company therefore this is not applicable.

Exhibit 25

807 KAR 5:001 Sec. 16(4)(g) Sponsoring Witness: Richard Macke

Description of Filing Requirement:

A detailed analysis of customers' bills whereby revenues from the present and proposed rates can be readily determined for each customer class

Response:

The analysis of customer bills by rate schedule, reflecting present and proposed rates, can be found in Exhibit 16 of the Application, Mr. Macke's Direct Testimony, Exhibit RJM-3, pages 2 through 5 of 5.

Exhibit 26

807 KAR 5:001 Sec. 16(4)(h) Sponsoring Witness: Isaac Scott

Description of Filing Requirement:

A summary of the utility's determination of its revenue requirements based on return on net investment rate base, return on capitalization, interest coverage, debt service coverage, or operating ratio, with supporting schedules

Response:

The revenue requirement in this case is determined on the basis of achieving a Times Interest Earned Ratio ("TIER") of 1.50. A summary of EKPC's determination of its revenue requirement based on this TIER can be found in Exhibit 13 of the application, Mr. Scott's Direct Testimony, specifically Exhibit ISS-1, Schedule 1.30, see *Application Exhibit 13* – *Exhibit ISS-1* – *Schedules 1.00-1.30 FINAL REV 03-08*.xlsx, tab 1.30.

Exhibit 27

807 KAR 5:001 Sec. 16(4)(i) Sponsoring Witness: Isaac Scott

Description of Filing Requirement:

A reconciliation of the rate base and capital used to determine its revenue requirements

Response:

Please see the attachment, which presents the reconciliation, the determination of the rate base, and the capital. While providing the reconciliation, EKPC would note that its revenue requirements in this Application were not determined using either the rate base or capital.

Application Exhibit 27 Filing Requirement - 807 KAR 5:001, Section 16(4)(i)

Witness: Isaac Scott Page 1 of 3

1 2 Reconciliation of Net Original Cost Rate Base and Capitalization 3 4 5 Net Original Cost Rate Base \$3,080,615,898 6 7 Total Capitalization \$3,179,264,535 8 9 Difference to be Reconciled \$98,648,637 10 11 Assets not included in Net Original Cost Rate Base: 12 Other Property and Investments \$54,139,913 13 Cash and Temporary Investments \$132,525,097 14 Accounts Receivable \$85,132,359 15 Other Current and Accrued Assets \$185,737 16 **Derivative Instrument Assets** (\$77,693)17 Other Assets and Debits \$145,982,441 18 Subtotal \$417,887,854 19 20 Liabilities not included in Net Original Cost Rate Base: 21 Other Non-Current Liabilities (\$119,610,466) **Current and Accrued Liabilities** (\$128,599,810)22 23 Other Liabilities and Credits (\$4,195,507) 24 Subtotal (\$252,405,783)25 26 Included in Net Original Cost Rate Base: 27 Cash Working Capital Allowance (\$75,633,743) 28 Difference between Year-End Balance and 13- Month Average -29 Material and Supplies (\$993,305)30 Prepayments (\$1,490,422)Fuel Stock 31 \$11,284,036 32 Subtotal (\$66,833,434)33 34 Total Reconciling Items \$98,648,637 35

Application Exhibit 27 Filing Requirement - 807 KAR 5:001, Section 16(4)(i)

Witness: Isaac Scott Page 2 of 3

2	Net Original Cost Rate Base	
3		Test Year
4		Actual
5		
6	Utility Plant in Service	\$4,181,966,162
7	Construction Work in Progress	\$247,392,630
8	Total Plant in Service	\$4,429,358,792
9	Add:	
10	Materials and Supplies	\$64,726,229
11	Prepayments	\$13,709,018
12	Fuel Stock	\$56,147,565
13	Cash Working Capital Allowance	\$75,633,743
14	Subtotal	\$210,216,555
15	Deduct Accumulated Depreciation	\$1,558,959,449
16		
17	Net Original Cost Rate Base	\$3,080,615,898
18		

Note: The balances for Materials and Supplies, Prepayments, and Fuel Stock reflect
13-month average balances, calculated below.

Note: Cash Working Capital Allowance is based on 1/8 times O&M Expenses formula
 approach, calculated below.

24 13-Month Average Balances

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25		Materials &		
26		Supplies	Prepayments	Fuel Stock
27				
28	December	\$64,869,156	\$11,934,645	\$48,753,110
29	January	\$65,051,912	\$13,010,642	\$45,197,099
30	February	\$64,935,552	\$12,516,907	\$42,448,613
31	March	\$64,797,250	\$11,541,078	\$48,683,244
32	April	\$63,792,518	\$10,773,738	\$56,244,270
33	May	\$64,470,961	\$15,022,231	\$62,874,673
34	June	\$64,947,894	\$14,530,036	\$64,522,207
35	July	\$65,055,237	\$14,027,475	\$58,951,057
36	August	\$65,543,674	\$15,689,706	\$57,995,794
37	September	\$65,227,528	\$14,971,727	\$62,090,079
38	October	\$64,986,834	\$16,212,346	\$54,905,983
39	November	\$64,029,531	\$15,768,104	\$59,820,611
40	December	\$63,732,924	\$12,218,596	\$67,431,601
41				
42	Totals	\$841,440,971	\$178,217,231	\$729,918,341
43				
44	13-Month Average Balances	\$64,726,229	\$13,709,018	\$56,147,565
45				
46	Cash Working Capital Allowance			
47				
48	Total Operation Expenses		\$502,650,207	
49	Total Maintenance Expenses	_	\$102,419,737	
50	Total O&M Expenses		\$605,069,944	
51	1/8th of Total O&M Expenses	=		\$75,633,743

Application Exhibit 27
Filing Requirement - 807 KAR 5:001, Section 16(4)(i)
Witness: Isaac Scott
Page 3 of 3

1		
2	Capitalization	
3		Test Year
4		Actual
5		
6	Equities and Margins:	
7	Memberships	\$1,600
8	Patronage Capital	\$646,857,433
9	Operating Margins - Current Year	\$19,937,555
10	Non-Operating Margins	\$24,266,482
11	Other Margins and Equity	\$24,308,574
12	Total Equities and Margins	\$715,371,644
13		
14	Long-Term Debt:	
15	Long-Term Debt - RUS	\$1,822,313,611
16	Long-Term Debt - Other	\$641,579,280
17	Total Long-Term Debt	\$2,463,892,891
18		
19	Total Capitalization	\$3,179,264,535
20		
21		
22		
23		
24		
25		

Exhibit 28

807 KAR 5:001 Sec. 16(4)(j) Sponsoring Witness: Michelle Carpenter

Description of Filing Requirement:

A current chart of accounts if more detailed than the Uniform System of Accounts.

Response:

Please see attached.

Time

Oracle PeopleSoft Financials

VALID GENERAL LEDGER ACCOUNTS

3/8/2021 11:01:10 AM

SetID: **EKPC** As of Date: 08.Mar.2021

Report ID: FSX0010

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Media Accum Days-Coft Pes-OCC 0.7 AcDeps-Coft A - No Y No	08451 08452	•	•				-				
Medical Accum Dept-Ord Price OCC 12 Accept-Ord A - No Y No	8452	•	•				-				
8485 Aczum Depro-OP Prof-OC CT 3 Acbep-OH A - No Y No 8486 Aczum Depro-OP Prof-Schard Acbep-OH A - No Y No 8480 Aczum Depro-OP Prof-Schar Acbep-OH A - No Y No 8500 Aczum Depro-Carramisson Pint Acbep-OH A - No Y No 8700 Aczum Depro-General Piant Acbep-OH A - No Y No 8701 Aczum Depro-General Piant Acbep-Stw A - No Y No 8700 Aczum Depro-General Piant Acbep-Stw A - No Y No 8800 Accimente Victoria Acbep-Stw A - No Y No 8801 Accimente Victoria Acbep-Stw A - No Y No 8813 Accimente Accimente Victoria A - No Y No 8813 Accimente Assertificaciós Siglia A - No Y No		•					-				
Accord Deprec Off Prick Solar Actor Actor No	10433	•	•								
Accum Deprec Off Pre-Scalar	0.460	•	•				-				
Accum Deprecode Previous Services Accept of the No		•	•								
Accoun Depose-Transmission Pirk Actep-Crit A No Y No		•	•				-				
Accom Depres-Distribution Pirit		•	•								
Accom Depres-General Plant		•	•				-				
Accum Depres-Software		•	•								
Retirement Work in Progress RIVIP A - No Y No No No Y No Retirement Work in Progress RIVIP A - No Y No Y No Retirement Work in Progress A - No Y Y No Retirement Work in Progress A - No Y No Y No Retirement Work in Progress A - No Y No Y No Retirement Work in Progress A - No Y No Y No Retirement Work in Progress A - No Y No Y No Retirement Work in Progress A - No Y No No Y No Retirement A - No Y No Y No Retirement A - No Y No No Y No Retirement A - No Y No No Y No No Retirement A - No Y No No Y No No Retirement A - No Y No No Y No No Retirement A - No Y No No Y No No Retirement A - No Y No No Y No No Y No No		•	•				-				
AccDept AsselfRetCost-Lab		•									
Section		•					-				
Section AccElept AssetRetCost-Dale AcDept-Ret A No Y No			•								
8913		•	•				-				
		•									
			•				-				
8916 AccDepr AssetRetCost-Spik 4 AcDepr-Ret A - No Y No No No No No No		· ·	•				-				
8917 AccDepr AssetRetCost-CT Units AcDepr-Ret A - No Y No 8918 AccDepr AssetRetCost-LT Units AcDepr-Ret A - No Y No 8960 AccDepr AssetRetCost-Dist Plt AcDepr-Ret A - No Y No 8960 AccDepr AssetRetCost-Dist Plt AcDepr-Ret A - No Y No 9870 AccDepr AssetRetCost-Genrl Pl AcDepr-Ret A - No Y No 1000 Accum Annot-Elec Utility Plant AcAmrt-Uti A - No Y No 1700 Accum Annot-Elec Utility Plant AcAmrt-Lea A - No Y No 1700 Accum Annot-Elec Utility Plant AcAmrt-Lea A - No Y No 1700 Accum Annot-Elec Utility Plant AcAmortAcq A - No Y No 1800 Accum Annot-Elec Utility Plant Ac AmortAcq A - No Y No 1901 Accum Annot-Elec Utility Plant)8915	•	AcDepr-Ret	A -	No		-				
September AccDepr AssetRetCost-LF Units AcDepr-Ret A - No Y No No September AccDepr AssetRetCost-List Pit AcDepr-Ret A - No Y No No September AccDepr AssetRetCost-Dist Pit AcDepr-Ret A - No Y No No September AccDepr AssetRetCost-Dist Pit AcDepr-Ret A - No Y No No September AccDepr AssetRetCost-Genri Pi AcDepr-Ret A - No Y No No No Accum Amort-Elec Utility Plant AcAmrt-Uti A - No Y No No Accum Amort-Elec Utility Plant AcAmrt-Lea A - No Y No No Accum Amort-Elec Utility Plant AcAmrt-Lea A - No Y No No Accum Amort-Elec Utility Plant AcAmrt-Lea A - No Y No No Accum Amort-Elec Pith Acq Adj AcAmortAcq A - No Y No No Accum Amort-Elec Pith Acq Adj AcAmortAcq A - No Y No No Accum Amort-Elec Pith Acq Adj AcAmortAcq A - No Y No No Accum Amort-Elec Pith Acq Adj AcAmortAcq A - No Y No No AcmortAcq Acquired AcmortAcq Acquired AcmortAcq Acquired AcmortAcq Acquired AcmortAcq Acquired AcmortAcq Acquired		· · · · · · · · · · · · · · · · · · ·	•								
8950 AccDepr AsselRetCost-Trns PIt AcDepr-Ret A - No Y No 8960 AccDep AsselRetCost-Dist PIt AcDepr-Ret A - No Y No 1000 AccDep AsselRetCost-Gend PI AcDep-Ret A - No Y No 1100 Accum Amort-Eliec Utility Plant AcAmrt-Util A - No Y No 4000 Electric Plant Acquisition Adj PlntAcqAdj A - No Y No 5000 Accum Amort-Elice Pint Acq Adj AcAmort-Lea A - No Y No 5000 Accum Amort-Elice Pint Acq Adj AcAmort-Lea A - No Y No 5000 Accum Amort-Elice Pint Acq Adj AcAmort-Lea A - No Y No 5000 Accum Amort-Elice Pint Acquisition Adj Investmant In CFC Cap Subord Trm No Y No 3100 Patronage Cap from Assoc Coop Patrongcap A - No Y No 3221 Investmant In CFC Cap Sub	8917	AccDepr AssetRetCost-CT Units	AcDepr-Ret	A -	No		-				
8860 AccDepr AssetRetCost-Dist Pit AcDepr-Ret A - No Y No 8870 AccDepr AssetRetCost-Genf PI AcDepr-Ret A - No Y No 1000 Accum Amort-Elect Lieu Utility Plant AcAmrt-Util A - No Y No 11700 Accum Amort-Elect Leased Plant AcAmrt-Lea A - No Y No 4000 Electric Plant Acquisition Adj AcAmort-Ca No Y No 5000 Accum Amort-Elec Plint Acq Adj AcAmort-Ca No Y No 1010 Noutility Property-Transm No.UtilProp A - No Y No 3221 Invistmit in CFC Cap Subord Trm Invest-CFC A - No Y No 3231 Oth Invist In Assoc Organizatrs Othrinvest A - No Y No 3232 Oth Invist-Low Int L. Prg-Coops Othrinvest A - No Y No 3232 Oth Invist-Poll Dati Dati Chee Othrinvest	8918	AccDepr AssetRetCost-LF Units	AcDepr-Ret	A -	No		Υ	No			
AccDepr AssetRetCost-Gentf PI	8950	AccDepr AssetRetCost-Trns Plt	AcDepr-Ret	A -	No		Υ	No			
1000 Accum Amort-Elect Letased Plant AcAmrt-Leta A - No Y No No Y No No Y No No	08960	AccDepr AssetRetCost-Dist Plt	AcDepr-Ret	A -	No		Υ	No			
1700 Accum Amort-Elect Leased Plant AcAmri-Lea A - No Y No No No No No No	8970	AccDepr AssetRetCost-Genrl PI	AcDepr-Ret	A -	No		Υ	No			
Flectric Plant Acquisition Adj	1000	Accum Amort-Elec Utility Plant	AcAmrt-Utl	A -	No		Υ	No			
5000 Accum Amort-Elec Plnt Acq Adj AcAmortAcq A - No Y No 1001 Nonutility Property-Transm No.UltProp A - No Y No 3100 Patronage Cap from Assoc Coop PatrongCap A - No Y No 3221 Invstmt in CFC Cap Subord Trm Invest-CFC A - No Y No 3231 Oth Invst-Low Int La Prg-Coops Othrinvest A - No Y No 3232 Oth Invst-Cowling Capt Line-Mbr Coops Othrinvest A - No Y No 3232 Oth Invst-Industri Devlp Loans Othrinvest A - No Y No 3233 Oth Invst-Coop Propane Buyout Othrinvest A - No Y No 3234 Oth Invst-Coop Propane Buyout Othrinvest A - No Y No 4005 Oth Invst-Lake CumberInd Devlp Othrinvest A - No Y No 4054 Oth Invst-Poll End Bnd-Cooper <td>1700</td> <td>Accum Amort-Elect Leased Plant</td> <td>AcAmrt-Lea</td> <td>A -</td> <td>No</td> <td></td> <td>Υ</td> <td>No</td> <td></td> <td></td> <td></td>	1700	Accum Amort-Elect Leased Plant	AcAmrt-Lea	A -	No		Υ	No			
Nonutility Property-Transm	4000	Electric Plant Acquisition Adj	PlntAcqAdj	A -	No		Υ	No			
Patronage Cap from Assoc Coop PatrongCap A - No Y No	5000	Accum Amort-Elec Plnt Acq Adj	AcAmortAcq	A -	No		Υ	No			
Invitation Inv	1001	Nonutility Property-Transm	NonUtlProp	A -	No		Υ	No			
3230 Oth Invst in Assoc Organizatns OthrInvest A - No Y No 3231 Oth Invst-Cow Int Ln Prg-Coops OthrInvest A - No Y No 3232 Oth Invst-Coople Coops OthrInvest A - No Y No 3233 Oth Invst-Industri Devlp Loans Othrinvest A - No Y No 3234 Oth Invst-Coop Propane Buyout Othrinvest A - No Y No 4000 Other Investments Othrinvest A - No Y No 4005 Oth Invst-Lake Cumberind Devlp Othrinvest A - No Y No 4006 Oth Invst-PatCap Assgn Nonassc Othrinvest A - No Y No 4053 Oth Invst-Poll Erd Bnd-Cooper Othrinvest A - No Y No 4055 Oth Invst-Poll Bnd Disc-Cooper Othrinvest A - No Y No 4056 Oth Invst-Poll Erd Bnd-Smith Othrinve	3100	Patronage Cap from Assoc Coop	PatrongCap	A -	No		Υ	No			
3231 Oth Invst-Low Int Ln Prg-Coops OthrInvest A - No Y No 3232 Oth Invst-Industri Devip Loans OthrInvest A - No Y No 3233 Oth Invst-Industri Devip Loans Othrinvest A - No Y No 3234 Oth Invst-Coop Propane Buyout Othrinvest A - No Y No 4000 Other Investments Othrinvest A - No Y No 4005 Oth Invst-Lake Cumberind Devip Othrinvest A - No Y No 4006 Oth Invst-PatCap Assgn Nonassc Othrinvest A - No Y No 4053 Oth Invst-Poll Bnd-Cooper Othrinvest A - No Y No 4054 Oth Invst-Poll Bnd Disc-Cooper Othrinvest A - No Y No 4055 Oth Invst-Poll Bnd Disc-Splk 2 Othrinvest A - No Y No 4056 Oth Invst-Poll Bnd Disc-Splk 2 Ot	3221			A -	No		Υ	No			
3231 Oth Invst-Low Int Ln Prg-Coops OthrInvest A - No Y No 3232 Oth Invst-Credt Line-Mbr Coops OthrInvest A - No Y No 3233 Oth Invst-IndustrI Devlp Loans OthrInvest A - No Y No 3234 Oth Invst-Coop Propane Buyout OthrInvest A - No Y No 4000 Other Investments OthrInvest A - No Y No 4005 Oth Invst-Lake CumberInd Devlp OthrInvest A - No Y No 4006 Oth Invst-PatCap Assgn Nonassc OthrInvest A - No Y No 4053 Oth Invst-Poll Bnd-Cooper OthrInvest A - No Y No 4054 Oth Invst-Poll Bnd Disc-Cooper OthrInvest A - No Y No 4055 Oth Invst-Poll Bnd Disc-Splk 2 Othrinvest A - No Y No 4056 Oth Invst-Poll Bnd Disc-Splk 2 Ot		'									
3232 Oth Invst-Credt Line-Mbr Coops OthrInvest A - No Y No 3233 Oth Invst-IndustrI Devlp Loans OthrInvest A - No Y No 3234 Oth Invst-Coop Propane Buyout OthrInvest A - No Y No 4000 Other Investments OthrInvest A - No Y No 4005 Oth Invst-Lake Cumberlind Devlp OthrInvest A - No Y No 4006 Oth Invst-PalCap Assgn Nonassc OthrInvest A - No Y No 4053 Oth Invst-Poll Ctrl Bnd-Cooper OthrInvest A - No Y No 4054 Oth Invst-Poll Bnd Disc-Cooper OthrInvest A - No Y No 4055 Oth Invst-Poll Bnd Disc-Spik 2 OthrInvest A - No Y No 4056 Oth Invst-Poll End Disc-Spik 2 OthrInvest A - No Y No 4058 Oth Invst-Poll Bnd Disc-Smith <		•									
3233 Oth Invst-IndustrI Devlp Loans Oth rinvest A - No Y No 3234 Oth Invst-Coop Propane Buyout Othrinvest A - No Y No 4000 Other Investments Othrinvest A - No Y No 4005 Oth Invst-Lake Cumberind Devlp Othrinvest A - No Y No 4006 Oth Invst-PalCap Assgn Nonassc Othrinvest A - No Y No 4053 Oth Invst-Poll Bnd-Cooper Othrinvest A - No Y No 4054 Oth Invst-Poll Bnd Disc-Cooper Othrinvest A - No Y No 4055 Oth Invst-Poll Bnd Disc-Spilk 2 Othrinvest A - No Y No 4056 Oth Invst-Poll Bnd Disc-Spilk 2 Othrinvest A - No Y No 4057 Oth Invst-Poll Bnd Disc-Smith Othrinvest A - No Y No 4058 Oth Invst-Poll Bnd Disc-Smith O											
3234 Oth Invst-Coop Propane Buyout OthrInvest A - No Y No 4000 Other Investments OthrInvest A - No Y No 4005 Oth Invst-Lake CumberInd Devlp OthrInvest A - No Y No 4006 Oth Invst-PatCap Assgn Nonassc OthrInvest A - No Y No 4053 Oth Invst-Poll Ctrl Bnd-Cooper OthrInvest A - No Y No 4054 Oth Invst-Poll Bnd Disc-Cooper OthrInvest A - No Y No 4055 Oth Invst-Poll Ctrl Bnd-Splk 2 OthrInvest A - No Y No 4056 Oth Invst-Poll End Disc-Splk 2 OthrInvest A - No Y No 4057 Oth Invst-Poll End Disc-Smith OthrInvest A - No Y No 4058 Oth Invst-Poll Bnd Disc-Smith OthrInvest A - No Y No 4070 Oth Invst Avail for Sale-Gen O		· ·									
4000 Other Investments Oth Invest A - No Y No 4005 Oth Invst-Lake CumberInd Devlp OthrInvest A - No Y No 4006 Oth Invst-PatCap Assgn Nonassc OthrInvest A - No Y No 4053 Oth Invst-Poll Ctrl Bnd-Cooper OthrInvest A - No Y No 4054 Oth Invst-Poll Bnd Disc-Cooper OthrInvest A - No Y No 4055 Oth Invst-Poll Ctrl Bnd-Splk 2 OthrInvest A - No Y No 4056 Oth Invst-Poll Bnd Disc-Splk 2 OthrInvest A - No Y No 4057 Oth Invst-Poll Bnd Disc-Smith OthrInvest A - No Y No 4058 Oth Invst-Poll Bnd Disc-Smith OthrInvest A - No Y No 4070 Oth Invst Avail for Sale-Gen OthrInvest A <		· ·									
4005 Oth Invst-Lake CumberInd Devip Othrinvest A - No Y No 4006 Oth Invst-PatCap Assgn Nonassc Othrinvest A - No Y No 4053 Oth Invst-Poll Ctrl Bnd-Cooper Othrinvest A - No Y No 4054 Oth Invst-Poll Bnd Disc-Cooper Othrinvest A - No Y No 4055 Oth Invst-Poll Ctrl Bnd-Splk 2 Othrinvest A - No Y No 4056 Oth Invst-Poll Bnd Disc-Splk 2 Othrinvest A - No Y No 4057 Oth Invst-Poll Etrl Bnd-Smith Othrinvest A - No Y No 4058 Oth Invst-Poll Bnd Disc-Smith Othrinvest A - No Y No 4070 Oth Invst Avail for Sale-Gen Othrinvest A - No Y No											
4006 Oth Invst-PatCap Assgn Nonassc Oth Invest A - No Y No 4053 Oth Invst-Poll Ctrl Bnd-Cooper Oth Invest A - No Y No 4054 Oth Invst-Poll Bnd Disc-Cooper Oth Invest A - No Y No 4055 Oth Invst-Poll Ctrl Bnd-Splk 2 Oth Invest A - No Y No 4056 Oth Invst-Poll Bnd Disc-Splk 2 Oth Invest A - No Y No 4057 Oth Invst-Poll Bnd Disc-Smith Oth Invest A - No Y No 4058 Oth Invst Avail for Sale-Gen Oth Invest A - No Y No 4070 Oth Invst Avail for Sale-Gen Othrinvest A - No Y No											
4053 Oth Invst-Poll Ctrl Bnd-Cooper Oth rinvest A - No Y No 4054 Oth Invst-Poll Bnd Disc-Cooper Othrinvest A - No Y No 4055 Oth Invst-Poll Ctrl Bnd-Splk 2 Othrinvest A - No Y No 4056 Oth Invst-Poll Bnd Disc-Splk 2 Othrinvest A - No Y No 4057 Oth Invst-Poll Ctrl Bnd-Smith Othrinvest A - No Y No 4058 Oth Invst-Poll Bnd Disc-Smith Othrinvest A - No Y No 4070 Oth Invst Avail for Sale-Gen Othrinvest A - No Y No		· ·									
4054 Oth Invst-Poll Bnd Disc-Cooper OthrInvest A - No Y No 4055 Oth Invst-Poll Ctrl Bnd-Splk 2 OthrInvest A - No Y No 4056 Oth Invst-Poll Bnd Disc-Splk 2 OthrInvest A - No Y No 4057 Oth Invst-Poll Ctrl Bnd-Smith OthrInvest A - No Y No 4058 Oth Invst-Poll Bnd Disc-Smith OthrInvest A - No Y No 4070 Oth Invst Avail for Sale-Gen OthrInvest A - No Y No		, ,									
4055 Oth Invst-Poll Ctrl Bnd-Splk 2 OthrInvest A - No Y No 4056 Oth Invst-Poll Bnd Disc-Splk 2 OthrInvest A - No Y No 4057 Oth Invst-Poll Ctrl Bnd-Smith OthrInvest A - No Y No 4058 Oth Invst-Poll Bnd Disc-Smith OthrInvest A - No Y No 4070 Oth Invst Avail for Sale-Gen OthrInvest A - No Y No		· ·									
4056 Oth Invst-Poll Bnd Disc-Splk 2 Oth rinvest A - No Y No 4057 Oth Invst-Poll Ctrl Bnd-Smith Othrinvest A - No Y No 4058 Oth Invst-Poll Bnd Disc-Smith Othrinvest A - No Y No 4070 Oth Invst Avail for Sale-Gen Othrinvest A - No Y No		·									
4057 Oth Invst-Poll Ctrl Bnd-Smith Oth rinvest A - No Y No 4058 Oth Invst-Poll Bnd Disc-Smith Othrinvest A - No Y No 4070 Oth Invst Avail for Sale-Gen Othrinvest A - No Y No		· ·									
4058 Oth Invst-Poll Bnd Disc-Smith OthrInvest A - No Y No 4070 Oth Invst Avail for Sale-Gen OthrInvest A - No Y No		· ·									
4070 Oth Invst Avail for Sale-Gen OthrInvest A - No Y No			Ourinvest		INO		Ť	INO			
			Other land a 4	Λ	b 1 =		V	NI-			
4071 Oth Invst-LT Trade Gen F OthrInvest A - No Y No	24070 24071	Oth Invst-Poll Bnd Disc-Smith									



3/8/2021

11:01:10 AM

VALID GENERAL LEDGER ACCOUNTS

SetID: **EKPC** As of Date: 08.Mar.2021

Report ID: FSX0010

			Monetary Statistical Account			Open Item Account					
Account	<u>Description</u>	Short Name	Account Type	Y/N	<u>UOM</u>	Bal Forward	Y/N	<u>Description</u>	Edit Record	Edit Field	<u>VAT</u>
124080	Oth Invst-LT Rec-Inter'l Paper	OthrInvest	A -	No		Υ	No				N
124081	Oth Invst-LT Rec-City Hamilton	OthrInvest	A -	No		Υ	No				N
124082	Oth Invst-LT Rec-Cagles	OthrInvest	A -	No		Y	No				N
124083	Oth Invet BUS (CR)	Othrinvest	A -	No		Y Y	No				N
124090 124091	Oth Invst-RUS (CB) Oth Invst-CFC (CB)	OthrInvest OthrInvest	A - A -	No No		Ϋ́	No No				N N
128001	Oth Spec Fnds-Defrd Compensatn	OthSpecFds	A -	No		Υ	No				N
128002	Oth Spec Fnds-Resrv Defrd Comp	OthSpecFds	A -	No		Υ	No				N
128003	Oth Spec Fnds-Def Comp-J Pilot	OthSpecFds	A -	No		Υ	No				N
128005	Oth Spec Fnds-Escr Dep Bnk One	OthSpecFds	A -	No		Y	No				N
128006 128007	Oth Spec Fnds-TVA Deposit Oth Spec Fnds-Escr BG Oldham	OthSpecFds OthSpecFnd	A - A -	No No		Y Y	No No				N N
131101	Cash-Genri-PNC Bank Kentucky	Cash-Genrl	A -	No		Ϋ́	No				N
131102	Cash-Genrl-PNC Prop Casualty	Cash-Genrl	A -	No		Υ	No				N
131103	Cash-Genrl-PNC Payroll	Cash-Genrl	A -	No		Υ	No				N
131104	Cash-Genrl-PNC Coop Solar	Cash-Genrl	A -	No		Υ	No				N
131105	Cash-MMDA-USBank	Cash-MMDA	A -	No		Y	No				N
131106 131199	Cash-MMDA-TraditionalBank Cash-Treasury Clearing Acct	Cash-MMDA Cash-Genrl	A - A -	No No		Y Y	No No				N N
131200	Cash-Construction Fund-Trustee	Cash-Const	A -	No		Ϋ́	No				N
131201	Cash-Construction Fund-Solar	Cash-Const	A -	No		Υ	No				N
131400	Transfer of Cash	TrnsfrCash	A -	No		Υ	No				N
131401	Transfr/Cash-KY REC Empl Benft	TrnsfrCash	A -	No		Υ	No				N
134001	Other Special Deposits	OthSpecDep	A -	No		Y	No				N
134002 135000	Special Deposit-PJM Working Funds	SpecDepPJM WorkngFnds	A - A -	No No		Y Y	No No				N N
135002	Working Finds-Spec ROW Procuremt	WorkingFinds	A -	No		Y	No				N
135003	Workng Fnds-Empl Fed Crd Union	WorkngFnds	A -	No		Y	No				N
135005	Workng Fnds-Medical Insurance	WorkngFnds	A -	No		Υ	No				N
135006	Workng Fnds-Self Funded Dental	WorkngFnds	A -	No		Υ	No				N
135007	Working Finds-Sec 125 Flex Spend	WorkngFnds	A -	No		Y	No				N
136001 136002	Temp Cash Invst-Treasury Bills Temp Cash Invst-Poll Cnst-Copr	TmpCashInv TmpCashInv	A - A -	No No		Y Y	No No				N N
136002	Temp Cash Invst-Poll Bond-Splk	TmpCashInv	A -	No		Ϋ́	No				N
136007	Temp Cash Invst-Poll DSR-Splk	TmpCashInv	A -	No		Υ	No				N
136009	Temp Cash Invst-Poll Bond-Smth	TmpCashInv	A -	No		Υ	No				N
136010	Temp Cash Invst-Poll DSR-Smith	TmpCashInv	A -	No		Y	No				N
136011 142100	Temp Cash Invst-Pledged Escrow Cust Accounts Receivable-Elec	TmpCashInv Cust AR	A -	No No		Y Y	No No				N N
143000	Uninvoiced Receivables	Uninvcd AR	A - A -	No		Y	No				N
143001	Oth Accts Rec-General	Other AR	A -	No		Ϋ́	No				N
143002	Oth Accts Rec-Coop Ln of Cred	Other AR	A -	No		Υ	No				N
143003	Oth Accts Rec-Coop Loan Prgm	Other AR	A -	No		Υ	No				N
143004	Oth Ac/Rec-Coop Propane Buyout	Other AR	A -	No		Y	No				N
143005 143006	Oth Accts Rec-Job Orders Oth Accts Rec-Workers Comp Ins	Other AR Oth AR	A - A -	No No		Y Y	No No				N N
143011	Oth Accts Rec-Coop Med Insurno	Other AR	A -	No		Y	No				N
143021	Oth Accts Rec-Benefits Billing	Other AR	A -	No		Υ	No				N
143024	Oth Accts Rec-Retiree Med Ins	Other AR	A -	No		Υ	No				N
143026	Oth Accts Rec-Retiree Life Ins	Other AR	A -	No		Y	No				N
143027	Oth Acets Rec-Retiree Dent Ins	Other AR	A -	No		Y Y	No				N
143028 143029	Oth Accts Rec-COBRA Oth Accts Rec-LTD Other	Other AR Other AR	A - A -	No No		Ϋ́	No No				N N
143030	Oth Accts Rec-Direct Billing	Other AR	A -	No		Υ	No				N
143040	Oth Accts Rec-Empl Ufrm Billng	Other AR	A -	No		Υ	No				N
143090	Oth Accts Rec (CB)	Other AR	A -	No		Υ	No				N
143098	Oth Accts Rec-AR Sys Ctrl Acct	Other AR	A -	No		Y	Yes	Customer	CUSTOMER	CUST_ID	N
143099 143100	Oth Acets Rec-AR Cash Clearing	Other AR	A - A -	No No		Y Y	No No				N N
144000	Oth Accts Rec-Long Term Accum Prov/Uncoll Accounts-CR	Other AR UncollAcct	A -	No No		Y	No				N
151001	Fuel Stock-Dale	Fuel Stock	A -	No		Y	No				N
151002	Fuel Stock-Cooper	Fuel Stock	A -	No		Υ	No				N
151004	Fuel Stock-Spurlock 2	Fuel Stock	A -	No		Υ	No				N
151006	Fuel Stock-Inventory Adjustmnt	Fuel Stock	A -	No		Y	No				N
151007	Fuel Stock-Coal-Miscollaneous	Fuel Stock	A -	No No		Y Y	No No				N
151008 151009	Fuel Stock-Coal-Miscellaneous Fuel Stock-Lockwood 2	Fuel Stock Fuel Stock	A - A -	No No		Ϋ́Υ	No No				N N
151010	Fuel Stock-Oil-Smith CT	Fuel Stock	A -	No		Y	No				N
151011	Fuel Stock-Gas-Smith CT	Fuel Stock	A -	No		Υ	No				N
151012	Fuel Stock-Rivereagle 1	Fuel Stock	A -	No		Υ	No				N

3/8/2021

11:01:10 AM

Report ID: FSX0010

VALID GENERAL LEDGER ACCOUNTS

SetID: **EKPC** As of Date: 08.Mar.2021

			Monetary	onetary Statistical Account				Open Item Account			
Account	<u>Description</u>	Short Name	Account Type	<u>Y/N</u>	<u>UOM</u>	Bal Forward	<u>Y/N</u>	<u>Description</u>	Edit Record	Edit Field	<u>VAT</u>
151013	Fuel Stock-Rivereagle 2	Fuel Stock	Α -	No		Υ	No				N
151014	Fuel Stock-Diesel-Cagles	Fuel Stock	A -	No		Y	No				N
151015	Fuel Stock-Diesel-Cooper	Fuel Stock	A -	No		Υ	No				N
151016	Fuel Stock-Rivereagle 3	Fuel Stock	A -	No		Υ	No				N
151017	Fuel Stock-Oil-Bluegrass	Fuel Stock	A -	No		Υ	No				N
151018	Fuel Stock-Gilbert	Fuel Stock	A -	No		Υ	No				N
151019	Fuel Stock-Dale ROM Blend	Fuel Stock	A -	No		Y	No				N
151020	Fuel Stock-Scrubber Coal Fuel Stock-Limestone-Gilbert	Fuel Stock	A -	No		Y Y	No				N
151028 151029	Fuel Stock-Limestone-Glibert Fuel Stock-Limestone-Sp 2 Scrb	Fuel Stock Fuel Stock	A - A -	No No		Ϋ́Υ	No No				N N
151029	Fuel Stock-Lime-Cooper	FuelStLime	A -	No		Y	No				N
151038	Fuel Stock-TDF Gilbert	Fuel Stock	A -	No		Y	No				N
151040	Fuel Stock-Mercontrol 8034	Fuel Stock	Α -	No		Υ	No				N
151041	Fuel Stock-Mercontrol 7895	Fuel Stock	A -	No		Υ	No				N
151050	Fuel Stock-Ammonia Spurlock	AmmoniaSP	A -	No		Υ	No				N
151090	Fuel Stock (CB)	Fuel Stock	A -	No		Υ	No				N
151091	Fuel Stock-Credit (CB)	Fuel Stock	A -	No		Υ	No				N
152000	Fuel Stock Exps Undistributed	FuelExpUnd	Α -	No		Y	No				N
152002	Fuel Stk Exps Undist-Fuel Dep	FuelExpUnd	A -	No		Y	No				N
152003	Fuel Stk Exps Undist-Coal Barg	FuelExpUnd	A -	No		Y Y	No				N
152090 154000	Fuel Stk Exps Undist-Credt(CB) PInt Matls/Op Supp-General	FuelExpUnd Matls/Supp	A - A -	No No		Y Y	No No				N N
154001	Plnt Matis/Op Supp-Poles	Matls/Supp	A -	No		Y	No				N
154002	Plnt Matis/Op Supp-Reels	Matls/Supp	A -	No		Ϋ́	No				N
154003	Plnt Matls/Op Supp-OCR	Matls/Supp	A -	No		Y	No				N
154004	Plnt Matls/Op Supp-Tran Reg	Matls/Supp	A -	No		Y	No				N
154005	Plnt Matls/Op Supp-Home Guard	Matls/Supp	A -	No		Υ	No				N
154006	PInt Matls/Op Supp-ETS Hrdwr	Matls/Supp	A -	No		Υ	No				N
154011	Plnt Matls/Op Supp-EK Computrs	Matls/Supp	A -	No		Υ	No				N
154020	PInt Matls/Op Supp-Gasoline	Matls/Supp	A -	No		Υ	No				N
154090	PInt Matls/Op Supp-Credit (CB)	Matls/Supp	A -	No		Υ	No				N
154099	Temp Asset Recd/Not Stocked	Matls/Supp	A -	No		Y	No				N
158100	Allowance Inventory	Allownclnv	A -	No		Y	No				N
163000	Stores Exp Undistr-Whichstr Inv	Stores	A -	No No		Y Y	No No				N
163020 163030	Stores Exp Undistr-Dale Inv Stores Exp Undistr-Cooper Inv	Stores Stores	A - A -	No No		Ϋ́Υ	No No				N N
163040	Stores Exp Undistr-Splk Inv	Stores	A -	No		Ϋ́	No				N
163050	Stores Exp Undistr-Smith Inv	Stores	A -	No		Y	No				N
163055	Stores Exp Undistr-Bluegrs Inv	Stores	A -	No		Y	No				N
165100	Prepayments-Insurance	Prepaymnts	Α -	No		Υ	No				N
165101	Prepymts-LTD Insurance	Prepaymnts	A -	No		Υ	No				N
165102	Prepymts-24Hr Businss Trvl Ins	Prepaymnts	A -	No		Υ	No				N
165103	Prepymts-Term Life Insurance	Prepaymnts	A -	No		Υ	No				N
165200	Oth Prepymts-Misc Exp-Subsq Yr	Prepaymnts	A -	No		Y	No				N
171000	Int/Div Rec-CFC	Int/DivRec	A -	No		Y	No				N
171001	Int/Div Rec-Genrl Fnd Investmt	Int/DivRec	A -	No		Y	No				N
171003 171006	Int/Div Rec-Poll Control-Splk Int/Div Rec-Poll Control-Smith	Int/DivRec Int/DivRec	A - A -	No No		Y Y	No No				N N
171008	Int/Div Rec-Poll Contrl-Cooper	Int/DivRec	A -	No		Ϋ́	No				N
171009	Int/Div Rec-Pledged Escrow	Int/DivRec	A -	No		Y	No				N
172000	Rents Receivable-Gilbert	Rents Rec	A -	No		Y	No				N
175000	Derivative Instrument Assets	DerivAsset	A -	No		Υ	No				N
181001	Unamrt Debt Exp-Private PI Bon	UnamrtDebt	A -	No		Υ	No				N
181002	Unamrt Debt Exp-Splk-PC Iss Cs	UnamrtDebt	A -	No		Υ	No				N
181003	Unamrt Debt Exp-Smth-PC Iss Cs	UnamrtDebt	A -	No		Υ	No				N
181004	Unamrt Debt Exp-FFB Rllovr Pre	UnamrtDebt	A -	No		Υ	No				N
181005	Unamrt Debt Exp-Coopr PC IssCs	UnamrtDebt	Α -	No		Y	No				N
181006	Unamrt Debt Exp-Sr Cr Facility	UnamrtDebt	A -	No		Y	No				N
181007	Unamrt Debt Exp-CREB's	UnamrtDebt	A -	No		Y	No				N
181008	Unamrt Debt Exp-Priv Plac 2019 Unrecovered Plant-Dale	UnamrtDebt UnrcvdPlnt	Α - Δ -	No No		Y Y	No No				N N
182200 182201	Unrecovered Plant-Dale Unrecovered Plant-Dale-ES	UnrevaPint	A - A -	No No		Y Y	No				N N
182300	Oth Reg Asset-Budgetary Only	Reg Asset	A -	No		Y	No				N
182301	Oth Reg Asset-Forced Outages	Reg Asset	A -	No		Ϋ́	No				N
182302	Other Regulatory Asset-FAC	Reg Asset	A -	No		Ϋ́	No				N
182303	Other Regulatory Asset-ES	Reg Asset	A -	No		Υ	No				N
182304	Other Regulatory Asset-Mgt Aud	Reg Asset	A -	No		Υ	No				N
182305	Other Regulatory Asset-RteCase	Reg Asset	A -	No		Υ	No				N
182306	Other Regulatory Asset-SM CFB	Reg Asset	A -	No		Υ	No				N
182320	Oth Reg A - Dale 1&2 Asbestos	Reg Asset	A -	No		Υ	No				N

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182321	Oth Reg A - Dale 3&4 Asbestos	Reg Asset	A -	No		Υ	No				١
182322	Oth Reg A - Cooper Asbestos	Reg Asset	A -	No		Υ	No				N
182330	Oth Reg A-Dale Ash	Reg Asset	A -	No		Υ	No				١
82331	Oth Reg A-Spur Ash Pond	Reg Asset	A -	No		Υ	No				١
82332	Oth Reg A-Spur Landfill	Reg Asset	A -	No		Υ	No				1
82333	Oth Reg A-Cooper Landfill	Reg Asset	A -	No		Υ	No				1
82334	Other Reg A-Dale Ash Hauling	Reg Asset	A -	No		Υ	No				1
82335	Oth Reg A-Smith Landfill	Reg Asset	A -	No		Υ	No				1
82350	Oth Reg A-Spurlock 2019 Major	Reg Asset	A -	No		Υ	No				1
83000	Prelim Survey/Invstgation Chgs	PrelimSurv	A -	No		Υ	No				1
84100	Clearing-Transportation Exps	ClearingAc	A -	No		Υ	No				1
84202	Clearing-Dale Inventory	ClearingAc	A -	No		Υ	No				1
84203	Clearing-Cooper Inventory	ClearingAc	A -	No		Υ	No				١
84204	Clearing-Spurlock Inventory	ClearingAc	A -	No		Υ	No				١
84205	Clearing-Smith Inventory	ClearingAc	A -	No		Υ	No				N
84211	Clearing-Winchester Inventory	ClearingAc	A -	No		Υ	No				N
84212	Clearing-Bardstown Inventory	ClearingAc	A -	No		Υ	No				N
84213	Clearing-Burnside Inventory	ClearingAc	A -	No		Υ	No				N
84214	Clearing-Crittenden Inventory	ClearingAc	A -	No		Υ	No				N
84222	Clearing-Central Lab	ClearingAc	A -	No		Υ	No				N
84224	Clearing-Production Staff	ClearingAc	A -	No		Υ	No				N
84225	Clearing-Visa	ClearingAc	A -	No		Υ	No				N
84226	Clearing-Common Landfill Chrgs	ClearingAc	A -	No		Υ	No				Ν
84228	Clearing-Power Prod.Support	ClearingAc	A -	No		Υ	No				Ν
84230	Clearing-Budget	ClearingAc	A -	No		Y	No				N
84241	Clearing-Accts Receivable	ClearingAc	A -	No		Ϋ́	No				
86020	Misc Def Debit-Defd Compensatn	DefdDebits	A -	No		Y	No				N
86050	Misc Def Debit-Other	DefdDebits	A -	No		Y	No				N
B6060	Misc Def Debt-Solar Lic O&M	DefdDebits	A -	No		Y	No				N
						Y					N
86090	Misc Def Debit-Replmt Plnt(CB)	DefdDebits	A -	No			No				
88000	Resrch/Devel-AirPoll Res Agrmt	Res/Develp	A -	No		Y	No				N
89001	Unamort Loss Reaquir Debt- RUS	UnAmortLos	A -	No		Y	No				١
00000	Memberships Issued	Membershps	Q -	No		Y	No				١
01101	Patronage Capital Credits	PtCapCredt	Q -	No		Y	No				١.
01201	Patronage Capital Assignable	PtCapAssgn	Q -	No		Y	No				1
08001	Donated Capital	DonatedCap	Q -	No		Y	No				١
09001	Accum Oth Comprehensive Income	Complncome	Q -	No		Υ	No				١
15101	Unrealzd Gn/Loss-Debt/Eqty Sec	UnrGn/Loss	Q -	No		Υ	No				Ν
15102	Other Comprehensive Income	OthCompInc	Q -	No		Υ	No				N
18000	Capital Gains and Losses	CapGn/Loss	Q -	No		Υ	No				N
19101	Operating Margins	OperMargns	Q -	No		Υ	No				N
19102	Operating Margins-Prior Yr	OperMargns	Q -	No		Υ	No				N
19201	Nonoperating Margins	NonOpMrgns	Q -	No		Υ	No				N
19202	Nonoperating Margins-Prior Yr	NonOpMrgns	Q -	No		Υ	No				N
19401	Oth Margins/Equities-Prior Pds	OthrMargns	Q -	No		Υ	No				N
21000	Bonds	Bonds	L -	No		Υ	No				N
24110	Oth LTD-Subscriptions-CFC	Oth LTD	L -	No		Υ	No				N
24121	Oth LTD-CFC	Oth LTD	L -	No		Υ	No				N
24122	Oth LTD-NCSC	Oth LTD	L -	No		Υ	No				N
24123	Oth LTD	Oth LTD	_ L -	No		Ϋ́	No				
24129	Oth LTD-CFC (CB)	Oth LTD	L -	No		Υ	No				Ν
24140	Oth LTD-Misc-Gfathered Sick Lv	Oth LTD-Sk	L -	No		Y	No				
24150	Oth LTD-Sr Credit Facility	Notes Exec	L -	No		Y	No				N
24150 24151	Oth LTD-Si Credit Facility	Notes Exec	L -	No		Y	No				
24151	Oth LTD-CFC Credit Facility Oth LTD-CFC ETC's	Notes Exec	L -	No		Y	No				N
24153 24154	Oth LTD-CFC ETC's Oth LTD-CFC-CT6,CT7 Bridge	Notes Exec	L -	No		Ϋ́	No				1
24154 24155	Oth LTD-CFC-CT6,CT7 Bridge Oth LTD-CFC-CT6,CT7 Bridge CTC		L -			Ϋ́	No				
		Notes Exec		No							1
24156	Oth LTD-CFC-CT9,10	Notes Exec	L -	No		Y	No				1
24300	LTD-RUS Notes Executed	LTD-RUS	L -	No		Y	No				1
24390	LTD-RUS Notes Exec (CB)	LTD-RUS	L -	No		Y	No				١
24400	RUS Notes Exec-Constr-Debit	RUS NtesEx	L -	No		Y	No				N
24500	Int Accrued-Defd-RUS Constrctn	IntAccrued	L -	No		Υ	No				١
24600	Advance Pmts Unappld-LTD-Debit	AdvncePmts	L -	No		Υ	No				١
27000	Capital Lease Obl-Non-current	CapLea Non	L -	No		Υ	No				١
28200	Insurnce & Injuries-Litigation	Ins/Injurs	L -	No		Υ	No				١
28300	Pens/Bnfts-Resve-Retire Medcal	Pens/Benft	L -	No		Υ	No				1
28301	Pens/Bnfts-Resve-Deferred Comp	Pens/Benft	L -	No		Υ	No				1
28302	Pens/Bnfts-Med-Employee Deduct	Pens/Benft	L	No		Υ	No				١
28303	Pens/Bnfts-Resv-Annuity,LTD,WC	Pens/Benft	L -	No		Υ	No				Ν
	Pens/Bnfts-Resve-Dental Insur	Pens/Benft	_ L -	No		Y	No				N

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228305	Pens/Bnfts-Flex Spend Hea Care	Pens/Benft	L -	No		Υ	No				N
228306	Pens/Bnfts-Flex Spend Dep Care	Pens/Benft	L -	No		Υ	No				N
228307	Pens/Bnfts-401K Employee Contr	Pens/Benft	L -	No		Υ	No				N
228308	Pens/Bnfts-401K 4% Emple Contr	Pens/Benft	L -	No		Y	No				N
228311 228312	Pens/Bnfts-401K Employer Contr Pens/Bnfts-401K 4% Emplr Contr	Pens/Benft Pens/Benft	L - L -	No No		Y Y	No No				N N
228313	Pens/Bnfts-401K 6% Emplr Contr	Pens/Benft	L -	No		Ϋ́	No				N
228319	Pens/Bnfts-Retiree Med Cur Ind	Pens/Benft	L -	No		Υ	No				N
228320	Pens/Bnfts-Med New Indemnity	Pens/Benft	L -	No		Υ	No				N
228321	Pens/Bnfts-Retiree Med-New Ind	Pens/Benft	L -	No		Y	No				N
228323 228330	Pension Restoration Payable Pens/Bnfts-Med PPO	Pens/Benft Pens/Benft	L - L -	No No		Y Y	No No				N N
228331	Pens/Britts-Retiree Med-PPO	Pens/Benft	L -	No		Y	No				N
228360	Pens/Bnfts-Drug Chg-Active	Pens/Benft	_ L -	No		Y	No				N
228361	Pens/Bnfts-Drug Chg-Retiree	Pens/Benft	L -	No		Υ	No				N
228362	Pens/Bnfts-Vision	Pens/Benft	L -	No		Υ	No				N
228363	Pens/Bnfts-Allstate Pln	Pens/Benft	L -	No		Y Y	No				N
228364 228368	Pens/Bnfts-Sh.Term Disability HSA Employee Contribution	Shortterml HSA EE	L - L -	No No		Ϋ́	No No				N N
228369	HSA Employer Contribution	HSA ER	L -	No		Υ	No				N
228422	Misc Oper Provisions-Gallatin	MiscOpProv	L -	No		Υ	No				N
230002	Asset Retirement Oblig-Steam	AssetRetOb	L -	No		Υ	No				N
230003	Asset Retirement Oblg-Ash	AROAshPond	L -	No		Y	No				N
230004 231001	Asset Retirement Oblg-LFPostCl Notes Payable-Other	AROLFClos Notes Pay	L - L -	No No		Y Y	No No				N N
231001	Notes Payable-Offer Notes Payable-CFC	Notes Pay	L -	No		Y	No				N
232100	Accounts Payable-General	Accts Pay	_ L -	No		Ϋ́	No				N
232101	Accts Pay-General-Clearing	Accts Pay	L -	No		Υ	No				N
232102	Misc Liability Rec Insp	Misc Liab	L -	No		Υ	No				N
232103	Expenses Payable	Exps Pay	L -	No		Y	No				N
236100 236200	Accrued Property Taxes Accrued FUTA	Accrd Prop Accrd FUTA	L - L -	No No		Y Y	No No				N N
236300	Accrued FICA/SS Medicare	Accrd FICA	L -	No		Ϋ́	No				N
236400	Accrued SUTA	Accrd SUTA	L -	No		Υ	No				N
236500	Accrued State Sales Tax	AccSalesTx	L -	No		Υ	No				N
237000	Interest Accrued	Intrst Acc	L -	No		Y	No				N
237030	Int Accrd-CFC Intermediate ST	Intrst Acc	L -	No		Y Y	No				N N
237060 237090	Int Accrd-Mbr Coop Prepymts-ST Int Accrd-RUS Constr Oblig(CB)	Intrst Acc Intrst Acc	L - L -	No No		Ϋ́	No No				N N
237190	Int Accrd-CFC (CB)	Intrst Acc	L -	No		Y	No				N
238100	Patronage Capital Payable	PatCapPay	L -	No		Υ	No				N
241000	Tax Coll Payable-FIT	TaxCollPay	L -	No		Υ	No				N
241005	Tax Coll Payable-SIT	TaxCollPay	L -	No		Y	No				N
241011 241012	Tax Coll Payable-Clark PR Tax Coll Payable-Pulaski PR	TaxCollPay TaxCollPay	L - L -	No No		Y Y	No No				N N
241012	Tax Coll Payable-Mason PR	TaxCollPay	L -	No		Y	No				N
241014	Tax Coll Payable-Nelson PR	TaxCollPay	L -	No		Y	No				N
241015	Tax Coll Payable-Laurel PR	TaxCollPay	L -	No		Υ	No				N
241016	Tax Coll Payable-Boone PR	TaxCollPay	L -	No		Υ	No				N
241017	Tax Coll Payable-Pendleton PR	TaxCollPay	L -	No		Y	No				N
241018 241019	Tax Coll Payable-Frankfort PR Tax Coll Payable-Grant Co PR	TaxCollPay TaxCollPay	L - L -	No No		Y Y	No No				N N
242200	Accrued Payroll	AccPayroll	L -	No		Y	No				N
242201	Accrued Performance Awards	AccPerfAwd	L -	No		Υ	No				N
242300	Accrd Empl Compensated Absnces	AccCompAbs	L -	No		Υ	No				N
242500	Oth Curr/Accr Liab-Svg Bond PR	CurAccLiab	L -	No		Y	No				N
242501	Oth Curr/Accr Liab-Inadvrt Pwr Oth Curr/Accr Liab-Un Fnd PR	CurAccLiab CurAccLiab	L -	No No		Y Y	No No				N N
242502 242503	Other Curr/Accr Liab-En Fild FR	EmpAssocPR	L - L -	No No		Y	No				N
242504	Oth Curr/Accr Liab-Misc	CurAccLiab	- L -	No		Υ	No				N
242505	Oth Curr/Accr Liab-401K Ln PR	CurAccLiab	L -	No		Υ	No				N
242506	Oth Curr/Accr Liab-Homestead	CurAccLiab	L -	No		Y	No				N
242507	Oth Curr/Accr Liab-Vol Lif Ins	CurAccLiab	L -	No		Y	No				N
242508 242509	Oth Curr/Accr Liab-ACRE Oth Curr/Accr Liab-MetLife	CurAccLiab CurAccLiab	L - L -	No No		Y Y	No No				N N
242509 242510	Oth Curr/Accr Liab-NietLife Oth Curr/Accr Liab-Supple Life	CurAccLiab	L -	No		Y	No				N N
242511	Oth Curr/Accr Liab-Supple AD&D	CurAccLiab	L -	No		Ϋ́	No				N
242512	Oth Curr/Accr Liab-Family AD&D	CurAccLiab	L -	No		Υ	No				N
242513	Other Curr/Accr Liab-FTR	Accr-FTR	L -	No		Y	No				N
242514	Other Curr/Accr Liab-529 Plan	Accr-529	L -	No		Υ	No				N



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242590	Oth Curr/Accr Liab (CB)	CurAccLiab	L -	No		Υ	No				N
243000	Capital Lease Obl-Current	CapLea Cur	L -	No		Υ	No				N
252000	Customer Advances-Construction	CustAdvCon	L -	No		Y	No				N
253002 253006	Oth Defd Cr-Ret Dis Empl Ins Oth Defd Cr-InInd Facility Chg	DefdCredts DefdCredts	L - L -	No No		Y Y	No No				N N
253007	Oth Defd Cr-Solar Pnl Lic Fee	DefdCredts	L -	No		Ϋ́	No				N
253008	Oth Defd Cr-Solar Lic Energy	DefdCredts	L -	No		Υ	No				N
253009	Oth Defd Cr-Solar Lic REC	DefdCredts	L -	No		Υ	No				N
253010	Oth Defd Cr-Solar Lic Capacity	DefdCredts	L -	No		Y	No				N
253110 253120	Oth Defd Cr-Mbr Coop Prepaymts Other Defd Cr-Ins FAC	CoopPrepmt DefdCr-Ins	L - L -	No No		Y Y	No No				N N
253120	Other Defd Capacity Prepaids	DefdCapac	L -	No		Ϋ́	No				N
254002	Other Regulatory Liab-FAC	Reg Liab	L -	No		Y	No				N
254003	Other Regulatory Liab-ES	Reg Liab	L -	No		Υ	No				N
301000	Organization	Organizatn	A -	No		Y	No				N
303001	Miss Intang Plot TVA Int Summe	MiscIntang	A -	No No		Y Y	No No				N N
303002 303003	Misc Intang PInt-TVA Int Summe Misc Intang PInt-Pleasant Gr M	MiscIntang MiscIntang	A - A -	No		Y	No				N
303004	Misc Intang PInt-KU Lynch Sw	MiscIntang	A -	No		Y	No				N
303005	Misc Intang Plnt-Wolfe St Corp	MiscIntang	A -	No		Υ	No				N
303006	Misc Intang PInt-KU/Lake Reba	MiscIntang	A -	No		Υ	No				N
303007	Misc Intang PInt-N Madison Tap	MiscIntang	A -	No		Y	No				N
303008 303009	Misc Intang PInt-Zimmer Misc Intang PInt-Stuart	MiscIntang MiscIntang	A - A -	No No		Y Y	No No				N N
303010	Misc Intang Pint-Stuart Misc Intang Pint-LGE Tolling	MiscIntang	A -	No		Ϋ́	No				N
310000	Land/Land Rights-Steam Prd	Land/Rghts	A -	No		Υ	No				N
311000	Struct & Improvemts-Steam Prd	Struc/Impr	A -	No		Υ	No				N
312000	Boiler Plant Equip-Steam Prd	BoilPIntEq	A -	No		Y	No				N
314000	Turbogenerator Unit-Steam Prd	TurbogenUn	A -	No No		Y Y	No No				N N
315000 316000	Accessory Elec Equip-Steam Prd Misc Pwr Plant Equip-Steam Prd	AccessEIEq MiscPwPIEq	A - A -	No		Y	No				N
317000	Asset Retire Costs-Steam Prod	ARO-StmPrd	A -	No		Υ	No				N
317001	Asset Retire Costs-Ash	AROAshPond	A -	No		Υ	No				N
317002	Asset Retire Costs-LFPostClos	ARO-LFPost	A -	No		Υ	No				N
318000	Asset Retire Costs-Ash Pond	AROAshPond	A -	No		Y	No				N
340000 341000	Land & Land Rights-Oth Pwr Prd Struct & Improvmts-Oth Pwr Prd	Land/Rghts Struc/Impr	A - A -	No No		Y Y	No No				N N
342000	Fuel Hldrs/Accessr-Oth Pwr Prd	FuelHoldrs	A -	No		Y	No				N
343000	Prime Movers-Oth Pwr Prd	PrimeMovrs	A -	No		Υ	No				N
344000	Generators-Oth Pwr Prd	Generators	A -	No		Υ	No				N
345000	Accessory Elec Eq-Oth Pwr Prd	AccessEIEq	A -	No		Y	No				N
346000 350000	Misc Pwr Plt Equip-Oth Pwr Prd	MiscPwPlEq	A - A -	No No		Y Y	No No				N N
350010	Land/Land Rights-Transm Plant Land/Lnd Rghts-Easemts-TransPl	Land/Rghts Land/Rghts	A -	No		Y	No				N
353000	Station Equipment-Trans Plant	StationEqp	A -	No		Y	No				N
353010	Station Equip-ECS-Trans Plant	StationEqp	A -	No		Υ	No				N
354000	Towers & Fixtures-Trans Plant	Twrs/Fixtr	A -	No		Υ	No				N
355000	Poles & Fixtures-Trans Plant	Poles/Fixt	A -	No		Y	No				N
356000 359000	Overhd Conductors/Devices-Tran Roads and Trails-Trans Plant	OHCond/Dev Roads/Trls	A - A -	No No		Y Y	No No				N N
360000	Land/Land Rights-Distr Plant	Land/Rghts	A -	No		Ϋ́	No				N
362000	Station Equipment-Distr Plant	StationEqp	A -	No		Υ	No				N
362001	Station Equip-SCADA-Distr PInt	StationEqp	A -	No		Υ	No				N
368000	Line Transformers-Distr Plant	LnTrnsfmrs	A -	No		Y	No				N
389000 389001	Land/Land Rights-General Plant Land/Land Rights-Radio Towers	Land/Rghts Land/Rghts	A - A -	No No		Y Y	No No				N N
390000	Struct & Improvmts-General Plt	Struc/Impr	A -	No		Ϋ́	No				N
391000	Office Furn & Equip-Genrl Plnt	OffFurn/Eq	A -	No		Υ	No				N
391001	Office Furn & Equip-PeopleSoft	OffFurn/Eq	A -	No		Υ	No				N
391100	Office Furn & Equip - Leased	OffFurn/Le	A -	No		Y	No				N
392000	Transportation Equip-Genrl Plt	TransprtEq	A -	No		Y	No				N
393000 394000	Stores Equipment-General Plant Tools, Shop & Garage Equipment	Stores Eqp Garage Eqp	A - A -	No No		Y Y	No No				N N
395000	Lab Equipment-General Plant	Lab Equip	A -	No		Ϋ́	No				N
396000	Power Operated Equip-Genrl Plt	Pwr Equip	A -	No		Y	No				N
397000	Communication Equip-Genrl Plnt	Commun Eq	A -	No		Υ	No				N
397001	Communication Eq-ECS-Genrl Plt	Commun Eq	A -	No		Y	No				N
398000 399000	Misc Equipment-General Plant Other Tangible Prop-Genrl Plnt	Misc Equip OthTangPrp	A - A -	No No		Y Y	No No				N N
401000	Operation Expense	Otn rangPrp Oper Exp	A - E -	No No		Y N	No No				N N
.5.000	Sportage. Experied	OPOI ENP	_	140		••	. 10				.•

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VALID GENERAL LEDGER ACCOUNTS



SetID:

EKPC As of Date: 08.Mar.2021

Report ID: FSX0010

			Monetary	Statistical Account			Open Item Account				
Account	<u>Description</u>	Short Name	Account Type	<u>Y/N</u>	<u>UOM</u>	Bal Forward	<u>Y/N</u>	<u>Description</u>	Edit Record	Edit Field	<u>VAT</u>
402000	Maintenance Expense	Maint Exp	E -	No		N	No				N
403100	Deprec Exp-Steam Plant	DeprEx-Stm	E -	No		N	No				N
403190	Deprec Exp-Steam Plant (CB)	DeprEx-Stm	E -	No		N	No				N
403410	Deprec Exp-Oth Prd Plt-CT's	DeprEx-Oth	E - E -	No No		N N	No				N
403420 403430	Deprec Exp-Oth Prd Plt-Ldfills Deprec Exp-Oth Prd Plt-Dsl Gen	DeprEx-Oth DeprEx-Oth	E -	No No		N N	No No				N N
403440	Deprec Exp-Oth Prd Plt-Solar	DeprEx-Oth	- E -	No		N	No				N
403500	Deprec Exp-Transm Plant	DeprEx-Trn	E -	No		N	No				N
403590	Deprec Exp-Transm Plant (CB)	DeprEx-Trn	E -	No		N	No				N
403600	Deprec Exp-Distrib Plant	DeprEx-Dst	E -	No		N	No				N
403690	Deprec Exp-Distrib Plant (CB)	DeprEx-Dst	E -	No		N	No				N
403700 403702	Deprec Exp-Generl Plant Deprec Exp-Generl Plant-Nonreg	DeprEx-Gen DeprEx-Gen	E - E -	No No		N N	No No				N N
403790	Deprec Exp-Generi Plant (CB)	DeprEx-Gen	E -	No		N	No				N
403800	Deprec Exp-Asset Retire Costs	DeprEx-ARO	- E -	No		N	No				N
404000	Amortization-Leased Elec Plant	AmrtLeaPla	E -	No		N	No				N
405000	Amortization-Intangible Plant	AmrtIntang	E -	No		N	No				N
407000	Amortization-Unrecovered Plant	AmortUnrcv	E -	No		N	No				N
407300	Regulatory Debits	Reg Debits	E -	No		N	No				N
408110 408112	Taxes-Property-Regulated Taxes-Property-Nonregulated	Taxes-Prop Taxes-Prop	E - E -	No No		N N	No No				N N
408190	Taxes-Property (CB)	Taxes-Prop	E -	No		N	No				N
408200	Taxes-Federal Unemployment	Taxes-FUTA	- E -	No		N	No				N
408300	Taxes-FICA	Taxes-FICA	E -	No		N	No				N
408400	Taxes-State Unemployment	Taxes-SUTA	E -	No		N	No				N
408700	Taxes-Other	Taxes-Othr	E -	No		N	No				N
408790	Taxes-Other (CB)	Taxes-Othr	E -	No		N	No				N
409100 409110	Income Taxes-Regulated	Incm Taxes Incm Taxes	E - E -	No No		N N	No No				N N
409120	Income Taxes-Nonregulated Income Taxes-Other States	Incm Taxes	E -	No		N	No				N
411100	Accretion Expense	AccretnEx	E -	No		N	No				N
411600	Gains/Disposition of Util PInt	Gain/UtPlt	E -	No		N	No				N
411800	Gains/Disposition of Allownces	Gain/Allow	E -	No		N	No				N
412000	Rev Elec Plnt Leased to Others	RevLeased	R -	No		N	No				N
413100	Oper Exp Plt Leased Excld Fuel	ExpLeased	E -	No		N	No				N
413101 413102	Oper Exp Plt Leased Oth-Fuel Oper Exp Plt Leased Prop Tax	ExLeasFuel OperExpTax	E - E -	No No		N N	No No				N N
413200	Maintenance Exp Plnt Lease Oth	MntcExLeas	E -	No		N	No				N
413300	Depr Exp Plnt Leased Oth	ExpLeased	- E -	No		N	No				N
413400	Amort Exp PInt Leased Oth	AmrtExLeas	E -	No		N	No				N
417101	Exps/Nonutil Oper-Other/ACES	NonUtilExp	E -	No		N	No				N
417102	Exps/Nonutil Oper-Propane	NonUtilExp	E -	No		N	No				N
417103	Exps/Nonutil Oper-Envision	NonUtilExp	E -	No		N	No				N
419000 419002	Int/Div Income-Regulated Interst Income-Inter'l Paper	Int/DivInc Int/DivInc	R - R -	No No		N N	No No				N N
419010	Int/Div Income-Nonregulated	Int/DivInc	R -	No		N	No				N
419090	Int/Div Income (CB)	Int/DivInc	R -	No		N	No				N
419100	Allow/Funds Used During Constr	AFUDC	R -	No		N	No				N
421000	Misc Nonoper Incm-Other-Reg	NonOperInc	R -	No		N	No				N
421001	Misc Nonoper Incm-Intrst-Reg	NonOperInc	R -	No		N	No				N
421011	Misc Nonoper Incm-Intrst-Nonrg	NonOperInc	R -	No		N	No				N
421100 421110	Gain/Disposition of Prop-Reg Gain/Disposition of Prop-Nonrg	Gn/DispPrp Gn/DispPrp	R - R -	No No		N N	No No				N N
421200	Loss/Disposition of Prop-Reg	Ls/DispPrp	R -	No		N	No				N
421210	Loss/Disposition of Prop-Nonrg	Ls/DispPrp	R -	No		N	No				N
424000	Oth Cap Creds & Patr Cap Alloc	CapCredits	R -	No		N	No				N
425000	Miscellaneous Amortization	MiscAmort	E -	No		N	No				N
426100	Donations	Donations	E -	No		N	No				N
426200	Life Insurance	Life Insur	E -	No		N	No				N
426300 426400	Penalties Civic,Political & Related Actv	Penalties Civic/Poli	E - E -	No No		N N	No No				N N
426500	Oth Deductns-Regulated	Oth Deduct	E -	No		N	No				N
426501	Oth Deductns-Regulated Oth Deductns-Discounts Lost	Oth Deduct	E -	No		N	No				N
426502	Oth Deductns-AR Sm Bal Tolernc	Oth Deduct	E -	No		N	No				N
426510	Oth Deductns-Nonregulated	Oth Deduct	E -	No		N	No				N
427000	Interest on Long-Term Debt	Intrst/LTD	E -	No		N	No				N
427090	Intret/LTD-RUS Constr Loan(CB)	Intrst/LTD	E -	No		N	No				N
427091 428001	Intrst/LTD-CFC (CB) Amrt Debt Disc/Exp-Priv.PIBond	Intrst/LTD AmDebtDisc	E - E -	No No		N N	No No				N N
428001	Amrt Debt Disc/Exp-PTIV.PIBOIId Amrt Debt Disc/Exp-PCB-Splk	AmDebtDisc	E -	No		N	No				N
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Time



VALID GENERAL LEDGER ACCOUNTS

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Report ID: FSX0010

SetID: **EKPC** As of Date: 08.Mar.2021

As of Date:	08.Mar.2021									
			Monetary	ary Statistical Account		Open Item Account				
Account	<u>Description</u>	Short Name	Account Type	<u>Y/N</u>	UOM Bal Forward	<u>Y/N</u>	Description	Edit Record	Edit Field	<u>VAT</u>
428003	Amrt Debt Disc/Exp-PCB-Smith	AmDebtDisc	E -	No	N	No				N
428004	Amrt Debt Disc/Exp-Reprice Prm	AmDebtDisc	E -	No	N	No				N
428005	Amrt Debt Disc/Exp-PCB-Cooper	AmDebtDisc	E -	No	N	No				N
428006	Amrt Debt Disc/Exp-Sr Cr Facil	AmDebtDisc	E -	No	N	No				N
428007	Amrt Debt Disc/Exp-CREB	AmDebtDisc	E -	No	N	No				N
428008 428101	Amrt Debt Disc/Exp-Priv.Pl2019 Amort Loss Reaquired Debt- RUS	AmDebtDisc AmLsReaDeb	E - E -	No No	N N	No No				N N
431010	Other Interest Exps-Regulated	OthIntExps	E -	No	N	No				N
431020	Other Interest Exps-Nonreg	OthIntExps	E -	No	N	No				N
431030	Other Interest Exps-Leased	OthIntExps	E -	No	N	No				N
447100	Sales/Resale-RUS Borr-Mbr Coop	Sales-Mbr	R -	No	N	No				N
447103	Sales/Resale-RUS Borr-Mbr-GPwr	Sales-GPwr	R -	No	N	No				N
447142	Sales/Resale-MbrCoop-Accrd FAC	AccSalesFC	R -	No	N	No				N
447143	Sales/Resale-MbrCoop-Accrd ES	AccSalesES	R -	No	N	No				N
447150 447250	Sales/Resale-RUS Borr-Off Sys Sales/Resale-Non RUS-Off Sys	OffSysSale OffSysSale	R - R -	No No	N N	No No				N N
447251	Misc Capacity Sales	CapacSales	R -	No	N	No				N
449100	Revenue Subject to Refund	RevSubjRfd	R -	No	N	No				N
451001	Misc Service Revenues-Reg	MiscSvcRev	R -	No	N	No				N
451011	Misc Service Revenues-NonReg	MiscSvcRev	R -	No	N	No				N
454001	Rent from Elec Property-Reg	Rent/EIPrp	R -	No	N	No				N
454011	Rent from Elec Property-NonReg	Rent/EIPrp	R -	No	N	No				N
456000	Oth Elec Rev-Miscellaneous	OthElecRev	R -	No	N	No				N
456003	Oth Elec Rev-Sales Tax Compens	OthElecRev	R -	No	N	No				N
456010	Oth Flee Rev-Steam Sales-InInd	OthElecRev	R -	No	N	No				N
456042 456043	Oth Elec Rev-Steam-Accrd FAC Oth Elec Rev-Steam-Accrd ES	AccSalesFC AccSalesES	R - R -	No No	N N	No No				N N
456050	Facility Chgs-Other	OthElecRev	R -	No	N	No				N
456051	Facility Chgs-Bedford Sub	OthElecRev	R -	No	N	No				N
456052	Facility Chgs-TVA Monticello	OthElecRev	R -	No	N	No				N
456053	Facility Chgs-TVA Zula Sub	OthElecRev	R -	No	N	No				N
456054	Facility Chgs-Cagles	OthElecRev	R -	No	N	No				N
456055	Facility Chgs-Gallatin	OthElecRev	R -	No	N	No				N
456056	Facility Chgs-Hamilton Repackg	OthElecRev	R -	No	N	No				N
456057 456058	Facility Chgs-Big Sandy-Inez Facility Chgs-FlemMas-Cranston	OthElecRev OthElecRev	R - R -	No No	N N	No No				N N
456080	Oth Elec Rev-Solar Pnl License	DefPnlLic	R -	No	N	No				N
456101	TS Revenue-Wheeling	TranSvcRev	R -	No	N	No				N
456102	TS Revenue-Wheeling-Gallatin	TranSvcRev	R -	No	N	No				N
456130	TS Revenue-Non Firm Pt to Pt	TranSvcRev	R -	No	N	No				N
456131	TS Revenue-Anc Svc-Sched 3.1	TranSvcRev	R -	No	N	No				N
456132	TS Revenue-Anc Svc-Sched 3.2	TranSvcRev	R -	No	N	No				N
456133	TS Revenue-And Svd-School 3.3	TranSvcRev	R -	No	N	No				N
456134 457100	TS Revenue-Anc Svc-Sched 3.4 Regional Transmission Serv Rev	TranSvcRev Reg TS Rev	R - R -	No No	N N	No No				N N
457200	Miscellaneous Revenue	Misc Rev	R -	No	N	No				N
459000	Rev/Sale of Renewbl Engy Credt	Sales/RECs	R -	No	N	No				N
500000	Oper Supv/Engr-Steam Gen	OprSupEngr	E -	No	N	No				N
501010	Fuel-Steam Generation-Coal	Fuel-Coal	E -	No	N	No				N
501020	Fuel-Steam Generation-Oil	Fuel-Oil	E -	No	N	No				N
501060	Fuel-Steam Generation-TDF	Fuel-TDF	E -	No	N	No				N
501080	Fuel Steam Generation-OthFuels	Fuel-Other	E -	No	N	No				N
502000 505000	Steam Expenses-Steam Gen Electric Expenses-Steam Gen	Steam Exps	E - E -	No No	N N	No No				N N
506001	Misc Steam Power Exps	Elec Exps MiscStmExp	E -	No	N	No				N
506002	Misc Steam Power Exps-Environ	MiscStmExp	E -	No	N	No				N
509000	Allowances	Allowances	E -	No	N	No				N
510000	Mntc Supv/Engr-Steam Gen	MntSupEngr	E -	No	N	No				N
511000	Mntc of Structures-Steam Gen	Mnt/Struct	E -	No	N	No				N
512000	Mntc of Boiler Plant-Steam Gen	Mnt/Boiler	E -	No	N	No				N
513000	Mntc of Elec Plant-Steam Gen	Mnt/ElecPl	E -	No	N	No				N
514000	Mntc of Misc Steam Plant	Mnt/StmPlt	E -	No	N	No				N
546000	Oper Supv/Engr-Oth Power Gen	OprSupEngr	E -	No	N	No				N
547020 547030	Fuel-Oth Power Gen-Oil Fuel-Oth Power Gen-Natural Gas	Fuel-Oil Fuel-NtGas	E - E -	No No	N N	No No				N N
547030	Fuel-Oth Power Gen-Methane Gas	Fuel-MeGas	E -	No	N N	No				N N
547041	Fuel-Oth Pwr Gen-MthGs Glasgow	Fuel-Glsgw	E -	No	N	No				N
547050	Fuel-Oth Power Gen-Diesel	Fuel-Diesl	E -	No	N	No				N
548000	Generation Exps-Oth Power Gen	Gen Exps	E -	No	N	No				N
549001	Misc Other Power Gen Expenses	OthPwrGnEx	E -	No	N	No				N

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VALID GENERAL LEDGER ACCOUNTS

SetID: **EKPC** As of Date: 08.Mar.2021

Report ID: FSX0010

	<u>Description</u>	Short Name	Monetary	Statistical Account			Open Item Account			
Account			Account Type	<u>Y/N</u>	<u>UOM</u>	Bal Forward	<u>Y/N</u>	<u>Description</u>	Edit Record	Edit Field
9002	Misc Oth Pwr Gen Exps-Environ	OthPwrGnEx	E -	No		N	No			
0000	Rents-Other Power Generation	Rents-OPwr	E -	No		N	No			
000	Mntc Supv/Engr-Oth Power Gen	MntSupEngr	E -	No		N	No			
2000	Mntc of Structures-Oth Pwr Gen	Mnt/Struct	E -	No		N	No			
000	Mntc of Gen&Elec Equip-Oth Gen	Mnt/ElecEq	E -	No		N	No			
000	Mntc of Misc Oth Pwr Gen Plant	Mnt/OPwrPI	E -	No		N	No			
000	Purchased Power	Pur Pwr Ex	E -	No		N	No			
001	Purchased Power-Solar License	Pur Pwr Ex	E -	No		N	No			
000	System Ctrl & Load Dispatching	SysCtl/LdD	E -	No		N	No			
001	Oth Pwr Supp Ex-LTerm Pwr Supp	OPwrSuppEx	E -	No		N	No			
002	Oth Pwr Supp Ex-Load Forecastg	OPwrSuppEx	E -	No		N	No			
003	Oth Pwr Supp Ex-Broker Fees	OPwrSuppEx	E -	No		N	No			
000	Renewable Energy Cred Expenses	REC Expns	E -	No		N	No			
000	Oper Supv/Engr-Transm Expenses	OprSupEngr	E -	No		N	No			
000	Trans Exp-Load Dispatching	TrEx-LdDsp	E -	No		N	No			
100	Trans Exp-Ld Disptch-Reliablty	TrEx-LdDsp	E -	No		N	No			
200	Trans Exp-Ld Disptch-Monitr/Op	TrEx-LdDsp	E -	No		N	No			
800	Ld Disptch-Trans Svc & Schedlg	TrEx-LdDsp	E -	No		N	No			
400	Sched, Sys Ctrl & Dispatch Svcs	TrEx-LdDsp	E -	No		N	No			
500	Reliablty,Plan & Stds Develpmt	TrEx-LdDsp	E -	No		N	No			
600	Transmission Service Studies	TrEx-LdDsp	E -	No		N	No			
700	Generation Interconnect Stdies	TrEx-LdDsp	E -	No		N	No			
800	Reliablty Plan/Stds Devel Svcs	TrEx-LdDsp	E -	No		N	No			
000	Trans Exp-Station Expenses	TrEx-Statn	E -	No		N	No			
000	Trans Exp-Overhead Line Exps	TrEx-OHLin	E -	No		N	No			
000	Transmission of Elec By Others	TrElByOths	E -	No		N	No			
001	Trans of Elec By Oth-KU Galltn	TrEIByOths	E -	No		N	No			
000	Misc Transmission Expenses	MiscTrnExp	E -	No		N	No			
000	Transmission Expense-Rents	TrEx-Rents	E -	No		N	No			
000	Mntc Supv/Engr-Transm Exps	MntSupEngr	E -	No		N	No			
100	Mntc of Comptr Hdwr-Trans Exps	MntCmpHdwr	E -	No		N	No			
200	Mntc of Comptr Softwr-Trans Ex	MntCmpSfwr	E -	No		N	No			
300	Mntc of Communictn Eq-Trans Ex	MntCommEqp	E -	No		N	No			
400	Mntc of Misc Regionl Trans Plt	MntRegTrPl	E -	No		N	No			
000	Mntc of Station Equip-Trans Ex	MntStatnEq	E -	No		N	No			
000	Mntc of Ovhead Lines-Trans Exp	MntOHLines	E -	No		N	No			
000	Mntc of Misc Transmission Plnt	MntMscTrPl	E -	No		N	No			
700	Mrkt Admin.Monitor/Compliance	MrktMonCom	E -	No		N	No			
000	Distrib Exp-Load Dispatching	DiEx-LdDsp	E -	No		N	No			
000	Distrib Exp-Station Expenses	DiEx-StaEx	E -	No		N	No			
000	Mntc of Station Equip-Dist Exp	MntStatnEq	E -	No		N	No			
000	Uncollectible Accounts	UncollExp	E -	No		N	No			
000	Cust Svc & Info Exps-Supervisn	CS&I-Suprv	E -	No		N	No			
000	Cust Assistance Exps-Regulated	CusAssistE	E -	No		N	No			
000	Info/Instr Advrtg-Sfty,Tech,Co	Inf/InstAd	_	No		N	No			
000	Info/Instr Advrtg-Sity, rech,Co	Inf/InstAd	E -	No		N N	No			
000	•	AdvertisEx	E -	No		N N	No			
	Sales Exps-Advrtg Exp-Regultd									
000	Administrative/Generl Salaries	Adm/GenSal	E -	No No		N N	No No			
000	Gen/Admin Offc Supplies & Exps	OfcSupp/Ex	E -	No No		N N	No No			
001	Outside Services-Regulated	OutsideSvc	E -	No No		N	No			
011	Outside Services-Nonregulated	OutsideSvc	E -	No		N	No			
000	Property Insurance	ProprtyIns	E -	No		N	No			
000	Injuries and Damages	Injur/Dmgs	E -	No		N	No			
000	Employee Pensions and Benefits	Pens/Benft	E -	No		N	No			
000	Regulatory Commisn Exps-KY PSC	RegCommExp	E -	No		N	No			
001	Dupl Chgs-CR-Electric HD WH	DuplicChgs	E -	No		N	No			
030	Dupl Chgs-CR-EK TS-NFirm Pt/Pt	DuplicChgs	E -	No		N	No			
031	Dupl Chgs-CR-EKPC TS-Anc 3_1	DuplicChgs	E -	No		N	No			
32	Dupl Chgs-CR-EKPC TS-Anc 3_2	DuplicChgs	E -	No		N	No			
040	Dupl Chgs-CR-Interni Trns Resv	DuplicChgs	E -	No		N	No			
00	General Advertising Expense	GenAdvrtEx	E -	No		N	No			
200	Misc Gen Exps-Directors Fees	MiscGenExp	E -	No		N	No			
201	Misc Gen Exps-Dues-Regulated	MiscGenExp	E -	No		N	No			
202	Misc Gen Exps-Member PR-Regltd	MiscGenExp	E -	No		N	No			
203	Misc Gen Exps-Tax Ins Alloc	MiscGenExp	E -	No		N	No			
204	Misc Gen Exps-Labor Exp RD-Reg	MiscGenExp	E -	No		N	No			
205	Misc Gen Exps-RD Wastewtr-Reg	MiscGenExp	E -	No		N	No			
000	Maint/General Plant-Winchester	MntGenPInt	E -	No		N	No			
001	PC Allocation Reversal	PCAllocRev		Yes	EA	N	No			
		FD%FuelDA			EA					

10 3/8/2021 11:01:10 AM

VALID GENERAL LEDGER ACCOUNTS



Report ID: FSX0010

SetID: **EKPC** As of Date: 08.Mar.2021

			Monetary	Statistical Account		Open Item Account					
Account	<u>Description</u>	Short Name	Account Type	<u>Y/N</u>	<u>UOM</u>	Bal Forward	<u>Y/N</u>	<u>Description</u>	Edit Record	Edit Field	<u>VAT</u>
999030	Fuel Dept %-Stm Gen Fuel-CP00	FD%FuelCP		Yes	EA	N	No				N
999031	Fuel Dept %-Stm Gen Fuel-CP01	FD%FuelCP1		Yes	EA	N	No				N
999032	Fuel Dept %-Stm Gen Fuel-CP02	FD%FuelCP1		Yes	EA	N	No				N
999041	Fuel Dept %-Stm Gen Fuel-SP01	FD%FuelSP1		Yes	EA	N	No				N
999042	Fuel Dept %-Stm Gen Fuel-SP02	FD%FuelSP2		Yes	EA	N	No				N
999043	Fuel Dept %-Stm Gen Fuel-SP03	FD%FuelSP3		Yes	EA	N	No				N
999044	Fuel Dept %-Stm Gen Fuel-SP04	FD%FuelSP4		Yes	EA	N	No				N
999050	Fuel Dept %-Oth Gen Fuel-SM50	FD%FuelSM		Yes	EA	N	No				N
999055	Fuel Dept %-Oth Gen Fuel-OC00	FD%FuelOC		Yes	EA	N	No				N
999120	Fuel Dept %-Emissions-DA00	FD%EmisDA		Yes	EA	N	No				N
999130	Fuel Dept %-Emissions-CP00	FD%EmisCP		Yes	EA	N	No				N
999141	Fuel Dept %-Emissions-SP01	FD%EmisSP1		Yes	EA	N	No				N
999142	Fuel Dept %-Emissions-SP02	FD%EmisSP2		Yes	EA	N	No				N
999143	Fuel Dept %-Emissions-SP03	FD%EmisSP3		Yes	EA	N	No				N
999144	Fuel Dept %-Emissions-SP04	FD%EmisSP4		Yes	EA EA	N	No				N
999150	Fuel Dept % Emissions-SM50	FD%EmisSM		Yes	EA	N N	No				N N
999155 999220	Fuel Dept %-Emissions-OC00 Envir Dept Alloc %-Dale	FD%EmisOC Env%-DA		Yes Yes	EA	N N	No No				N N
999220	Envir Dept Alloc %-Cooper	Env%-CP		Yes	EA	N N	No				N N
999241	Envir Dept Alloc %-Cooper Envir Dept Alloc %-Splk 1	Env%-SP1		Yes	EA	N	No				N
999242	Envir Dept Alloc %-Splk 2	Env%-SP2		Yes	EA	N	No				N
999243	Envir Dept Alloc %-Splk 3	Env%-SP3		Yes	EA	N	No				N
999244	Envir Dept Alloc %-Splk 4	Env%-SP4		Yes	EA	N	No				N
999250	Envir Dept Alloc %-Smith CTs	Env%-SM CT		Yes	EA	N	No				N
999255	Envir Dept Alloc %-BlgrsOC CTs	Env%-OC CT		Yes	EA	N	No				N
999260	Envir Dept Alloc %-LF Gas	Env%-LFGas		Yes	EA	N	No				N
999261	Envir Dept Alloc %-LF GrnVal	Env%-LF01		Yes	EA	N	No				N
999262	Envir Dept Alloc %-LF LauRdg	Env%-LF02		Yes	EA	N	No				N
999263	Envir Dept Alloc %-LF Bvrian	Env%-LF03		Yes	EA	N	No				N
999264	Envir Dept Alloc %-LF HrdnCo	Env%-LF04		Yes	EA	N	No				N
999265	Envir Dept Alloc %-LF PendCo	Env%-LF05		Yes	EA	N	No				N
999267	Envir Dept Alloc %-LF Glasgow	Env%-LF07		Yes	EA	N	No				N
999341	Tons of Coal Purchsd %-Splk 1	CoalPurSP1		Yes	EA	N	No				N
999342	Tons of Coal Purchsd %-Splk 2	CoalPurSP2		Yes	EA	N	No				N
999343	Tons of Coal Purchsd %-Splk 3	CoalPurSP3		Yes	EA	N	No				N
999344	Tons of Coal Purchsd %-Splk 4	CoalPurSP4		Yes	EA	N	No				N
999361	Landfill Alloc %-LF GrnVal	LF%-LF01		Yes	EA	N	No				N
999362	Landfill Alloc %-LF LauRdg	LF%-LF02		Yes	EA	N	No				N
999363	Landfill Alloc %-LF Bvrian	LF%-LF03		Yes	EA	N	No				N
999364	Landfill Alloc %-LF HrdnCo	LF%-LF04		Yes	EA	N	No				N
999365	Landfill Alloc %-LF PendCo	LF%-LF05		Yes	EA	N	No				N
999367	Landfill Alloc %-LF Glasgow	LF%-LF07	_	Yes	EA	N	No				N
999999	Posting Suspense Account	Suspense	E -	No		N	No				N

End of Report

East Kentucky Power Cooperative, Inc. Case No. 2021-00103 General Adjustment of Rates Filing Requirements / Exhibit List

Exhibit 29

807 KAR 5:001 Sec. 16(4)(k) Sponsoring Witness: Michelle Carpenter

Description of Filing Requirement:

The independent auditor's annual opinion report, with written communication from the independent auditor to the utility, if applicable, which indicates the existence of a material weakness in the utility's internal controls.

Response:

Please see attached.

Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter

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FINANCIAL STATEMENTS AND SUPPLEMENTAL SCHEDULES

East Kentucky Power Cooperative, Inc. Years Ended December 31, 2019 and 2018 With Report of Independent Auditors

Ernst & Young LLP



Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter
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East Kentucky Power Cooperative, Inc.

Financial Statements and Supplemental Schedules

Years Ended December 31, 2019 and 2018

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Ernst & Young LLP Suite 1200 400 West Market Street Louisville, KY 40202 Tel: +1 502 585 1400 ev.com

Report of Independent Auditors

The Board of Directors
East Kentucky Power Cooperative, Inc.

Report on the Financial Statements

We have audited the accompanying financial statements of East Kentucky Power Cooperative, Inc., which comprise the balance sheets as of December 31, 2019 and 2018, and the related statements of revenue and expenses and comprehensive margin, changes in members' equities, and cash flows for the years then ended, and the related notes and schedules to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in conformity with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free of material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter
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Ernst & Young LLP



Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of East Kentucky Power Cooperative, Inc. at December 31, 2019 and 2018, and the results of its operations and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying Schedules of Deferred Debits and Deferred Credits and Schedule of Investments as required by the United States Department of Agriculture Rural Utilities Service (RUS) 7 CFR Part 1773, *Policy on Audits of RUS Borrowers and Grantees*, are presented for purposes of additional analysis and are not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States. In our opinion, the information is fairly stated, in all material respects, in relation to the financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we also have issued our report dated March 31, 2020 on our consideration of East Kentucky Power Cooperatives, Inc.'s internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of East Kentucky Power Cooperative, Inc.'s internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering East Kentucky Power Cooperative, Inc.'s internal control over financial reporting and compliance.

March 31, 2020

Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter
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East Kentucky Power Cooperative, Inc.

Balance Sheets

(Dollars in Thousands)

	Decem	ber 31
	2019	2018
Assets		
Electric plant:		
In-service	\$ 4,181,966	\$ 4,198,019
Construction-in-progress	247,393	93,331
	4,429,359	4,291,350
Less accumulated depreciation	1,558,960	1,554,632
Electric plant – net	2,870,399	2,736,718
Long-term accounts receivable	1,535	3,062
Restricted cash and cash equivalents	_	3,000
Restricted investments	190,409	328,196
Investment securities:		
Available-for-sale	38,311	40,086
Held-to-maturity	8,125	8,211
Current assets:		
Cash and cash equivalents	132,525	126,635
Restricted investment	160,288	178,545
Accounts receivable	85,260	88,158
Fuel	67,432	48,753
Materials and supplies	63,733	64,869
Other current assets	13,464	12,752
Total current assets	522,702	519,712
Regulatory assets	134,897	162,547
Deferred charges	2,628	2,147
Other noncurrent assets	7,375	7,123
Total assets	\$ 3,776,381	\$ 3,810,802
Members' equities and liabilities		
Members' equities:		
Memberships	\$ 2	\$ 2
Patronage and donated capital	694,098	651,708
Accumulated other comprehensive margin	21,272	12,080
Total members' equities	715,372	663,790
Long-term debt	2,711,300	2,826,261
Current liabilities:		
Current portion of long-term debt	93,599	92,499
Accounts payable	116,121	80,816
Accrued expenses	20,177	14,590
Regulatory liabilities	3,774	4,550
Total current liabilities	233,671	192,455
Accrued postretirement benefit cost	55,375	62,888
Asset retirement obligations and other liabilities	60,663	65,408
Total members' equities and liabilities	\$ 3,776,381	\$ 3,810,802

See notes to financial statements.

Statements of Revenue and Expenses and Comprehensive Margin (Dollars in Thousands)

	Y	Year Ended Decer 2019				
Operating revenue	\$	860,123 \$	900,289			
Operating expenses:						
Production:						
Fuel		162,719	209,488			
Other		165,198	164,970			
Purchased power		176,633	171,743			
Transmission and distribution		46,837	43,764			
Regional market operations		4,747	5,244			
Depreciation and amortization		121,656	119,704			
General and administrative		48,912	53,662			
Total operating expenses		726,702	768,575			
Operating margin before fixed charges and other expenses		133,421	131,714			
Fixed charges and other:						
Interest expense on long-term debt		112,362	115,439			
Amortization of debt expense		675	473			
Accretion and other		(918)	(426)			
Total fixed charges and other expenses		112,119	115,486			
Operating margin		21,302	16,228			
Nonoperating margin:						
Interest income		25,454	27,745			
Patronage capital allocations from other cooperatives		635	233			
Other		(3,187)	(3,537)			
Total nonoperating margin		22,902	24,441			
Net margin		44,204	40,669			
Other comprehensive margin:						
Unrealized gain (loss) on available-for-sale securities		106	(19)			
Postretirement benefit obligation gain		9,086	10,695			
		9,192	10,676			
Comprehensive margin	\$	53,396 \$	51,345			

See notes to financial statements.

Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter
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East Kentucky Power Cooperative, Inc.

Statements of Changes in Members' Equities (Dollars in Thousands)

	Mem	berships		atronage Capital		Oonated Capital		occumulated Other Omprehensive Margin		Total lembers' Equities
Balance – December 31, 2017	\$	2	\$	608,004	\$	3,035	\$	1,404	\$	612,445
Net margin	Ψ	_	Ψ	40,669	Ψ	5,055 -	Ψ	1,707	Ψ	40,669
Unrealized loss on available for sale securities		_		-		_		(19)		(19)
Postretirement benefit obligation gain		_		_		_		10,695		10,695
Balance – December 31, 2018		2		648,673		3,035		12,080		663,790
Net margin		_		44,204		_		_		44,204
Retirement of patronage capital		_		(1,814)		_		_		(1,814)
Unrealized gain on available for sale securities		_		_		_		106		106
Postretirement benefit obligation gain		_		_		_		9,086		9,086
Balance – December 31, 2019	\$	2	\$	691,063	\$	3,035	\$	21,272	\$	715,372

See notes to financial statements.

Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter
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East Kentucky Power Cooperative, Inc.

Statements of Cash Flows

(Dollars in Thousands)

	Year Ended December		
	20)19	2018
Operating activities			
Net margin	\$	44,204 \$	40,669
Adjustments to reconcile net margin to net cash provided by			
operating activities:			
Depreciation and amortization		121,656	119,704
Amortization of debt issuance costs		1,272	1,039
Changes in operating assets and liabilities:			
Accounts receivable		2,898	4,063
Fuel		(18,679)	933
Materials and supplies		1,136	(3,339)
Regulatory assets/liabilities		(1,105)	453
Accounts payable		12,507	8,139
Accrued expenses		5,537	(25,550)
Accrued postretirement benefit cost		1,573	1,071
Other		(8,055)	(4,063)
Net cash provided by operating activities		162,944	143,119
Investing activities			
Additions to electric plant		(202,608)	(96,123)
Maturities of debt service reserve securities		4,349	4,288
Purchases of debt service reserve securities		(4,366)	(4,306)
Maturities of available-for-sale securities		39,953	60,555
Purchases of available-for-securities		(38,072)	(64,257)
Maturities of held-to-maturity securities		86	96
Additional deposits with RUS restricted investment		(21,311)	(89,369)
Maturities of RUS restricted investment		177,372	89,859
Other		831	(3,023)
Net cash used in investing activities		(43,766)	(102,280)
Financing activities			
Proceeds from long-term debt		391,883	197,030
Principal payments on long-term debt		(504,945)	(245,047)
Retirement of patronage capital		(1,814)	_
Debt issuance costs		(1,412)	(6,646)
Net cash used in financing activities		(116,288)	(54,663)
Net change in cash, cash equivalents, and restricted cash		2,890	(13,824)
Cash, cash equivalents, and restricted cash – beginning of year		129,635	143,459
Cash, cash equivalents, and restricted cash – end of year	\$	132,525 \$	129,635
Supplemental disclosure of cash flow			
Cash paid for interest	\$	108,319 \$	139,805
Noncash investing transactions:			
Additions to electric plant included in accounts payable	\$	47,157 \$	24,359
Unrealized gain (loss) on available-for-sale securities	\$	106 \$	(19)

See notes to financial statements.

Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter
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East Kentucky Power Cooperative, Inc.

Notes to Financial Statements

Years Ended December 31, 2019 and 2018

1. Summary of Significant Accounting Policies

Nature of Operations

East Kentucky Power Cooperative (the Cooperative or EKPC) is a not-for-profit electric generation and transmission cooperative incorporated in 1941 that provides wholesale electric service to 16 distribution members with territories that include parts of 87 counties in Kentucky. The majority of customers served by members are residential. Each of the members has entered into a wholesale power agreement with the Cooperative, which remains in effect until 2051. The rates charged to members are regulated by the Kentucky Public Service Commission (PSC or Commission).

The Cooperative owns and operates two coal-fired generation plants, twelve combustion turbines, six landfill gas plants, and a solar farm. In addition, the Cooperative has rights to 170 megawatts of hydroelectric power from the Southeastern Power Administration. One simple cycle natural gas unit was designated to serve a capacity purchase and tolling agreement through April 30, 2019. The capacity and energy from one landfill gas plant is designated to serve a member system through a ten-year purchase power agreement. A portion of the solar farm panels are licensed to customers of our members.

Basis of Accounting

The financial statements are prepared in accordance with policies prescribed or permitted by the Commission and the United States Department of Agriculture, Rural Utilities Service (RUS), which conform with accounting principles generally accepted in the United States of America (GAAP) in all material respects. As a rate-regulated entity, the Cooperative's financial statements reflect actions of regulators that result in the recording of revenues and expenses in different time periods than enterprises that are not rate regulated in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 980, Regulated Operations.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter
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East Kentucky Power Cooperative, Inc.

Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

Electric Plant in Service

Electric plant is stated at original cost, which is the cost of the plant when first dedicated to public service by the initial owner, plus the cost of all subsequent additions. The cost of assets constructed by the Cooperative includes material, labor, contractor and overhead costs.

The cost of maintenance and repairs, including renewals of minor items of property, is charged to operating expense. The cost of replacement of depreciable property units, as distinguished from minor items, is charged to electric plant. The cost of units replaced or retired, including cost of removal, net of any salvage value, is charged to accumulated depreciation.

Depreciation and Amortization

Depreciation for the generating plants and transmission facilities is provided on the basis of estimated useful lives at straight-line composite rates. Rates applied to electric plant in service for both 2019 and 2018 are:

Transmission and distribution plant	0.71%-3.42%
General plant	2.0%-20.00%

The production plant assets are depreciated on a straight-line basis from the date of acquisition to the end of life of the respective plant, which ranged from 2030 to 2051 in 2019 and 2018.

Depreciation and amortization expense was \$121.7 million and \$119.7 million for 2019 and 2018, respectively. Depreciation and amortization expense includes amortization expense of \$12.2 million in 2019 and \$12.6 million in 2018 related to plant abandonments granted regulatory asset treatment (Note 5).

The Cooperative received PSC approval to charge depreciation associated with asset retirement obligations to regulatory assets. These regulatory assets are charged to depreciation expense as recovery occurs. Depreciation charged to regulatory assets was \$5.8 million and \$6.3 million in 2019 and 2018, respectively.

Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter
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East Kentucky Power Cooperative, Inc.

Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

Asset Impairment

Long-lived assets held and used by the Cooperative are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Specifically, the evaluation for impairment involves comparison of an asset's carrying value to the estimated undiscounted cash flows the asset is expected to generate over its remaining life. If this evaluation were to conclude that the carrying value of the asset is impaired, an impairment charge would be recorded as a charge to operations based on the difference between the asset's carrying amount and its fair value. No impairment was recognized for long-lived assets during the years ended December 31, 2019 or 2018.

Restricted Investments

Restricted investments represent funds restricted by contractual stipulations or other legal requirements. Funds designated for the repayment of debt within one year are shown as current assets on the balance sheets. All other restricted investments are shown as noncurrent on the balance sheets. Restricted investment activity is classified as investing activities on the statements of cash flows.

The Cooperative participates in the cushion of credit program administered by the RUS. Prior to December 20, 2018, RUS borrowers could make voluntary irrevocable deposits into a special account that earned 5% interest per year. The balance (deposits and earned interest) could only be used to repay scheduled principal and interest payments on loans made or guaranteed by the RUS. On December 20, 2018, President Trump signed the Agriculture Improvement Act of 2018 ("the Farm Bill") which included provisions that modified the cushion of credit program. The Farm Bill prohibited new deposits to the cushion of credit and enabled balance holders to use existing cushion of credit funds to prepay RUS/FFB debt without a prepayment penalty through September 30, 2020. The Cooperative utilized this new provision to pay off higher interest loans totaling \$177.3 million on July 2, 2019. Existing cushion of credit account balances will continue to earn 5% interest until October 1, 2020, at which time the interest rate will be reduced to 4%.

Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter
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East Kentucky Power Cooperative, Inc.

Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

Restricted investments at December 31, 2019 and 2018, consisted of the following (dollars in thousands):

	 2019	2018
Debt service reserve (Note 6) Noncurrent restricted investment – RUS cushion of credit Restricted investments – noncurrent	\$ 1,103 \$ 189,306 190,409	1,087 327,109 328,196
Current restricted investment – RUS cushion of credit Total restricted investments	\$ 160,288 350,697 \$	178,545 506,741

Cash, Cash Equivalents, and Restricted Cash

The Cooperative considers temporary investments having an original maturity of three months or less when purchased to be cash equivalents. Cash equivalents at December 31, 2019 and 2018, consisted primarily of money market mutual funds and investments in commercial paper.

Restricted cash represented funds pledged as collateral with a third party in conjunction with a capacity purchase and tolling agreement that ended on April 30, 2019. The remaining collateral was refunded to the Cooperative in May 2019.

The Cooperative adopted the Accounting Standards Update (ASU) 2016-18, Statement of Cash Flows (Topic 230) – Restricted Cash, in 2019, which required the statement of cash flows to present the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Amounts described as restricted cash and restricted cash equivalents are included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. This amendment also required a reconciliation of cash and cash equivalents and restricted cash and cash equivalents within the balance sheet and the amounts shown in the statement of cash flows.

Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter
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East Kentucky Power Cooperative, Inc.

Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

The following table provides a reconciliation of cash and cash equivalents and restricted cash reported within the balance sheets that sum to the total of the same amounts shown in the statements of cash flows (dollars in thousands):

	2019			2018		
Cash and cash equivalents Restricted cash	\$	132,525	\$	126,635 3,000		
Total	\$	132,525	\$	129,635		

ASU 2016-18 was adopted using a retrospective transition method, which requires each comparative period to reflect the application of the amendment in the statements of cash flows. Accordingly, for the year ended December 31, 2018, net cash used by investing activities increased \$1.5 million; net change in cash, cash equivalents, and restricted cash decreased \$1.5 million; and beginning of year and end of year cash, cash equivalents, and restricted cash increased \$4.5 million and \$3.0 million, respectively.

Investment Securities

Investment securities are classified as held-to-maturity and carried at amortized cost when management has the positive intent and ability to hold them to maturity. Investment securities are classified as available-for-sale when they might be sold before maturity. Available-for-sale securities are carried at fair value, with unrealized holding gains and losses reported in other comprehensive margin on the statements of revenue and expenses and comprehensive margin.

Interest income includes amortization of purchase premium or discount. Gains and losses on sales are based on the amortized cost of the security sold. Investment securities are written down to fair value when a decline in fair value is other-than-temporary.

Application Exhibit 29
Filing Requirement 807 KAR 5:001, Section 16(4)(k)
Witness: Michelle Carpenter
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East Kentucky Power Cooperative, Inc.

Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

Fair Value of Financial Instruments

The carrying amount of cash, receivables and certain other current liabilities approximates fair value due to the short maturity of the instruments.

The Cooperative uses fair value to measure certain financial instruments. The fair value of a financial instrument is the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (the exit price). Observable inputs or unobservable inputs, defined by ASC Topic 820, *Fair Value Measurements and Disclosures*, may be used in the calculation of fair value. ASC Topic 820 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The three levels of the fair value hierarchy are described below:

- Level 1 Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;
- Level 2 Quoted prices in markets that are not considered to be active or financial instruments for which all significant inputs are observable, either directly or indirectly;
- Level 3 Prices or valuations that require inputs that are both significant to the fair value measure and unobservable.

A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The inputs used to measure cash equivalents are Level 1 measurements, as the money market funds are exchange traded funds in an active market. The inputs used to measure the available-for-sale and debt service reserve investments are Level 1 measurements, as the securities are based on quoted market prices for identical investments or securities. Included in the available-for-sale securities on the following table are securities held in connection with the directors' and certain employees' elective deferred compensation programs and the supplemental executive retirement plan covering certain executives. These assets are included in other noncurrent assets on the balance sheets.

Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

Estimated fair values of the Cooperative's financial instruments as of December 31, 2019 and 2018, were as follows (dollars in thousands):

	 Fa	ir	Value at Rep	ortin	g Date Usi	ng	
	air Value cember 31, 2019	_	uoted Prices in Active Markets for Identical Assets (Level 1)	Sig Ob I	gnificant Other servable inputs Level 2)	Signif Unobse Inp (Lev	rvable uts
Cash equivalents Available-for-sale securities Debt service reserve	\$ 111,000 41,758 1,103	\$	111,000 41,758 1,103	\$	- - -	\$	- - -
	 Fa		Value at Rep		g Date Usi	ng	
	air Value cember 31, 2018		uoted Prices in Active Markets for Identical Assets (Level 1)	Sig Ob I	gnificant Other servable inputs Level 2)	Signif Unobse Inp (Lev	rvable uts
Cash equivalents Available-for-sale securities Debt service reserve	\$ 95,000 44,372 1,087	\$	95,000 44,372 1,087	\$	- - -	\$	- - -

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East Kentucky Power Cooperative, Inc.

Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

The estimated fair values of the Cooperative's financial instruments carried at cost at December 31, 2019 and 2018, were as follows (dollars in thousands):

	 2019				2018			
	Carrying Amount		Fair Value		Carrying Amount		Fair Value	
Held-to-maturity								
investments	\$ 8,125	\$	11,954	\$	8,211	\$	10,613	
Long-term debt	2,804,899		3,139,309		2,918,760		3,175,389	

The inputs used to measure held-to-maturity investment securities are considered Level 2 and are based on third-party yield rates of similarly maturing instruments determined by recent market activity. The fair value of long-term debt, including current maturities and prepayment costs, is calculated using published interest rates for debt with similar terms and remaining maturities and is a Level 2 fair value measurement.

Concentration of Credit Risk

Credit risk represents the risk of loss that would occur if suppliers or customers did not meet their contractual obligations to EKPC. Concentration of credit risk occurs when significant suppliers or customers possess similar characteristics that would cause their ability to meet contractual obligations to be affected by the same events.

The Cooperative's sales are primarily to its member cooperatives and totaled approximately \$825.4 million and \$853.2 million for 2019 and 2018, respectively. Accounts receivable at December 31, 2019 and 2018, were primarily from billings to member cooperatives.

At December 31, 2019 and 2018, individual accounts receivable balances that exceeded 10% of total accounts receivable are as follows (dollars in thousands):

	2019		2018
Owen Electric Cooperative	\$	11,791	\$ 12,744
Blue Grass Energy Cooperative		9,145	9,270
South Kentucky RECC		9,050	9,381

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Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

Inventories

Inventories of fuel and materials and supplies are valued at the lower of average cost or net realizable value. Upon removal from inventory for use, the average cost method is used. Physical adjustments of fuel inventories are charged to expense over the subsequent six months and recovered or refunded, as required, through the fuel adjustment clause.

Regulatory Assets and Liabilities

ASC Topic 980 applies to regulated entities for which rates are designed to recover the costs of providing service. In accordance with this topic, certain items that would normally be reflected in the statements of revenue and expenses are deferred on the balance sheets. Regulatory assets represent probable future revenues associated with certain incurred costs, which will be recovered from customers through the rate-making process. Regulatory assets are charged to earnings as collection of the cost in rates is recognized or when future recovery is no longer probable. Conversely, regulatory liabilities represent future reductions in revenues associated with amounts that are to be credited to customers through the rate-making process.

Debt Issuance Costs

Debt issuance costs are presented as a direct deduction from long-term debt with the exception of those issuance costs associated with line-of-credit arrangements which are classified as a deferred charge asset on the balance sheet.

Debt issuance costs are amortized to interest expense over the life of the respective debt using the effective interest rate method or the straight-line method when results approximate the effective interest rate method.

Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

Asset Retirement Obligations

ASC Topic 410, Asset Retirement Obligations, requires legal obligations associated with the retirement of long-lived assets to be recognized at fair value when incurred and capitalized as part of the related long-lived asset, including asset retirement obligations where an obligation exists even though the method or timing of settlement may be conditional. The liability is accreted to its present value each period and the capitalized cost is depreciated over the useful life of the related asset. When the asset is retired, the entity settles the obligation for its recorded amount or incurs a gain or loss.

Fair value of each respective ARO, when incurred, is determined by discounting expected future cash outflows associated with required retirement activities using a credit adjusted risk-free rate. Cash outflows for retirement activities are based upon market information, historical information and management's estimates and would be considered Level 3 under the fair value hierarchy.

The Cooperative's asset retirement obligations (ARO) represent the requirements related to asbestos abatement and reclamation and capping of ash disposal sites at its coal-fired plants. Estimated cash flow revisions in 2019 and 2018 are primarily related to changes in the estimated cost to settle ash disposal sites to comply with the closure and post-closure requirements of the Coal Combustion Residuals (CCR) Rule and the estimated cost to abate asbestos at Cooper Station, respectively. Settlement activities are associated with the abatement of asbestos at Dale Station and capping of ash disposal sites.

The Cooperative continues to evaluate the useful lives of its plants and the costs of remediation required by law.

The following table represents the details of asset retirement obligation activity as reported on the accompanying Balance Sheets (dollars in thousands):

	 2019	2018
Balance – beginning of year Liabilities settled	\$ 60,280 \$ (7,293)	56,309 24
Estimated cash flow revisions Accretion	1,722 1,610	2,413 1,534
Balance – end of year	\$ 56,319 \$	60,280

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Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

As discussed in Note 5, the PSC granted regulatory asset treatment of accretion and depreciation associated with AROs on EKPC's books by type and location beginning in January 2014. These regulatory assets will be charged to accretion expense and depreciation expense as recovery of settlement costs occurs.

Accretion charged to regulatory assets in 2019 and 2018 was \$1.6 million and \$1.5 million, respectively. Accretion expense recognized in 2019 was \$0.4 million which represented the recovery of settlement costs associated with the Dale Station reclamation project and capping activities at Cooper Station and Spurlock Station. Accretion expense recognized in 2018 was \$(.02) million which represented the net impact of a PSC-ordered credit for accretion expense recognized in 2017 on an ARO before regulatory asset treatment was granted by the PSC and recovery of settlement costs associated with the Dale Station ash transfer and reclamation projects.

Revenue Recognition

The Cooperative adopted Accounting Standards Update 2014-09, Revenue from Contracts with Customers (Topic 606), or ASU 2014-09 as of January 1, 2019. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 was adopted using the modified retrospective approach. There was no material impact on revenue recognition as a result of adopting this ASU and accordingly, no cumulative effective adjustment was recognized. ASU 2014-09 also requires expanded disclosures to enable users of the financial statements to understand the nature, amount, timing, and uncertainty of revenues and cash flows arising from contracts with customers. Related disclosures are outlined below.

Operating revenues are primarily derived from sales of electricity to members. These sales, which comprise approximately 96 percent of EKPC's operating revenues, are pursuant to identical long-term wholesale power contracts maintained with RUS and each of the Cooperative's 16 members that extend through December 31, 2050. The wholesale power contract obligates each member to pay EKPC for demand and energy furnished in accordance with rates established by the PSC. Energy and demand have the same pattern of transfer to members as one cannot be provided without the other. Therefore, these components of electric power sales to members are considered one performance obligation. Electricity revenues are recognized over time as energy is delivered based upon month-end meter readings and rates set forth in EKPC's tariffs, as approved by the PSC.

Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

Non-member revenues are primarily comprised of PJM Interconnection, LLC (PJM) electric and capacity revenues, and other revenues. In the PJM market, electricity sales are separately identifiable from participation in the capacity market as the two can be transacted independently of one another. Therefore PJM electric sales are considered a separate contract with a single performance obligation and revenue is recognized based upon the megawatt-hours delivered in each hour at the market price. Capacity revenues represent compensation received from PJM for making generation capacity available to satisfy system integrity and reliability requirements. Capacity is a stand-ready obligation to deliver energy when called upon and is considered a single performance obligation. Revenue is recognized over time based upon megawatts and the prices set by the PJM competitive auction for the delivery year.

Other revenues primarily consist of transmission, wheeling, and leasing activities. Transmission and wheeling are related to contractual agreements with PJM and other electric utilities for transmitting electricity over EKPC's transmission lines. Each of these services are provided over time with progress measured using the output method. Lease revenue is related to power sales arrangements that are required to be accounted for as leases since the arrangement conveys the right to the output of specific plant facilities for a stated period of time. See Note 10.

The following represents operating revenues by revenue stream for the years ended December 31, 2019 and 2018 (dollars in thousands):

Year Ended December 31				
2019 2018				
\$ 825,410 \$ 853,175				
· · · · · · · · · · · · · · · · · · ·				
19,580 28,550				
6,330 3,508				
8,803 15,056				
\$ 860,123 \$ 900,289				
19,580 28,5 6,330 3,5 8,803 15,0				

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Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

Rate Matters

The base rates charged by the Cooperative to its members are regulated by the PSC. Any change in base rates requires that EKPC file an application with the PSC and interested parties may seek intervention in the proceeding if they satisfy certain regulatory requirements. EKPC's last base rate case was authorized by the PSC on January 14, 2011.

The PSC has adopted a uniform fuel adjustment clause for all electric utilities within its jurisdiction. Under this clause, fuel cost above or below a stated amount per kWh is charged or credited to the member cooperatives for all energy sales during the month following actual fuel costs being incurred and is included in member electric sales. The regulatory asset or liability represents the amount that has been under- or over-recovered due to timing or adjustments to the mechanism.

The PSC has an environmental cost recovery mechanism that allows utilities to recover certain costs incurred in complying with the Federal Clean Air Act as amended and those federal, state, and local environmental requirements which apply to coal combustion wastes and byproducts from facilities utilized for the production of energy from coal. This environmental surcharge is billed on a percentage of revenue basis, one month following the actual costs incurred and is included in member electric sales. The regulatory asset or liability represents the amount that has been under-or over-recovered due to timing or adjustments to the mechanism.

Members' Equities

Memberships represent contributions to the Cooperative made by members. Should the Cooperative cease business, these amounts, if available, will be returned to the members.

Patronage capital represents net margin allocated to the Cooperative's members on a contribution-to-gross margin basis pursuant to the provisions of its bylaws. The Cooperative's bylaws permit the Board of Directors to retire capital contributed by or allocated to members when, after any proposed retirement, the total capital of the Cooperative equals or exceeds 20% of total assets, as defined by RUS. In addition, provisions of certain financing documents prohibit the retirement of capital until stipulated requirements related to aggregate margins and equities are met.

On April 9, 2019, the Cooperative's Board of Directors authorized the retirement of patronage capital in the amount of \$1.8 million, which represented margins assigned to members from the inception of the Cooperative through 1967.

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Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

Comprehensive Margin

Comprehensive margin includes both net margin and other comprehensive margin. Other comprehensive margin represents the change in unrealized gains and losses on available-for-sale securities, as well as the change in the funded status of the accumulated postretirement benefit obligation. The Cooperative presents each item of other comprehensive margin on a net basis in the Statements of Revenue and Expenses and Comprehensive Margin. Reclassification adjustments are disclosed in Note 8. For any item required under U.S. GAAP to be reclassified to net income in its entirety in the same reporting period, the affected line item(s) on the Statements of Revenue and Expenses and Comprehensive Margin are provided.

Income Taxes

The Cooperative is exempt under Section 501(c)(12) of the Internal Revenue Code from federal income tax for any year in which at least 85% of its gross income is derived from members but is responsible for income taxes on certain unrelated business income. ASC Topic 740, *Income Taxes*, clarifies the accounting for uncertainty in income taxes recognized in the financial statements. This interpretation requires financial statement recognition of the impact of a tax position if a position is more likely than not of being sustained on audit, based on the technical merits of the position. Additionally, ASC Topic 740 provides guidance on measurement, recognition, classification, accounting in interim periods, and disclosure requirements for uncertain tax positions. The Cooperative has determined that more than 85% of its gross income is derived from members and it meets the exemption status under the Section 501(c)(12).

Regional Transmission Organization

The Cooperative is a transmission-owning member of PJM and functional control of certain transmission facilities is maintained by PJM. Open access to the EKPC transmission system is managed by PJM pursuant to the FERC approved PJM Open Access Transmission Tariff and the Cooperative is an active participant in PJM's Regional Transmission Planning process, which develops a single approved transmission plan for the entire PJM footprint. Energy related purchases and sales transactions within PJM are recorded on an hourly basis with all transactions within each market netted to a single purchase or sale for each hour.

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Notes to Financial Statements (continued)

1. Summary of Significant Accounting Policies (continued)

Power Sales Arrangements

The Cooperative is the lessor under power sales arrangements that are required to be accounted for as operating leases due to the terms of the agreements. The details of those agreements are discussed in Note 10. The revenues from these arrangements are included in operating revenues on the Statements of Revenue and Expenses and Comprehensive Margin.

New Accounting Guidance

In February 2016, the FASB issued Accounting Standards Update 2016-02, *Leases (Topic 842)*, or ASU 2016-02. The core principle of this revised accounting guidance requires that lessees recognize all leases (other than leases with a term of twelve months or less) on the balance sheet as lease liabilities, based upon the present value of the lease payments, with corresponding right of use assets. ASU 2016-02 also makes targeted changes to other aspects of the current guidance, including the lease classification criteria and the lessor accounting model. The amendments in ASU 2016-02 will be effective for the Cooperative beginning in 2021. The Company is currently assessing the impact of adopting this guidance.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326)*, a new standard to replace the incurred loss impairment methodology under current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The standard is effective for the Company on January 1, 2023, and early adoption is permitted. The Company is currently evaluating the impact the new standard will have on its financial statements.

Reclassifications

Certain reclassifications have been made to the prior year financial statements to conform to the current presentation. The changes in classification were due to the adoption of ASU 2016-18 (see Cash, Cash Equivalents, and Restricted Cash above), and the adoption of ASU 2017-07 (see Note 7).

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Notes to Financial Statements (continued)

2. Electric Plant in Service

Electric plant in service at December 31, 2019 and 2018, consisted of the following (dollars in thousands):

	2019			2018
Production plant	\$	3,082,196	\$	3,133,868
Transmission plant		847,023		832,891
General plant		137,387		132,548
Completed construction, not classified, and other		115,360		98,712
Electric plant in service	\$	4,181,966	\$	4,198,019

Acquisition adjustments of \$4 million were included in electric plant in service at December 31, 2019 and 2018. Acquisition adjustments represent the difference between the net book value of the original owner and the fair value of the assets at the date of acquisition.

3. Long-Term Accounts Receivable

Long-term accounts receivable includes interest-bearing notes to certain member systems for the buyout of EKPC's joint ownership of their propane companies. The member systems make monthly principal and interest (prime rate minus one-half of one percent, adjusted annually) payments. The notes are payable in full in 2025. Additionally, in 2018, EKPC entered into an agreement with an industrial customer that utilizes steam from Spurlock Station in its manufacturing processes to make certain repairs to the steam system. The amount is being reimbursed to the Cooperative over 41 months at an interest rate of 4.5%.

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Notes to Financial Statements (continued)

4. Investment Securities

Cost and estimated fair value of available-for-sale investment securities at December 31, 2019 and 2018, were as follows (dollars in thousands):

		Cost	Uı	Gross realized Gains	Un	Gross realized Losses	Fair Value
2019	·						
U.S. Treasury Bill/Note	\$	20,551	\$	29	\$	- \$	20,580
Zero coupon bond		17,695		36		_	17,731
	\$	38,246	\$	65	\$	- \$	38,311
				Gross realized	Un	Gross realized	Fair
		Cost		Gains	I	Losses	Value
2018				Gains			Value
2018 U.S. Treasury Bill/Note	\$	22,437	\$	Gains –	\$	(34) \$	22,403
	\$		\$	Gains			

Proceeds from maturities of securities were \$40.0 million and \$60.6 million in 2019 and 2018, respectively.

Notes to Financial Statements (continued)

4. Investment Securities (continued)

Amortized cost and estimated fair value of held-to-maturity investment securities at December 31, 2019 and 2018, are as follows (dollars in thousands):

	A	mortized Cost	U	Gross nrealized Gains	U	Gross Inrealized Losses	Fair Value
2019							
National Rural Utilities Cooperative Finance Corporation:							
3%–5% capital term certificates 6.5875% subordinated	\$	7,656	\$	3,806	\$	- \$	11,462
term certificate		165		32		_	197
0% subordinated term certificate		304		_		(9)	295
	\$	8,125	\$	3,838	\$	(9) \$	11,954
	A	mortized Cost	U	Gross nrealized Gains	U	Gross Inrealized Losses	Fair Value
2018 National Rural Utilities Cooperative Finance Corporation:			U	nrealized	U	Inrealized Losses	_ **
National Rural Utilities Cooperative	A			nrealized		nrealized	_ **
National Rural Utilities Cooperative Finance Corporation: 3%–5% capital term certificates		Cost		nrealized Gains		Inrealized Losses	Value
National Rural Utilities Cooperative Finance Corporation: 3%–5% capital term certificates 6.5875% subordinated		7,656		nrealized Gains		Inrealized Losses	Value 10,043

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Notes to Financial Statements (continued)

4. Investment Securities (continued)

The amortized cost and fair value of securities at December 31, 2019, by contractual maturity, are shown below (dollars in thousands). Expected maturities may differ from contractual maturities because certain borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	Amortized			Fair		
	Cost			Value		
Available-for-sale:				_		
Due in one year or less	\$	38,246	\$	38,311		
	\$	38,246	\$	38,311		
Held-to-maturity:						
Due in one year or less	\$	658	\$	665		
Due after one year through five years		469		492		
Due after ten years		6,998		10,797		
	\$	8,125	\$	11,954		

5. Regulatory Assets and Liabilities

The PSC authorized the establishment of a regulatory asset at December 31, 2010, for the costs incurred on the cancelled construction of the Smith Unit 1 coal-fired plant. Effective January 1, 2017, the PSC approved a Stipulation and Recommendation Agreement between EKPC and intervenors which enabled EKPC to begin amortizing the regulatory asset balance, net of estimated mitigation and salvage efforts, over a period of ten years. PJM capacity market revenues through delivery year 2019 will be used to offset the expense until EKPC's next base rate case. The amortization associated with the remaining balance of the regulatory asset will be included for recovery in EKPC's next general base rate case. In 2019, EKPC began focused mitigation and salvage efforts by utilizing compatible components from Smith Unit 1 valued at \$20.6 million at Spurlock Station and selling parts for salvage totaling \$2.0 million. The balance of the regulatory asset at December 31, 2019, was \$88.8 million.

Notes to Financial Statements (continued)

5. Regulatory Assets and Liabilities (continued)

The PSC has authorized EKPC to recognize depreciation and accretion expenses related to its asbestos abatement and ash disposal AROs as regulatory assets. The associated regulatory assets are expensed as recovery occurs. In separate proceedings, the PSC authorized recovery of the costs incurred to settle EKPC's ash disposal AROs through the environmental surcharge mechanism. While the Cooperative has not yet requested recovery of the other ARO related regulatory assets, management believes it is probable that the PSC will allow the Cooperative to recover the full amount through rates or other mechanisms.

The PSC authorized the Cooperative to establish two regulatory assets for the abandonment of Dale Station at December 31, 2015, representing its net book value of \$3.2 million. One regulatory asset was established in the amount of \$2.4 million with a forty-two month amortization, which was consistent with the remaining depreciable life of the asset included in current rates. Amortization of this asset ended on June 30, 2019. A separate regulatory asset of \$0.8 million, which represents the balance of capital projects remaining to be recovered in the environmental surcharge at December 31, 2015, will be considered for recovery, along with an associated return, during EKPC's next rate case.

The RUS authorized the Cooperative to establish a \$7.2 million regulatory asset at December 31, 2019, for the costs related to major maintenance and the replacement of minor components of property incurred at Spurlock Station in 2019 and to amortize the balance over eight years. Management believes it is probable that the PSC will authorize recovery of any remaining balance in the Cooperative's next rate case.

Regulatory assets (liabilities) were comprised of the following as of December 31, 2019 and 2018 (dollars in thousands):

	2019		2018	
Plant abandonment – Smith Unit 1 Plant abandonment – Dale Station ARO-related depreciation and accretion expenses Major maintenance projects – Spurlock Station	\$	88,847 750 38,056 7,244	\$	123,506 1,012 38,029
	\$	134,897	\$	162,547
Environmental cost recovery Fuel adjustment clause	\$ \$	(1,033) (2,741) (3,774)	\$	(874) (3,676) (4,550)

Notes to Financial Statements (continued)

6. Long-Term Debt

The Cooperative executed an Indenture of Mortgage, Security Agreement and Financing Statement, dated as of October 11, 2012 (Indenture) between the Cooperative, as Grantor, to U.S. Bank National Association, as Trustee. The Indenture provides first mortgage note holders and tax-exempt bond holders with a pro-rated interest in substantially all owned assets.

Long-term debt outstanding at December 31, 2019 and 2018, consisted of the following (dollars in thousands):

	 2019	2018
First mortgage notes: 1.91%–4.95%, payable quarterly to Federal Financing Bank (FFB) in varying amounts through 2050, weighted		
average 3.84%	\$ 2,171,907 \$	2,387,597
5.13% payable quarterly to RUS in varying amounts through 2024	_	4,184
First Mortgage Bonds, Series 2014A, fixed rate of 4.61%, payable semi-annual, matures February 6, 2044 First Mortgage Bonds, Series 2019, fixed rate of 4.45%,	179,000	184,000
payable semi-annual, matures April 19, 2049 First Mortgage Promissory Note, fixed rate of 4.30%,	150,000	_
payable semi-annual, matures April 30, 2049	100,000	-
Tax-exempt bonds: Solid Waste Disposal Revenue Bonds, Series 1993B,		
variable rate bonds, due August 15, 2023 1.40% and 1.88% at December 31, 2019 and 2018, respectively Clean Renewable Energy Bonds, fixed rate of 0.40%	2,700	3,300
payable quarterly to CFC to December 1, 2023 New Clean Renewable Energy Bonds, fixed rate of 4.5%	1,777	2,221
payable annually to CFC to January 31, 2047, reimbursed by IRS annually of up to 2.94% for a net rate of 1.56%	17,397	17,705
Promissory notes: Variable rate notes payable to CFC, 2.70% at December 31, 2019 5.05%–5.50% fixed rate notes payable to National Cooperative	185,000	320,000
Services Corporation, weighted average 5.22%	 5,575	7,411
Total debt Less debt issuance costs	2,813,356	2,926,418
Total debt adjusted for debt issuance costs	 (8,457) 2,804,899	(7,658) 2,918,760
Less current maturities	(93,599)	(92,499)
Total long-term debt	\$ 2,711,300 \$	2,826,261

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Notes to Financial Statements (continued)

6. Long-Term Debt (continued)

First Mortgage Notes and Bonds

The Cooperative received loan funds in varying amounts through its first mortgage notes payable to the Federal Financing Bank and RUS. All such loans are subject to certain conditions outlined by RUS. Listed below are descriptions of those loan applications for which additional funds were advanced to the Cooperative during the year and the status of any remaining funds approved and available for advance at December 31, 2019. The amounts outstanding under these notes are \$2.2 billion at December 31, 2019.

In May 2015, the Cooperative submitted to RUS a loan application in the amount of \$90.6 million for various transmission projects. The loan documents were subsequently executed in January 2017 with a maturity date of December 31, 2049; \$11.5 million was advanced in 2019. As of December 31, 2019, \$16.3 million of the loan remained available for advance.

In June 2015, the Cooperative submitted to RUS a loan application in the amount of \$238.9 million for various generation projects. The loan was revised to \$221.8 million and approved by RUS in September 2015. The loan documents were subsequently executed in January 2017 with a maturity date of December 31, 2049; \$25.4 million was advanced in 2019. As of December 31, 2019, \$92.2 million of the loan remained available for advance.

On June 8, 2018, the Cooperative accepted a conditional offer from RUS to participate in their Federal Financing Bank (FFB) Pilot Refinancing Program. On December 21, 2018, the Cooperative entered into an agreement with RUS to refinance \$62.4 million of existing higher interest advances, plus a \$6.3 million make whole premium, at favorable current interest rates and extended the maturity date to January 3, 2051.

On December 20, 2018, the Cooperative gave notice to RUS to pay off approximately \$178 million in higher interest loans on or after January 2, 2019, from the Cushion of Credit, pursuant to the provisions of the 2018 Farm Bill. On July 2, 2019, these higher interest loans totaling \$177.3 million were paid off using funds from the Cushion of Credit.

On December 11, 2013, the Cooperative entered into a Bond Purchase Agreement for \$200 million 4.61% First Mortgage Bonds, Series 2014A due February 2044. The transaction closed and funded on February 6, 2014. The debt is secured on equal footing with the Cooperative's other secured debt under the Indenture. The amount outstanding under these notes is \$179.0 million at December 31, 2019.

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Notes to Financial Statements (continued)

6. Long-Term Debt (continued)

On April 18, 2019, the Cooperative entered into a bond purchase agreement for \$150 million at 4.45% First Mortgage Bonds, Series 2019 due to mature on April 19, 2049. The transaction closed and was funded on April 18, 2019. The debt is secured on equal footing with the Cooperative's other secured debt under the Indenture. The amount outstanding under these bonds is \$150 million at December 31, 2019.

On April 19, 2019, the Cooperative signed a promissory note to CFC for \$100 million at a fixed rate of 4.30% with a maturity date of April 30, 2049. The debt is secured and on equal footing with other secured debt. The balance on the loan was \$100 million at December 31, 2019.

Tax-Exempt Bonds

The interest rate on the Series 1993B Solid Waste Disposal Revenue Bonds is subject to change semiannually. The interest rate adjustment period on the variable rate bonds may be converted to a weekly, semiannual, annual or three-year basis, or to a fixed-rate basis, at the option of the Cooperative. A \$5 million CFC guarantee secures payment of the Series 1993B bonds and has an expiration date of August 15, 2023. The 1993B solid waste disposal revenue bonds require that debt service reserve funds be on deposit with a trustee throughout the term of the bonds in the amount of \$1.1 million. In addition, mandatory sinking fund payments are required ranging from \$0.6 million in 2019 to \$0.7 million in 2024. Debt service reserve and construction funds are held by a trustee and are invested primarily in U.S. Government securities and CFC promissory notes. These funds are included in restricted investments on the accompanying Balance Sheets and have a fair value of approximately \$1.1 million at December 31, 2019 and 2018.

In January 2008, EKPC was approved to receive up to \$8.6 million to finance certain qualified renewable energy projects with Clean Renewable Energy Bonds. The loan was fully advanced in July 2009. The amount outstanding at December 31, 2019, is \$1.8 million.

In September 2016, EKPC was authorized by the IRS to issue \$19.8 million in New Clean Renewable Energy Bonds to finance a planned community solar facility. In February 2017, EKPC issued an \$18 million note to CFC. The amount outstanding as of December 31, 2019, is \$17.4 million.

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East Kentucky Power Cooperative, Inc.

Notes to Financial Statements (continued)

6. Long-Term Debt (continued)

Promissory Notes

On July 5, 2019, the Cooperative exercised its option to extend its existing \$600 million unsecured credit facility with CFC as the lead arranger, for an additional year. The facility consists of a \$500 million revolving tranche and a \$100 million term loan tranche. This facility matures on July 4, 2023, and is to be utilized for general corporate purposes including capital construction projects. As of December 31, 2019, the Cooperative had outstanding borrowings of \$185 million (including the \$100 million unsecured term loan). As of December 31, 2019, the availability under the credit facility was \$415 million.

In December 2010, the Cooperative entered into an unsecured loan agreement with the National Cooperative Services Corporation for \$23.8 million to refinance indebtedness to RUS. As of December 31, 2019, the amount outstanding under these notes is \$5.6 million.

Estimated annual maturities of long-term debt adjusted for debt issuance costs for the five years subsequent to December 31, 2019, are as follows (dollars in thousands):

Years ending December 31:		
2020	\$ 93,599	
2021	96,307	
2022	99,917	
2023	102,972	
2024	103,474	
Thereafter	2,308,630	
	\$ 2,804,899	

The Indenture and certain other debt agreements contain provisions which, among other restrictions, require the Cooperative to maintain certain financial ratios. The Cooperative was in compliance with these financial ratios at December 31, 2019 and 2018.

As of December 31, 2019, the Cooperative has \$3.3 million outstanding in a letter of credit with the Commonwealth of Kentucky for Worker's Compensation.

As of December 31, 2019, the Cooperative has pledged securities of \$17.5 million with the Commonwealth of Kentucky and the United States Department of Labor.

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Notes to Financial Statements (continued)

7. Retirement Benefits

Pension Plan

Pension benefits for employees hired prior to January 1, 2007, are provided through participation in the National Rural Electric Cooperative Association (NRECA) Retirement and Security Plan (RS Plan). The plan is a defined benefit pension plan qualified under Section 401 and tax exempt under Section 501(a) of the Internal Revenue Code. It is considered a multiemployer plan under the accounting standards. The plan sponsor's Employer Identification Number is 53-0116145 and the Plan Number is 333.

A unique characteristic of a multiemployer plan compared to a single employer plan is that all plan assets are available to pay benefits of any plan participant. Separate asset accounts are not maintained for participating employers. This means that assets contributed by one employer may be used to provide benefits to employees of other participating employers.

The Cooperative's contributions to the RS Plan in 2019 and 2018 represented less than 5 percent of the total contributions made to the plan by all participating employers. The Cooperative made annual contributions to the plan of \$7.9 million and \$8.3 million in 2019 and 2018, respectively.

For the RS Plan, a "zone status" determination is not required and therefore, not determined, under the Pension Protection Act (PPA) of 2006. In addition, the accumulated benefit obligations and plan assets are not determined or allocated separately by individual employer. In total, the RS Plan was over 80 percent funded on January 1, 2019 and 2018, based on the PPA funding target and PPA actuarial value of assets on those dates. Because the provisions of the PPA do not apply to the RS Plan, funding improvement plans and surcharges are not applicable. Future contribution requirements are determined each year as part of the actuarial valuation of the plan and may change as a result of plan experience.

Retirement Savings Plan

The Cooperative offers a Retirement Savings Plan for all employees who are eligible to participate in the Cooperative's benefit programs. The plan allows participants to make contributions by salary reduction, pursuant to Section 401(k) of the Internal Revenue Code. For employees hired prior to January 1, 2007, the Cooperative makes matching contributions to the account of each participant up to 2.0% of the participant's compensation. For employees hired on or after January 1, 2007, the Cooperative will automatically contribute 6.0% of base wages and match the employee contribution up to 4.0%. The Cooperative contributed approximately \$4.0 million and \$3.8 million to the plan for the years ended December 31, 2019 and 2018, respectively. Employees vest immediately in their contributions and the contributions of the Cooperative.

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Notes to Financial Statements (continued)

7. Retirement Benefits (continued)

Supplemental Executive Retirement Plan

The Cooperative provides a 457(f) Supplemental Executive Retirement Plan to certain executives of the organization. The plan is considered a defined contribution plan whereby annual contributions are made based upon a percentage of base salary. Participants become 100% vested and the account balance paid out upon attaining age 62 or if separation occurs due to involuntary termination without cause, disability, or death. Separation for any other reason before age 62 will result in participants forfeiting their benefits.

Supplemental Death Benefit Plan

The Cooperative provides a Supplemental Death Benefit Plan to all employees eligible to participate in the pension plan. The supplemental death benefit is payable to a deceased employee's beneficiary if the lump sum value of a 100% survivor benefit under the pension plan exceeds the pension plan benefits plus the Cooperative's group life insurance proceeds. Management believes that any liability related to this plan will not have a material effect on the financial statements.

Postretirement Medical Benefits

The Cooperative sponsors a defined benefit plan that provides medical and life insurance coverage to retirees and their dependents. Participating retirees and dependents contribute 50% of the projected cost of coverage. For purposes of the liability estimates, the substantive plan is assumed to be the same as the written plan. The plan is not funded.

The Cooperative adopted the Accounting Standards Update (ASU) 2017-07, Compensation – Retirement Benefits (Topic 715) – Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, in 2019. The adoption of this guidance requires the presentation of non-service cost components of net periodic benefit costs outside of operating income. The ASU also stipulates that only the service cost component of net benefit cost is eligible for capitalization. ASU 2017-07 was adopted using a retrospective transition method, which requires each comparative period to reflect the application of the amendment in the statements of revenues, expenses, and comprehensive margin. Accordingly, \$2.3 million in non-service costs were reclassified from operating expenses to other non-operating expenses in 2018.

The following sets forth the accumulated postretirement benefit obligation, the change in plan assets, and the components of accrued postretirement benefit cost and net periodic benefit cost as of December 31, 2019 and 2018 (dollars in thousands):

Notes to Financial Statements (continued)

7. Retirement Benefits (continued)

		2019	2018
Change in benefit obligation:			
Accumulated postretirement benefit obligation – beginning of year	\$	66,053 \$	75,806
Service cost		1,163	1,503
Interest cost		2,869	2,788
Participants' contributions		1,542	1,462
Plan amendment – prior service credit		(17,509)	(4,692)
Benefits paid		(4,237)	(4,399)
Actuarial loss (gain)		7,672	(6,415)
Accumulated postretirement benefit obligation – end of year	\$	57,553 \$	66,053
Change in plan assets:			
Fair value of plan assets – beginning of year	\$	- \$	_
Employer contributions		2,695	2,937
Participant contributions		1,542	1,462
Benefits paid		(4,237)	(4,399)
Fair value of plan assets – end of year		_	
Funded status – end of year	\$	(57,553) \$	(66,053)
Amounts recognized in balance sheet consists of:			
Current liabilities	\$	2,178 \$	3,165
Noncurrent liabilities		55,375	62,888
Total amount recognized in balance sheet	\$	57,553 \$	66,053
Amounts included in accumulated other comprehensive margin:			
Prior service credit	\$	26,671 \$	9,914
Unrecognized actuarial gain (loss)		(5,464)	2,207
Total amount in accumulated other comprehensive margin	\$	21,207 \$	12,121
Net periodic benefit cost:			
Service cost	\$	1,163 \$	1,503
Interest cost		2,869	2,788
Amortization of net actuarial (gain) loss		(751)	(412)
Net periodic benefit cost	\$	3,281 \$	3,879
Amounts included in other comprehensive margin:			
Prior service credit arising during the year	\$	17,509 \$	4,692
Net (loss) gain arising during the year		(7,672)	6,415
Amortization of net actuarial (gain) loss		(751)	(412)
Net gain recognized in other comprehensive margin	\$	9,086 \$	10,695
Amounts expected to be realized in next fiscal year:			
Amortization of prior service credit	\$	2,020 \$	751
Amortization of net gain		407	_
	\$	2,427 \$	751
	-		

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12,899

East Kentucky Power Cooperative, Inc.

Notes to Financial Statements (continued)

7. Retirement Benefits (continued)

2025-2029

Effective January 1, 2020, the plan changed post-65 participant coverage to an insured Medicare Advantage product, which resulted in a prior service credit of \$17.5 million. This prior service credit will be amortized over 13.79 years, which represents the average future years of service to full eligibility.

The discount rate used to determine the accumulated postretirement benefit obligation was 3.45% and 4.45% for 2019 and 2018, respectively. The decline in the discount rate resulted in a \$7.9 million actuarial loss while changes in mortality and other assumptions resulted in an actuarial gain of \$0.2 million.

The Cooperative expects to contribute approximately \$2.2 million to the plan in 2020. The expected benefit payments from the plan, which reflect anticipated future service, are (dollars in thousands):

Years ending December 31:	
2020	\$ 2,178
2021	2,256
2022	2,306
2023	2,446
2024	2,490

For measurement purposes, a 5.9% annual rate of increase in the per capita cost of covered health care benefits was used for the year ended December 31, 2019. The rate is assumed to decline to 4.5% after 18 years. The health care cost trend rate assumption has a significant effect on the amounts reported. For example, a 1% increase in the health care trend rate would increase the service and interest costs by \$0.7 million and increase the postretirement benefit obligation by \$9.3 million. A 1% decrease in the health care trend rate would decrease total service and interest costs by \$0.6 million and decrease the postretirement benefit obligation by \$7.5 million.

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Notes to Financial Statements (continued)

8. Changes in Accumulated Other Comprehensive Margin by Component

The following table represents the details of accumulated other comprehensive margin activity by component (dollars in thousands):

]	retirement Benefit Oligation	Ga In	nrealized in (Loss) on evestments vailable for Sale	ccumulated Other nprehensive Margin
Balance – December 31, 2017	\$	1,426	\$	(22)	\$ 1,404
Other comprehensive gain (loss) before					
reclassifications		11,107		(19)	11,088
Amounts reclassified from accumulated		(410)			(412)
other comprehensive margin		(412)		_	(412)
Net current period other comprehensive		10,695		(19)	10,676
gain (loss)				(-)	
Balance – December 31, 2018		12,121		(41)	12,080
Other comprehensive gain before					
reclassifications		9,837		106	9,943
Amounts reclassified from accumulated					
other comprehensive margin		(751)		_	(751)
Net current period other comprehensive gain		9,086		106	9,192
Balance – December 31, 2019	\$	21,207	\$	65	\$ 21,272

The postretirement benefit obligation reclassification noted above represents the amortization of actuarial (gain) loss that is included in the computation of net periodic postretirement benefit cost. See Note 7 – Retirement Benefits for additional details.

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Notes to Financial Statements (continued)

9. Commitments and Contingencies

The Cooperative periodically enters into long-term agreements for the purchase of power. Payments made under long-term power contracts in 2019 and 2018 were \$6.5 million and \$6.4 million, respectively. One long-term agreement remained in effect at December 31, 2019, and will continue until either party gives a three year notice of termination. Total minimum payment obligations related to this contract are as follows (dollars in thousands):

Years ending December 31:	
2020	\$ 3,756
2021	3,906
2022	3,998

The Cooperative is committed to purchase coal for its generating plants under long-term contracts that extend through 2022. Coal payments under contracts for 2019 and 2018 were \$96.2 million and \$85.5 million, respectively. Total minimum purchase obligations for the next three years are as follows (dollars in thousands):

Years ending December 31:	
2020	\$ 87,626
2021	42,845
2022	1,925

The minimum cost of the coal purchases, based on the latest contractual prices, is subject to escalation clauses that are generally based on government-published indices and market price.

The Cooperative is also committed to purchase limestone and lime for its coal-fired generating plants under all requirements contracts that extend through 2021. These contracts set forth pricing and quantity maximums for each product but do not require minimum purchases. Given that annual quantities purchased will vary according to the generation produced at each plant, minimum purchase obligations for the next two years cannot be determined.

The supply agreements are not accounted for as derivatives based upon the Normal Purchases Normal Sales exception as permitted by ASC 815, *Derivatives and Hedging*.

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Notes to Financial Statements (continued)

10. Power Sales Arrangements

In December 2015, the Cooperative became the lessor under two power sales arrangements that were required to be accounted for as operating leases due to the specific terms of the agreements. One arrangement, was a capacity purchase and tolling agreement that entitled a third party to 165 MW of firm generation and capacity from Bluegrass Generation Station Unit 3 through April 30, 2019. The third party was responsible for the delivery of natural gas and also for securing electric transmission service in their balancing area. The other arrangement is an agreement to sell the capacity and energy from the Glasgow landfill gas plant to a member system for a period of ten years. The revenue associated with these arrangements for 2019 and 2018 was \$4.0 million and \$10.8 million, respectively, and is included in operating revenue on the Statements of Revenue and Expenses and Comprehensive Margin for the years ended December 31, 2019 and 2018.

The minimum future revenues under the remaining arrangement is as follows (dollars in thousands):

Years ending December 31:	
2020	\$ 460
2021	452
2022	452
2023	452
2024	452

11. Environmental Matters

On August 21, 2018, the United States Court of Appeals for the District of Columbia rendered a decision in a case involving a number of consolidated petitions, namely Utility Solid Waste Activities Group, et al., against the U.S. Environmental Protection Agency (EPA). These petitioners challenged the EPA's 2015 Final Rule governing the disposal of coal combustion residuals (CCR) produced by electric utilities and independent power plants. The 2015 Rule currently in effect establishes minimum national criteria for the safe disposal of solid waste CCR and includes location restrictions, structural integrity requirements, liner design criteria, operations, groundwater monitoring, closure and post-closure requirements. The closure and post-closure requirements contained within this rule resulted in the Cooperative revising its asset retirement obligations in 2016. In 2019, the EPA published additional rules that proposed substantial changes to the CCR federal regulatory scheme. Although, in each of these proposals,

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Notes to Financial Statements (continued)

11. Environmental Matters (continued)

the EPA has suggested significant changes and additions to the CCR Rule provisions for beneficial use, reporting, website posting, and impoundment liners, the proposed rules concerning closure have the potential for the most impact on the Company's CCR compliance strategy. The Closure Part A Rule proposes to move the closure commencement deadline for unlined or clay-lined impoundments from October 2020 to August 2020. The Rule provides for short-term and long-term extensions for facilities that cannot secure capacity for CCR storage by the deadline of August 2020. The Company's Spurlock Station surface impoundment is unlined per the CCR rule. The Closure Part A Rule dictates that EKPC cease placement of CCR material in the impoundment by August 2020 or seek EPA approval under the alternate closure plan by June 2020. The Company plans to seek EPA approval under the alternative closure plan by June 2020.

On February 24, 2017, President Trump issued an Executive Order (EO 13777) that required agencies to review regulations that create undue burden on regulated entities. As part of this process, EPA is reviewing the Effluent Limitations Guidelines (ELG) rule and reconsidering a number of issues. The ELG rule currently in effect governs the quality of the wastewater that can be discharged from power plants. ELG phases in more stringent effluent limits for arsenic, mercury, selenium, and nitrogen discharged from wet scrubber systems and zero discharge of pollutants in ash transport water. Power plants must comply between 2018 and 2023, depending upon when new Clean Water Act permits are required for each respective plant. On November 4, 2019, the EPA published a proposal to revise the ELG Rule for flue-gas desulfurization (FGD) wastewater and bottom ash transporter (BAT) water. The proposed rule puts forward BAT limitations that are more stringent than Best Practicable Control Technology limitations but extends compliance as far out as December 31, 2023 (BA Transport Water) or December 31, 2025 (FGD Wastewater), depending on NPDES renewal dates. Comments were due on January 21, 2020, and a final rule is expected in 2020. The Company's Spurlock Station will be in compliance with ELG prior to the deadlines articulated in the Proposed Rule.

On May 18, 2018, the PSC granted the Cooperative a certificate of public convenience and necessity (CPCN) and also authorized an amendment to its environmental compliance plan to include a project that is necessary for Spurlock Station to comply with the final rules on CCR and ELG. The project, which also includes the closure of the Spurlock ash pond and settlement of the corresponding asset retirement obligation, is estimated at \$262.4 million and will be substantially recovered through the Cooperative's environmental surcharge mechanism. The EPA's review and potential changes to the CCR and ELG rules did not affect EKPC beginning the construction project in January 2019 with an estimated completion date of November 2024.

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Notes to Financial Statements (continued)

11. Environmental Matters (continued)

On September 6, 2019, the EPA's Affordable Clean Energy rule (ACE) became effective. The intent of ACE is to provide existing coal-fired electric utility generating units, (EGUs), with achievable and realistic standards for reducing greenhouse gas (GHG) emissions. This action was finalized in conjunction with three related, but separate and distinct rulemakings: 1) the repeal of the Clean Power Plan (CPP), 2) the replacement of the Clean Power Plan by the ACE that will set new standards of performance based upon the Best Emission System of Reductions (BSER) and 3) revisions to the Clean Air Act Section 111(d) implementation regulations that shift greater discretion to the states for the implementation of ACE. New emission guidelines within ACE will influence the state's development of standards of performance to reduce carbon dioxide (CO2) emissions from existing coal-fired EGUs – consistent with EPA's role as defined under the CAA. EKPC will continue to evaluate the impact of this rule on its existing coal-fired fleet and remain actively engaged with the Kentucky Environmental Cabinet and EPA to understand their interpretation of the standards of performance.

12. Related Party Transactions

The Cooperative is a member of CFC, which provides a portion of the Cooperative's financing, including a \$100 million fixed rate loan executed in 2019. CFC is also a joint lead arranger and an 18.3% participant in the Cooperative's \$600 million unsecured credit facility. Held-to-maturity investments included CFC capital term certificates of \$8.1 million and \$8.2 million at December 31, 2019 and 2018, respectively. CFC Patronage capital assigned to EKPC was \$1.5 million and \$1.3 million at December 31, 2019 and 2018, respectively.

The Cooperative is also a member of CoBank, which is a 15% participant in the Cooperative's \$600 million unsecured credit facility. The balance of CoBank patronage capital assigned to EKPC was \$0.5 million and \$0.4 million at December 31, 2019 and 2018, respectively.

EKPC is a member of ACES LLC (ACES), which provides various energy marketing, settlement and risk management related services to its members and clients. EKPC's Chairman of the Board and EKPC's CEO serve as ACES Board Members. EKPC accounts for its investment in ACES on the cost basis of accounting. At December 31, 2019 and 2018, the balance of EKPC's investment in ACES was approximately \$0.6 million. Payments to ACES were \$2.3 million in 2019 and in 2018.

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13. Subsequent Events

On March 10, 2020, the Cooperative gave notice to RUS that the Cooperative will prepay approximately \$358 million in higher interest rate loans on August 14, 2020 from the Cushion of Credit, pursuant to the provisions of the 2018 Farm Bill which enables RUS borrowers to use funds in the Cushion of Credit to prepay RUS/FFB loans with no prepayment penalty through September 30, 2020.

In March 2020, the outbreak of COVID-19 (coronavirus) caused by a novel strain of the coronavirus was recognized as a pandemic by the World Health Organization. The federal government and the Commonwealth of Kentucky both declared states of emergency. The outbreak has become increasingly widespread in the United States and has begun to have a notable impact on general economic conditions, including early indications of reduced consumer spending due to both job losses and temporary business closures as well as other effects attributable to the coronavirus and various regulatory governmental actions. The Company continues to monitor the coronavirus outbreak and its impacts closely. The extent to which the coronavirus outbreak will impact the Company's operations or financial results is uncertain. However the Company believes it has sufficient equity and liquidity to sustain through and beyond the event.

Management has evaluated subsequent events through March 31, 2020, which is the date these financial statements were available to be issued.

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Supplementary Information

East Kentucky Power Cooperative, Inc.

Schedules of Deferred Debits and Credits

(Dollars in Thousands)

	December 31			RUS	
		2019		2018	Approval
Regulatory asset – plant abandonment – Smith Unit 1	\$	88,847	\$	123,506	*
Regulatory asset– plant abandonment – Dale Station		750		1,012	*
Regulatory asset– major maintenance		7,244		_	*
Regulatory asset – ARO related depreciation and					
accretion		38,056		38,029	Part 1767 Account 182
Total regulatory assets	\$	134,897	\$	162,547	•
Debt issuance costs – unsecured credit facility	\$	1,086	\$	1,142	Part 1767 Account 181
Preliminary survey and investigation charges		579		537	1767.13(d)(1)
Miscellaneous deferred charges		963		468	1767.13(d)(3)
Total deferred charges	\$	2,628	\$	2,147	

^{*} The Cooperative obtained written approval for the deferred debit from the Rural Utilities Service.

	December 31			RUS	
	 2019		2018	Approval	
Regulatory liability – environmental surcharge	\$ 1,033	\$	874	Part 1767 Account 254	
Regulatory liability – fuel adjustment clause	2,741		3,676	Part 1767 Account 254	
Total regulatory liabilities	\$ 3,774	\$	4,550	:	
Deferred solar panel licenses	\$ 422	\$	403	Part 1767 Account 253	
Total deferred charges	\$ 422	\$	403		

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East Kentucky Power Cooperative, Inc.

Schedule of Investments

(Dollars in Thousands)

Entity name	ACES	5	
Principal business	Purchase and sell power		
Ownership percentage	4.76%		
Accounting method	Cost basis		
Activity since original investment: Original investment Advances Repayments Accumulated loss	\$	750 507 (504) (129)	
Book value of investment at December 31, 2019 and 2018	\$	624	

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Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements

Performed in Accordance with *Government Auditing Standards*

Management and the Board of Directors of East Kentucky Power Cooperative, Inc.

We have audited, in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of East Kentucky Power Cooperative, Inc., which comprise the statement of financial position as of December 31, 2019, and the related statements of revenue and expenses and comprehensive margin, changes in members' equities, and cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated March 31, 2020.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered East Kentucky Power Cooperative, Inc.'s internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of East Kentucky Power Cooperative, Inc.'s internal control. Accordingly, we do not express an opinion on the effectiveness of East Kentucky Power Cooperative, Inc.'s internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

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Compliance and Other Matters

As part of obtaining reasonable assurance about whether East Kentucky Power Cooperative, Inc.'s financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the result of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

March 31, 2020





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Report on Compliance with Aspects of Contractual Agreements and Regulatory Requirements for Electric Borrowers

Board of Directors East Kentucky Power Cooperative, Inc. Winchester, Kentucky

Independent Auditors Report

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of East Kentucky Power Cooperative, Inc. (EKPC), which comprise the balance sheet as of December 31, 2019, and the related statement of revenue and expenses and comprehensive margin, change in members' equities, and change in cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated March 31, 2020. In accordance with *Government Auditing Standards*, we have also issued our report dated March 31, 2020, on our consideration of EKPC's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. No other reports other than the reports referred to above, except the debt covenant compliance report dated March 31, 2020, related to our audit have been furnished to management.

In connection with our audit, nothing came to our attention that caused us to believe that EKPC failed to comply with the terms, covenants, provisions, or conditions of their loan, grant, and security instruments as set forth in 7 CFR Part 1773, *Policy on Audits of Rural Utilities Service Borrowers*, §1773.33, insofar as they relate to accounting matters as enumerated below. However, our audit was not directed primarily toward obtaining knowledge of noncompliance. Accordingly, had we performed additional procedures, other matters may have come to our attention regarding EKPC's noncompliance with the above-referenced terms, covenants, provisions, or conditions of the contractual agreements and regulatory requirements, insofar as they relate to accounting matters. In connection with our audit, we noted no matters regarding the Company's accounting and records to indicate that the Company did not:

- Maintain adequate and effective accounting procedures;
- Utilize adequate and fair methods for accumulating and recording labor, material, and overhead costs, and the distribution of these costs to construction, retirement, and maintenance or other expense accounts;
- Reconcile continuing property records to controlling general ledger plant accounts;

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- Clear construction accounts and accrue depreciation on completed construction
- Record and properly price the retirement of plant;
- Seek approval of the sale, lease or transfer of capital assets and disposition of proceeds for the sale or lease of plant, material, or scrap;
- Maintain adequate control over materials and supplies;
- Prepare accurate and timely Financial and Operating Reports;
- Obtain written Rural Utilities Service (RUS) approval to enter into any contract for the management, operation, or maintenance of the borrower's system if the contract covers all or substantially all of the electric system;
- Disclose material related party transactions in the financial statements, in accordance with requirements for related parties in generally accepted accounting principles;
- Record depreciation in accordance with RUS requirements (See RUS Bulletin 183-1, Depreciation Rates and Procedures);
- Comply with the requirements for the detailed schedule of deferred debits and deferred credits; and
- Comply with the requirements for the detailed schedule of investments.

The purpose of this report is solely to communicate, in connection with the audit of the financial statements, on compliance with aspects of contractual agreements and regulatory requirements for electric borrowers based on the requirements of 7 CFR Part 1773, *Policy on Audits of Rural Utilities Service Borrowers and Grantees*. Accordingly, this report is not suitable for any other purpose.

March 31, 2020

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