

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE ADJUSTMENT
OF ELECTRIC RATES OF DUKE ENERGY KENTUCKY, INC.

CASE NO. 2022-00372

FILING REQUIREMENTS

VOLUME 15

Duke Energy Kentucky, Inc.
Case No. 2022-00372
Forecasted Test Period Filing Requirements
Table of Contents

Vol. #	Tab #	Filing Requirement	Description	Sponsoring Witness
1	1	KRS 278.180	30 days' notice of rates to PSC.	Amy B. Spiller
1	2	807 KAR 5:001 Section 7(1)	The original and 10 copies of application plus copy for anyone named as interested party.	Amy B. Spiller
1	3	807 KAR 5:001 Section 12(2)	<p>(a) Amount and kinds of stock authorized.</p> <p>(b) Amount and kinds of stock issued and outstanding.</p> <p>(c) Terms of preference of preferred stock whether cumulative or participating, or on dividends or assets or otherwise.</p> <p>(d) Brief description of each mortgage on property of applicant, giving date of execution, name of mortgagor, name of mortgagee, or trustee, amount of indebtedness authorized to be secured thereby, and the amount of indebtedness actually secured, together with any sinking fund provisions.</p> <p>(e) Amount of bonds authorized, and amount issued, giving the name of the public utility which issued the same, describing each class separately, and giving date of issue, face value, rate of interest, date of maturity and how secured, together with amount of interest paid thereon during the last fiscal year.</p> <p>(f) Each note outstanding, giving date of issue, amount, date of maturity, rate of interest, in whose favor, together with amount of interest paid thereon during the last fiscal year.</p> <p>(g) Other indebtedness, giving same by classes and describing security, if any, with a brief statement of the devolution or assumption of any portion of such indebtedness upon or by person or corporation if the original liability has been transferred, together with amount of interest paid thereon during the last fiscal year.</p> <p>(h) Rate and amount of dividends paid during the five (5) previous fiscal years, and the amount of capital stock on which dividends were paid each year.</p> <p>(i) Detailed income statement and balance sheet.</p>	<p>Christopher R. Bauer</p> <p>Danielle L. Weatherston</p>
1	4	807 KAR 5:001 Section 14(1)	Full name, mailing address, and electronic mail address of applicant and reference to the particular provision of law requiring PSC approval.	Amy B. Spiller
1	5	807 KAR 5:001 Section 14(2)	If a corporation, the applicant shall identify in the application the state in which it is incorporated and the date of its incorporation, attest that it is currently in good standing in the state in which it is incorporated, and, if it is not a Kentucky corporation, state if it is authorized to transact business in Kentucky.	Amy B. Spiller

1	6	807 KAR 5:001 Section 14(3)	If a limited liability company, the applicant shall identify in the application the state in which it is organized and the date on which it was organized, attest that it is in good standing in the state in which it is organized, and, if it is not a Kentucky limited liability company, state if it is authorized to transact business in Kentucky.	Amy B. Spiller
1	7	807 KAR 5:001 Section 14(4)	If the applicant is a limited partnership, a certified copy of its limited partnership agreement and all amendments, if any, shall be annexed to the application, or a written statement attesting that its partnership agreement and all amendments have been filed with the commission in a prior proceeding and referencing the case number of the prior proceeding.	Amy B. Spiller
1	8	807 KAR 5:001 Section 16 (1)(b)(1)	Reason adjustment is required.	Amy B. Spiller Sarah E. Lawler
1	9	807 KAR 5:001 Section 16 (1)(b)(2)	Certified copy of certificate of assumed name required by KRS 365.015 or statement that certificate not necessary.	Amy B. Spiller
1	10	807 KAR 5:001 Section 16 (1)(b)(3)	New or revised tariff sheets, if applicable in a format that complies with 807 KAR 5:011 with an effective date not less than thirty (30) days from the date the application is filed	Bruce L. Sailors
1	11	807 KAR 5:001 Section 16 (1)(b)(4)	Proposed tariff changes shown by present and proposed tariffs in comparative form or by indicating additions in italics or by underscoring and striking over deletions in current tariff.	Bruce L. Sailors
1	12	807 KAR 5:001 Section 16 (1)(b)(5)	A statement that notice has been given in compliance with Section 17 of this administrative regulation with a copy of the notice.	Amy B. Spiller
1	13	807 KAR 5:001 Section 16(2)	If gross annual revenues exceed \$5,000,000, written notice of intent filed at least 30 days, but not more than 60 days prior to application. Notice shall state whether application will be supported by historical or fully forecasted test period.	Amy B. Spiller
1	14	807 KAR 5:001 Section 16(3)	Notice given pursuant to Section 17 of this administrative regulation shall satisfy the requirements of 807 KAR 5:051, Section 2.	Amy B. Spiller
1	15	807 KAR 5:001 Section 16(6)(a)	The financial data for the forecasted period shall be presented in the form of pro forma adjustments to the base period.	Grady "Tripp" S. Carpenter
1	16	807 KAR 5:001 Section 16(6)(b)	Forecasted adjustments shall be limited to the twelve (12) months immediately following the suspension period.	Grady "Tripp" S. Carpenter Lisa D. Steinkuhl Huyen C. Dang
1	17	807 KAR 5:001 Section 16(6)(c)	Capitalization and net investment rate base shall be based on a thirteen (13) month average for the forecasted period.	Lisa D. Steinkuhl
1	18	807 KAR 5:001 Section 16(6)(d)	After an application based on a forecasted test period is filed, there shall be no revisions to the forecast, except for the correction of mathematical errors, unless the revisions reflect statutory or regulatory enactments that could not, with reasonable diligence, have been included in the forecast on the date it was filed. There shall be no revisions filed within thirty (30) days of a scheduled hearing on the rate application.	Grady "Tripp" S. Carpenter

1	19	807 KAR 5:001 Section 16(6)(e)	The commission may require the utility to prepare an alternative forecast based on a reasonable number of changes in the variables, assumptions, and other factors used as the basis for the utility's forecast.	Grady "Tripp" S. Carpenter
1	20	807 KAR 5:001 Section 16(6)(f)	The utility shall provide a reconciliation of the rate base and capital used to determine its revenue requirements.	Lisa D. Steinkuhl
1	21	807 KAR 5:001 Section 16(7)(a)	Prepared testimony of each witness supporting its application including testimony from chief officer in charge of Kentucky operations on the existing programs to achieve improvements in efficiency and productivity, including an explanation of the purpose of the program.	All Witnesses
1	22	807 KAR 5:001 Section 16(7)(b)	Most recent capital construction budget containing at minimum 3 year forecast of construction expenditures.	Grady "Tripp" S. Carpenter Dominic "Nick" J. Melillo William C. Luke
1	23	807 KAR 5:001 Section 16(7)(c)	Complete description, which may be in prefiled testimony form, of all factors used to prepare forecast period. All econometric models, variables, assumptions, escalation factors, contingency provisions, and changes in activity levels shall be quantified, explained, and properly supported.	Grady "Tripp" S. Carpenter
1	24	807 KAR 5:001 Section 16(7)(d)	Annual and monthly budget for the 12 months preceding filing date, base period and forecasted period.	Grady "Tripp" S. Carpenter
1	25	807 KAR 5:001 Section 16(7)(e)	Attestation signed by utility's chief officer in charge of Kentucky operations providing: 1. That forecast is reasonable, reliable, made in good faith and that all basic assumptions used have been identified and justified; and 2. That forecast contains same assumptions and methodologies used in forecast prepared for use by management, or an identification and explanation for any differences; and 3. That productivity and efficiency gains are included in the forecast.	Amy B. Spiller
1	26	807 KAR 5:001 Section 16(7)(f)	For each major construction project constituting 5% or more of annual construction budget within 3 year forecast, following information shall be filed: 1. Date project began or estimated starting date; 2. Estimated completion date; 3. Total estimated cost of construction by year exclusive and inclusive of Allowance for Funds Used During construction ("AFUDC") or Interest During construction Credit; and 4. Most recent available total costs incurred exclusive and inclusive of AFUDC or Interest During Construction Credit.	Grady "Tripp" S. Carpenter Dominic "Nick" J. Melillo William C. Luke
1	27	807 KAR 5:001 Section 16(7)(g)	For all construction projects constituting less than 5% of annual construction budget within 3 year forecast, file aggregate of information requested in paragraph (f) 3 and 4 of this subsection.	Grady "Tripp" S. Carpenter Dominic "Nick" J. Melillo William C. Luke

1	28	807 KAR 5:001 Section 16(7)(h)	Financial forecast for each of 3 forecasted years included in capital construction budget supported by underlying assumptions made in projecting results of operations and including the following information: 1. Operating income statement (exclusive of dividends per share or earnings per share); 2. Balance sheet; 3. Statement of cash flows; 4. Revenue requirements necessary to support the forecasted rate of return; 5. Load forecast including energy and demand (electric); 6. Access line forecast (telephone); 7. Mix of generation (electric); 8. Mix of gas supply (gas); 9. Employee level; 10. Labor cost changes; 11. Capital structure requirements; 12. Rate base; 13. Gallons of water projected to be sold (water); 14. Customer forecast (gas, water); 15. MCF sales forecasts (gas); 16. Toll and access forecast of number of calls and number of minutes (telephone); and 17. A detailed explanation of any other information provided.	Grady "Tripp" S. Carpenter Max W. McClellan John D. Swez
1	29	807 KAR 5:001 Section 16(7)(i)	Most recent FERC or FCC audit reports.	Danielle L. Weatherston
1	30	807 KAR 5:001 Section 16(7)(j)	Prospectuses of most recent stock or bond offerings.	Christopher R. Bauer
1	31	807 KAR 5:001 Section 16(7)(k)	Most recent FERC Form 1 (electric), FERC Form 2 (gas), or PSC Form T (telephone).	Danielle L. Weatherston
2	32	807 KAR 5:001 Section 16(7)(l)	Annual report to shareholders or members and statistical supplements for the most recent 2 years prior to application filing date.	Christopher R. Bauer
3	33	807 KAR 5:001 Section 16(7)(m)	Current chart of accounts if more detailed than Uniform System of Accounts charts.	Danielle L. Weatherston
3	34	807 KAR 5:001 Section 16(7)(n)	Latest 12 months of the monthly managerial reports providing financial results of operations in comparison to forecast.	Danielle L. Weatherston
3	35	807 KAR 5:001 Section 16(7)(o)	Complete monthly budget variance reports, with narrative explanations, for the 12 months prior to base period, each month of base period, and subsequent months, as available.	Grady "Tripp" S. Carpenter Danielle L. Weatherston
3-8	36	807 KAR 5:001 Section 16(7)(p)	SEC's annual report for most recent 2 years, Form 10-Ks and any Form 8-Ks issued during prior 2 years and any Form 10-Qs issued during past 6 quarters.	Danielle L. Weatherston
8	37	807 KAR 5:001 Section 16(7)(q)	Independent auditor's annual opinion report, with any written communication which indicates the existence of a material weakness in internal controls.	Danielle L. Weatherston
8	38	807 KAR 5:001 Section 16(7)(r)	Quarterly reports to the stockholders for the most recent 5 quarters.	Christopher R. Bauer

8	39	807 KAR 5:001 Section 16(7)(s)	Summary of latest depreciation study with schedules itemized by major plant accounts, except that telecommunications utilities adopting PSC's average depreciation rates shall identify current and base period depreciation rates used by major plant accounts. If information has been filed in another PSC case, refer to that case's number and style.	John J. Spanos
8	40	807 KAR 5:001 Section 16(7)(t)	List all commercial or in-house computer software, programs, and models used to develop schedules and work papers associated with application. Include each software, program, or model; its use; identify the supplier of each; briefly describe software, program, or model; specifications for computer hardware and operating system required to run program	Lisa D. Steinkuhl
8	41	807 KAR 5:001 Section 16(7)(u)	If utility had any amounts charged or allocated to it by affiliate or general or home office or paid any monies to affiliate or general or home office during the base period or during previous 3 calendar years, file: 1. Detailed description of method of calculation and amounts allocated or charged to utility by affiliate or general or home office for each allocation or payment; 2. method and amounts allocated during base period and method and estimated amounts to be allocated during forecasted test period; 3. Explain how allocator for both base and forecasted test period was determined; and 4. All facts relied upon, including other regulatory approval, to demonstrate that each amount charged, allocated or paid during base period is reasonable.	Jeffrey R. Setser
9	42	807 KAR 5:001 Section 16(7)(v)	If gas, electric or water utility with annual gross revenues greater than \$5,000,000, cost of service study based on methodology generally accepted in industry and based on current and reliable data from single time period.	James E. Ziolkowski
9	43	807 KAR 5:001 Section 16(7)(w)	Local exchange carriers with fewer than 50,000 access lines need not file cost of service studies, except as specifically directed by PSC. Local exchange carriers with more than 50,000 access lines shall file: 1. Jurisdictional separations study consistent with Part 36 of the FCC's rules and regulations; and 2. Service specific cost studies supporting pricing of services generating annual revenue greater than \$1,000,000 except local exchange access: a. Based on current and reliable data from single time period; and b. Using generally recognized fully allocated, embedded, or incremental cost principles.	N/A
9	44	807 KAR 5:001 Section 16(8)(a)	Jurisdictional financial summary for both base and forecasted periods detailing how utility derived amount of requested revenue increase.	Lisa D. Steinkuhl

9	45	807 KAR 5:001 Section 16(8)(b)	Jurisdictional rate base summary for both base and forecasted periods with supporting schedules which include detailed analyses of each component of the rate base.	Lisa D. Steinkuhl Huyen C. Dang Grady "Tripp" S. Carpenter John R. Panizza James E. Ziolkowski Danielle L. Weatherston
9	46	807 KAR 5:001 Section 16(8)(c)	Jurisdictional operating income summary for both base and forecasted periods with supporting schedules which provide breakdowns by major account group and by individual account.	Lisa D. Steinkuhl
9	47	807 KAR 5:001 Section 16(8)(d)	Summary of jurisdictional adjustments to operating income by major account with supporting schedules for individual adjustments and jurisdictional factors.	Lisa D. Steinkuhl Grady "Tripp" S. Carpenter Huyen C. Dang James E. Ziolkowski
9	48	807 KAR 5:001 Section 16(8)(e)	Jurisdictional federal and state income tax summary for both base and forecasted periods with all supporting schedules of the various components of jurisdictional income taxes.	John R. Panizza
9	49	807 KAR 5:001 Section 16(8)(f)	Summary schedules for both base and forecasted periods (utility may also provide summary segregating items it proposes to recover in rates) of organization membership dues; initiation fees; expenditures for country club; charitable contributions; marketing, sales, and advertising; professional services; civic and political activities; employee parties and outings; employee gifts; and rate cases.	Lisa D. Steinkuhl
9	50	807 KAR 5:001 Section 16(8)(g)	Analyses of payroll costs including schedules for wages and salaries, employee benefits, payroll taxes, straight time and overtime hours, and executive compensation by title.	Lisa D. Steinkuhl Jacob J. Stewart
9	51	807 KAR 5:001 Section 16(8)(h)	Computation of gross revenue conversion factor for forecasted period.	Lisa D. Steinkuhl
9	52	807 KAR 5:001 Section 16(8)(i)	Comparative income statements (exclusive of dividends per share or earnings per share), revenue statistics and sales statistics for 5 calendar years prior to application filing date, base period, forecasted period, and 2 calendar years beyond forecast period.	Danielle L. Weatherston Grady "Tripp" S. Carpenter
9	53	807 KAR 5:001 Section 16(8)(j)	Cost of capital summary for both base and forecasted periods with supporting schedules providing details on each component of the capital structure.	Christopher R. Bauer
9	54	807 KAR 5:001 Section 16(8)(k)	Comparative financial data and earnings measures for the 10 most recent calendar years, base period, and forecast period.	Huyen C. Dang Danielle L. Weatherston Christopher R. Bauer Grady "Tripp" S. Carpenter
9	55	807 KAR 5:001 Section 16(8)(l)	Narrative description and explanation of all proposed tariff changes.	Bruce L. Sailors
9	56	807 KAR 5:001 Section 16(8)(m)	Revenue summary for both base and forecasted periods with supporting schedules which provide detailed billing analyses for all customer classes.	Bruce L. Sailors
9	57	807 KAR 5:001 Section 16(8)(n)	Typical bill comparison under present and proposed rates for all customer classes.	Bruce L. Sailors
9	58	807 KAR 5:001 Section 16(9)	The commission shall notify the applicant of any deficiencies in the application within thirty (30) days of the application's submission. An application shall not be accepted for filing until the utility has cured all noted deficiencies.	Sarah E. Lawler

9	59	807 KAR 5:001 Section 16(10)	Request for waivers from the requirements of this section shall include the specific reasons for the request. The commission shall grant the request upon good cause shown by the utility.	N/A
9	60	807 KAR 5:001 Section (17)(1)	<p>(1) Public postings.</p> <p>(a) A utility shall post at its place of business a copy of the notice no later than the date the application is submitted to the commission.</p> <p>(b) A utility that maintains a Web site shall, within five (5) business days of the date the application is submitted to the commission, post on its Web sites:</p> <ol style="list-style-type: none"> 1. A copy of the public notice; and 2. A hyperlink to the location on the commission's Web site where the case documents are available. <p>(c) The information required in paragraphs (a) and (b) of this subsection shall not be removed until the commission issues a final decision on the application.</p>	Amy B. Spiller
9	61	807 KAR 5:001 Section 17(2)	<p>(2) Customer Notice.</p> <p>(a) If a utility has twenty (20) or fewer customers, the utility shall mail a written notice to each customer no later than the date on which the application is submitted to the commission.</p> <p>(b) If a utility has more than twenty (20) customers, it shall provide notice by:</p> <ol style="list-style-type: none"> 1. Including notice with customer bills mailed no later than the date the application is submitted to the commission; 2. Mailing a written notice to each customer no later than the date the application is submitted to the commission; 3. Publishing notice once a week for three (3) consecutive weeks in a prominent manner in a newspaper of general circulation in the utility's service area, the first publication to be made no later than the date the application is submitted to the commission; or 4. Publishing notice in a trade publication or newsletter delivered to all customers no later than the date the application is submitted to the commission. <p>(c) A utility that provides service in more than one (1) county may use a combination of the notice methods listed in paragraph (b) of this subsection.</p>	Amy B. Spiller

9	62	807 KAR 5:001 Section 17(3)	<p>(3) Proof of Notice. A utility shall file with the commission no later than forty-five (45) days from the date the application was initially submitted to the commission:</p> <p>(a) If notice is mailed to its customers, an affidavit from an authorized representative of the utility verifying the contents of the notice, that notice was mailed to all customers, and the date of the mailing;</p> <p>(b) If notice is published in a newspaper of general circulation in the utility's service area, an affidavit from the publisher verifying the contents of the notice, that the notice was published, and the dates of the notice's publication; or</p> <p>(c) If notice is published in a trade publication or newsletter delivered to all customers, an affidavit from an authorized representative of the utility verifying the contents of the notice, the mailing of the trade publication or newsletter, that notice was included in the publication or newsletter, and the date of mailing.</p>	Amy B. Spiller
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9	63	807 KAR 5:001 Section 17(4)	<p>(4) Notice Content. Each notice issued in accordance with this section shall contain:</p> <p>(a) The proposed effective date and the date the proposed rates are expected to be filed with the commission;</p> <p>(b) The present rates and proposed rates for each customer classification to which the proposed rates will apply;</p> <p>(c) The amount of the change requested in both dollar amounts and percentage change for each customer classification to which the proposed rates will apply;</p> <p>(d) The amount of the average usage and the effect upon the average bill for each customer classification to which the proposed rates will apply, except for local exchange companies, which shall include the effect upon the average bill for each customer classification for the proposed rate change in basic local service;</p> <p>(e) A statement that a person may examine this application at the offices of (utility name) located at (utility address);</p> <p>(f) A statement that a person may examine this application at the commission's offices located at 211 Sower Boulevard, Frankfort, Kentucky, Monday through Friday, 8:00 a.m. to 4:30 p.m., or through the commission's Web site at http://psc.ky.gov;</p> <p>(g) A statement that comments regarding the application may be submitted to the Public Service Commission through its Web site or by mail to Public Service Commission, Post Office Box 615, Frankfort, Kentucky 40602;</p> <p>(h) A statement that the rates contained in this notice are the rates proposed by (utility name) but that the Public Service Commission may order rates to be charged that differ from the proposed rates contained in this notice;</p> <p>(i) A statement that a person may submit a timely written request for intervention to the Public Service Commission, Post Office Box 615, Frankfort, Kentucky 40602, establishing the grounds for the request including the status and interest of the party; and</p> <p>(j) A statement that if the commission does not receive a written request for intervention within thirty (30) days of initial publication or mailing of the notice, the commission may take final action on the application.</p>	Bruce L. Sailors
9	64	807 KAR 5:001 Section 17(5)	(5) Abbreviated form of notice. Upon written request, the commission may grant a utility permission to use an abbreviated form of published notice of the proposed rates, provided the notice includes a coupon that may be used to obtain all the required information.	N/A

10	-	807 KAR 5:001 Section 16(8)(a) through (k)	Schedule Book (Schedules A-K)	Various
11	-	807 KAR 5:001 Section 16(8)(l) through (n)	Schedule Book (Schedules L-N)	Bruce L. Sailors
12	-	-	Work Papers	Various
13	-	807 KAR 5:001 Section 16(7)(a)	Testimony (Volume 1 of 3)	Various
14	-	807 KAR 5:001 Section 16(7)(a)	Testimony (Volume 2 of 3)	Various
15	-	807 KAR 5:001 Section 16(7)(a)	Testimony (Volume 3 of 3)	Various
16-17	-	KRS 278.2205(6)	Cost Allocation Manual	Legal

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke)
Energy Kentucky, Inc., for: 1) An)
Adjustment of the Electric Rates; 2)) Case No. 2022-00372
Approval of New Tariffs; 3) Approval of)
Accounting Practices to Establish)
Regulatory Assets and Liabilities; and 4))
All Other Required Approvals and Relief.)

DIRECT TESTIMONY

OF

JOHN J. SPANOS

ON BEHALF OF

DUKE ENERGY KENTUCKY

December 1, 2022

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ATTACHMENT:

Attachment JS-1 Depreciation Study

Appendix A

I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

2 A. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp Hill,
3 Pennsylvania, 17011.

4 **Q. 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
8 FLEMING?**

9 A. I have been associated with the firm since June 1986.

10 **Q. WHAT IS YOUR POSITION WITH THE FIRM?**

11 A. I am President.

12 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?**

13 A. I am testifying on behalf of Duke Energy Kentucky, Inc. (Duke Energy Kentucky
14 or the Company).

15 **Q. PLEASE STATE YOUR QUALIFICATIONS.**

16 A. I have over 36 years of depreciation experience which includes giving expert
17 testimony in more than 400 cases before 41 regulatory commissions in the United
18 States and Canada, including this Commission. The cases include depreciation
19 studies in the electric, gas, water, wastewater and pipeline industries. In addition to
20 the cases where I have submitted testimony, I have supervised in over 700 other
21 depreciation or valuation assignments. Please refer to Appendix A for additional
22 information on my qualifications, which includes further information with respect

1 to my work history, case experience, and my leadership in the Society of
2 Depreciation 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
6 direction and supervision for the electric and common utility plant of Duke Energy
7 Kentucky, which was prepared in satisfaction of Filing Requirement (FR) 16(7)(s).
8 The study represents all electric and common plant assets.

II. DISCUSSION

9 **Q. PLEASE DEFINE THE CONCEPT OF DEPRECIATION.**

10 A. Depreciation refers to the loss in service value not restored by current maintenance,
11 incurred in connection with the consumption or prospective retirement of utility
12 plant in the course of service from causes which are known to be in current
13 operation, against which the Company is not protected by insurance. Among the
14 causes to be given consideration are wear and tear, decay, action of the elements,
15 obsolescence, changes in the art, changes in demand and the requirements of public
16 authorities.

17 **Q. PLEASE IDENTIFY ATTACHMENT JS-1.**

18 A. Attachment JS-1 is a report entitled, "2021 Depreciation Study - Calculated Annual
19 Depreciation Accruals Related to Electric and Common Plant as of December 31,
20 2021." This report sets forth the results of my depreciation study for Duke Energy
21 Kentucky.

1 **Q. IS ATTACHMENT JS-1 A TRUE AND ACCURATE COPY OF YOUR**
2 **DEPRECIATION STUDY?**

3 A. Yes.

4 **Q. DOES ATTACHMENT JS-1 ACCURATELY PORTRAY THE RESULTS**
5 **OF YOUR DEPRECIATION STUDY AS OF DECEMBER 31, 2021?**

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 and common plant in service for ratemaking purposes
10 and determine appropriate average service lives and net salvage percents for each
11 plant account.

12 **Q. PLEASE DESCRIBE THE CONTENTS OF YOUR REPORT.**

13 A. The Depreciation Study is presented in nine parts. Part I, Introduction, presents the
14 scope and basis for the Depreciation Study. Part II, Estimation of Survivor Curves,
15 includes descriptions of the methodology of estimating survivor curves. Parts III
16 and IV set forth the analysis for determining service life and net salvage estimates.
17 Part V, Calculation of Annual and Accrued Depreciation, includes the concepts of
18 depreciation and amortization using the remaining life. Part VI, Results of Study,
19 presents a description of the results of my analysis and a summary of the
20 depreciation calculations. Parts VII, VIII and IX include graphs and tables that
21 relate to the service life and net salvage analyses, and the detailed depreciation
22 calculations by account.

1 The Depreciation Study also includes several tables and tabulations of data
2 and calculations. Table 1 on pages VI-4 through VI-6 of the Depreciation Study
3 presents the estimated survivor curve, the net salvage percent, the original cost as
4 of December 31, 2021, the book depreciation reserve, and the calculated annual
5 depreciation accrual and rate for each account or subaccount. The section beginning
6 on page VII-2 presents the results of the retirement rate analyses prepared as the
7 historical bases for the service life estimates. The section beginning on page VIII-
8 2 presents the results of the net salvage analysis. The section beginning on page IX-
9 2 presents the depreciation calculations related to surviving original cost as of
10 December 31, 2021.

11 **Q. PLEASE EXPLAIN HOW YOU PERFORMED YOUR DEPRECIATION**
12 **STUDY.**

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

18 For Common Plant Accounts 1910, 1911, 1940, 1970, and 1980 and for
19 General Plant Accounts 3910, 3911, 3940 and 3970, I used the straight line
20 remaining life method of amortization. The annual amortization is based on
21 amortization accounting that distributes the unrecovered cost of fixed capital assets
22 over the remaining amortization period selected for each account and vintage.

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

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

8 **Q. PLEASE DESCRIBE THE FIRST PHASE OF THE DEPRECIATION**
9 **STUDY, IN WHICH YOU ESTIMATED THE SERVICE LIFE AND NET**
10 **SALVAGE CHARACTERISTICS FOR EACH DEPRECIABLE GROUP.**

11 A. The service life and net salvage study consisted of compiling historic data from
12 records related to Duke Energy Kentucky's plant; analyzing these data to obtain
13 historic trends of survivor and net salvage characteristics; obtaining supplementary
14 information from Duke Energy Kentucky's management, and operating personnel
15 concerning practices and plans as they relate to plant operations; and interpreting
16 the above data and the estimates used by other electric utilities to form judgments
17 of average service life and net salvage characteristics.

18 **Q. WHAT HISTORIC DATA DID YOU ANALYZE FOR THE PURPOSE OF**
19 **ESTIMATING SERVICE LIFE CHARACTERISTICS?**

20 A. I analyzed the Company's accounting entries that record plant transactions during
21 the period 1956 through 2021. The transactions included additions, retirements,
22 transfers, and the related balances. The Company records also included surviving
23 dollar value by year installed for each plant account as of December 31, 2021.

1 **Q. WHAT METHOD DID YOU USE TO ANALYZE THIS SERVICE LIFE**
2 **DATA?**

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

7 **Q. PLEASE DESCRIBE HOW YOU USED THE RETIREMENT RATE**
8 **METHOD TO ANALYZE DUKE ENERGY KENTUCKY'S SERVICE LIFE**
9 **DATA.**

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

19 **Q. WHAT IS AN "IOWA-TYPE SURVIVOR CURVE" AND HOW DID YOU**
20 **USE SUCH CURVES TO ESTIMATE THE SERVICE LIFE**
21 **CHARACTERISTICS FOR EACH PROPERTY GROUP?**

22 A. Iowa type curves are a widely used group of generalized survivor curves that
23 contain the range of survivor characteristics usually experienced by utilities and

1 other industrial companies. The Iowa curves were developed at the Iowa State
2 College Engineering Experiment Station through an extensive process of observing
3 and classifying the ages at which various types of property used by utilities and
4 other industrial companies had been retired.

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

9 The estimated survivor curve designations for each depreciable property
10 group indicate the average service life, the family within the Iowa system to which
11 the property group belongs, and the relative height of the mode. For example, the
12 Iowa 56-R2 indicates an average service life of fifty-six years; a right-moded, or R,
13 type curve (the mode occurs after average life for right-moded curves); and a
14 moderate height, 2, for the mode (possible modes for R type curves range from 0.5
15 to 5).

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

18 A. I used the life span technique to estimate the lives of significant facilities for which
19 concurrent retirement of the entire facility is anticipated. In this technique, the
20 survivor characteristics of such facilities are described by the use of interim
21 survivor curves and estimated probable retirement dates. The interim survivor
22 curve describes the rate of retirement related to the replacement of elements of the
23 facility, such as, for a power plant, the retirement of assets such as pumps, motors

1 and piping that occur during the life of the facility. The probable retirement date
2 provides the rate of final retirement for each year of installation for the facility by
3 truncating the interim survivor curve for each installation year at its attained age at
4 the date of probable retirement. The use of interim survivor curves truncated at the
5 date of probable retirement provides a consistent method for estimating the lives of
6 the several years of installation for a particular facility inasmuch as a single
7 concurrent retirement for all years of installation will occur when it is retired.

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

10 A. Yes. The life span has been used previously for Duke Energy Kentucky. My firm
11 has also used the life span technique in performing depreciation studies presented
12 to many other public utility commissions across the United States and Canada.

13 **Q. HOW ARE THE LIFE SPANS ESTIMATED FOR DUKE ENERGY**
14 **KENTUCKY'S PRODUCTION FACILITIES?**

15 A. The life span estimates are based on informed judgment that incorporates factors
16 for each facility such as the technology of the facility, management plans and
17 outlook for the facility, and the estimates for similar facilities for other utilities.

18 **Q. HAVE ANY LIFE SPAN ESTIMATES CHANGED SINCE THE LAST**
19 **STUDY WAS CONDUCTED?**

20 A. Yes. East Bend and Woodsdale have life spans that are planned to change. The East
21 Bend unit has a change in life span from 2041 to 2035. The life span for Woodsdale
22 has been extended from 2032 to 2040.

1 **Q. ARE THE NEW LIFE SPANS REASONABLE?**

2 A. Yes. The new life span for East Bend is 54 years and for Woodsdale is 48 years.
3 The most common range of life spans for steam production facilities had been 55
4 to 65 years; however, in recent years, originally proposed life spans have been
5 shortened due to unit efficiencies and environmental regulations. The industry
6 average of similar units in recent years has been 46 years. For combustion turbines,
7 the most common period for life spans has been 40 years, however, some similar
8 life spans in recent years have been lengthened in order to meet capacity
9 requirements due to steam retirements.

10 **Q. ARE THE NEW LIFE SPANS CONSISTENT WITH COMPANY PLANS?**

11 A. Yes. During the conduct of this depreciation study, Duke Energy Kentucky
12 personnel identified the revised life spans for these facilities.

13 **Q. ARE THE FACTORS CONSIDERED IN YOUR ESTIMATES OF SERVICE**
14 **LIFE AND NET SALVAGE PERCENTS PRESENTED IN ATTACHMENT**
15 **JS-1?**

16 A. Yes. A discussion of the factors considered in the estimation of service lives and
17 net salvage percents are presented in Part III and Part IV of Attachment JS-1.

18 **Q. HAVE YOU PHYSICALLY OBSERVED DUKE ENERGY KENTUCKY'S**
19 **PLANT AND EQUIPMENT AS PART OF YOUR DEPRECIATION**
20 **STUDIES?**

21 A. Yes. I have made field reviews of Duke Energy Kentucky's property during
22 November 2022 to observe representative portions of plant. Also, I have conducted
23 field visits in prior studies since 1990 with the most recent previous trip in January

1 2017. I have also made numerous field visits during previous studies since 1990.
2 Field reviews are conducted to become familiar with Company operations and
3 obtain an understanding of the function of the plant and information with respect to
4 the reasons for past retirements and the expected future causes of retirements. This
5 knowledge was incorporated in the interpretation and extrapolation of the statistical
6 analyses.

7 **Q. WOULD YOU PLEASE EXPLAIN THE CONCEPT OF “NET SALVAGE”?**

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

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

20 For example, the full recovery of the service value of a \$3,000 line
21 transformer will include not only the \$3,000 of original cost, but also, on average,
22 \$500 to remove the line transformer at the end of its life and \$50 in salvage value.

1 In this example, the net salvage component is negative \$450 ($\$50 - \500), and the
2 net salvage percent is negative 15% ($(\$50 - \$500)/\$3,000$).

3 **Q. PLEASE DESCRIBE HOW YOU ESTIMATED NET SALVAGE**
4 **PERCENTAGES.**

5 A. The net salvage percentages estimated in the Depreciation Study were based on
6 informed judgment that incorporated factors such as the statistical analyses of
7 historical net salvage data; information provided to me by the Company's operating
8 personnel, general knowledge and experience of the industry practices; and trends
9 in the industry in general. The statistical net salvage analyses incorporates the
10 Company's actual historical data for the period 1990 through 2021, and considers
11 the cost of removal and gross salvage ratios to the associated retirements during the
12 32-year period. Trends of these data are also measured based on three-year moving
13 averages and the most recent five-year indications.

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

16 A. Yes, for the interim net salvage estimates. The net salvage percentages for
17 generating facilities were based on two components, the interim net salvage
18 percentage and the final net salvage percentage. The interim net salvage percentage
19 is determined based on the historical indications from the period 1990 to 2021 of
20 the cost of removal and gross salvage amounts as a percentage of the associated
21 plant retired. The final net salvage or dismantlement component was determined
22 based on the retirement activities associated with the assets anticipated to be retired
23 at the concurrent date of final retirement.

1 **Q. HAVE YOU INCLUDED A DISMANTLEMENT OR DECOMMISSIONING**
2 **COMPONENT INTO THE OVERALL RECOVERY OF GENERATING**
3 **FACILITIES?**

4 A. Yes. A dismantlement or decommissioning component has been included to the net
5 salvage percentage for steam and other production facilities.

6 **Q. CAN YOU EXPLAIN HOW THE FINAL NET SALVAGE COMPONENT IS**
7 **INCLUDED IN THE DEPRECIATION STUDY?**

8 A. Yes. The dismantlement component is part of the overall net salvage for each
9 location within the production assets. Based on studies for other utilities and the
10 Decommissioning Cost Study conducted by 1898 & Co. for Duke Energy
11 Kentucky, it was determined that the dismantlement or decommissioning costs for
12 steam and other production facilities is best calculated by dividing the
13 dismantlement cost by the surviving plant at final retirement. These amounts at a
14 location basis are added to the interim net salvage percentage of the assets
15 anticipated to be retired on an interim basis to produce the weighted net salvage
16 percentage for each location. The detailed calculations of the overall net salvage
17 for each location is set forth on page VIII-3 of the Depreciation Study.

18 **Q. WHAT IS THE BASIS OF THE DISMANTLEMENT OR**
19 **DECOMMISSIONING COST ESTIMATES?**

20 A. The decommissioning cost estimates are based on decommissioning studies of each
21 generating site performed by 1898 & Co (previously known as Burns and
22 McDonnell). These estimates are based on the current cost to decommission the
23 facility and have been updated in 2022. However, the costs to decommission power

1 plants has tended to increase over time (as have construction costs in general). For
2 this reason, in order to recover the full decommissioning costs for each site, these
3 costs need to be escalated to the time of retirement. The calculations of the
4 escalation of these costs have been provided in the table set forth on page VIII-4 of
5 the Depreciation Study.

6 **Q. PLEASE DESCRIBE THE SECOND PHASE OF THE PROCESS THAT**
7 **YOU USED IN THE DEPRECIATION STUDY IN WHICH YOU**
8 **CALCULATED COMPOSITE REMAINING LIVES AND ANNUAL**
9 **DEPRECIATION ACCRUAL RATES.**

10 A. After I estimated the service life and net salvage characteristics for each depreciable
11 property group, I calculated the annual depreciation accrual rates for each
12 depreciable group based on the straight-line remaining life method, using
13 remaining lives weighted consistent with the average service life procedure. The
14 calculation of annual depreciation accrual rates was developed as of December 31,
15 2021.

16 **Q. PLEASE DESCRIBE THE STRAIGHT LINE REMAINING LIFE**
17 **METHOD OF DEPRECIATION.**

18 A. The straight line remaining life method of depreciation allocates the original cost
19 of the property, less accumulated depreciation, less future net salvage, in equal
20 amounts to each year of remaining service life.

1 **Q. PLEASE DESCRIBE THE AVERAGE SERVICE LIFE PROCEDURE FOR**
2 **CALCULATING REMAINING LIFE ACCRUAL RATES.**

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

15 **Q. PLEASE DESCRIBE AMORTIZATION ACCOUNTING.**

16 A. Amortization accounting is used for accounts with a large number of units, but
17 small asset values. In amortization accounting, units of property are capitalized in
18 the same manner as they are in depreciation accounting. However, depreciation
19 accounting is difficult for these assets because periodic inventories are required to
20 properly reflect plant in service. Consequently, retirements are recorded when a
21 vintage is fully amortized rather than as the units are removed from service. That
22 is, there is no dispersion of retirement. All units are retired when the age of the
23 vintage reaches the amortization period. Each plant account or group of assets is

1 assigned a fixed period which represents an anticipated life during which the asset
2 will render service. For example, in amortization accounting, assets that have a 15-
3 year amortization period will be fully recovered after 15 years of service and taken
4 off the Company books, but not necessarily removed from service. In contrast,
5 assets that are taken out of service before 15 years remain on the books until the
6 amortization period for that vintage has expired.

7 **Q. AMORTIZATION ACCOUNTING IS BEING IMPLEMENTED FOR**
8 **WHICH PLANT ACCOUNTS?**

9 A. Amortization accounting is only appropriate for certain Common and General Plant
10 accounts. These accounts are 1900, 1910, 1911, 1940, 1970, and 1980 for Common
11 Plant and 3910, 3911, 3940, and 3970 for General Plant which represents slightly
12 more than one percent of depreciable plant.

13 **Q. PLEASE USE AN EXAMPLE TO ILLUSTRATE THE DEVELOPMENT**
14 **OF THE ANNUAL DEPRECIATION ACCRUAL RATE FOR A**
15 **PARTICULAR GROUP OF PROPERTY IN YOUR DEPRECIATION**
16 **STUDY.**

17 A. I will use Account 3640, Poles, Towers and Fixtures, as an example because it is
18 one of the largest depreciable groups and represents an easily understood asset.

19 The retirement rate method was used to analyze the survivor characteristics
20 of this property group. Aged plant accounting data were compiled from 1956
21 through 2021 and analyzed in periods that best represent the overall service life of
22 this property. The life table for the 1956-2018 experience band is presented in the
23 depreciation study on pages VII-102 through VII-104. Each life table displays the

1 retirement and surviving ratios of the aged plant data exposed to retirement by age
2 interval. For example, page VII-102 of Attachment JS-1, shows \$521,089 retired
3 during age interval 0.5-1.5 with \$88,980,239 exposed to retirement at the beginning
4 of the interval. Consequently, the retirement ratio is 0.0059
5 ($\$521,089/\$88,980,239$) and the survivor ratio is 0.9941 ($1-0.0059$). The life table,
6 or original survivor curve, is plotted along with the estimated smooth survivor
7 curve, the 55-R0.5, on page VII-101 of Attachment JS-1.

8 The net salvage percent is presented on pages VIII-38 and VIII-39. The
9 percentage is based on the result of annual gross salvage minus the cost to remove
10 plant assets as compared to the original cost of plant retired during the period 1990
11 through 2021. The 32-year period experienced \$6,295,817 ($\$1,590,755 -$
12 $\$7,886,572$) in net salvage for \$11,211,038 plant retired. The result is negative net
13 salvage of 56 percent ($\$6,295,817/\$11,211,038$). Recent trends have shown
14 indications of negative 229 percent, therefore, it was determined that based on
15 industry ranges, historical indications, and Company expectations, that negative 50
16 percent was the most appropriate estimate. The negative 50 percent estimate
17 considers the entire period, however, does not put as much weight on recent trends
18 as cost of removal should be lower in the future than the levels over last five years
19 for the assets being retired.

20 My calculation of the annual depreciation related to original cost of electric
21 utility plant as of December 31, 2021, for Account 3640 is presented on pages IX-
22 46 through IX-48 of Attachment JS-1. The calculation is based on the 55-R0.5
23 survivor curve, 50% negative net salvage, the attained age, and the allocated book

1 reserve. The tabulation sets forth the installation year, the original cost, calculated
2 accrued depreciation, allocated book reserve, future accruals, remaining life and
3 annual accrual. These totals are brought forward to Table 1 on page VI-5.

4 **Q. HAVE YOU DEVELOPED RATES FOR FUTURE ASSETS?**

5 A. Yes. There are plans to add new energy storage assets for generation, transmission,
6 and distribution plant. The rates for these assets will be based on a 15-L3 survivor
7 curve and zero percent net salvage. Also, there are plans to add various electric
8 vehicle charging assets. The rates for the first group of assets will be based on a 10-
9 S3 survivor curve and negative 2 percent net salvage. The rates for the other group
10 of assets will be based on a 10-S4 survivor curve and negative 1 percent net salvage.
11 The rate for all of these assets is presented on page VI-6 of Attachment JS-1.

12 **Q. ARE THERE OTHER SPECIAL RECOVERY AMOUNTS THAT WERE**
13 **INCLUDED IN THE STUDY?**

14 A. Yes. The overall recovery of steam assets includes the remaining net plant of Miami
15 Fort Unit 6. There was \$12,966,986 (\$16,640,000 - \$3,643,014) still to be recovered
16 at time of retirement which related to the established decommissioning cost minus
17 the previously accumulated reserve. Based on group depreciation, the remaining
18 amount to be recovered for Miami Fort Unit 6 (\$4,887,000) should be recovered
19 over the remaining life of the surviving assets.

20 The second special recovery amount is the unrecovered reserve
21 amortization established for certain general and common plant accounts. In order
22 to achieve a more stable accrual for general and common plant accounts in the
23 future, I have recommended a five-year amortization to adjust unrecovered reserve.

1 This approach will achieve consistent amortization rates for existing assets as well
2 as future assets. The reserve for each of these accounts is segregated into two
3 components. The first component is the amount required to achieve the proper rate
4 for the amortization period. The remaining amount, which could be negative, is
5 amortized over 5 years separately from the assets.

III. CONCLUSION

6 **Q. WAS ATTACHMENT JS-1 IN SATISFACTION OF FR 16(7)(s) PREPARED**
7 **UNDER YOUR DIRECTION AND CONTROL?**

8 A. Yes.

9 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

10 A. Yes.

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 Energy Arkansas, Inc.; 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; the Public Service Commission of West Virginia; Maine Public Utility 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>	<u>Docket No.</u>	<u>Client Utility</u>	<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-EI-AIR	Cinergy Corp. – Cincinnati Gas and Electric Company	Depreciation
29.	2004	RR Com of TX	GUD#	CenterPoint Energy – Entex Gas Services Div.	Depreciation
30.	2004	NY PUC	04-G-1047	National Fuel Gas Distribution Gas (NY)	Depreciation
31.	2004	AR PSC	04-121-U	CenterPoint Energy – Arkla	Depreciation
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

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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	OK CC	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

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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

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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

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133.	2011	FERC	RP11-____-000	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	Integrus – MN Energy Resource Group	Depreciation
154.	2012	TX PUC	SOAH 582-14-1051/ TECQ 2013-2007-UCR	Aqua Texas	Depreciation
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, 13-S-0032	Consolidated Edison of New York	Depreciation
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

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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	ER13- -0000	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	ER14- -0000	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

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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

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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. 2016-00063	Kentucky Utilities / Louisville Gas & Electric Co	Depreciation
236.	2016	MO PSC	ER-2016-0285	KCPL Missouri	Depreciation
237.	2016	AR PSC	16-052-U	Oklahoma Gas & Electric Co	Depreciation
238.	2016	PSCW	6680-DU-104	Wisconsin Power and Light	Depreciation
239.	2016	ID PUC	IPC-E-16-23	Idaho Power Company	Depreciation
240.	2016	OR PUC	UM1801	Idaho Power Company	Depreciation
241.	2016	ILL CC	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 Association	Depreciation
246.	2017	MA DPU	D.P.U. 17-05	NSTAR Electric Company and Western Massachusetts Electric Company	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	Puget Sound Energy	Depreciation
249.	2017	OH PUC	Case No. 17-0032-EL-AIR	Duke Energy Ohio	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
264.	2017	MO PSC	GR-2017-0215	Laclede Gas Company	Depreciation
265.	2017	MO PSC	GR-2017-0216	Missouri Gas Energy	Depreciation

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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

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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>	<u>Docket No.</u>	<u>Client Utility</u>	<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 Delivery of	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-EL-AAM & 20-1653-EL-ATA	Dayton Power and Light Company	Depreciation
355.	2020	OR PSC	UG 388	Northwest Natural Gas Company	Depreciation
356.	2020	MO PSC	Case No. GR-2021-0241	Ameren Missouri Gas	Depreciation
357.	2021	KY PSC	Case No. 2021-00103	East Kentucky Power Cooperative	Depreciation
358.	2021	MPUC	Docket No. 2021-00024	Bangor Natural Gas	Depreciation
359.	2021	PA PUC	Docket No. R-2021-3024296	Columbia Gas of Pennsylvania, Inc.	Depreciation
360.	2021	NC Util. Com.	Doc. No. G-5, Sub 632	Public Service of North Carolina	Depreciation
361.	2021	MO PSC	ER-2021-0240	Ameren Missouri	Depreciation
362.	2021	PA PUC	Docket No. R-2021-3024750	Duquesne Light Company	Depreciation
363.	2021	KS PSC	21-BHCG-418-RTS	Black Hills Kansas Gas	Depreciation
364.	2021	KY PSC	Case No. 2021-00190	Duke Energy Kentucky	Depreciation
365.	2021	OR PSC	Docket UM 2152	Portland General Electric	Depreciation
366.	2021	ILL CC	Docket No. 20-0810	North Shore Gas Company	Depreciation
367.	2021	FERC	ER21-1939-000	Duke Energy Progress	Depreciation
368.	2021	FERC	ER21-1940-000	Duke Energy Carolina	Depreciation
369.	2021	KY PSC	Case No. 2021-00183	NiSource Columbia Gas of Kentucky	Depreciation
370.	2021	MD PSC	Case No. 9664	NiSource Columbia Gas of Maryland	Depreciation
371.	2021	OH PUC	Case No. 21-0596-ST-AIR	Aqua Ohio	Depreciation
372.	2021	PA PUC	Docket No. R-2021-3026116	Hanover Borough Municipal Water Works	Depreciation
373.	2021	OR PSC	UM-2180	Idaho Power Company	Depreciation
374.	2021	ID PUC	Case No. IPC-E-21-18	Idaho Power Company	Depreciation
375.	2021	WPSC	6690-DU-104	Wisconsin Public Service Company	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
376.	2021	PAPUC	Docket No. R-2021-3026116	Borough of Hanover	Depreciation
377.	2021	OH PUC	Case No. 21-637-GA-AIR; Case No. 21-638-GA-ALT; Case No. 21-639-GA-UNC; Case No. 21-640-GA-AAM	NiSource Columbia Gas of Ohio	Depreciation
378.	2021	TX PUC	Texas PUC Docket No. 52195; SOHA Docket No. 473-21-2606	El Paso Electric	Depreciation
379.	2021	MO PSC	Case No. GR.2021-0108	Spire Missouri	Depreciation
380.	2021	WV PSC	Case No. 21-0215-WS-P	West Virginia American Water Company	Depreciation
381.	2021	FERC	ER21-2736	Duke Energy Carolinas	Depreciation
382.	2021	FERC	ER21-2737	Duke Energy Progress	Depreciation
383.	2021	IN URC	Cause #45621	Northern Indiana Public Service Company	Depreciation
384.	2021	PA PUC	Docket No. R-2021-3026682	City of Lancaster	Depreciation
385.	2021	OH PUC	Case No. 21-887-EL-AIR; Case No. 21-888-EL-ATA; Case No. 889-EI-AAM	Duke Energy Ohio	Depreciation
386.	2021	AK PSC	Docket No. 21-097-U	Black Hills Energy Arkansas, Inc.	Depreciation
387.	2021	OK CC	Cause No. PUD202100164	Oklahoma Gas & Electric	Depreciation
388.	2021	FERC	Case ER-22-392-001	El Paso Electric	Depreciation
389.	2021	FERC	Case ER-21-XXX	MidAmerican Electric	Depreciation
390.	2021	PA PUC	Docket Nos. R-2021-3027385, R-2021-3027386	Aqua Pennsylvania, Inc. Aqua Pennsylvania Wastewater, Inc.	Depreciation
391.	2022	FERC	Case ER-22-282-000	El Paso Electric	Depreciation
392.	2022	ILL CC	Docket No. 22-0154	MidAmerican Gas	Depreciation
393.	2022	MO PSC	Case No. ER-2022-0129	Evergy Metro	Depreciation
394.	2022	MO PSC	Case No. ER-2022-0130	Evergy Missouri West	Depreciation
395.	2022	PA PUC	Docket No. R-2022-3031211	NiSource Columbia Gas of Pennsylvania, Inc.	Depreciation
396.	2022	MA DPU	D.P.U. 22-20	The Berkshire Gas Company	Depreciation
397.	2022	PA PUC	R-2022-3031672; R-2022-3031673	Pennsylvania-American Water Company	Depreciation
398.	2022	SD PUC	Docket No. NG22-	MidAmerican Gas	Depreciation
399.	2022	MD PSC	Case No. 9680	NiSource Columbia Gas of Maryland	Depreciation
400.	2022	WYPSC	Docket No. 20003-214-ER-22	Black Hills Energy – Cheyenne Light, Fuel and Power Company	Depreciation
401.	2022	MA DPU	D.P.U. 22.22	NSTAR Electric Company d/b/a Eversource Energy	Depreciation
402.	2022	NC Util Com	Docket No. W-218, Sub 573	Aqua North Carolina, Inc.	Depreciation
403.	2022	OR PUC	UM2213	Northwest Natural Gas	Depreciation
404.	2022	OR PUC	UM2214	Northwest Natural Gas	Depreciation
405.	2022	ME PUC	Docket No. 2022-00152	Central Maine Power	Depreciation

	<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client Utility</u>	<u>Subject</u>
406.	2022	SC PSC	Docket No. 2022-254-E	Duke Energy Progress	Depreciation
407.	2022	NC Util Com	Docket No. E-2, SUB 1300	Duke Energy Progress	Depreciation
408.	2022	IN URC	Cause #45772	Northern Indiana Public Service Company	Depreciation
409.	2022	PA PUC	R-2022-3031340	The York Water Company	Depreciation
410.	2022	PA PUC	R-2022-3032806	The York Water Company	Depreciation
411.	2022	PA PUC	R-2022-3031704	Borough of Ambler	Depreciation
412.	2022	MO PSC	ER-2022-0337	Ameren Missouri	Depreciation
413.	2022	OH PUC	Case No. 22-507-GA-AIR	Duke Energy Ohio	Depreciation
414.	2022	PA PUC	R-2022-3035730	National Fuel Gas Distribution Corporation – PA Division	Depreciation



2021 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO ELECTRIC AND COMMON PLANT
AS OF DECEMBER 31, 2021

Prepared by:



DUKE ENERGY KENTUCKY

Cincinnati, Ohio

2021 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO ELECTRIC AND COMMON PLANT
AS OF DECEMBER 31, 2021

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC
Harrisburg, Pennsylvania



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November 10, 2022

Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45201-0960

Attention David L. Doss Jr.
Director Asset Accounting

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the electric and common plant of Duke Energy Kentucky as of December 31, 2021. 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

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS
President

JJS:jmr

071780.000

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DUKE ENERGY KENTUCKY, INC.

DEPRECIATION STUDY

EXECUTIVE SUMMARY

Pursuant to Duke Energy Kentucky, Inc.'s ("Duke Energy Kentucky" or "Company") request, Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a depreciation study related to electric and common plant as of December 31, 2021. 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.

Duke Energy Kentucky's accounting policy has not changed since the last depreciation study was prepared. However, there have been changes in plans of some assets as well as additions of capital investment in all plant categories. For transmission and distribution plant, the overall depreciation expense has increased due primarily to the change in more negative net salvage. The shortened probable retirement date for East Bend has increased rates for steam assets. The longer probable retirement date for Woodsdale and the longer life spans for solar assets have slightly decreased the overall rate for other production plant.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to electric and common plant in service as of December 31, 2021 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 \$75.3 million when applied to depreciable plant balances as of December 31, 2021. 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, 2021	PROPOSED RATE	PROPOSED EXPENSE
Common Plant	\$ 21,221,570.40	5.20	\$ 1,103,142
Electric Plant			
Steam Production Plant	\$ 918,526,199.94	4.71	\$ 43,225,671
Other Production Plant	355,721,060.70	3.37	11,986,376
Transmission Plant	93,910,246.37	2.26	2,119,162
Distribution Plant	610,085,467.76	2.61	15,910,434
General Plant	16,842,306.30	8.20	1,381,307
Common Plant Reserve Amortization	-	-	(285,285)
General Plant Reserve Amortization	-	-	(96,664)
Total	<u>\$2,016,306,851.47</u>	3.74	<u>\$75,344,143</u>

PART I. INTRODUCTION

DUKE ENERGY KENTUCKY, INC.
DEPRECIATION STUDY

PART I. INTRODUCTION

SCOPE

This report sets forth the results of the depreciation study for Duke Energy Kentucky, Inc. (“Company”), to determine the annual depreciation accrual rates and amounts for book purposes applicable to the original cost of electric and common plant as of December 31, 2021. 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 and common plant in service as of December 31, 2021.

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 2021, 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 Iowa 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 Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of 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. A higher number designates a higher mode curve.

The Iowa curves were developed at the Iowa 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.

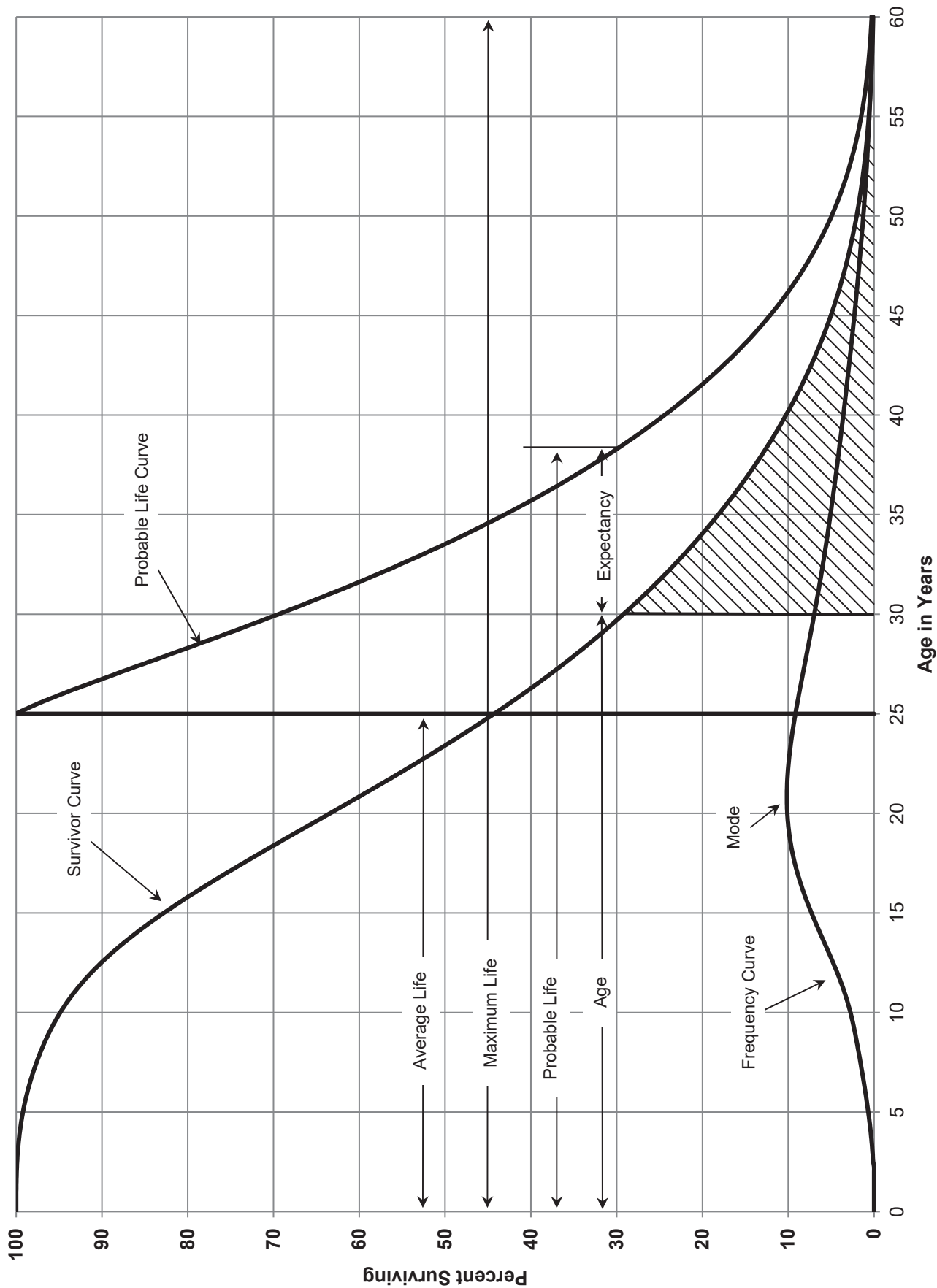


FIGURE 1. TYPICAL SURVIVOR CURVE AND DERIVED CURVES

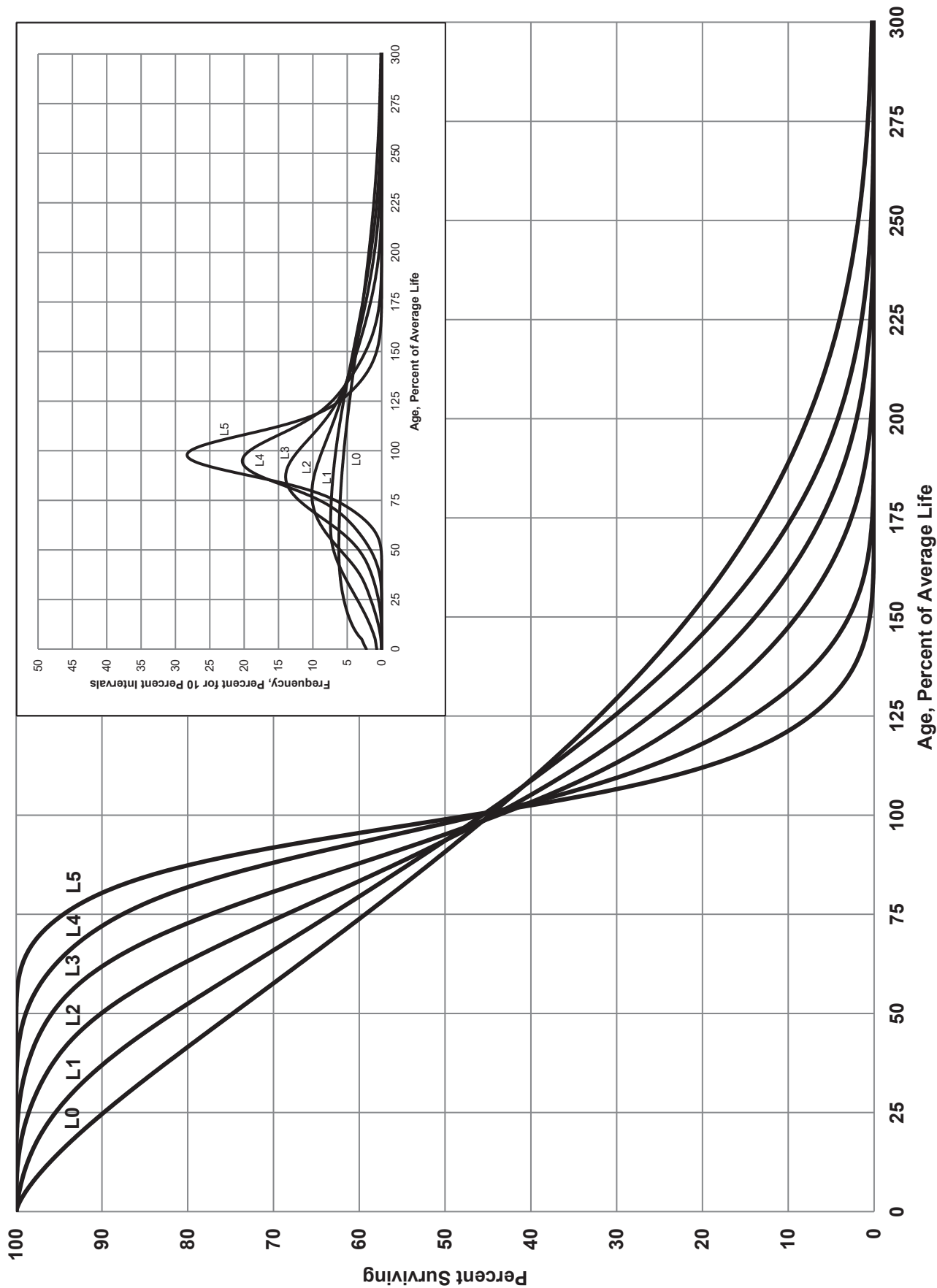


FIGURE 2.. LEFT MODAL OR "L" IOWA TYPE SURVIVOR CURVES

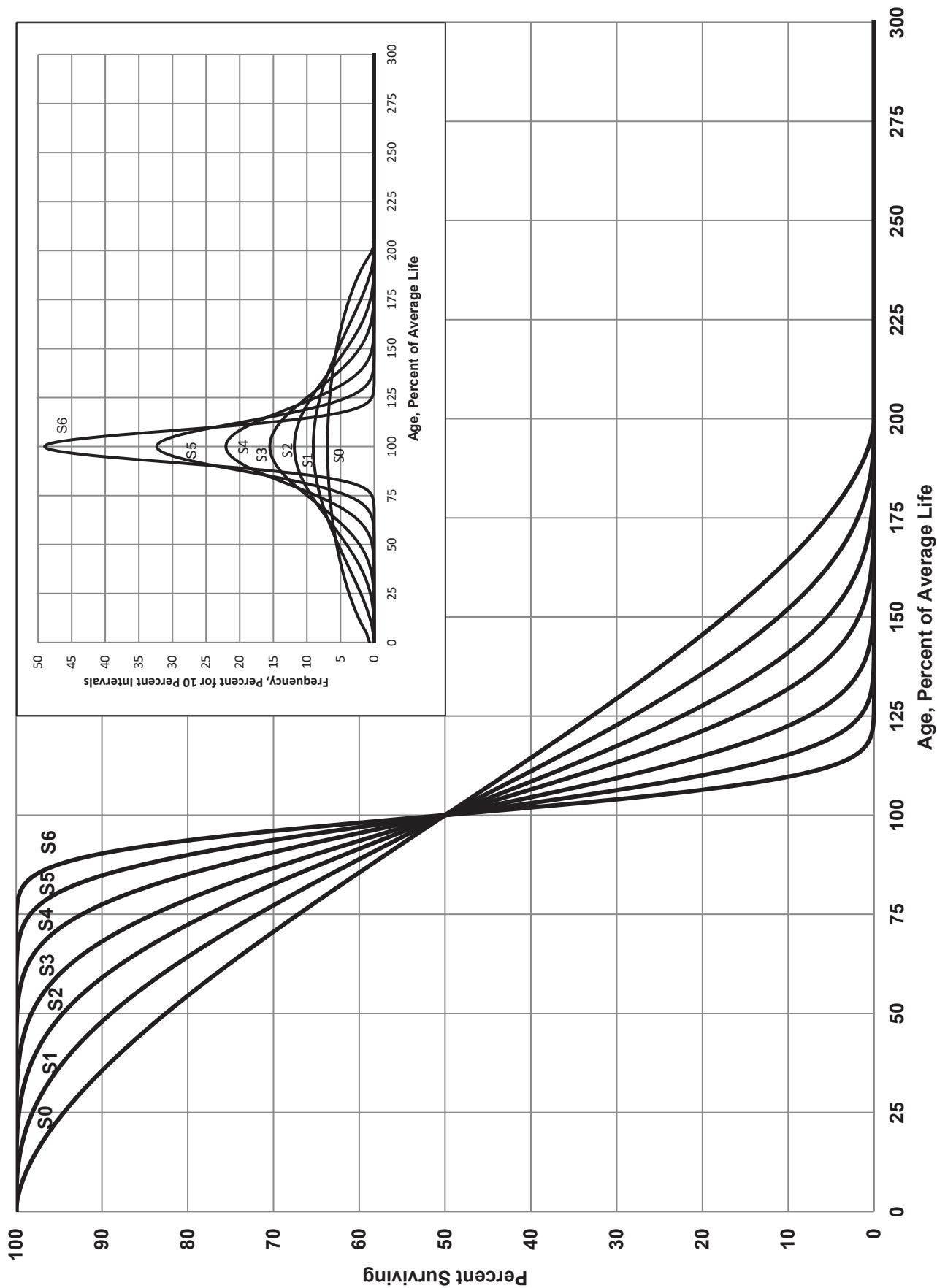


FIGURE 3.. SYMMETRICAL OR "S" IOWA TYPE SURVIVOR CURVES

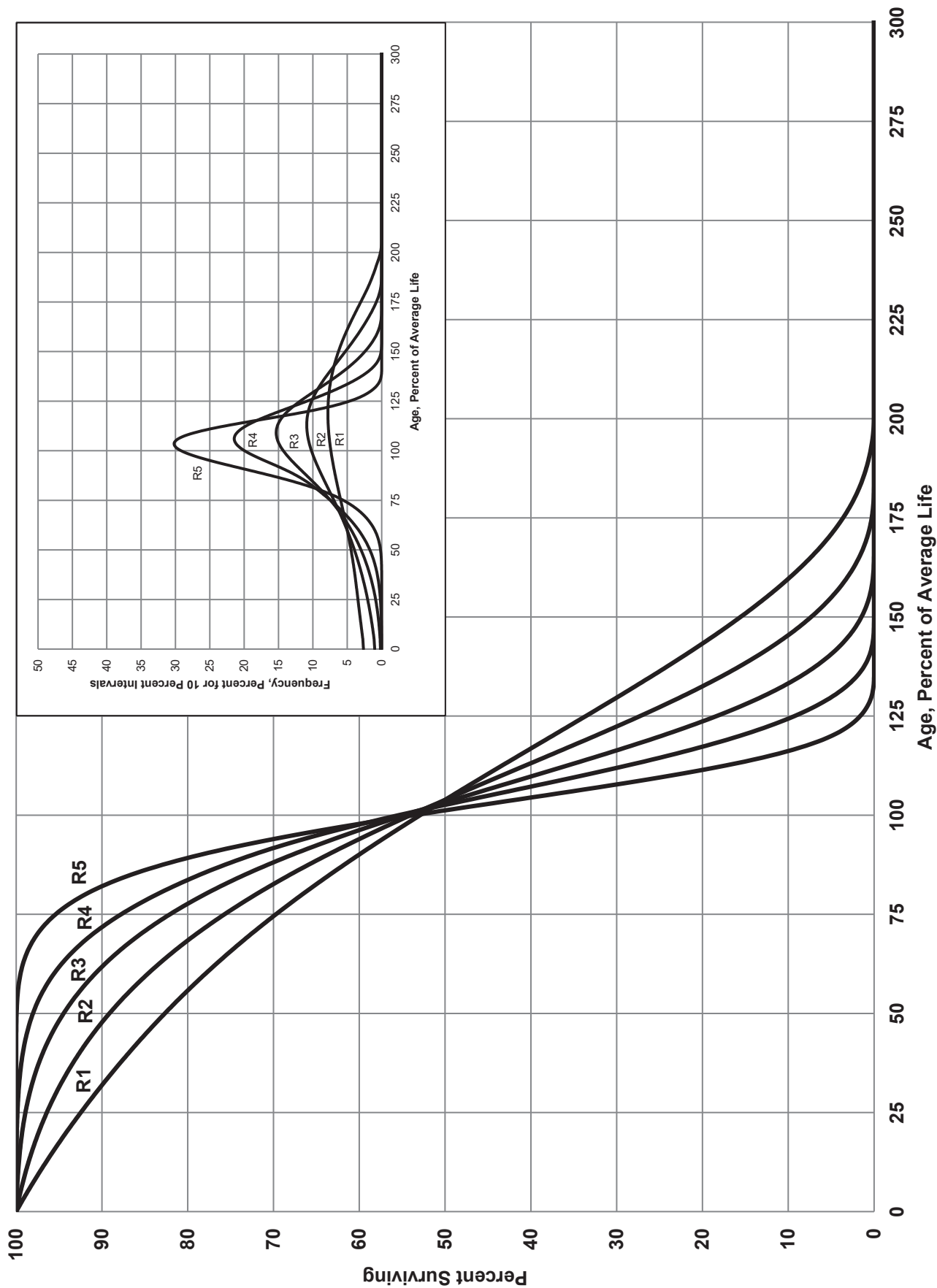


FIGURE 4.. RIGHT MODAL OR "R" IOWA TYPE SURVIVOR CURVES

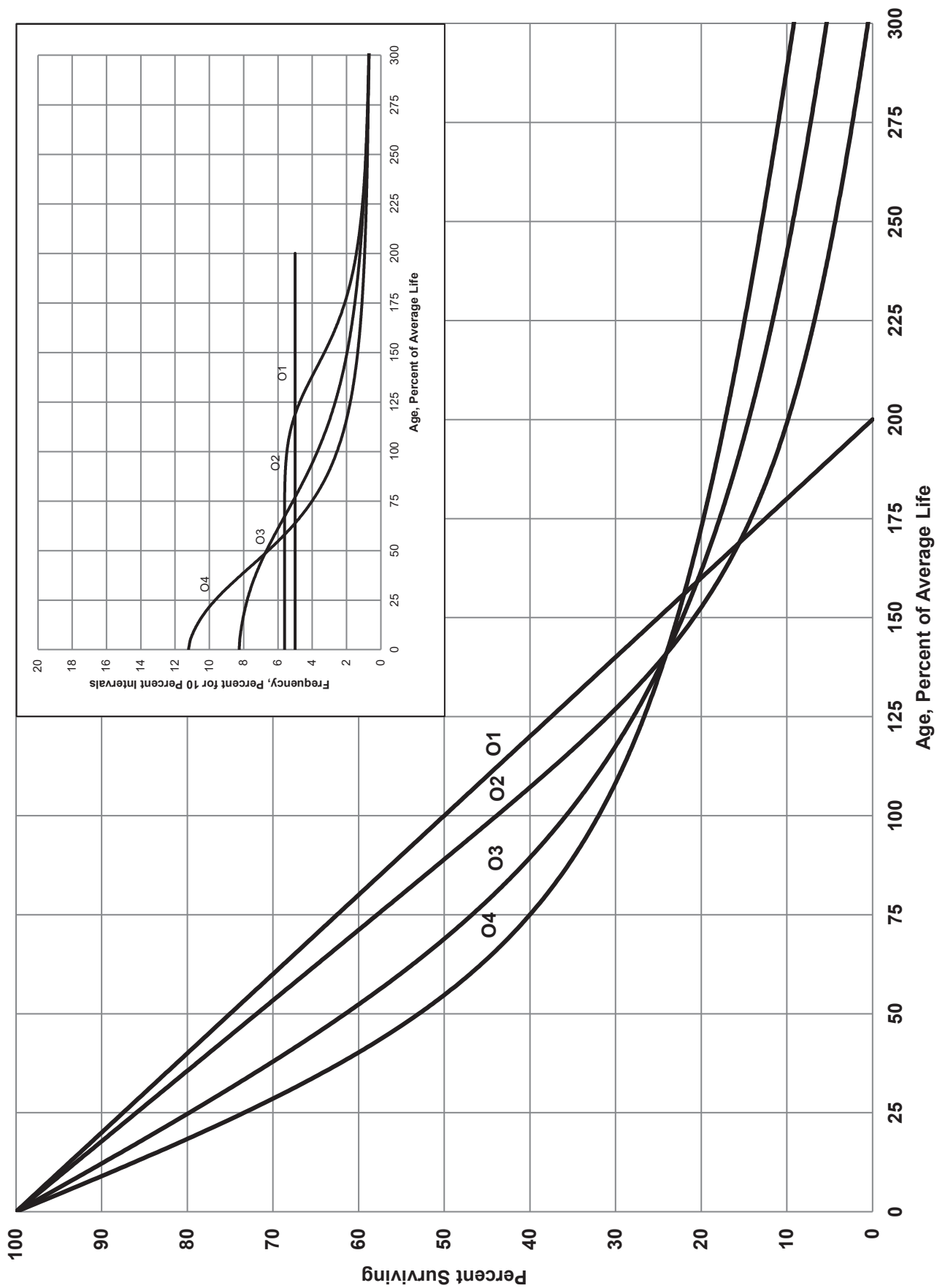


FIGURE 5. ORIGIN MODAL OR "O" IOWA TYPE SURVIVOR CURVES

These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."¹ 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,"² "Engineering Valuation and Depreciation,"³ and "Depreciation Systems."⁴

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

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

²Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

³Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

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

Schedules of Annual Transactions in Plant Records

The property group used to illustrate the retirement rate method is observed for the experience band 2012-2021 for which there were placements during the years 2007-2021. 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 2007 were retired in 2012. 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 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2012 retirements of 2007 installations and ending with the 2021 retirements of the 2016 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

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

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2012-2021
SUMMARIZED BY AGE INTERVAL

Year	Retirements, Thousands of Dollars											Total During Age Interval (12)	Age Interval (13)
	During Year												
Placed (1)	2012 (2)	2013 (3)	2014 (4)	2015 (5)	2016 (6)	2017 (7)	2018 (8)	2019 (9)	2020 (10)	2021 (11)			
2007	10	11	12	13	14	16	23	24	25	26	26	26	13½-14½
2008	11	12	13	15	16	18	20	21	22	19	19	44	12½-13½
2009	11	12	13	14	16	17	19	21	22	18	18	64	11½-12½
2010	8	9	10	11	11	13	14	15	16	17	17	83	10½-11½
2011	9	10	11	12	13	14	16	17	19	20	20	93	9½-10½
2012	4	9	10	11	12	13	14	15	16	20	20	105	8½-9½
2013		5	11	12	13	14	15	16	18	20	20	113	7½-8½
2014			6	12	13	15	16	17	19	19	19	124	6½-7½
2015				6	13	15	16	17	19	19	19	131	5½-6½
2016					13	15	16	17	19	20	20	143	4½-5½
2017					7	14	16	17	22	23	23	146	3½-4½
2018						8	18	20	22	25	25	150	2½-3½
2019							9	11	23	25	25	151	1½-2½
2020								11	11	24	24	153	½-1½
2021										13	13	80	0-½
Total	53	68	86	106	128	157	196	231	273	308	1,606		

Experience Band 2012-2021

Placement Band 2007-2021

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2012-2021
SUMMARIZED BY AGE INTERVAL

Year Placed (1)	Placement Band 2012-2021											Total During Age Interval (12)	Age Interval (13)
	Experience Band 2012-2021												
	Acquisitions, Transfers and Sales, Thousands of Dollars												
	During Year												
	2012 (2)	2013 (3)	2014 (4)	2015 (5)	2016 (6)	2017 (7)	2018 (8)	2019 (9)	2020 (10)	2021 (11)			
2007	-	-	-	-	-	-	60 ^a	-	-	-	-	-	13½-14½
2008	-	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2009	-	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2010	-	-	-	-	-	-	-	(5) ^b	-	-	60	-	10½-11½
2011	-	-	-	-	-	-	-	6 ^a	-	-	-	-	9½-10½
2012	-	-	-	-	-	-	-	-	-	-	(5)	-	8½-9½
2013	-	-	-	-	-	-	-	-	-	-	6	-	7½-8½
2014	-	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2015	-	-	-	-	-	-	-	(12) ^b	-	-	-	-	5½-6½
2016	-	-	-	-	-	-	-	-	22 ^a	-	-	-	4½-5½
2017	-	-	-	-	-	-	-	(19) ^b	-	-	10	-	3½-4½
2018	-	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2019	-	-	-	-	-	-	-	-	-	(102) ^c	(121)	-	1½-2½
2020	-	-	-	-	-	-	-	-	-	-	-	-	½-1½
2021	-	-	-	-	-	-	-	-	-	-	-	-	0-½
Total	-	-	-	-	-	-	60	(30)	22	(102)	(50)	-	

^a Transfer Affecting Exposures at Beginning of Year

^b Transfer Affecting Exposures at End of Year

^c Sale with Continued Use

Parentheses Denote Credit Amount.

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

Schedule of Plant Exposed to Retirement

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2012 through 2021 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 2017 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT
JANUARY 1 OF EACH YEAR 2012-2021
SUMMARIZED BY AGE INTERVAL

Experience Band 2012-2021

Placement Band 2007-2021

Year Placed	Exposures, Thousands of Dollars											Total at		Age Interval
	Annual Survivors at the Beginning of the Year											Beginning of		
(1)	2012 (2)	2013 (3)	2014 (4)	2015 (5)	2016 (6)	2017 (7)	2018 (8)	2019 (9)	2020 (10)	2021 (11)	(12)	(13)		
2007	255	245	234	222	209	195	239	216	192	167	167	13 ¹ / ₂ -14 ¹ / ₂		
2008	279	268	256	243	228	212	194	174	153	131	323	12 ¹ / ₂ -13 ¹ / ₂		
2009	307	296	284	271	257	241	224	205	184	162	531	11 ¹ / ₂ -12 ¹ / ₂		
2010	338	330	321	311	300	289	276	262	242	226	823	10 ¹ / ₂ -11 ¹ / ₂		
2011	376	367	357	346	334	321	307	297	280	261	1,097	9 ¹ / ₂ -10 ¹ / ₂		
2012	420 ^a	416	407	397	386	374	361	347	332	316	1,503	8 ¹ / ₂ -9 ¹ / ₂		
2013		460 ^a	455	444	432	419	405	390	374	356	1,952	7 ¹ / ₂ -8 ¹ / ₂		
2014			510 ^a	504	492	479	464	448	431	412	2,463	6 ¹ / ₂ -7 ¹ / ₂		
2015				580 ^a	574	561	546	530	501	482	3,057	5 ¹ / ₂ -6 ¹ / ₂		
2016					660 ^a	653	639	623	628	609	3,789	4 ¹ / ₂ -5 ¹ / ₂		
2017						750 ^a	742	724	685	663	4,332	3 ¹ / ₂ -4 ¹ / ₂		
2018							850 ^a	841	821	799	4,955	2 ¹ / ₂ -3 ¹ / ₂		
2019								960 ^a	949	926	5,719	1 ¹ / ₂ -2 ¹ / ₂		
2020									1,080 ^a	1,069	6,579	¹ / ₂ -1 ¹ / ₂		
2021										1,220 ^a	7,490	0- ¹ / ₂		
Total	1,975	2,382	2,824	3,318	3,872	4,494	5,247	6,017	6,852	7,799	44,780			

^aAdditions during the year

For the entire experience band 2012-2021, 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 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

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 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 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 2012-2021

Placement Band 2007-2021

(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>	<u>26</u>	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 Iowa 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 Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa 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 Iowa 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

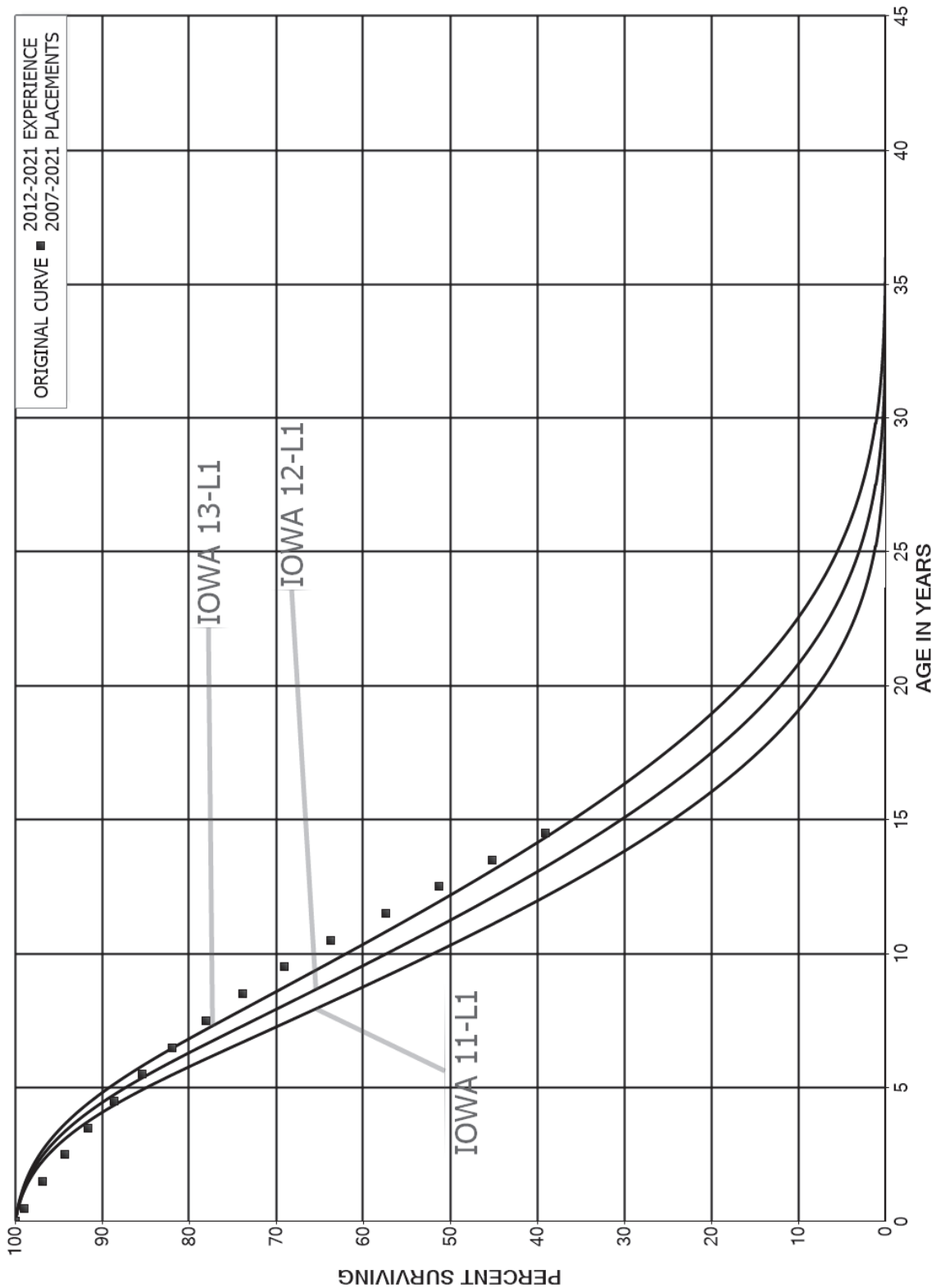


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

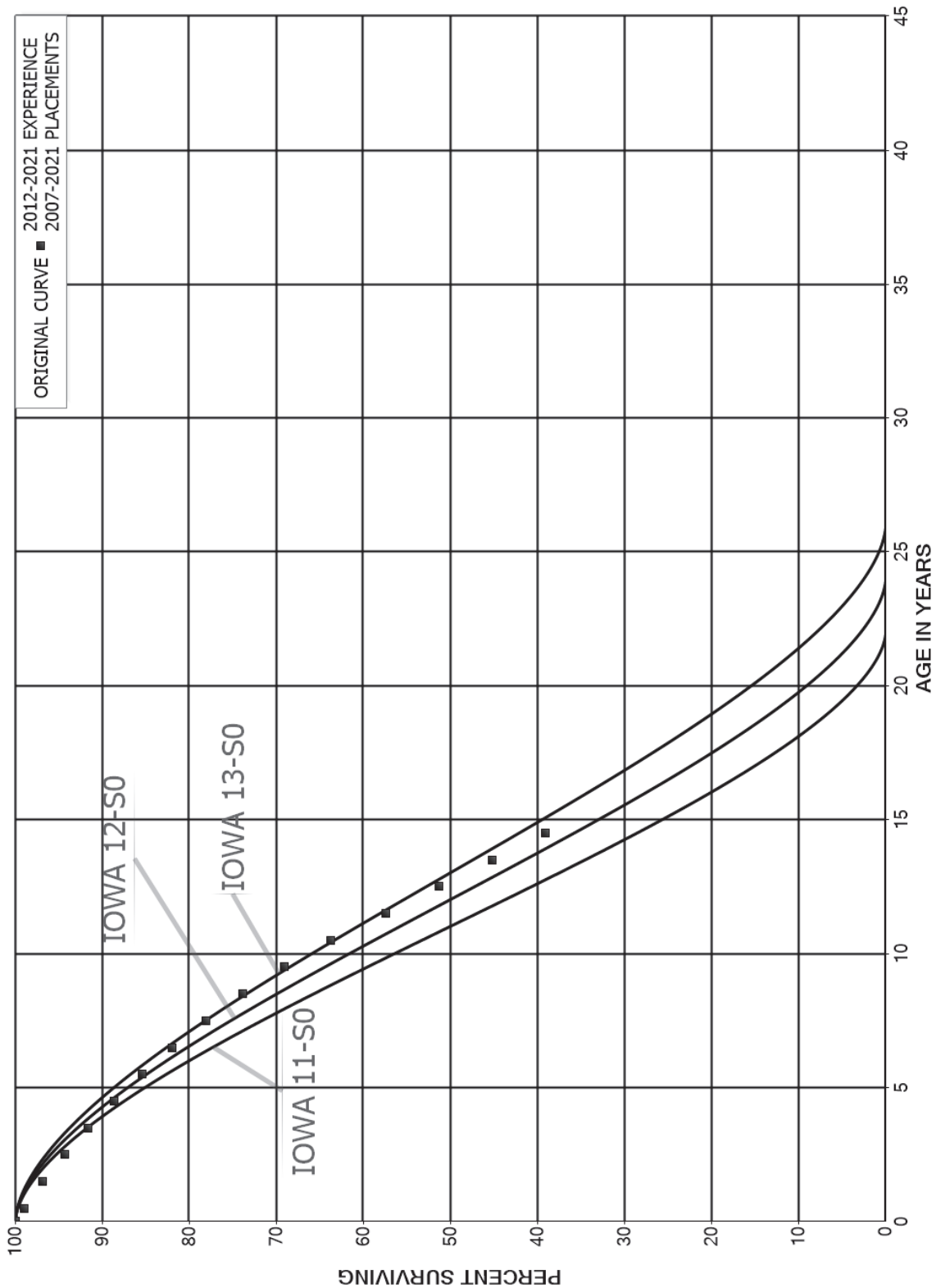


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

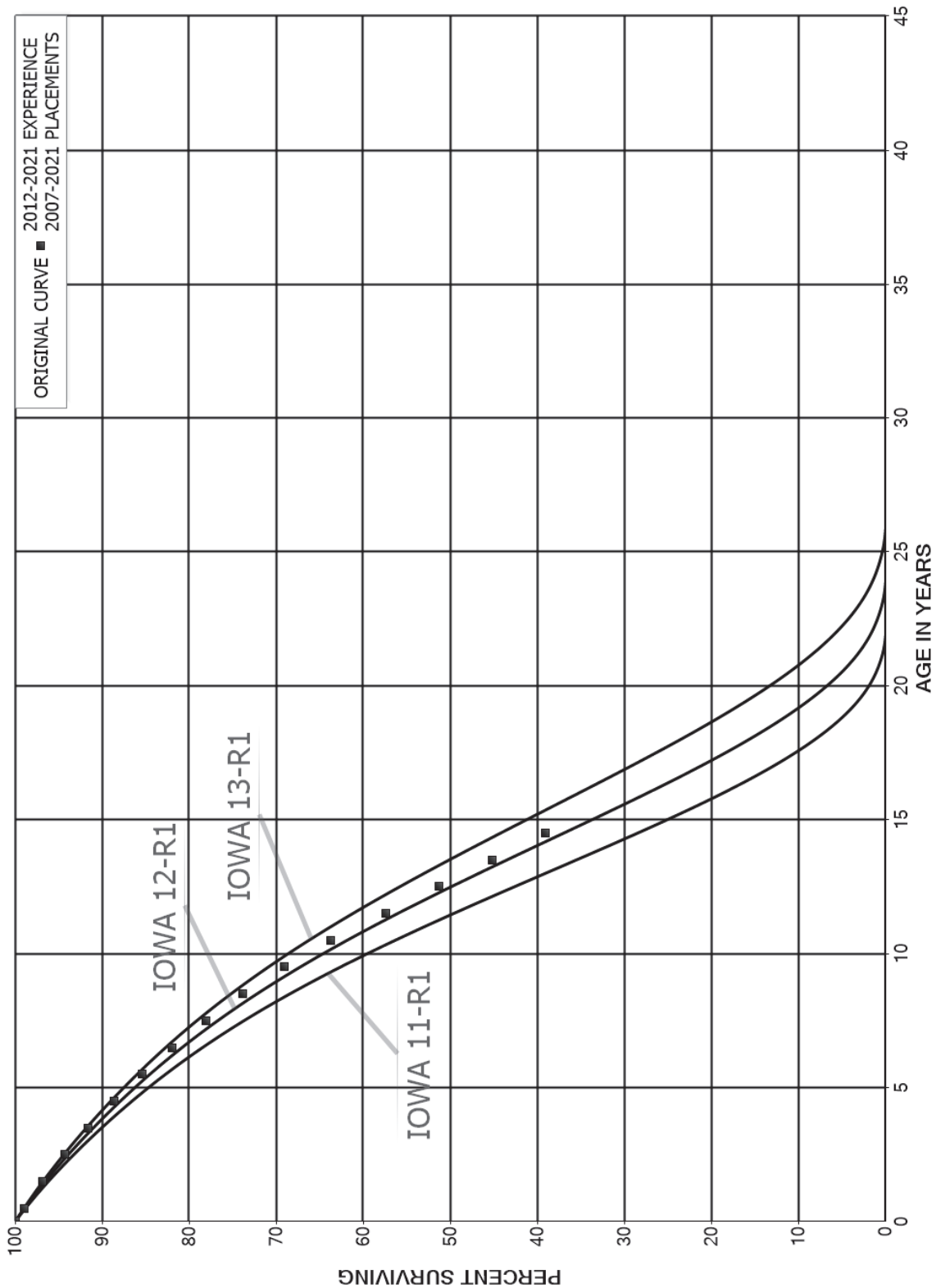
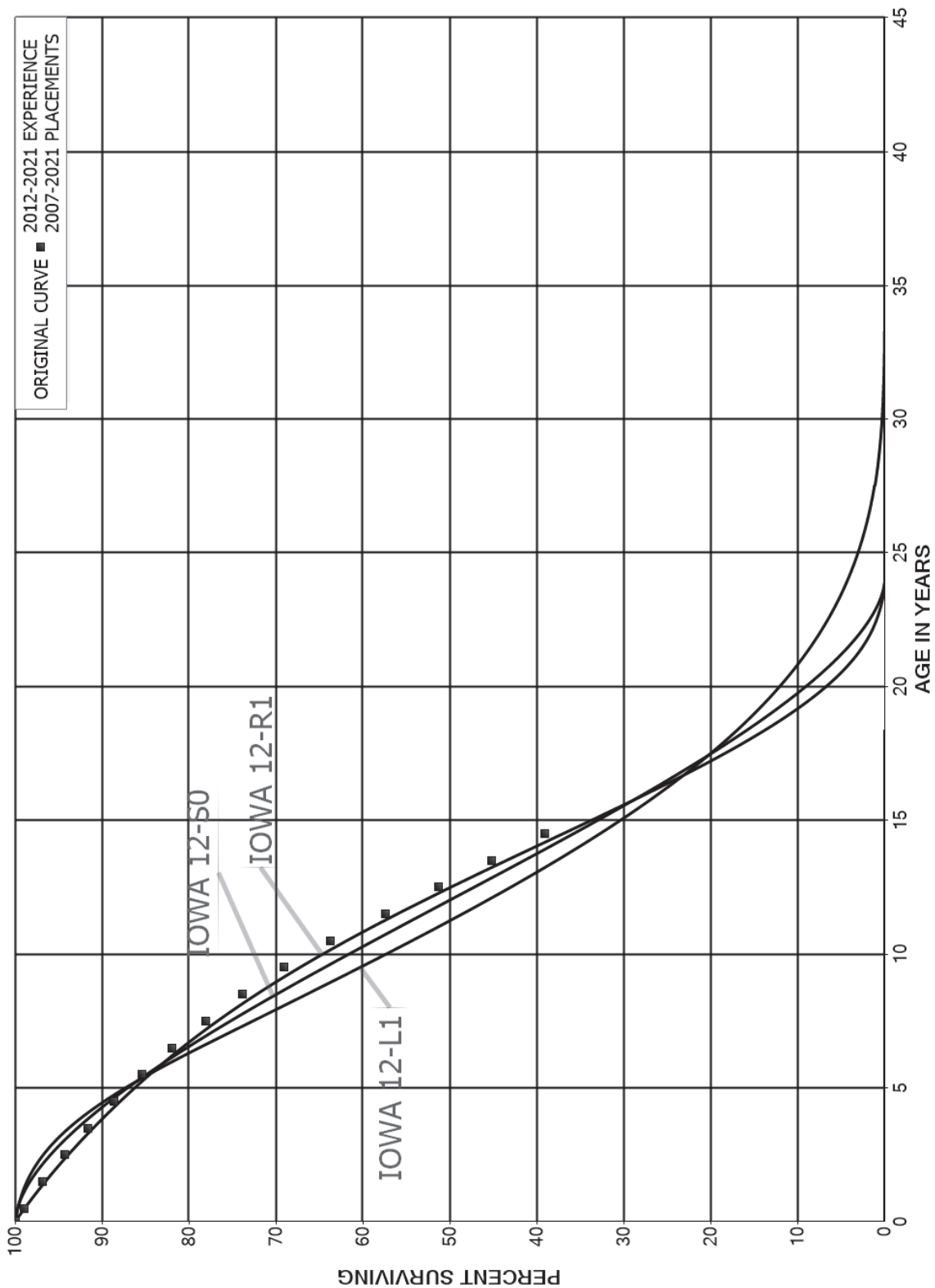


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES



PART III. SERVICE LIFE CONSIDERATIONS

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, a field trip has been conducted. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

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

November 7, 2022

Woodsdale Generating Station
Woodsdale Substation
East Bend Generating Plant

January 30, 2017

Donaldson Substation
Constance Substation
Crescent Substation
Erlanger Operations Center
East Bend Generating Plant

June 17-18, 2013

Miami Fort Generating Substation
East Bend Generating Station
Woodsdale Generating Station
Crescent Substation
Hebron Substation
Richwood Substation
Limaburg Substation

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 75 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

- 3110 Structures and Improvements
- 3120 Boiler Plant Equipment
- 3140 Turbogenerator Units
- 3150 Accessory Electric Equipment
- 3160 Miscellaneous Power Plant Equipment

OTHER PRODUCTION PLANT

- 3460 Miscellaneous Power Plant Equipment

TRANSMISSION PLANT

- 3520 Structures and Improvements
- 3530 Station Equipment
- 3532 Station Equipment – Major
- 3550 Poles and Fixtures
- 3560 Overhead Conductors and Devices

DISTRIBUTION PLANT

- 3610 Structures and Improvements
- 3620 Station Equipment
- 3622 Station Equipment – Major
- 3640 Poles, Towers and Fixtures
- 3650 Overhead Conductors and Devices

3670	Underground Conductors and Devices
3680	Line Transformers
3682	Line Transformers – Customer
3692	Services – Overhead
3700	Meters and Metering Equipment
3712	Customer-Owned Outdoor Lighting
3731	Street Lighting – Overhead
3732	Street Lighting – Boulevard
3733	Street Lighting – Customer Poles

GENERAL PLANT

3920	Transportation Equipment
3921	Transportation Equipment – Trailers
3960	Power Operated Equipment

Account 3640, Poles, Towers and Fixtures, and Account 3650, Overhead Conductors and Devices are used to illustrate the manner in which the study was conducted for the groups in the preceding list. Account 3640 represents 4 percent, and Account 3650 represents 7 percent of the total depreciable plant. Aged plant accounting data have been compiled for the years 1956 through 2021. 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 3640, Poles, Towers and Fixtures, is the 55-R0.5 and is based on the statistical indication for the period 1956 through 2021. The 55-R0.5 is an excellent fit of the significant portion of the original survivor curve as set forth on page VII-101 consistent with management outlook for a continuation of historical experience, and at the upper end of the typical service life range of 40 to 55 years for distribution poles and fixtures. The previous estimate for this account was a 54-R0.5 survivor curve.

The survivor curve estimate for Account 3650, Overhead Conductors and Devices, is based on the statistical indications for the period 1956-2021 and 1992-2021. The Iowa

53-O1 is an excellent fit of the original survivor curve. The 53 year service life is within the typical service life range of 40 to 55 years for conductors. The 53-year life reflects the Company's continued practices of steady retirements for all vintages. The previous estimate was an Iowa 52-O1 survivor curve.

Life Span Estimates

The life span technique was used for the Company's Power Production accounts, as well as major structures in Account 1900. 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, and the estimate of the operating partner, if applicable.

The depreciable life span estimate for steam, base-load units at East Bend is 54 years. The typical range of life spans for such units in the past has been 50 to 65 years, however, recent life expectations have been for less than 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 48 years was estimated for the combustion turbines at Woodsdale. Life span estimates are typically 35 to 45 years for combustion turbines which are used primarily as peaking units, however these units have had upgrades to extend the overall life. The life span for solar units is 30 years.

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

<u>Depreciable Group</u>	<u>Major Year in Service</u>	<u>Depreciable Life Date</u>	<u>Depreciable Life Span</u>
Steam Production Plant East Bend	1981	2035	54
Other Production Plant Woodsdale	1992, 2017	2040	48,23
Crittenden	2017	2047	30
Walton	2017	2047	30

The survivor curve estimates for the remaining accounts were based on judgment incorporating the statistical analyses and previous studies for this and other electric utilities.

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

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

PART IV. NET SALVAGE CONSIDERATIONS

PART IV. NET SALVAGE CONSIDERATIONS

NET SALVAGE ANALYSIS

The estimates of net salvage by account were based in part on historical data compiled for the years 1990 through 2021. Cost of removal and gross 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 gross salvage data, expectations with respect to future removal requirements and markets for retired equipment and materials.

The analyses of historical cost of removal and gross 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 1990 through 2021 contributed significantly toward the net salvage estimates for 28 plant accounts, representing 81 percent of the depreciable plant, as follows:

COMMON PLANT

1900 Structures and Improvements

STEAM PRODUCTION PLANT

3110 Structures and Improvements

3120 Boiler Plant Equipment

3140 Turbogenerator Units

3150 Accessory Electric Equipment

3160 Miscellaneous Power Plant Equipment

OTHER PRODUCTION PLANT

- 3410 Structures and Improvements
- 3420 Fuel Holders, Producers and Accessories
- 3450 Accessory Electric Equipment
- 3460 Miscellaneous Power Plant Equipment

TRANSMISSION PLANT

- 3530 Station Equipment
- 3532 Station Equipment – Major
- 3550 Poles and Fixtures
- 3560 Overhead Conductors and Devices

DISTRIBUTION PLANT

- 3620 Station Equipment
- 3622 Station Equipment – Major
- 3640 Poles, Towers and Fixtures
- 3650 Overhead Conductors and Devices
- 3670 Underground Conductors and Devices
- 3680 Line Transformers
- 3682 Line Transformers – Customer
- 3691 Services – Underground
- 3692 Services – Overhead
- 3700 Meters and Metering Equipment
- 3731 Street Lighting – Overhead
- 3732 Street Lighting – Boulevard
- 3733 Street Lighting – Customer Poles

GENERAL PLANT

- 3921 Transportation Equipment - Trailers

Account 3650, Overhead Conductors and Devices, 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 1990 through 2021 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 1990-1992 through 2019-2021 periods were computed to smooth the annual amounts.

Cost of removal was high during the early 1990s and in the years 1997, 2003, 2005, 2010, 2018 and 2021. The high removal cost in the early 1990s related to practices

during that time. The high removal in 2003 and 2005 related to location of the assets. The high cost of removal in 2010 related to the high labor needed to remove assets due to the events of the flood. The high removal in 2018 and 2021 related to the high labor needed to replace conductor. Cost of removal for the most recent five years averaged 81 percent.

Gross salvage has diminished drastically since 1999. The most recent five-year average of 1 percent gross salvage reflects recent trends of minimal salvage value for conductor.

The net salvage percent based on the overall period 1990 through 2021 is 43 percent negative net salvage. The most common range of estimates made by other electric companies for overhead conductor is negative 20 to negative 50 percent. The net salvage estimate for overhead conductor is negative 40 percent, is within the range of estimates for other electric companies, reflects the trend to higher cost of removal and reflects the overall experience for negative net salvage, but does not consider all of the higher cost of removal amounts to be common.

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 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 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 negative 20 percent was used for steam plant accounts, a negative 7 percent estimate was used for other production plant and a negative 5 percent for solar 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 section on page VIII-3. The calculation of final(terminal) net salvage by location is presented on Table 3 on page VIII-4.

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:

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

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, 2021, 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, 2021, 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:

	<u>Account</u>	<u>Amortization Period, Years</u>
1910	Office Furniture and Equipment	20
1911	Electric Data Processing	5
1940	Tools, Shop and Garage Equipment	25
1970	Communication Equipment	15
1980	Miscellaneous Equipment	15
3910	Office Furniture and Equipment	20
3911	Electric Data Processing	5
3940	Tools, Shop and Garage Equipment	25
3970	Communication Equipment	15

For the purpose of calculating annual amortization amounts as of December 31, 2021, 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 and common plant in service as of December 31, 2021. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to December 31, 2021, 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 and common plant at December 31, 2021. These results are presented on pages VI-4 through VI-6 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 and common 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 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 gross 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, 2021 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.

DUKE ENERGY KENTUCKY

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, 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)=(8)/(5)	(10)=(7)/(8)
	ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AS OF DECEMBER 31, 2021	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)=(8)/(5)	(10)=(7)/(8)
COMMON PLANT										
1900	STRUCTURES AND IMPROVEMENTS									
	ERLANGER OPERATIONS CENTER	06-2065	75-R0.5 *	(10)	4,528,568.63	120,980	4,860,445	128,268	2.83	37.9
	KENTUCKY SERVICE BUILDING - 19TH AND AUGUSTINE	06-2042	75-R0.5 *	(10)	9,151,984.16	594,401	9,472,782	492,900	5.39	19.2
	MINOR STRUCTURES		45-R1.5	(10)	123,818.00	2,018	134,182	3,184	2.57	42.1
	TOTAL STRUCTURES AND IMPROVEMENTS				13,804,370.79	717,399	14,467,409	624,352	4.52	23.2
1910	OFFICE FURNITURE AND EQUIPMENT		20-SQ	0	788,868.79	185,472	603,397	39,443	5.00	15.3
1911	ELECTRONIC DATA PROCESSING		5-SQ	0	5,177.15	4,659	518	518	10.01	1.0
1940	TOOLS, SHOP AND GARAGE EQUIPMENT		25-SQ	0	113,849.90	57,678	56,172	4,555	4.00	12.3
1970	COMMUNICATION EQUIPMENT		15-SQ	0	6,414,002.97	4,631,467	1,782,536	427,921	6.67	4.2
1980	MISCELLANEOUS EQUIPMENT		15-SQ	0	95,300.80	35,189	60,112	6,353	6.67	9.5
	TOTAL COMMON PLANT				21,221,570.40	5,631,864	16,970,144	1,103,142	5.20	15.4
STEAM PRODUCTION PLANT										
3110	STRUCTURES AND IMPROVEMENTS									
3120	BOILER PLANT EQUIPMENT	06-2035	85-S1 *	(10)	183,717,638.42	46,934,083	155,155,319	11,576,821	6.30	13.4
3123	BOILER PLANT EQUIPMENT	06-2035	45-S0.5 *	(10)	545,368,156.24	298,832,215	301,072,757	23,609,292	4.33	12.8
3130	BOILER PLANT EQUIPMENT - SCR CATALYST	06-2035	10-S2.5 *	(10)	7,984,157.58	5,266,747	2,717,411	472,160	5.91	5.8
3140	TURBOGENERATOR UNITS	06-2035	40-S0.5 *	(10)	109,285,792.05	59,323,750	60,890,621	4,954,311	4.53	12.3
3150	ACCESSORY ELECTRIC EQUIPMENT	06-2035	65-R2.5 *	(10)	48,173,349.90	33,908,388	19,082,297	1,442,046	2.99	13.2
3160	MISCELLANEOUS POWER PLANT EQUIPMENT	06-2035	55-S0 *	(10)	23,997,105.75	11,357,282	15,039,534	1,171,041	4.88	12.8
	TOTAL STEAM PRODUCTION PLANT				918,526,199.94	455,622,465	553,957,939	43,225,671	4.71	12.8
OTHER PRODUCTION PLANT										
3410	STRUCTURES AND IMPROVEMENTS									
3420	FUEL HOLDERS, PRODUCERS AND ACCESSORIES	06-2040	60-R4 *	(8)	36,379,260.23	27,885,105	11,404,496	645,377	1.77	17.7
3430	PRIME MOVERS	06-2040	45-S1.5 *	(8)	61,310,889.91	6,744,645	59,471,116	3,347,024	5.46	17.8
3440	GENERATORS	06-2040	25-S0 *	(8)	10,340,709.70	1,522,502	9,645,464	635,081	6.14	15.2
3446	GENERATORS - SOLAR	06-2040	40-S0.5 *	(8)	211,248,425.04	137,426,306	90,721,993	5,985,695	2.83	15.2
	CRITTENDEN	06-2047	25-S2.5 *	(20)	4,143,038.53	787,881	4,183,765	214,222	5.17	19.5
	WALTON	06-2047	25-S2.5 *	(20)	5,670,767.07	1,078,410	5,726,510	293,216	5.17	19.5
	TOTAL GENERATORS - SOLAR				9,813,805.60	1,866,291	9,910,275	507,438		
3450	ACCESSORY ELECTRIC EQUIPMENT	06-2040	35-S1 *	(8)	19,858,901.69	12,312,595	9,135,019	642,291	3.23	14.2
3456	ACCESSORY ELECTRIC EQUIPMENT - SOLAR	06-2047	25-S2.5 *	(20)	637,652.33	85,328	679,855	34,811	5.46	19.5
	CRITTENDEN	06-2047	25-S2.5 *	(20)	979,306.42	131,046	1,044,122	53,462	5.46	19.5
	WALTON	06-2047	25-S2.5 *	(20)	1,616,958.75	216,374	1,723,977	88,273		
	TOTAL ACCESSORY ELECTRIC EQUIPMENT - SOLAR				5,152,109.78	3,329,034	2,235,245	135,197	2.62	16.5
3460	MISCELLANEOUS POWER PLANT EQUIPMENT	06-2040	45-R1.5 *	(6)	355,721,060.70	191,302,852	194,247,585	11,986,376	3.37	16.2
	TOTAL OTHER PRODUCTION PLANT				355,721,060.70	191,302,852	194,247,585	11,986,376	3.37	16.2
TRANSMISSION PLANT										
3501	RIGHTS OF WAY									
3520	STRUCTURES AND IMPROVEMENTS									
3530	STATION EQUIPMENT									
3531	STATION EQUIPMENT - STEP UP									
3532	STATION EQUIPMENT - MAJOR									
3534	STATION EQUIPMENT - STEP UP EQUIPMENT									
3550	POLES AND FIXTURES									
3560	OVERHEAD CONDUCTORS AND DEVICES									
3561	OVERHEAD CONDUCTORS AND DEVICES - CLEARING AND RIGHT OF WAY									
	TOTAL TRANSMISSION PLANT				93,910,246.37	18,399,249	89,594,112	2,119,162	2.26	42.3

DUKE ENERGY KENTUCKY

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, 2021

ACCOUNT (1)	PROBABLE RETIREMENT DATE (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2021 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	RATE (9)=(8)/(5)	COMPOSITE REMAINING LIFE (10)=(7)/(8)
DISTRIBUTION PLANT									
3601		75-R4	0	4,497,571.31	3,188,000	1,309,571	31,113	0.69	42.1
3610		70-R2.5	(15)	1,420,206.00	133,335	1,499,902	26,676	1.88	56.2
3620		32-R0.5	(10)	74,309,691.33	2,701,461	79,039,199	2,908,569	3.91	27.2
3622		60-R2.5	(10)	42,685,060.46	10,534,388	36,419,729	739,611	1.73	49.2
3640		55-R0.5	(60)	144,890,225.86	30,437,147	81,285,908	1,770,540	2.38	45.9
3650		53-O1	(40)	7,177,611.92	36,592,558	166,253,758	3,640,144	2.51	45.7
3651		65-R3	(25)	43,372,544.85	8,759,919	6,651,180	107,441	1.50	61.9
3660		75-R3	(35)	81,870,581.37	19,997,687	45,455,762	694,427	1.60	65.5
3680		48-R0.5	(15)	73,741,779.67	27,436,641	90,527,598	2,074,660	2.53	43.6
3682		55-R1.5	(15)	273,660.52	279,832	57,366,406	1,498,764	2.03	38.3
3691		65-R3	(40)	2,765,626.10	754,485	3,117,392	54,614	1.97	57.1
3692		60-R1	(40)	19,464,620.52	10,671,301	16,579,168	330,957	1.70	50.1
3700		24-L1	(2)	2,620,523.38	834,658	1,838,276	120,438	4.60	15.3
3702		15-S2.5	0	25,906,841.19	6,086,656	19,820,185	1,586,353	6.12	12.5
3711		20-S0.5	0	1,051.24	131	920	48	4.57	19.2
3712		11-R2	(5)	861,284.30	124,052	780,297	92,852	10.78	8.4
3720		30-L3	(15)	9,647.36	9,647	0	0	-	-
3731		34-L0.5	(20)	2,507,459.22	2,105,390	778,188	31,453	1.25	24.7
3732		55-R1.5	(20)	3,368,422.54	2,568,569	1,473,538	37,692	1.12	39.1
3733		25-L0	(10)	3,658,522.09	852,584	3,391,790	162,629	4.21	20.9
				610,085,467.76	164,594,973	613,623,645	15,910,434	2.61	38.6
TOTAL DISTRIBUTION PLANT									
GENERAL PLANT									
3900		40-S1	(10)	165,341.66	51,643	130,233	5,505	3.33	23.7
3910		20-SQ	0	374,028.27	20,503	353,525	18,699	5.00	18.9
3911		5-SQ	0	2,793,949.44	1,555,554	1,238,395	558,763	20.00	2.2
3920		12-S3	5	1,059,153.65	362,709	696,445	65,691	6.20	10.6
3921		20-R2.5	0	272,066.39	190,206	68,257	5,253	1.93	13.0
3940		25-SQ	0	3,161,672.92	591,552	2,570,121	128,327	4.00	20.3
3960		15-L2	0	11,770.00	8,718	3,052	492	4.18	6.2
3970		15-SQ	0	9,004,323.97	2,552,312	6,452,012	600,577	6.67	10.7
				16,642,306.30	5,333,197	11,512,040	1,381,307	8.20	8.3
TOTAL GENERAL PLANT									
UNRECOVERED RESERVE FOR AMORTIZATION									
COMMON PLANT									
1910					56,834		(11,367)		
1911					(14,842)		2,968		
1940					11,273		(2,255)		
1970					1,376,868		(275,374)		
1980					(3,716)		743		
					1,426,417		(285,285)		
TOTAL COMMON PLANT									
ELECTRIC PLANT									
3910					(4,992)		998		
3911					(91,797)		18,359		
3940					357,627		(71,525)		
3970					222,478		(44,496)		
					483,316		(96,664)		
TOTAL ELECTRIC PLANT									
TOTAL UNRECOVERED RESERVE FOR AMORTIZATION									
				2,016,306,851.47	842,794,233	1,479,905,465	75,344,143	3.74	
TOTAL DEPRECIABLE PLANT									

DUKE ENERGY KENTUCKY

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, 2021

	ACCOUNT (1)	PROBABLE RETIREMENT DATE (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2021 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	COMPOSITE REMAINING LIFE (10)=(7)/(8)
NONDEPRECIABLE PLANT									
	1890				1,041,678.45				
	3100				7,046,983.56	101,423			
	3170				100,701,442.92	3,677			
	3400				2,256,586.39				
	3406				776,981.31				
	3500				2,055,417.50				
	3600				12,594,411.92				
					126,475,504.05	105,100			
ACCOUNTS NOT STUDIED									
	1030				22,366,609.54	22,345,887			
	3030				14,264,277.59	8,864,476			
	30303				1,385,510.26	815,784			
	3031				5,092,076.50	2,168,893			
					43,108,473.89	34,215,042			
					2,185,890,829.41	877,114,375	1,479,905,465	75,344,143	

* CURVE SHOWN IS INTERIM SURVIVOR CURVE. EACH FACILITY IN THE ACCOUNT IS ASSIGNED AN INDIVIDUAL PROBABLE RETIREMENT YEAR.

NOTE: ACCRUAL RATES FOR NEW BATTERY STORAGE ASSETS BASED ON A 15-L3 SURVIVOR CURVE AND 0% NET SALVAGE WILL BE AS FOLLOWS:

ACCOUNT	RATE
348.00	6.90
351.00	6.90
363.00	6.90

ACCRAUL RATES FOR NEW EV CHARGING ASSETS BASED ON A 10-S3 SURVIVOR CURVE AND NEGATIVE 2% NET SALVAGE WILL BE AS FOLLOWS:

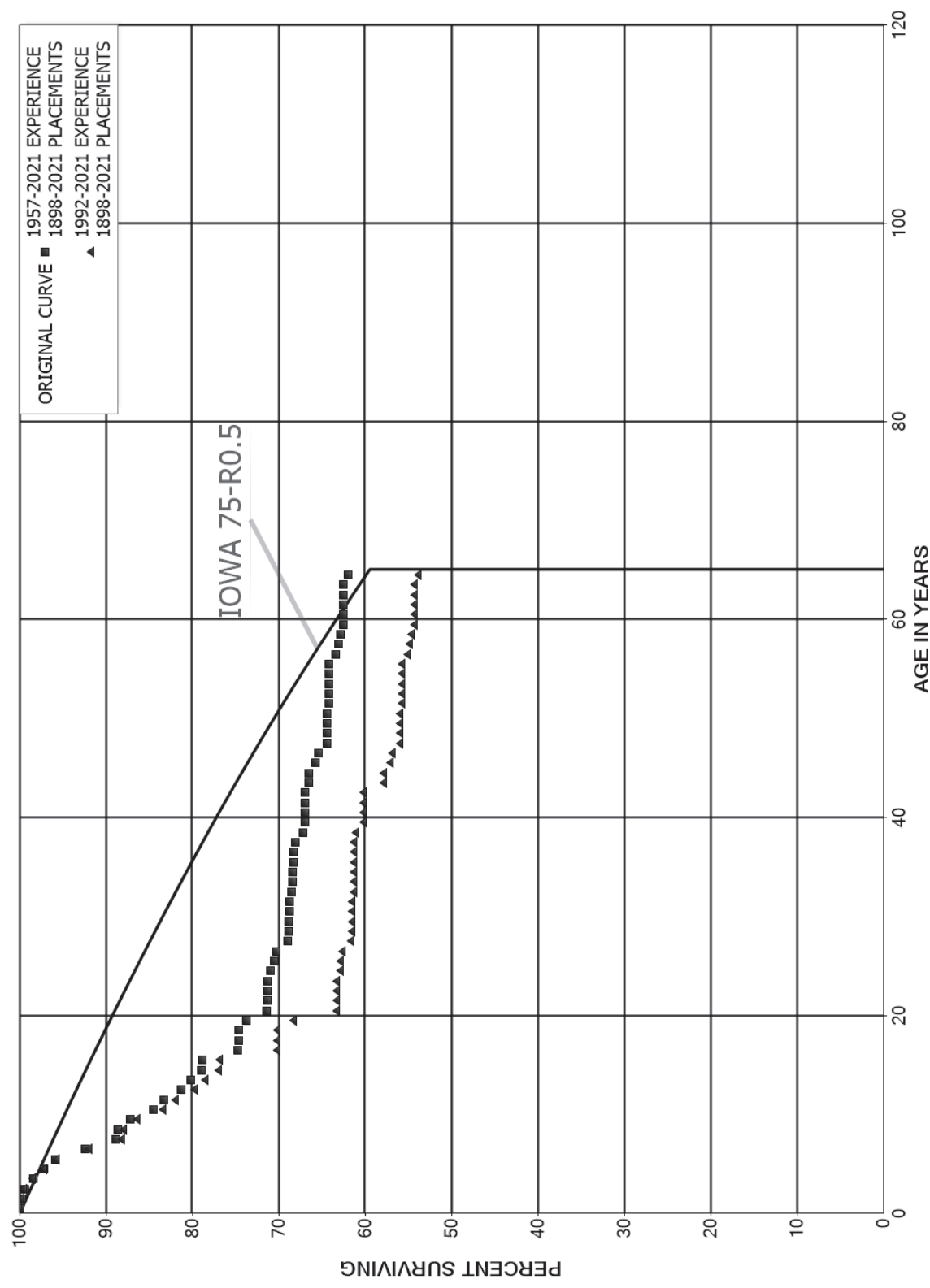
ACCOUNT	RATE
370.70	10.74
394.70	10.74

ACCRAUL RATES FOR NEW EV CHARGING LEVEL 2 ASSETS BASED ON A 10-S4 SURVIVOR CURVE AND NEGATIVE 1% NET SALVAGE WILL BE AS FOLLOWS:

ACCOUNT	RATE
371.70	10.63
394.72	10.63

PART VII. SERVICE LIFE STATISTICS

DUKE ENERGY KENTUCKY
ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1898-2021			EXPERIENCE BAND 1957-2021		
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	48,165,007	21,512	0.0004	0.9996	100.00
0.5	47,841,075	128,378	0.0027	0.9973	99.96
1.5	47,185,587	116,688	0.0025	0.9975	99.69
2.5	44,251,353	448,310	0.0101	0.9899	99.44
3.5	19,058,246	242,265	0.0127	0.9873	98.43
4.5	18,759,678	256,134	0.0137	0.9863	97.18
5.5	18,298,572	666,073	0.0364	0.9636	95.86
6.5	17,546,697	667,753	0.0381	0.9619	92.37
7.5	16,278,590	49,853	0.0031	0.9969	88.85
8.5	16,132,094	249,625	0.0155	0.9845	88.58
9.5	14,556,334	446,286	0.0307	0.9693	87.21
10.5	13,745,055	202,591	0.0147	0.9853	84.53
11.5	13,201,702	318,454	0.0241	0.9759	83.29
12.5	10,566,668	141,837	0.0134	0.9866	81.28
13.5	8,114,325	122,118	0.0150	0.9850	80.19
14.5	7,808,793	10,540	0.0013	0.9987	78.98
15.5	4,279,277	223,258	0.0522	0.9478	78.87
16.5	3,007,253	4,204	0.0014	0.9986	74.76
17.5	2,985,624	1,806	0.0006	0.9994	74.66
18.5	2,926,037	34,678	0.0119	0.9881	74.61
19.5	2,880,168	91,397	0.0317	0.9683	73.73
20.5	2,675,541	3,253	0.0012	0.9988	71.39
21.5	2,456,223	1,237	0.0005	0.9995	71.30
22.5	2,436,977		0.0000	1.0000	71.26
23.5	2,378,116	10,857	0.0046	0.9954	71.26
24.5	2,367,259	14,079	0.0059	0.9941	70.94
25.5	2,331,946	6,810	0.0029	0.9971	70.52
26.5	2,311,268	46,009	0.0199	0.9801	70.31
27.5	2,063,477	3,518	0.0017	0.9983	68.91
28.5	2,000,092		0.0000	1.0000	68.79
29.5	1,941,245	2,254	0.0012	0.9988	68.79
30.5	1,900,965	607	0.0003	0.9997	68.71
31.5	1,897,018	6,025	0.0032	0.9968	68.69
32.5	1,855,692	2,552	0.0014	0.9986	68.47
33.5	840,872		0.0000	1.0000	68.38
34.5	828,420	1,358	0.0016	0.9984	68.38
35.5	826,618		0.0000	1.0000	68.27
36.5	801,820	2,604	0.0032	0.9968	68.27
37.5	756,863	9,526	0.0126	0.9874	68.05
38.5	733,301	2,609	0.0036	0.9964	67.19

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1898-2021			EXPERIENCE BAND 1957-2021			
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	718,175	154	0.0002	0.9998	66.95	
40.5	684,827		0.0000	1.0000	66.94	
41.5	673,267		0.0000	1.0000	66.94	
42.5	633,328	3,870	0.0061	0.9939	66.94	
43.5	605,832		0.0000	1.0000	66.53	
44.5	604,857	7,453	0.0123	0.9877	66.53	
45.5	597,067	2,847	0.0048	0.9952	65.71	
46.5	587,900	8,622	0.0147	0.9853	65.39	
47.5	572,640		0.0000	1.0000	64.43	
48.5	564,055		0.0000	1.0000	64.43	
49.5	559,421	596	0.0011	0.9989	64.43	
50.5	558,825	1,586	0.0028	0.9972	64.37	
51.5	555,313		0.0000	1.0000	64.18	
52.5	550,976		0.0000	1.0000	64.18	
53.5	550,976		0.0000	1.0000	64.18	
54.5	542,787		0.0000	1.0000	64.18	
55.5	542,309	6,779	0.0125	0.9875	64.18	
56.5	533,120	2,420	0.0045	0.9955	63.38	
57.5	529,040	2,327	0.0044	0.9956	63.09	
58.5	546,992	2,650	0.0048	0.9952	62.82	
59.5	544,342		0.0000	1.0000	62.51	
60.5	540,581		0.0000	1.0000	62.51	
61.5	540,581		0.0000	1.0000	62.51	
62.5	538,676		0.0000	1.0000	62.51	
63.5	538,585	4,629	0.0086	0.9914	62.51	
64.5	532,475		0.0000	1.0000	61.97	
65.5	532,162	108,533	0.2039	0.7961	61.97	
66.5	423,507		0.0000	1.0000	49.33	
67.5	423,507	7,703	0.0182	0.9818	49.33	
68.5	410,814		0.0000	1.0000	48.44	
69.5	410,814		0.0000	1.0000	48.44	
70.5	410,204	860	0.0021	0.9979	48.44	
71.5	406,511	155,638	0.3829	0.6171	48.34	
72.5	242,999		0.0000	1.0000	29.83	
73.5	242,999	7,328	0.0302	0.9698	29.83	
74.5	20,494		0.0000	1.0000	28.93	
75.5	20,494	185	0.0090	0.9910	28.93	
76.5	20,309		0.0000	1.0000	28.67	
77.5	20,309		0.0000	1.0000	28.67	
78.5	20,309		0.0000	1.0000	28.67	

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1898-2021			EXPERIENCE BAND 1957-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	20,309		0.0000	1.0000	28.67
80.5	20,309		0.0000	1.0000	28.67
81.5	20,309		0.0000	1.0000	28.67
82.5	20,280		0.0000	1.0000	28.67
83.5	20,280		0.0000	1.0000	28.67
84.5	20,280		0.0000	1.0000	28.67
85.5	20,280		0.0000	1.0000	28.67
86.5	20,280		0.0000	1.0000	28.67
87.5	20,280		0.0000	1.0000	28.67
88.5	20,280		0.0000	1.0000	28.67
89.5	20,280		0.0000	1.0000	28.67
90.5	20,280		0.0000	1.0000	28.67
91.5	20,280		0.0000	1.0000	28.67
92.5	20,280		0.0000	1.0000	28.67
93.5	20,280		0.0000	1.0000	28.67
94.5	20,280		0.0000	1.0000	28.67
95.5	20,280		0.0000	1.0000	28.67
96.5	20,280		0.0000	1.0000	28.67
97.5	20,280		0.0000	1.0000	28.67
98.5	20,280		0.0000	1.0000	28.67
99.5	20,280		0.0000	1.0000	28.67
100.5	20,280		0.0000	1.0000	28.67
101.5	20,280		0.0000	1.0000	28.67
102.5	20,280		0.0000	1.0000	28.67
103.5	20,280		0.0000	1.0000	28.67
104.5	20,280		0.0000	1.0000	28.67
105.5	20,280		0.0000	1.0000	28.67
106.5					28.67

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1898-2021			EXPERIENCE BAND 1992-2021		
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	42,221,568	21,512	0.0005	0.9995	100.00
0.5	46,098,546	128,378	0.0028	0.9972	99.95
1.5	45,629,690	116,688	0.0026	0.9974	99.67
2.5	42,737,560	447,798	0.0105	0.9895	99.42
3.5	17,545,000	238,115	0.0136	0.9864	98.37
4.5	17,270,610	253,599	0.0147	0.9853	97.04
5.5	16,812,341	656,130	0.0390	0.9610	95.61
6.5	16,103,330	665,865	0.0413	0.9587	91.88
7.5	14,906,024	49,853	0.0033	0.9967	88.08
8.5	14,780,873	249,465	0.0169	0.9831	87.79
9.5	12,629,096	445,641	0.0353	0.9647	86.31
10.5	11,889,083	202,154	0.0170	0.9830	83.26
11.5	11,357,726	316,118	0.0278	0.9722	81.85
12.5	8,824,118	131,434	0.0149	0.9851	79.57
13.5	6,407,183	122,118	0.0191	0.9809	78.38
14.5	6,102,627	9,127	0.0015	0.9985	76.89
15.5	2,574,860	223,258	0.0867	0.9133	76.77
16.5	1,311,044		0.0000	1.0000	70.12
17.5	1,300,738	1,376	0.0011	0.9989	70.12
18.5	1,250,167	34,215	0.0274	0.9726	70.04
19.5	1,215,637	87,826	0.0722	0.9278	68.13
20.5	2,033,351	1,500	0.0007	0.9993	63.20
21.5	1,817,711		0.0000	1.0000	63.16
22.5	1,805,299		0.0000	1.0000	63.16
23.5	1,746,438	10,857	0.0062	0.9938	63.16
24.5	1,747,152		0.0000	1.0000	62.76
25.5	1,726,397	5,766	0.0033	0.9967	62.76
26.5	1,709,173	29,128	0.0170	0.9830	62.56
27.5	1,479,923	1,888	0.0013	0.9987	61.49
28.5	1,418,169		0.0000	1.0000	61.41
29.5	1,359,322		0.0000	1.0000	61.41
30.5	1,325,057		0.0000	1.0000	61.41
31.5	1,321,717	5,595	0.0042	0.9958	61.41
32.5	1,282,726		0.0000	1.0000	61.15
33.5	270,548		0.0000	1.0000	61.15
34.5	259,577		0.0000	1.0000	61.15
35.5	259,447		0.0000	1.0000	61.15
36.5	234,771		0.0000	1.0000	61.15
37.5	192,417	773	0.0040	0.9960	61.15
38.5	187,063	2,609	0.0139	0.9861	60.90

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1898-2021			EXPERIENCE BAND 1992-2021		
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	171,937		0.0000	1.0000	60.06
40.5	139,354		0.0000	1.0000	60.06
41.5	130,905		0.0000	1.0000	60.06
42.5	98,841	3,870	0.0392	0.9608	60.06
43.5	71,345		0.0000	1.0000	57.70
44.5	603,618	7,453	0.0123	0.9877	57.70
45.5	595,828	2,847	0.0048	0.9952	56.99
46.5	586,661	8,622	0.0147	0.9853	56.72
47.5	571,401		0.0000	1.0000	55.89
48.5	562,816		0.0000	1.0000	55.89
49.5	558,182	596	0.0011	0.9989	55.89
50.5	557,586	1,586	0.0028	0.9972	55.83
51.5	554,074		0.0000	1.0000	55.67
52.5	550,976		0.0000	1.0000	55.67
53.5	550,976		0.0000	1.0000	55.67
54.5	542,787		0.0000	1.0000	55.67
55.5	542,309	6,779	0.0125	0.9875	55.67
56.5	533,120	2,420	0.0045	0.9955	54.97
57.5	529,040	2,327	0.0044	0.9956	54.72
58.5	526,712	2,650	0.0050	0.9950	54.48
59.5	524,062		0.0000	1.0000	54.21
60.5	520,301		0.0000	1.0000	54.21
61.5	520,301		0.0000	1.0000	54.21
62.5	518,396		0.0000	1.0000	54.21
63.5	518,305	4,629	0.0089	0.9911	54.21
64.5	512,195		0.0000	1.0000	53.72
65.5	511,882	108,533	0.2120	0.7880	53.72
66.5	403,227		0.0000	1.0000	42.33
67.5	403,227	7,703	0.0191	0.9809	42.33
68.5	390,535		0.0000	1.0000	41.52
69.5	390,535		0.0000	1.0000	41.52
70.5	389,924	860	0.0022	0.9978	41.52
71.5	386,231	155,638	0.4030	0.5970	41.43
72.5	222,719		0.0000	1.0000	24.74
73.5	222,719	7,328	0.0329	0.9671	24.74
74.5	214		0.0000	1.0000	23.92
75.5	214	185	0.8626	0.1374	23.92
76.5	29		0.0000	1.0000	3.29
77.5	29		0.0000	1.0000	3.29
78.5	29		0.0000	1.0000	3.29

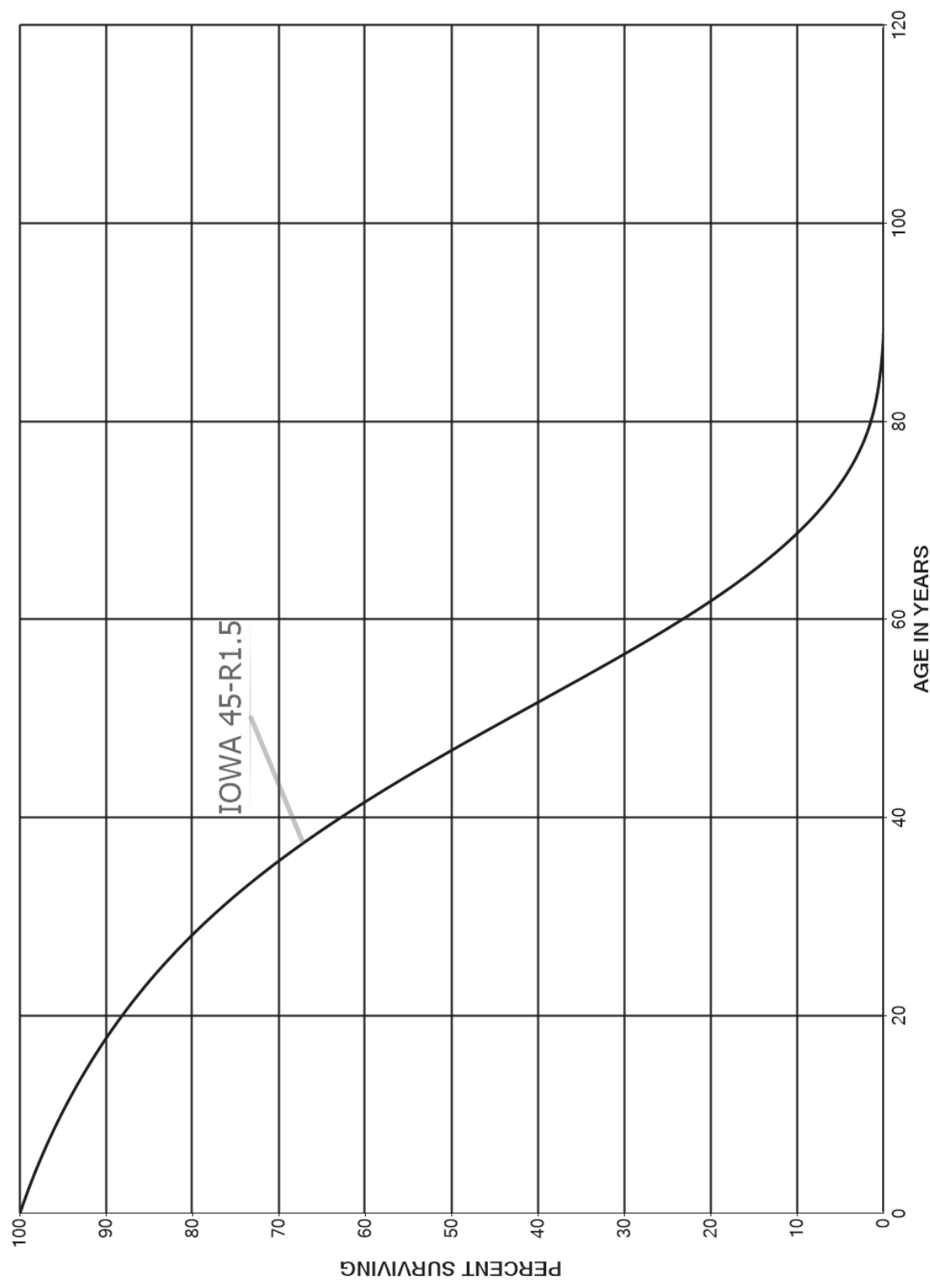
DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

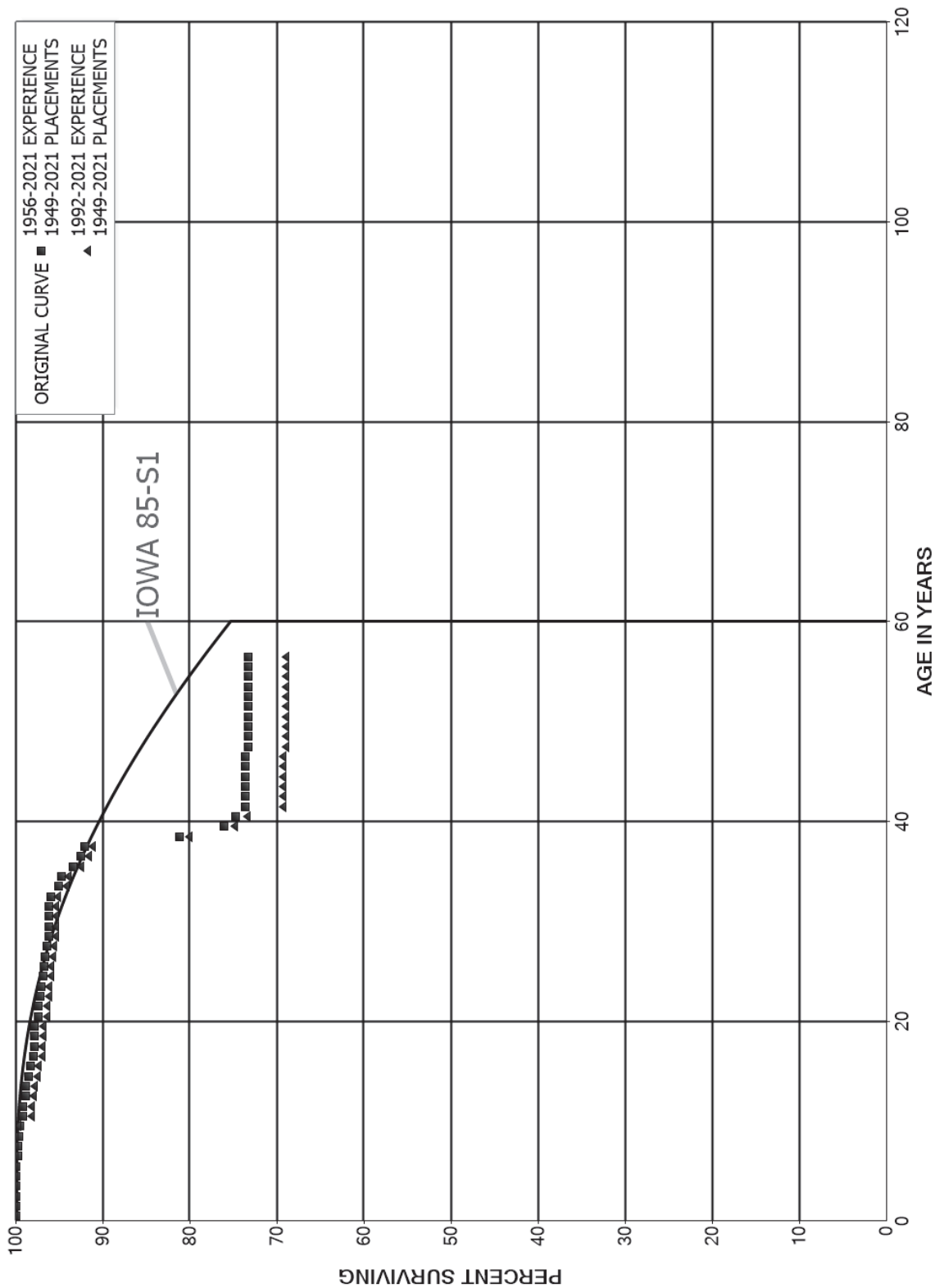
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1898-2021			EXPERIENCE BAND 1992-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5		29	0.0000	1.0000	3.29
80.5		29	0.0000	1.0000	3.29
81.5		29	0.0000	1.0000	3.29
82.5					3.29
83.5					
84.5					
85.5					
86.5					
87.5					
88.5					
89.5					
90.5					
91.5					
92.5					
93.5	20,280		0.0000		
94.5	20,280		0.0000		
95.5	20,280		0.0000		
96.5	20,280		0.0000		
97.5	20,280		0.0000		
98.5	20,280		0.0000		
99.5	20,280		0.0000		
100.5	20,280		0.0000		
101.5	20,280		0.0000		
102.5	20,280		0.0000		
103.5	20,280		0.0000		
104.5	20,280		0.0000		
105.5	20,280		0.0000		
106.5					

DUKE ENERGY KENTUCKY
ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS - MINOR STRUCTURES
SMOOTH SURVIVOR CURVE



DUKE ENERGY KENTUCKY
ACCOUNT 3110 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3110 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1956-2021		
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	198,327,640		0.0000	1.0000	100.00
0.5	196,691,889		0.0000	1.0000	100.00
1.5	175,965,370	40,813	0.0002	0.9998	100.00
2.5	132,489,986	1,953	0.0000	1.0000	99.98
3.5	119,292,684	84,580	0.0007	0.9993	99.98
4.5	76,969,822	6,359	0.0001	0.9999	99.90
5.5	65,784,994	117,932	0.0018	0.9982	99.90
6.5	46,173,091	15,572	0.0003	0.9997	99.72
7.5	45,714,339	9,553	0.0002	0.9998	99.68
8.5	44,881,833	50,979	0.0011	0.9989	99.66
9.5	44,021,326	176,574	0.0040	0.9960	99.55
10.5	42,614,324	3,914	0.0001	0.9999	99.15
11.5	41,926,300	113,550	0.0027	0.9973	99.14
12.5	41,535,326	33,929	0.0008	0.9992	98.87
13.5	41,439,932	119,400	0.0029	0.9971	98.79
14.5	41,160,358	79,505	0.0019	0.9981	98.51
15.5	37,989,805	146,301	0.0039	0.9961	98.32
16.5	37,272,130	19,855	0.0005	0.9995	97.94
17.5	37,023,902	31,027	0.0008	0.9992	97.89
18.5	36,837,637	5,711	0.0002	0.9998	97.80
19.5	36,602,470	152,527	0.0042	0.9958	97.79
20.5	36,237,876		0.0000	1.0000	97.38
21.5	36,608,310	88,923	0.0024	0.9976	97.38
22.5	36,449,376	41,973	0.0012	0.9988	97.14
23.5	36,168,536	76,666	0.0021	0.9979	97.03
24.5	36,300,733	32,589	0.0009	0.9991	96.83
25.5	36,048,941	65,393	0.0018	0.9982	96.74
26.5	35,917,933	56,871	0.0016	0.9984	96.56
27.5	34,604,055	75,856	0.0022	0.9978	96.41
28.5	34,421,240	10,641	0.0003	0.9997	96.20
29.5	34,169,358		0.0000	1.0000	96.17
30.5	34,162,114	2,324	0.0001	0.9999	96.17
31.5	33,911,042	65,052	0.0019	0.9981	96.16
32.5	33,824,599	340,121	0.0101	0.9899	95.98
33.5	33,476,797	90,264	0.0027	0.9973	95.01
34.5	33,518,779	484,199	0.0144	0.9856	94.76
35.5	32,977,396	316,147	0.0096	0.9904	93.39
36.5	32,343,221	150,676	0.0047	0.9953	92.49
37.5	32,189,652	3,812,318	0.1184	0.8816	92.06
38.5	25,114,699	1,575,591	0.0627	0.9373	81.16

DUKE ENERGY KENTUCKY

ACCOUNT 3110 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1956-2021		
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	23,329,285	416,503	0.0179	0.9821	76.07
40.5	1,180,519	17,308	0.0147	0.9853	74.71
41.5	1,085,932		0.0000	1.0000	73.62
42.5	1,084,006		0.0000	1.0000	73.62
43.5	1,071,133		0.0000	1.0000	73.62
44.5	1,024,884		0.0000	1.0000	73.62
45.5	1,024,884		0.0000	1.0000	73.62
46.5	3,891,211	18,254	0.0047	0.9953	73.62
47.5	3,872,956		0.0000	1.0000	73.27
48.5	3,872,956		0.0000	1.0000	73.27
49.5	3,731,896		0.0000	1.0000	73.27
50.5	3,722,507		0.0000	1.0000	73.27
51.5	2,856,501		0.0000	1.0000	73.27
52.5	2,856,501		0.0000	1.0000	73.27
53.5	2,856,501		0.0000	1.0000	73.27
54.5	2,856,501		0.0000	1.0000	73.27
55.5	2,856,501		0.0000	1.0000	73.27
56.5					73.27

DUKE ENERGY KENTUCKY

ACCOUNT 3110 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1992-2021		
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	161,443,508		0.0000	1.0000	100.00
0.5	159,980,222		0.0000	1.0000	100.00
1.5	140,129,205		0.0000	1.0000	100.00
2.5	96,773,212		0.0000	1.0000	100.00
3.5	83,577,863	40,325	0.0005	0.9995	100.00
4.5	41,173,023	1,411	0.0000	1.0000	99.95
5.5	30,125,373		0.0000	1.0000	99.95
6.5	9,767,787		0.0000	1.0000	99.95
7.5	10,068,983		0.0000	1.0000	99.95
8.5	9,246,031	33,928	0.0037	0.9963	99.95
9.5	8,461,966	128,174	0.0151	0.9849	99.58
10.5	39,291,582		0.0000	1.0000	98.07
11.5	38,866,778	92,657	0.0024	0.9976	98.07
12.5	38,504,627	33,929	0.0009	0.9991	97.84
13.5	38,409,233	119,400	0.0031	0.9969	97.75
14.5	38,511,587	73,121	0.0019	0.9981	97.45
15.5	35,347,419	140,579	0.0040	0.9960	97.26
16.5	34,854,669	19,855	0.0006	0.9994	96.88
17.5	34,631,558	31,027	0.0009	0.9991	96.82
18.5	35,505,478		0.0000	1.0000	96.74
19.5	35,276,021	150,527	0.0043	0.9957	96.74
20.5	34,940,148		0.0000	1.0000	96.32
21.5	35,310,582	76,044	0.0022	0.9978	96.32
22.5	35,164,528	29,768	0.0008	0.9992	96.12
23.5	34,917,283	76,666	0.0022	0.9978	96.03
24.5	35,049,481	4,329	0.0001	0.9999	95.82
25.5	34,825,948	57,318	0.0016	0.9984	95.81
26.5	34,703,253	56,871	0.0016	0.9984	95.65
27.5	33,393,565	71,056	0.0021	0.9979	95.50
28.5	33,218,442	10,641	0.0003	0.9997	95.29
29.5	33,041,520		0.0000	1.0000	95.26
30.5	33,037,558	2,324	0.0001	0.9999	95.26
31.5	32,827,501	65,052	0.0020	0.9980	95.26
32.5	32,741,058	340,121	0.0104	0.9896	95.07
33.5	32,395,182	90,264	0.0028	0.9972	94.08
34.5	32,450,037	484,199	0.0149	0.9851	93.82
35.5	31,954,903	316,147	0.0099	0.9901	92.42
36.5	31,320,728	150,676	0.0048	0.9952	91.50
37.5	31,175,588	3,812,318	0.1223	0.8777	91.06
38.5	24,100,635	1,575,591	0.0654	0.9346	79.93

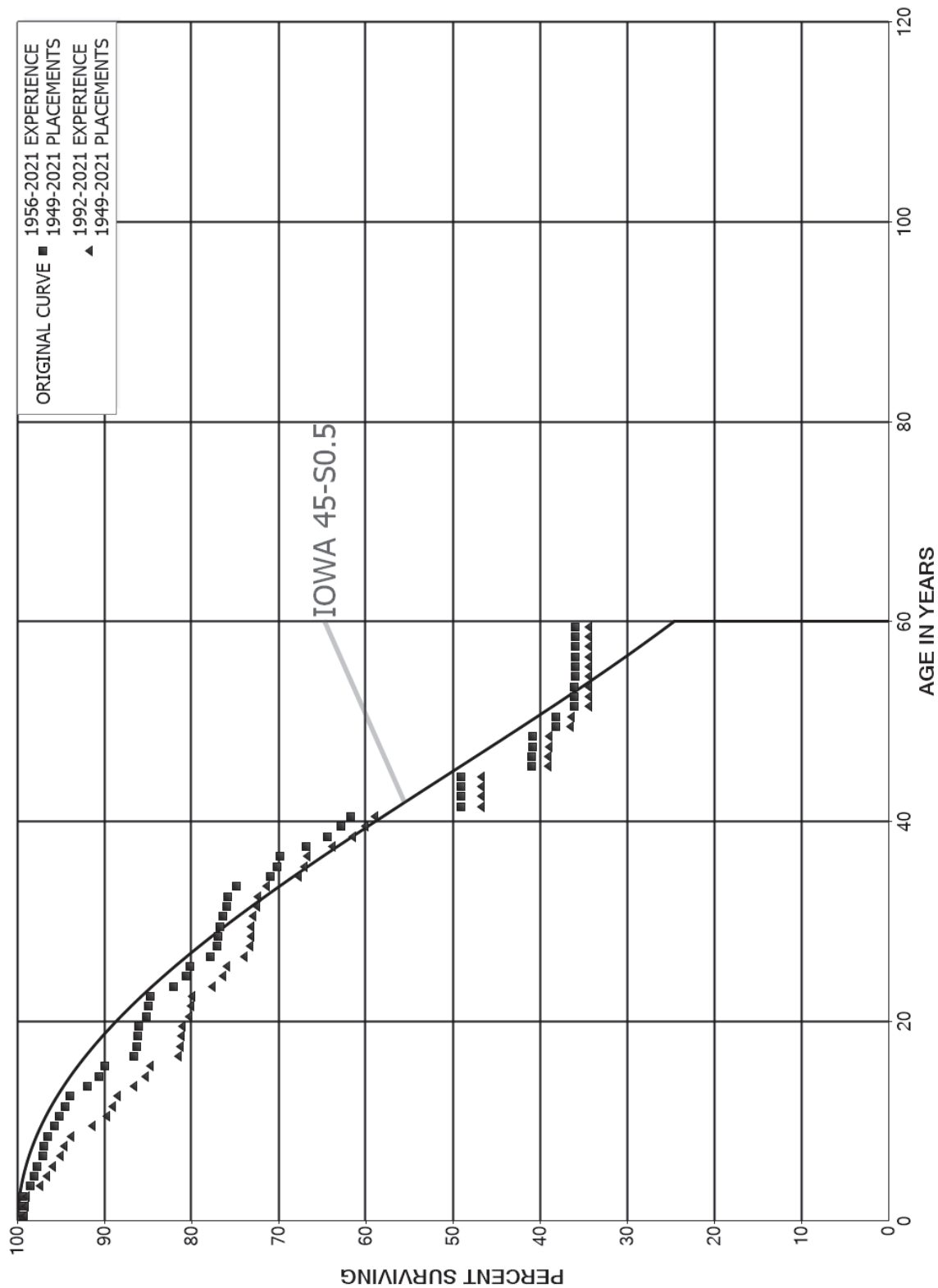
DUKE ENERGY KENTUCKY

ACCOUNT 3110 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1992-2021		
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	22,315,221	416,503	0.0187	0.9813	74.70
40.5	307,515	17,308	0.0563	0.9437	73.31
41.5	222,317		0.0000	1.0000	69.18
42.5	1,084,006		0.0000	1.0000	69.18
43.5	1,071,133		0.0000	1.0000	69.18
44.5	1,024,884		0.0000	1.0000	69.18
45.5	1,024,884		0.0000	1.0000	69.18
46.5	3,891,211	18,254	0.0047	0.9953	69.18
47.5	3,872,956		0.0000	1.0000	68.86
48.5	3,872,956		0.0000	1.0000	68.86
49.5	3,731,896		0.0000	1.0000	68.86
50.5	3,722,507		0.0000	1.0000	68.86
51.5	2,856,501		0.0000	1.0000	68.86
52.5	2,856,501		0.0000	1.0000	68.86
53.5	2,856,501		0.0000	1.0000	68.86
54.5	2,856,501		0.0000	1.0000	68.86
55.5	2,856,501		0.0000	1.0000	68.86
56.5					68.86

DUKE ENERGY KENTUCKY
ACCOUNT 3120 BOILER PLANT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3120 BOILER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1949-2021

EXPERIENCE BAND 1956-2021

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	785,755,512	3,962,738	0.0050	0.9950	100.00
0.5	767,875,693	415,046	0.0005	0.9995	99.50
1.5	740,626,253	665,726	0.0009	0.9991	99.44
2.5	740,704,830	6,341,383	0.0086	0.9914	99.35
3.5	641,039,060	2,804,616	0.0044	0.9956	98.50
4.5	692,559,390	2,523,355	0.0036	0.9964	98.07
5.5	680,242,722	4,147,903	0.0061	0.9939	97.71
6.5	541,194,281	1,018,406	0.0019	0.9981	97.12
7.5	492,426,610	2,002,368	0.0041	0.9959	96.94
8.5	487,036,652	3,890,065	0.0080	0.9920	96.54
9.5	472,711,400	2,827,584	0.0060	0.9940	95.77
10.5	464,896,364	3,397,357	0.0073	0.9927	95.20
11.5	460,286,903	2,603,759	0.0057	0.9943	94.50
12.5	459,327,604	9,801,081	0.0213	0.9787	93.97
13.5	463,204,001	6,944,885	0.0150	0.9850	91.96
14.5	455,920,635	3,112,957	0.0068	0.9932	90.58
15.5	451,572,461	16,979,222	0.0376	0.9624	89.96
16.5	436,304,244	1,481,392	0.0034	0.9966	86.58
17.5	430,834,797	481,058	0.0011	0.9989	86.29
18.5	429,085,100	639,397	0.0015	0.9985	86.19
19.5	381,438,521	3,712,509	0.0097	0.9903	86.06
20.5	375,347,577	1,096,712	0.0029	0.9971	85.23
21.5	236,562,494	843,373	0.0036	0.9964	84.98
22.5	231,497,594	7,032,740	0.0304	0.9696	84.67
23.5	208,409,447	3,637,189	0.0175	0.9825	82.10
24.5	204,208,450	1,376,257	0.0067	0.9933	80.67
25.5	196,316,556	5,657,069	0.0288	0.9712	80.12
26.5	191,834,936	1,920,224	0.0100	0.9900	77.82
27.5	184,572,781	300,962	0.0016	0.9984	77.04
28.5	183,846,452	481,406	0.0026	0.9974	76.91
29.5	181,302,052	757,358	0.0042	0.9958	76.71
30.5	179,422,852	1,003,588	0.0056	0.9944	76.39
31.5	178,247,208	336,048	0.0019	0.9981	75.96
32.5	177,726,467	2,411,706	0.0136	0.9864	75.82
33.5	174,305,273	9,033,838	0.0518	0.9482	74.79
34.5	164,566,428	1,671,821	0.0102	0.9898	70.91
35.5	162,226,303	750,166	0.0046	0.9954	70.19
36.5	160,471,608	6,898,540	0.0430	0.9570	69.87
37.5	141,157,138	5,150,040	0.0365	0.9635	66.87
38.5	135,137,365	3,398,921	0.0252	0.9748	64.43

DUKE ENERGY KENTUCKY

ACCOUNT 3120 BOILER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1956-2021		
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	131,653,853	2,271,146	0.0173	0.9827	62.81
40.5	940,643	193,474	0.2057	0.7943	61.72
41.5	781,694		0.0000	1.0000	49.03
42.5	718,842		0.0000	1.0000	49.03
43.5	717,326		0.0000	1.0000	49.03
44.5	736,028	121,386	0.1649	0.8351	49.03
45.5	622,964		0.0000	1.0000	40.94
46.5	7,768,311	28,271	0.0036	0.9964	40.94
47.5	7,740,040		0.0000	1.0000	40.79
48.5	7,740,040	489,192	0.0632	0.9368	40.79
49.5	7,243,949	9,310	0.0013	0.9987	38.21
50.5	7,163,659	403,713	0.0564	0.9436	38.16
51.5	6,718,498		0.0000	1.0000	36.01
52.5	6,690,518		0.0000	1.0000	36.01
53.5	6,665,564	6,702	0.0010	0.9990	36.01
54.5	6,630,890		0.0000	1.0000	35.98
55.5	6,622,569		0.0000	1.0000	35.98
56.5	6,734		0.0000	1.0000	35.98
57.5	192,340		0.0000	1.0000	35.98
58.5	192,340		0.0000	1.0000	35.98
59.5	192,340		0.0000	1.0000	35.98
60.5	192,340		0.0000	1.0000	35.98
61.5	192,340		0.0000	1.0000	35.98
62.5	185,606		0.0000	1.0000	35.98
63.5	185,606		0.0000	1.0000	35.98
64.5	185,606		0.0000	1.0000	35.98
65.5	185,606		0.0000	1.0000	35.98
66.5	185,606		0.0000	1.0000	35.98
67.5					35.98

DUKE ENERGY KENTUCKY

ACCOUNT 3120 BOILER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1949-2021

EXPERIENCE BAND 1992-2021

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	426,896,818	3,962,738	0.0093	0.9907	100.00
0.5	410,397,439	409,982	0.0010	0.9990	99.07
1.5	384,150,141	594,293	0.0015	0.9985	98.97
2.5	385,900,465	5,980,086	0.0155	0.9845	98.82
3.5	286,932,095	2,247,391	0.0078	0.9922	97.29
4.5	340,300,069	2,335,118	0.0069	0.9931	96.53
5.5	328,422,169	3,231,396	0.0098	0.9902	95.86
6.5	190,771,596	917,021	0.0048	0.9952	94.92
7.5	143,152,496	1,158,627	0.0081	0.9919	94.46
8.5	138,699,512	3,559,225	0.0257	0.9743	93.70
9.5	125,970,688	2,342,044	0.0186	0.9814	91.30
10.5	434,729,953	3,262,157	0.0075	0.9925	89.60
11.5	445,164,677	2,475,491	0.0056	0.9944	88.93
12.5	444,454,138	9,657,654	0.0217	0.9783	88.43
13.5	449,440,465	6,793,795	0.0151	0.9849	86.51
14.5	442,308,190	2,945,014	0.0067	0.9933	85.20
15.5	439,058,127	16,732,668	0.0381	0.9619	84.63
16.5	429,867,447	1,443,562	0.0034	0.9966	81.41
17.5	424,701,215	159,257	0.0004	0.9996	81.14
18.5	423,288,336	582,526	0.0014	0.9986	81.11
19.5	375,757,794	3,648,326	0.0097	0.9903	80.99
20.5	369,742,913	1,046,455	0.0028	0.9972	80.21
21.5	231,017,649	541,411	0.0023	0.9977	79.98
22.5	226,254,711	6,531,864	0.0289	0.9711	79.79
23.5	203,669,119	3,211,280	0.0158	0.9842	77.49
24.5	199,900,247	1,121,657	0.0056	0.9944	76.27
25.5	192,278,534	5,065,185	0.0263	0.9737	75.84
26.5	188,388,798	1,815,544	0.0096	0.9904	73.84
27.5	181,235,415	162,836	0.0009	0.9991	73.13
28.5	180,647,606	101,377	0.0006	0.9994	73.06
29.5	179,251,871	486,596	0.0027	0.9973	73.02
30.5	177,644,655	940,544	0.0053	0.9947	72.83
31.5	178,239,973	336,048	0.0019	0.9981	72.44
32.5	177,719,232	2,411,706	0.0136	0.9864	72.30
33.5	174,298,038	9,033,838	0.0518	0.9482	71.32
34.5	164,559,193	1,671,821	0.0102	0.9898	67.63
35.5	162,219,068	750,166	0.0046	0.9954	66.94
36.5	160,464,373	6,898,540	0.0430	0.9570	66.63
37.5	141,149,903	5,150,040	0.0365	0.9635	63.76
38.5	135,130,130	3,398,921	0.0252	0.9748	61.44

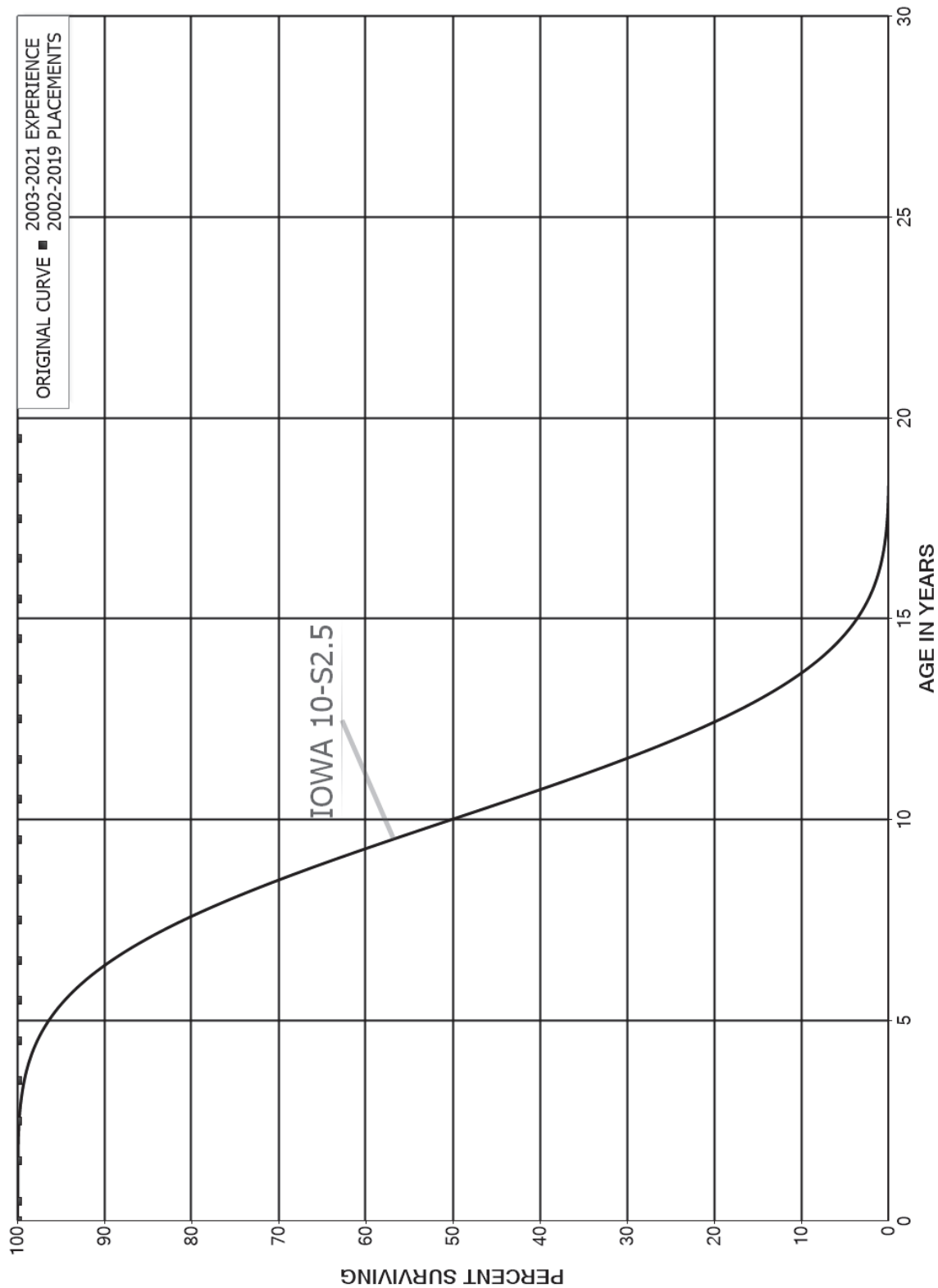
DUKE ENERGY KENTUCKY

ACCOUNT 3120 BOILER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1992-2021		
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	131,646,618	2,271,146	0.0173	0.9827	59.89
40.5	933,408	193,474	0.2073	0.7927	58.86
41.5	774,771		0.0000	1.0000	46.66
42.5	718,842		0.0000	1.0000	46.66
43.5	717,326		0.0000	1.0000	46.66
44.5	736,028	121,386	0.1649	0.8351	46.66
45.5	622,964		0.0000	1.0000	38.96
46.5	7,768,311	28,271	0.0036	0.9964	38.96
47.5	7,740,040		0.0000	1.0000	38.82
48.5	7,740,040	489,192	0.0632	0.9368	38.82
49.5	7,243,949	9,310	0.0013	0.9987	36.37
50.5	7,163,659	403,713	0.0564	0.9436	36.32
51.5	6,718,498		0.0000	1.0000	34.27
52.5	6,690,518		0.0000	1.0000	34.27
53.5	6,665,564	6,702	0.0010	0.9990	34.27
54.5	6,630,890		0.0000	1.0000	34.24
55.5	6,622,569		0.0000	1.0000	34.24
56.5	6,734		0.0000	1.0000	34.24
57.5	192,340		0.0000	1.0000	34.24
58.5	192,340		0.0000	1.0000	34.24
59.5	192,340		0.0000	1.0000	34.24
60.5	192,340		0.0000	1.0000	34.24
61.5	192,340		0.0000	1.0000	34.24
62.5	185,606		0.0000	1.0000	34.24
63.5	185,606		0.0000	1.0000	34.24
64.5	185,606		0.0000	1.0000	34.24
65.5	185,606		0.0000	1.0000	34.24
66.5	185,606		0.0000	1.0000	34.24
67.5					34.24

DUKE ENERGY KENTUCKY
ACCOUNT 3123 BOILER PLANT EQUIPMENT - SCR CATALYST
ORIGINAL AND SMOOTH SURVIVOR CURVES



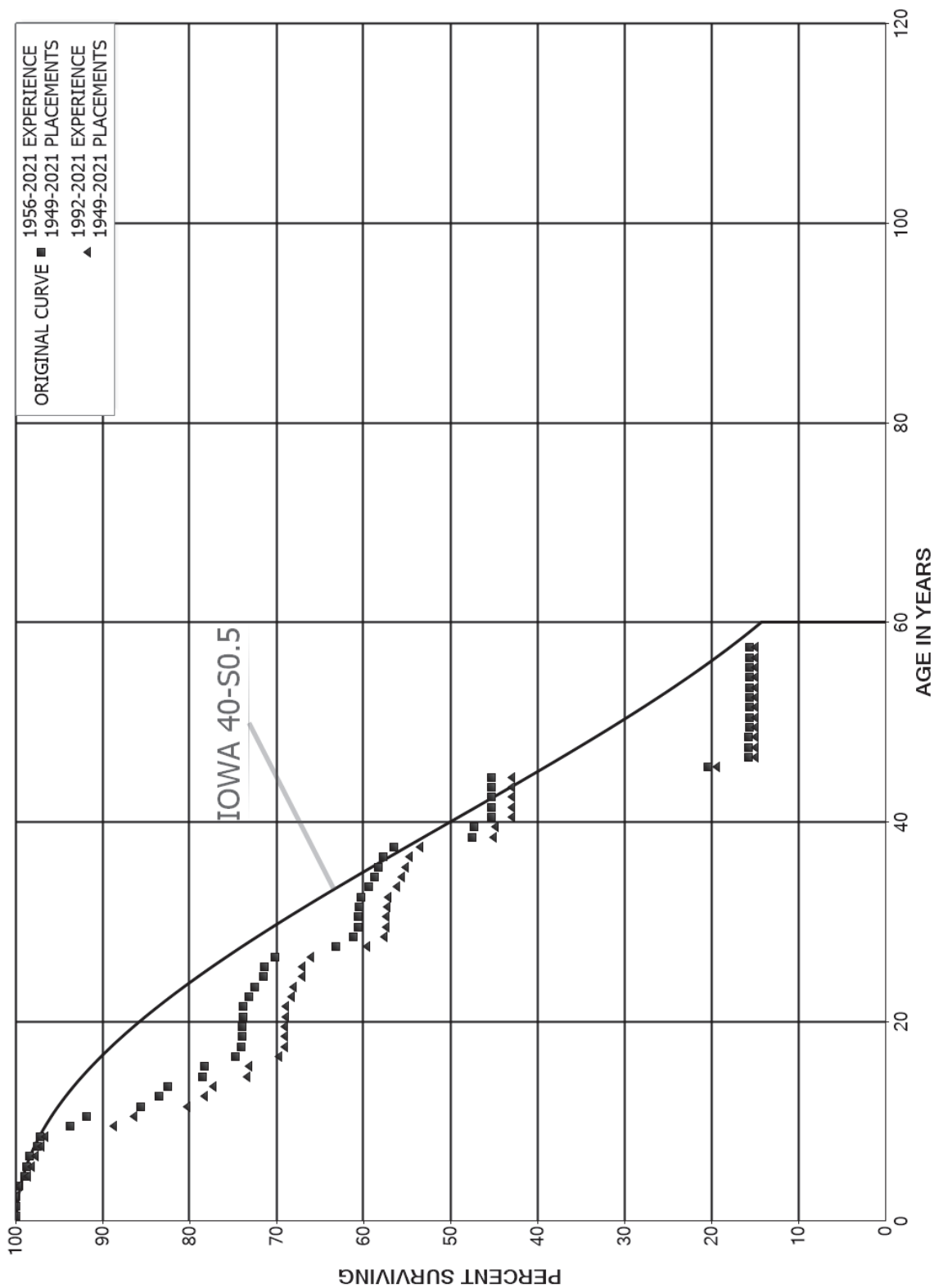
DUKE ENERGY KENTUCKY

ACCOUNT 3123 BOILER PLANT EQUIPMENT - SCR CATALYST

ORIGINAL LIFE TABLE

PLACEMENT BAND 2002-2019			EXPERIENCE BAND 2003-2021		
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	5,753,671		0.0000	1.0000	100.00
0.5	7,984,164		0.0000	1.0000	100.00
1.5	7,984,158		0.0000	1.0000	100.00
2.5	5,420,680		0.0000	1.0000	100.00
3.5	5,420,680		0.0000	1.0000	100.00
4.5	5,420,680		0.0000	1.0000	100.00
5.5	5,420,680		0.0000	1.0000	100.00
6.5	2,766,750		0.0000	1.0000	100.00
7.5	2,766,750		0.0000	1.0000	100.00
8.5	2,230,486		0.0000	1.0000	100.00
9.5	2,230,486		0.0000	1.0000	100.00
10.5	2,230,486		0.0000	1.0000	100.00
11.5	2,230,486		0.0000	1.0000	100.00
12.5	2,230,486		0.0000	1.0000	100.00
13.5	2,230,486		0.0000	1.0000	100.00
14.5	2,230,486		0.0000	1.0000	100.00
15.5	2,230,486		0.0000	1.0000	100.00
16.5	2,230,486		0.0000	1.0000	100.00
17.5	2,230,486		0.0000	1.0000	100.00
18.5	2,230,486		0.0000	1.0000	100.00
19.5					100.00

DUKE ENERGY KENTUCKY
ACCOUNT 3140 TURBOGENERATOR UNITS
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3140 TURBOGENERATOR UNITS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1956-2021		
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	117,603,518		0.0000	1.0000	100.00
0.5	116,229,714		0.0000	1.0000	100.00
1.5	112,764,428	95,283	0.0008	0.9992	100.00
2.5	109,598,689	300,071	0.0027	0.9973	99.92
3.5	96,062,295	651,220	0.0068	0.9932	99.64
4.5	95,345,438	215,688	0.0023	0.9977	98.97
5.5	94,776,272	371,576	0.0039	0.9961	98.74
6.5	64,909,667	585,809	0.0090	0.9910	98.36
7.5	63,846,792	175,792	0.0028	0.9972	97.47
8.5	62,376,243	2,209,484	0.0354	0.9646	97.20
9.5	59,690,621	1,220,675	0.0205	0.9795	93.76
10.5	57,771,898	3,933,990	0.0681	0.9319	91.84
11.5	53,288,102	1,274,241	0.0239	0.9761	85.59
12.5	51,374,816	607,233	0.0118	0.9882	83.54
13.5	52,599,283	2,588,722	0.0492	0.9508	82.55
14.5	50,308,053	155,218	0.0031	0.9969	78.49
15.5	50,215,126	2,277,553	0.0454	0.9546	78.25
16.5	41,153,342	348,038	0.0085	0.9915	74.70
17.5	38,881,936	67,638	0.0017	0.9983	74.07
18.5	38,405,166	3,500	0.0001	0.9999	73.94
19.5	38,733,921	60,185	0.0016	0.9984	73.93
20.5	39,690,212	15,419	0.0004	0.9996	73.82
21.5	59,878,256	519,882	0.0087	0.9913	73.79
22.5	59,278,137	516,998	0.0087	0.9913	73.15
23.5	57,000,956	786,467	0.0138	0.9862	72.51
24.5	55,985,913	52,928	0.0009	0.9991	71.51
25.5	55,815,388	969,163	0.0174	0.9826	71.44
26.5	54,846,225	5,524,472	0.1007	0.8993	70.20
27.5	49,223,307	1,562,503	0.0317	0.9683	63.13
28.5	47,619,126	380,242	0.0080	0.9920	61.12
29.5	46,597,988		0.0000	1.0000	60.64
30.5	46,114,638	84,460	0.0018	0.9982	60.64
31.5	45,823,949	151,481	0.0033	0.9967	60.53
32.5	45,636,468	741,411	0.0162	0.9838	60.33
33.5	44,905,921	493,479	0.0110	0.9890	59.35
34.5	43,732,351	313,200	0.0072	0.9928	58.69
35.5	42,958,986	397,184	0.0092	0.9908	58.27
36.5	22,065,169	476,930	0.0216	0.9784	57.73
37.5	21,578,031	3,430,764	0.1590	0.8410	56.49
38.5	18,107,061	82,313	0.0045	0.9955	47.51

DUKE ENERGY KENTUCKY

ACCOUNT 3140 TURBOGENERATOR UNITS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1956-2021		
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	17,966,688	768,913	0.0428	0.9572	47.29
40.5	107,802		0.0000	1.0000	45.27
41.5	97,580		0.0000	1.0000	45.27
42.5	95,647		0.0000	1.0000	45.27
43.5	93,070		0.0000	1.0000	45.27
44.5	94,614	52,089	0.5505	0.4495	45.27
45.5	40,605	9,199	0.2265	0.7735	20.34
46.5	5,960,098		0.0000	1.0000	15.74
47.5	5,980,790		0.0000	1.0000	15.74
48.5	5,980,790	29,921	0.0050	0.9950	15.74
49.5	5,950,869		0.0000	1.0000	15.66
50.5	5,950,869		0.0000	1.0000	15.66
51.5	5,950,869		0.0000	1.0000	15.66
52.5	5,929,295		0.0000	1.0000	15.66
53.5	5,921,007		0.0000	1.0000	15.66
54.5	5,919,463		0.0000	1.0000	15.66
55.5	5,919,463		0.0000	1.0000	15.66
56.5	20,692		0.0000	1.0000	15.66
57.5					15.66

DUKE ENERGY KENTUCKY

ACCOUNT 3140 TURBOGENERATOR UNITS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1992-2021		
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	81,160,185		0.0000	1.0000	100.00
0.5	79,786,381		0.0000	1.0000	100.00
1.5	76,574,511	95,283	0.0012	0.9988	100.00
2.5	73,408,772	239,851	0.0033	0.9967	99.88
3.5	59,932,599	650,519	0.0109	0.9891	99.55
4.5	59,365,866	214,783	0.0036	0.9964	98.47
5.5	59,036,233	330,967	0.0056	0.9944	98.11
6.5	29,210,237	185,233	0.0063	0.9937	97.56
7.5	28,547,939	138,790	0.0049	0.9951	96.94
8.5	27,114,393	2,199,846	0.0811	0.9189	96.47
9.5	24,438,408	653,443	0.0267	0.9733	88.65
10.5	55,461,064	3,927,223	0.0708	0.9292	86.28
11.5	50,984,035	1,270,931	0.0249	0.9751	80.17
12.5	49,074,059	598,923	0.0122	0.9878	78.17
13.5	50,394,926	2,583,434	0.0513	0.9487	77.21
14.5	48,108,984	125,944	0.0026	0.9974	73.26
15.5	48,045,331	2,268,651	0.0472	0.9528	73.06
16.5	38,992,450	344,547	0.0088	0.9912	69.61
17.5	36,729,316	53,449	0.0015	0.9985	69.00
18.5	36,266,735		0.0000	1.0000	68.90
19.5	36,598,989	60,185	0.0016	0.9984	68.90
20.5	37,555,280	2,120	0.0001	0.9999	68.78
21.5	57,756,624	519,882	0.0090	0.9910	68.78
22.5	57,162,603	165,277	0.0029	0.9971	68.16
23.5	55,237,144	776,958	0.0141	0.9859	67.96
24.5	54,231,610	52,710	0.0010	0.9990	67.01
25.5	54,061,303	778,917	0.0144	0.9856	66.94
26.5	53,288,378	5,264,181	0.0988	0.9012	65.98
27.5	47,927,915	1,562,503	0.0326	0.9674	59.46
28.5	46,323,735	151,662	0.0033	0.9967	57.52
29.5	45,619,973		0.0000	1.0000	57.33
30.5	45,136,624	84,460	0.0019	0.9981	57.33
31.5	45,804,528	151,481	0.0033	0.9967	57.23
32.5	45,636,468	741,411	0.0162	0.9838	57.04
33.5	44,905,921	493,479	0.0110	0.9890	56.11
34.5	43,732,351	313,200	0.0072	0.9928	55.49
35.5	42,958,986	397,184	0.0092	0.9908	55.10
36.5	22,065,169	476,930	0.0216	0.9784	54.59
37.5	21,578,031	3,430,764	0.1590	0.8410	53.41
38.5	18,107,061	82,313	0.0045	0.9955	44.92

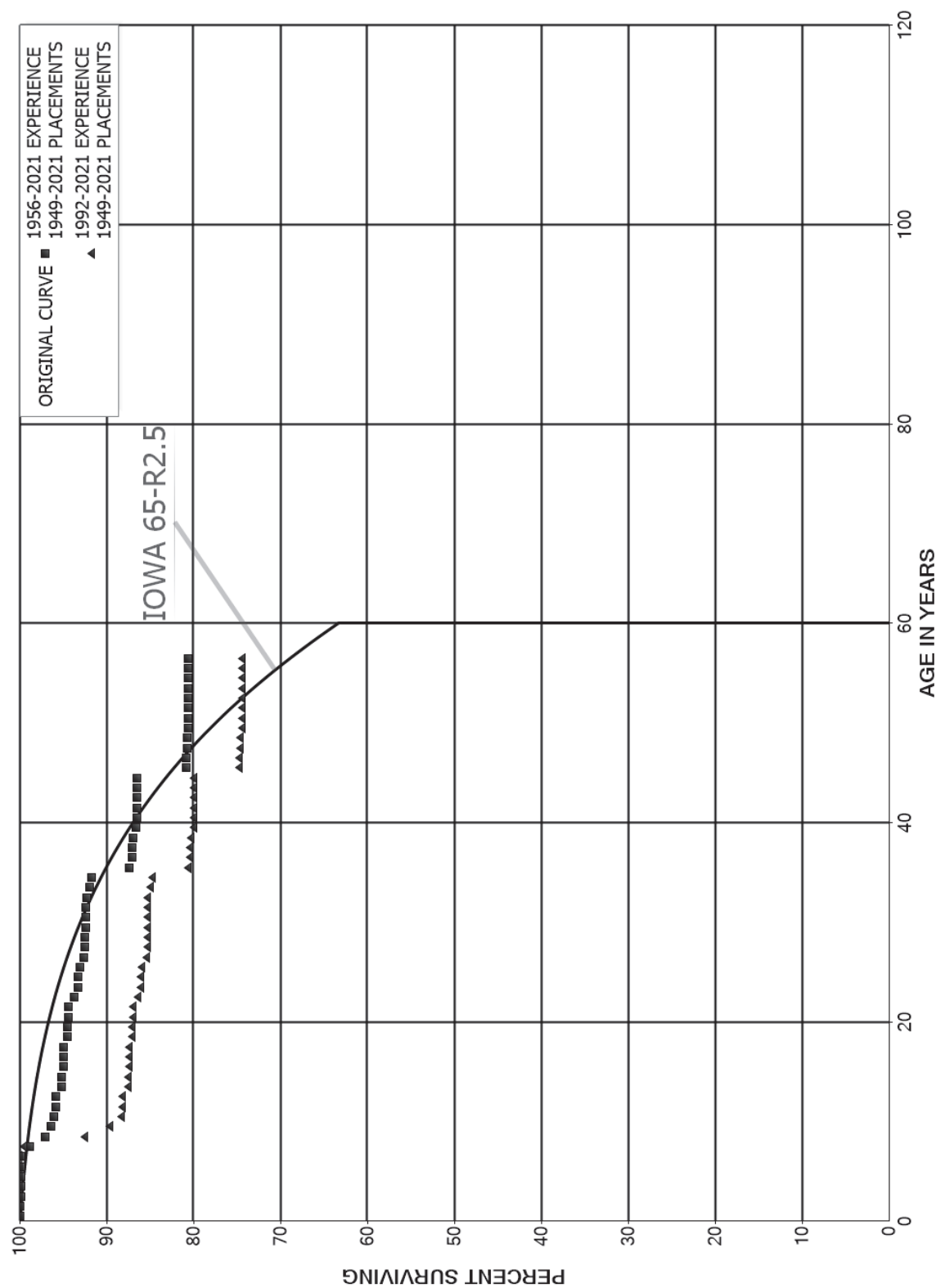
DUKE ENERGY KENTUCKY

ACCOUNT 3140 TURBOGENERATOR UNITS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1992-2021		
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	17,966,688	768,913	0.0428	0.9572	44.71
40.5	107,802		0.0000	1.0000	42.80
41.5	97,580		0.0000	1.0000	42.80
42.5	95,647		0.0000	1.0000	42.80
43.5	93,070		0.0000	1.0000	42.80
44.5	94,614	52,089	0.5505	0.4495	42.80
45.5	40,605	9,199	0.2265	0.7735	19.24
46.5	5,960,098		0.0000	1.0000	14.88
47.5	5,980,790		0.0000	1.0000	14.88
48.5	5,980,790	29,921	0.0050	0.9950	14.88
49.5	5,950,869		0.0000	1.0000	14.80
50.5	5,950,869		0.0000	1.0000	14.80
51.5	5,950,869		0.0000	1.0000	14.80
52.5	5,929,295		0.0000	1.0000	14.80
53.5	5,921,007		0.0000	1.0000	14.80
54.5	5,919,463		0.0000	1.0000	14.80
55.5	5,919,463		0.0000	1.0000	14.80
56.5	20,692		0.0000	1.0000	14.80
57.5					14.80

DUKE ENERGY KENTUCKY
ACCOUNT 3150 ACCESSORY ELECTRIC EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3150 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1949-2021

EXPERIENCE BAND 1956-2021

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	51,439,851		0.0000	1.0000	100.00
0.5	51,433,139		0.0000	1.0000	100.00
1.5	51,497,245	72,673	0.0014	0.9986	100.00
2.5	51,737,136	873	0.0000	1.0000	99.86
3.5	50,778,703	11,039	0.0002	0.9998	99.86
4.5	46,613,862	2,705	0.0001	0.9999	99.84
5.5	45,456,135		0.0000	1.0000	99.83
6.5	33,554,544	324,685	0.0097	0.9903	99.83
7.5	33,096,337	584,342	0.0177	0.9823	98.86
8.5	32,074,095	245,238	0.0076	0.9924	97.12
9.5	27,312,569	85,953	0.0031	0.9969	96.38
10.5	26,925,714	59,048	0.0022	0.9978	96.07
11.5	26,559,407	5,988	0.0002	0.9998	95.86
12.5	26,074,674	195,206	0.0075	0.9925	95.84
13.5	25,879,467		0.0000	1.0000	95.12
14.5	26,687,899	38,447	0.0014	0.9986	95.12
15.5	26,599,420	13,543	0.0005	0.9995	94.99
16.5	26,198,309	8,637	0.0003	0.9997	94.94
17.5	26,216,383	115,349	0.0044	0.9956	94.91
18.5	26,056,437		0.0000	1.0000	94.49
19.5	25,959,682	25,718	0.0010	0.9990	94.49
20.5	25,836,633	665	0.0000	1.0000	94.39
21.5	25,930,503	183,946	0.0071	0.9929	94.39
22.5	25,639,704	126,423	0.0049	0.9951	93.72
23.5	25,617,926		0.0000	1.0000	93.26
24.5	25,374,948	40,813	0.0016	0.9984	93.26
25.5	24,621,853	141,443	0.0057	0.9943	93.11
26.5	25,159,806	20,346	0.0008	0.9992	92.58
27.5	25,101,349	4,796	0.0002	0.9998	92.50
28.5	25,087,600	22,125	0.0009	0.9991	92.48
29.5	24,783,060	11,117	0.0004	0.9996	92.40
30.5	24,771,943	139	0.0000	1.0000	92.36
31.5	24,633,113	7,102	0.0003	0.9997	92.36
32.5	24,753,053	98,570	0.0040	0.9960	92.33
33.5	24,627,700	51,968	0.0021	0.9979	91.97
34.5	24,583,531	1,186,967	0.0483	0.9517	91.77
35.5	23,461,435	65,456	0.0028	0.9972	87.34
36.5	23,387,271	4,304	0.0002	0.9998	87.10
37.5	23,186,807	36,827	0.0016	0.9984	87.08
38.5	23,115,200	90,128	0.0039	0.9961	86.94

DUKE ENERGY KENTUCKY

ACCOUNT 3150 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1956-2021		
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	22,587,377	16,260	0.0007	0.9993	86.60
40.5	1,493,089		0.0000	1.0000	86.54
41.5	957,192		0.0000	1.0000	86.54
42.5	810,283		0.0000	1.0000	86.54
43.5	832,561		0.0000	1.0000	86.54
44.5	719,226	46,986	0.0653	0.9347	86.54
45.5	532,365		0.0000	1.0000	80.89
46.5	1,878,730	2,920	0.0016	0.9984	80.89
47.5	1,739,039		0.0000	1.0000	80.76
48.5	1,724,884	3,434	0.0020	0.9980	80.76
49.5	1,718,539		0.0000	1.0000	80.60
50.5	1,515,221		0.0000	1.0000	80.60
51.5	1,509,812		0.0000	1.0000	80.60
52.5	1,468,050		0.0000	1.0000	80.60
53.5	1,416,843		0.0000	1.0000	80.60
54.5	1,374,188		0.0000	1.0000	80.60
55.5	1,370,346		0.0000	1.0000	80.60
56.5					80.60

DUKE ENERGY KENTUCKY

ACCOUNT 3150 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1992-2021		
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	25,869,866		0.0000	1.0000	100.00
0.5	25,863,154		0.0000	1.0000	100.00
1.5	25,926,168		0.0000	1.0000	100.00
2.5	26,238,732		0.0000	1.0000	100.00
3.5	25,281,172		0.0000	1.0000	100.00
4.5	21,127,371		0.0000	1.0000	100.00
5.5	19,972,349		0.0000	1.0000	100.00
6.5	8,070,757	47,373	0.0059	0.9941	100.00
7.5	7,889,862	558,146	0.0707	0.9293	99.41
8.5	6,935,983	214,172	0.0309	0.9691	92.38
9.5	2,519,251	37,573	0.0149	0.9851	89.53
10.5	24,936,646	23,327	0.0009	0.9991	88.19
11.5	24,829,808		0.0000	1.0000	88.11
12.5	24,361,395	195,206	0.0080	0.9920	88.11
13.5	24,549,277		0.0000	1.0000	87.40
14.5	25,559,551	38,447	0.0015	0.9985	87.40
15.5	25,471,072	10,333	0.0004	0.9996	87.27
16.5	25,858,266		0.0000	1.0000	87.24
17.5	25,932,814	94,865	0.0037	0.9963	87.24
18.5	25,794,541		0.0000	1.0000	86.92
19.5	25,709,611	14,595	0.0006	0.9994	86.92
20.5	25,597,685		0.0000	1.0000	86.87
21.5	25,707,971	158,023	0.0061	0.9939	86.87
22.5	25,443,229	126,423	0.0050	0.9950	86.33
23.5	25,421,451		0.0000	1.0000	85.91
24.5	25,183,269	32,185	0.0013	0.9987	85.91
25.5	24,438,801	141,443	0.0058	0.9942	85.80
26.5	24,980,348	20,346	0.0008	0.9992	85.30
27.5	24,928,076	4,796	0.0002	0.9998	85.23
28.5	24,914,831	8,393	0.0003	0.9997	85.21
29.5	24,630,907	333	0.0000	1.0000	85.18
30.5	24,637,316	139	0.0000	1.0000	85.18
31.5	24,632,021	7,102	0.0003	0.9997	85.18
32.5	24,751,961	98,570	0.0040	0.9960	85.16
33.5	24,626,608	51,968	0.0021	0.9979	84.82
34.5	24,582,439	1,186,967	0.0483	0.9517	84.64
35.5	23,460,343	65,456	0.0028	0.9972	80.55
36.5	23,386,179	4,304	0.0002	0.9998	80.33
37.5	23,186,807	36,827	0.0016	0.9984	80.31
38.5	23,115,200	90,128	0.0039	0.9961	80.19

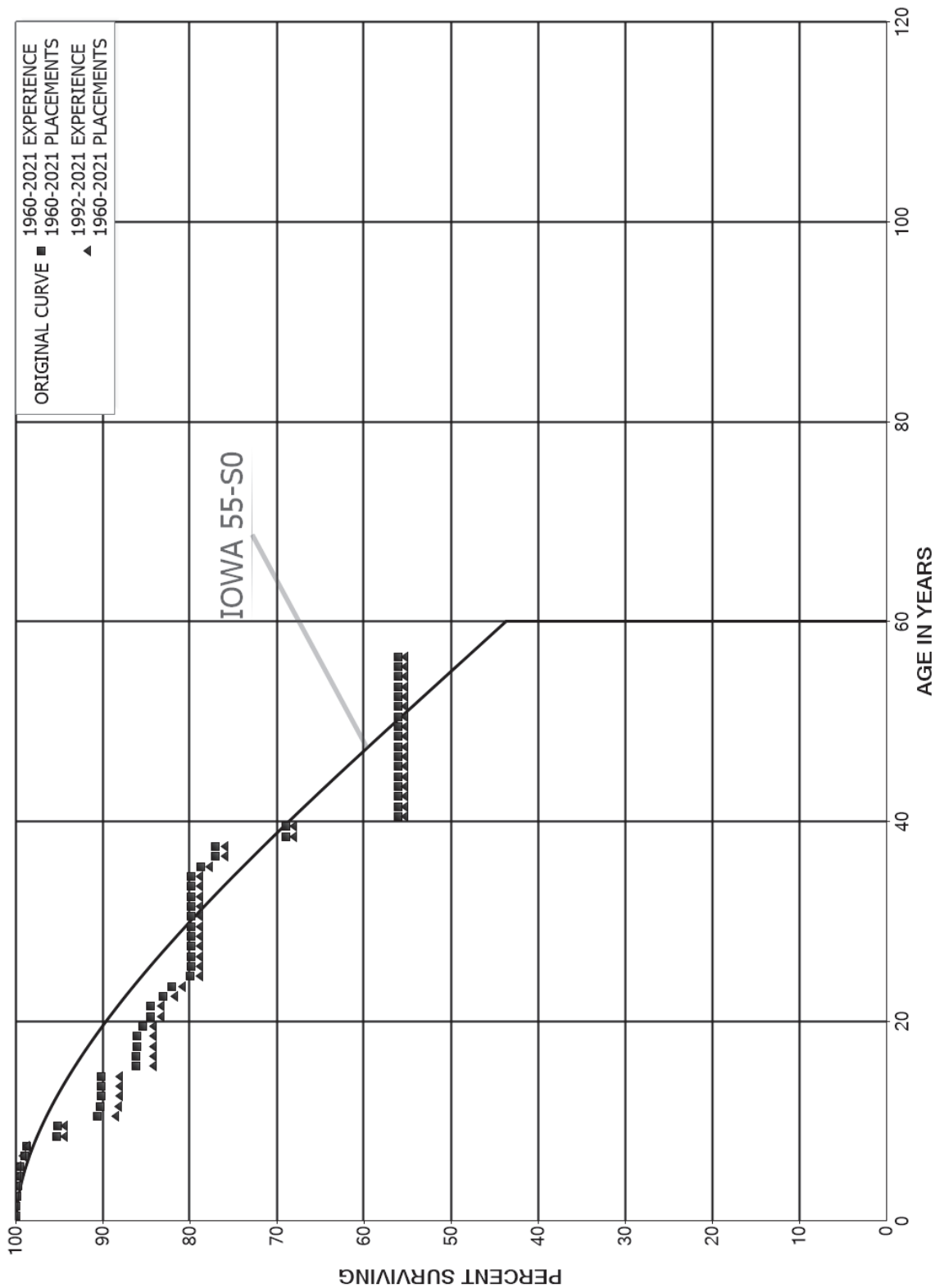
DUKE ENERGY KENTUCKY

ACCOUNT 3150 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1949-2021			EXPERIENCE BAND 1992-2021		
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	22,587,377	16,260	0.0007	0.9993	79.87
40.5	1,493,089		0.0000	1.0000	79.82
41.5	957,192		0.0000	1.0000	79.82
42.5	810,283		0.0000	1.0000	79.82
43.5	832,561		0.0000	1.0000	79.82
44.5	719,226	46,986	0.0653	0.9347	79.82
45.5	532,365		0.0000	1.0000	74.60
46.5	1,878,730	2,920	0.0016	0.9984	74.60
47.5	1,739,039		0.0000	1.0000	74.49
48.5	1,724,884	3,434	0.0020	0.9980	74.49
49.5	1,718,539		0.0000	1.0000	74.34
50.5	1,515,221		0.0000	1.0000	74.34
51.5	1,509,812		0.0000	1.0000	74.34
52.5	1,468,050		0.0000	1.0000	74.34
53.5	1,416,843		0.0000	1.0000	74.34
54.5	1,374,188		0.0000	1.0000	74.34
55.5	1,370,346		0.0000	1.0000	74.34
56.5					74.34

DUKE ENERGY KENTUCKY
ACCOUNT 3160 MISCELLANEOUS POWER PLANT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3160 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2021			EXPERIENCE BAND 1960-2021		
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	22,913,079		0.0000	1.0000	100.00
0.5	22,783,524	1,598	0.0001	0.9999	100.00
1.5	23,241,822	37,703	0.0016	0.9984	99.99
2.5	22,427,535	31,985	0.0014	0.9986	99.83
3.5	21,796,377	24,717	0.0011	0.9989	99.69
4.5	20,918,814	12,267	0.0006	0.9994	99.58
5.5	18,793,802	97,415	0.0052	0.9948	99.52
6.5	13,429,542	44,631	0.0033	0.9967	99.00
7.5	14,117,376	488,622	0.0346	0.9654	98.67
8.5	13,517,597	10,612	0.0008	0.9992	95.26
9.5	12,855,363	613,513	0.0477	0.9523	95.18
10.5	10,593,437	38,952	0.0037	0.9963	90.64
11.5	10,208,189	15,961	0.0016	0.9984	90.31
12.5	9,634,999	1,929	0.0002	0.9998	90.17
13.5	9,393,867	1,504	0.0002	0.9998	90.15
14.5	9,418,902	417,184	0.0443	0.9557	90.13
15.5	9,044,507	71	0.0000	1.0000	86.14
16.5	8,726,800	6,159	0.0007	0.9993	86.14
17.5	8,314,451		0.0000	1.0000	86.08
18.5	6,143,029	46,577	0.0076	0.9924	86.08
19.5	5,940,418	61,460	0.0103	0.9897	85.43
20.5	5,741,089		0.0000	1.0000	84.54
21.5	5,751,248	102,016	0.0177	0.9823	84.54
22.5	5,163,567	61,119	0.0118	0.9882	83.04
23.5	5,216,209	130,411	0.0250	0.9750	82.06
24.5	5,212,614	7,911	0.0015	0.9985	80.01
25.5	5,198,093		0.0000	1.0000	79.89
26.5	5,177,813		0.0000	1.0000	79.89
27.5	4,960,811		0.0000	1.0000	79.89
28.5	4,911,454		0.0000	1.0000	79.89
29.5	4,769,951		0.0000	1.0000	79.89
30.5	4,349,842		0.0000	1.0000	79.89
31.5	4,241,363		0.0000	1.0000	79.89
32.5	4,081,051		0.0000	1.0000	79.89
33.5	3,999,354		0.0000	1.0000	79.89
34.5	3,877,702	54,585	0.0141	0.9859	79.89
35.5	3,710,054	81,430	0.0219	0.9781	78.76
36.5	3,527,558		0.0000	1.0000	77.03
37.5	3,370,004	353,290	0.1048	0.8952	77.03
38.5	2,902,952		0.0000	1.0000	68.96

DUKE ENERGY KENTUCKY

ACCOUNT 3160 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2021			EXPERIENCE BAND 1960-2021		
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	2,667,573	499,348	0.1872	0.8128	68.96
40.5	12,705		0.0000	1.0000	56.05
41.5	12,705		0.0000	1.0000	56.05
42.5	12,705		0.0000	1.0000	56.05
43.5	12,705		0.0000	1.0000	56.05
44.5	12,705		0.0000	1.0000	56.05
45.5	12,705		0.0000	1.0000	56.05
46.5	27,336		0.0000	1.0000	56.05
47.5	27,336		0.0000	1.0000	56.05
48.5	27,336		0.0000	1.0000	56.05
49.5	27,336		0.0000	1.0000	56.05
50.5	27,336		0.0000	1.0000	56.05
51.5	27,336		0.0000	1.0000	56.05
52.5	27,336		0.0000	1.0000	56.05
53.5	27,336		0.0000	1.0000	56.05
54.5	27,336		0.0000	1.0000	56.05
55.5	27,336		0.0000	1.0000	56.05
56.5					56.05

DUKE ENERGY KENTUCKY

ACCOUNT 3160 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2021			EXPERIENCE BAND 1992-2021		
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	19,320,282		0.0000	1.0000	100.00
0.5	19,190,728		0.0000	1.0000	100.00
1.5	19,663,065	33,325	0.0017	0.9983	100.00
2.5	18,853,156	29,490	0.0016	0.9984	99.83
3.5	18,224,493	12,440	0.0007	0.9993	99.67
4.5	17,359,206		0.0000	1.0000	99.61
5.5	15,246,462	90,281	0.0059	0.9941	99.61
6.5	9,891,112	44,153	0.0045	0.9955	99.02
7.5	10,585,726	459,192	0.0434	0.9566	98.57
8.5	10,027,411		0.0000	1.0000	94.30
9.5	9,434,183	595,460	0.0631	0.9369	94.30
10.5	10,016,314	38,069	0.0038	0.9962	88.35
11.5	10,123,174	10,556	0.0010	0.9990	88.01
12.5	9,555,389		0.0000	1.0000	87.92
13.5	9,316,185		0.0000	1.0000	87.92
14.5	9,342,724	414,430	0.0444	0.9556	87.92
15.5	8,971,083		0.0000	1.0000	84.02
16.5	8,653,447		0.0000	1.0000	84.02
17.5	8,247,258		0.0000	1.0000	84.02
18.5	6,075,836		0.0000	1.0000	84.02
19.5	5,919,802	61,460	0.0104	0.9896	84.02
20.5	5,720,473		0.0000	1.0000	83.15
21.5	5,730,632	102,016	0.0178	0.9822	83.15
22.5	5,142,951	61,119	0.0119	0.9881	81.67
23.5	5,195,593	130,411	0.0251	0.9749	80.70
24.5	5,191,998		0.0000	1.0000	78.67
25.5	5,185,387		0.0000	1.0000	78.67
26.5	5,165,108		0.0000	1.0000	78.67
27.5	4,948,105		0.0000	1.0000	78.67
28.5	4,898,749		0.0000	1.0000	78.67
29.5	4,757,246		0.0000	1.0000	78.67
30.5	4,337,137		0.0000	1.0000	78.67
31.5	4,241,363		0.0000	1.0000	78.67
32.5	4,081,051		0.0000	1.0000	78.67
33.5	3,999,354		0.0000	1.0000	78.67
34.5	3,877,702	54,585	0.0141	0.9859	78.67
35.5	3,710,054	81,430	0.0219	0.9781	77.56
36.5	3,527,558		0.0000	1.0000	75.86
37.5	3,370,004	353,290	0.1048	0.8952	75.86
38.5	2,902,952		0.0000	1.0000	67.91

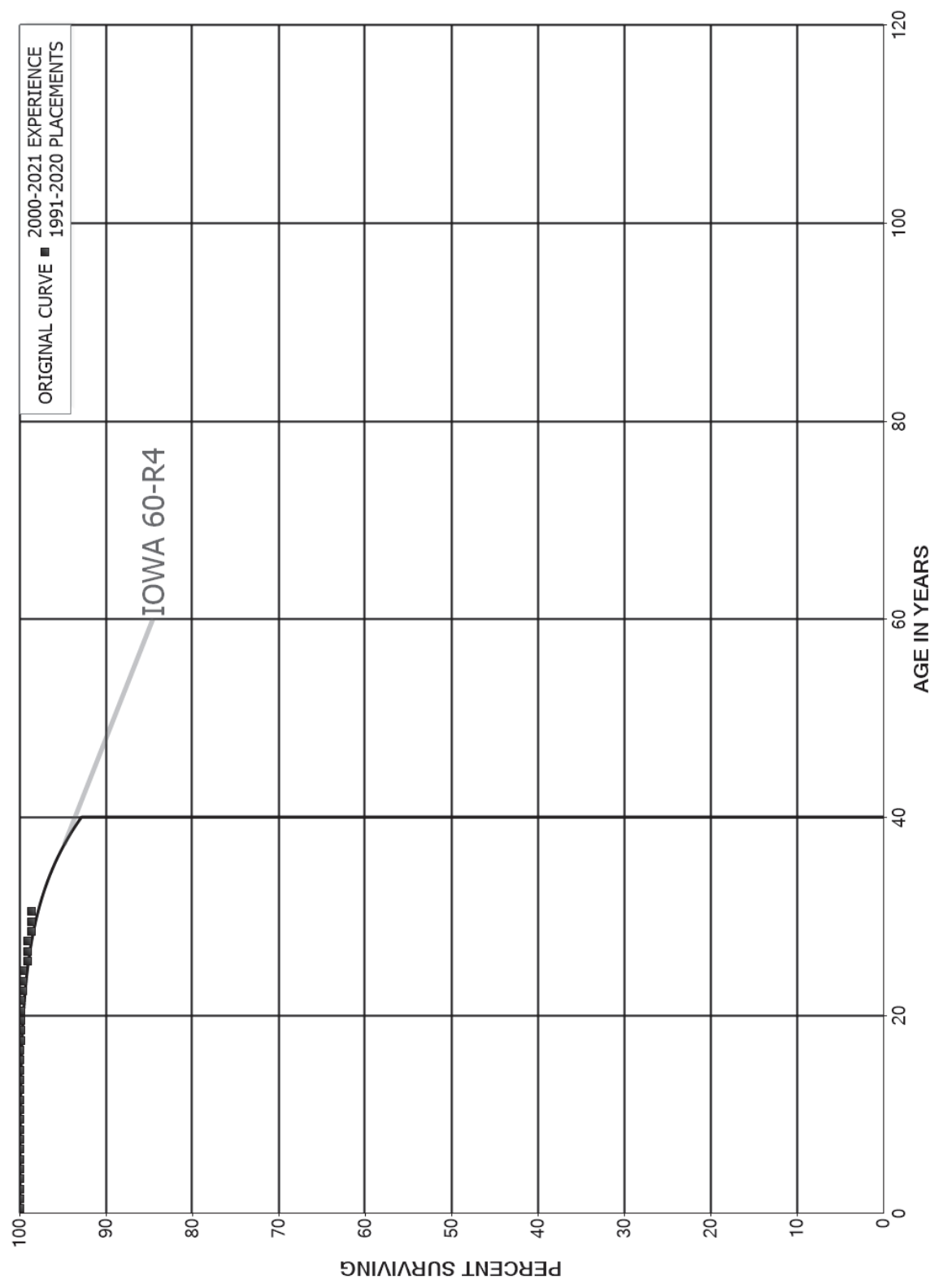
DUKE ENERGY KENTUCKY

ACCOUNT 3160 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2021			EXPERIENCE BAND 1992-2021		
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	2,667,573	499,348	0.1872	0.8128	67.91
40.5	12,705		0.0000	1.0000	55.20
41.5	12,705		0.0000	1.0000	55.20
42.5	12,705		0.0000	1.0000	55.20
43.5	12,705		0.0000	1.0000	55.20
44.5	12,705		0.0000	1.0000	55.20
45.5	12,705		0.0000	1.0000	55.20
46.5	27,336		0.0000	1.0000	55.20
47.5	27,336		0.0000	1.0000	55.20
48.5	27,336		0.0000	1.0000	55.20
49.5	27,336		0.0000	1.0000	55.20
50.5	27,336		0.0000	1.0000	55.20
51.5	27,336		0.0000	1.0000	55.20
52.5	27,336		0.0000	1.0000	55.20
53.5	27,336		0.0000	1.0000	55.20
54.5	27,336		0.0000	1.0000	55.20
55.5	27,336		0.0000	1.0000	55.20
56.5					55.20

DUKE ENERGY KENTUCKY
ACCOUNT 3410 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



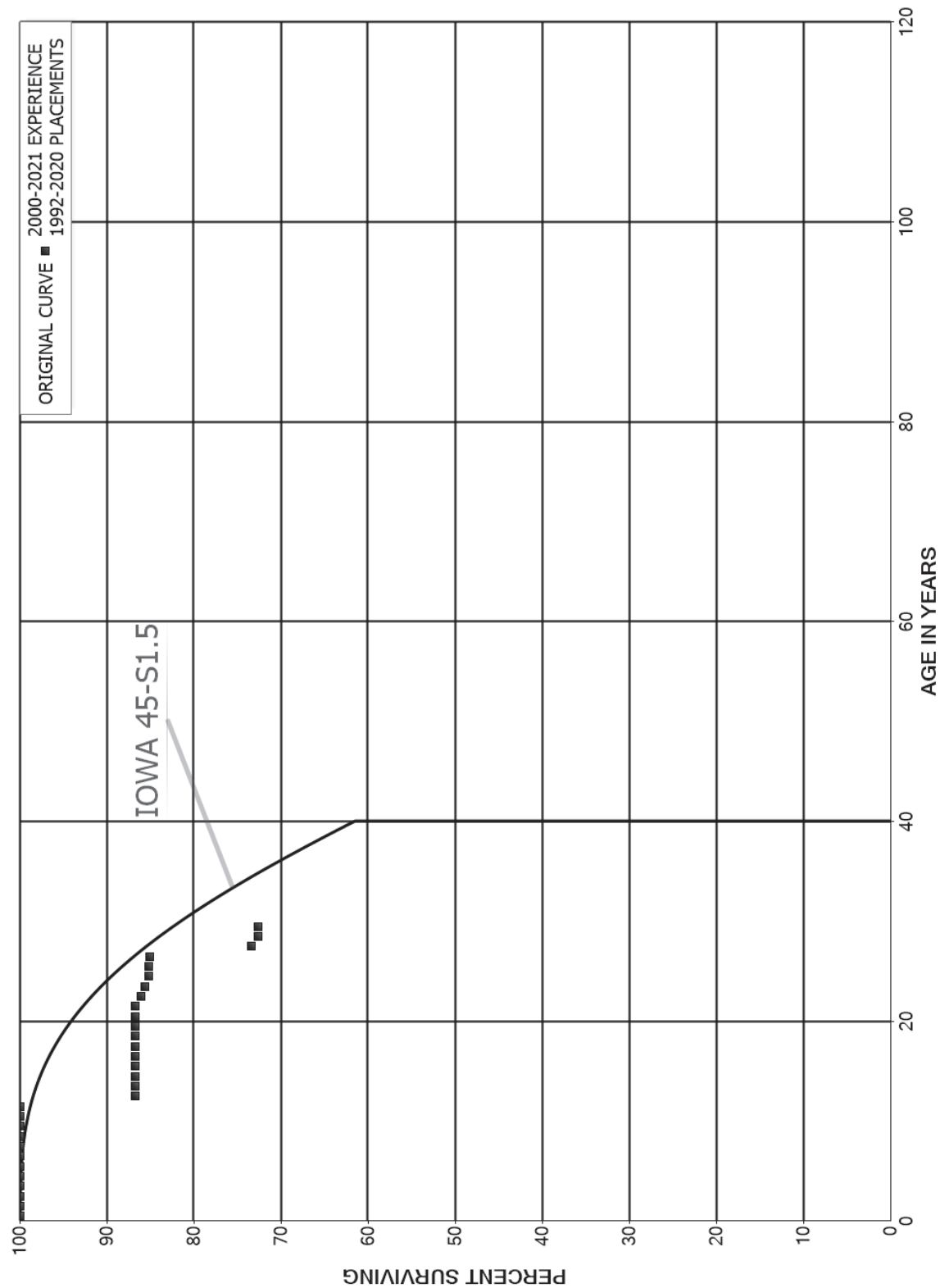
DUKE ENERGY KENTUCKY

ACCOUNT 3410 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-2020			EXPERIENCE BAND 2000-2021		
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	3,134,907		0.0000	1.0000	100.00
0.5	3,259,971		0.0000	1.0000	100.00
1.5	3,071,891		0.0000	1.0000	100.00
2.5	2,853,056		0.0000	1.0000	100.00
3.5	2,820,660		0.0000	1.0000	100.00
4.5	2,820,303		0.0000	1.0000	100.00
5.5	2,666,517		0.0000	1.0000	100.00
6.5	2,588,215		0.0000	1.0000	100.00
7.5	35,203,499		0.0000	1.0000	100.00
8.5	34,994,068		0.0000	1.0000	100.00
9.5	34,792,136		0.0000	1.0000	100.00
10.5	33,778,315		0.0000	1.0000	100.00
11.5	33,813,903		0.0000	1.0000	100.00
12.5	33,846,174		0.0000	1.0000	100.00
13.5	33,817,272		0.0000	1.0000	100.00
14.5	33,739,537	10,618	0.0003	0.9997	100.00
15.5	33,715,164	22,463	0.0007	0.9993	99.97
16.5	33,692,702	6,963	0.0002	0.9998	99.90
17.5	33,685,738	15,621	0.0005	0.9995	99.88
18.5	33,670,118		0.0000	1.0000	99.83
19.5	33,670,118		0.0000	1.0000	99.83
20.5	33,670,118		0.0000	1.0000	99.83
21.5	33,670,118	75,984	0.0023	0.9977	99.83
22.5	33,594,134		0.0000	1.0000	99.61
23.5	33,594,134		0.0000	1.0000	99.61
24.5	33,594,134	172,057	0.0051	0.9949	99.61
25.5	33,422,077		0.0000	1.0000	99.10
26.5	33,393,452	14,301	0.0004	0.9996	99.10
27.5	33,346,880	150,447	0.0045	0.9955	99.06
28.5	33,196,433	10,444	0.0003	0.9997	98.61
29.5	6,687		0.0000	1.0000	98.58
30.5					98.58

DUKE ENERGY KENTUCKY
ACCOUNT 3420 FUEL HOLDERS, PRODUCERS AND ACCESSORIES
ORIGINAL AND SMOOTH SURVIVOR CURVES



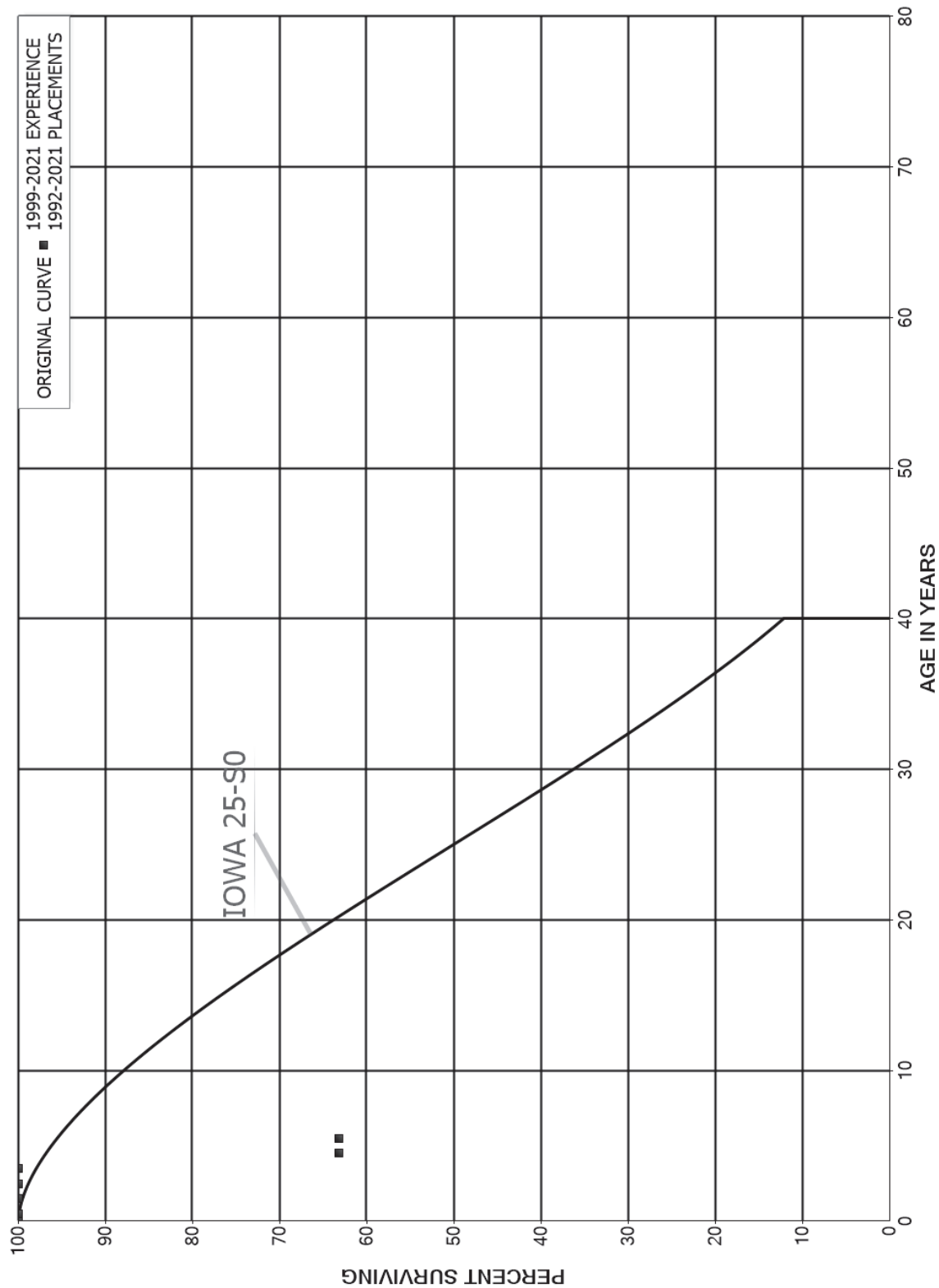
DUKE ENERGY KENTUCKY

ACCOUNT 3420 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1992-2020			EXPERIENCE BAND 2000-2021		
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	54,595,384		0.0000	1.0000	100.00
0.5	54,539,743	178	0.0000	1.0000	100.00
1.5	54,322,098		0.0000	1.0000	100.00
2.5	773,025		0.0000	1.0000	100.00
3.5	748,026	154	0.0002	0.9998	100.00
4.5	579,795		0.0000	1.0000	99.98
5.5	635,382	434	0.0007	0.9993	99.98
6.5	634,948		0.0000	1.0000	99.91
7.5	871,352		0.0000	1.0000	99.91
8.5	871,352		0.0000	1.0000	99.91
9.5	172,681		0.0000	1.0000	99.91
10.5	256,378		0.0000	1.0000	99.91
11.5	321,684	42,403	0.1318	0.8682	99.91
12.5	279,281		0.0000	1.0000	86.74
13.5	279,281		0.0000	1.0000	86.74
14.5	15,523,741		0.0000	1.0000	86.74
15.5	15,523,741		0.0000	1.0000	86.74
16.5	15,523,741	59	0.0000	1.0000	86.74
17.5	15,523,682		0.0000	1.0000	86.74
18.5	15,523,682	62	0.0000	1.0000	86.74
19.5	15,523,620		0.0000	1.0000	86.74
20.5	15,468,032		0.0000	1.0000	86.74
21.5	15,468,032	120,530	0.0078	0.9922	86.74
22.5	15,289,036	83,738	0.0055	0.9945	86.06
23.5	15,205,298	70,159	0.0046	0.9954	85.59
24.5	15,135,139		0.0000	1.0000	85.20
25.5	15,051,441	15,945	0.0011	0.9989	85.20
26.5	14,970,191	2,054,051	0.1372	0.8628	85.11
27.5	6,593,300	73,342	0.0111	0.9889	73.43
28.5	6,519,958		0.0000	1.0000	72.61
29.5					72.61

DUKE ENERGY KENTUCKY
ACCOUNT 3430 PRIME MOVERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



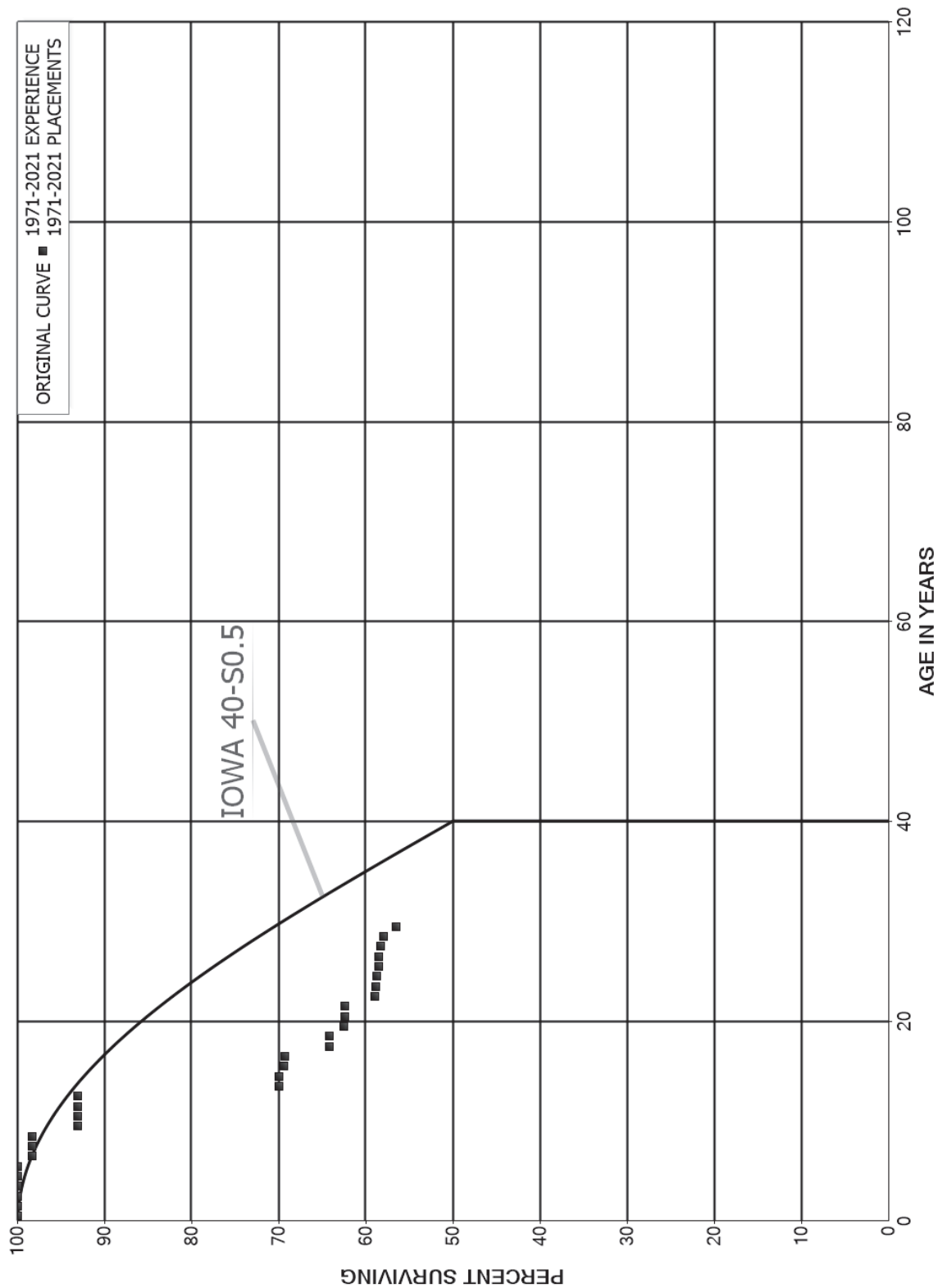
DUKE ENERGY KENTUCKY

ACCOUNT 3430 PRIME MOVERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1992-2021			EXPERIENCE BAND 1999-2021		
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	19,203,035		0.0000	1.0000	100.00
0.5	16,021,060		0.0000	1.0000	100.00
1.5	14,609,393		0.0000	1.0000	100.00
2.5	11,698,758		0.0000	1.0000	100.00
3.5	11,694,674	4,308,670	0.3684	0.6316	100.00
4.5	786,578		0.0000	1.0000	63.16
5.5					63.16
6.5	4,038,837		0.0000		
7.5	4,038,837		0.0000		
8.5	4,038,837		0.0000		
9.5	4,038,837		0.0000		
10.5	4,038,837		0.0000		
11.5	4,038,837		0.0000		
12.5	4,038,837		0.0000		
13.5	4,038,837		0.0000		
14.5	4,038,837		0.0000		
15.5	4,038,837		0.0000		
16.5	4,038,837		0.0000		
17.5	4,038,837		0.0000		
18.5	4,038,837		0.0000		
19.5	4,038,837		0.0000		
20.5	4,038,837		0.0000		
21.5	4,038,837		0.0000		
22.5	4,038,837		0.0000		
23.5	4,038,837		0.0000		
24.5	4,038,837		0.0000		
25.5	4,038,837		0.0000		
26.5	4,038,837	4,007,142	0.9922		
27.5	31,695		0.0000		
28.5	31,695	9,350	0.2950		
29.5					

DUKE ENERGY KENTUCKY
ACCOUNT 3440 GENERATORS
ORIGINAL AND SMOOTH SURVIVOR CURVES



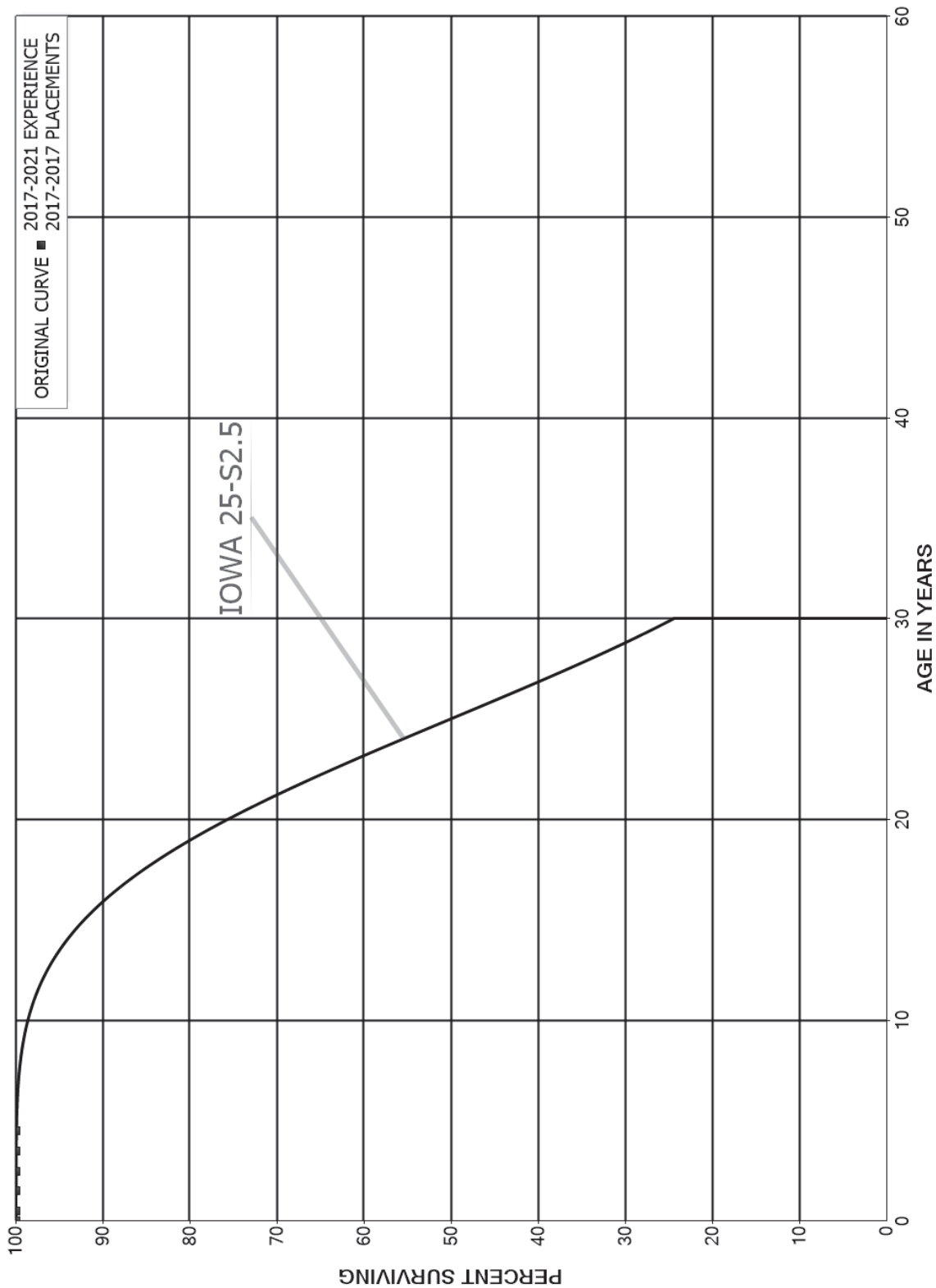
DUKE ENERGY KENTUCKY

ACCOUNT 3440 GENERATORS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1971-2021			EXPERIENCE BAND 1971-2021		
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	115,865,052		0.0000	1.0000	100.00
0.5	115,370,733		0.0000	1.0000	100.00
1.5	116,784,410		0.0000	1.0000	100.00
2.5	110,288,313		0.0000	1.0000	100.00
3.5	109,210,115	5,187	0.0000	1.0000	100.00
4.5	109,204,094	77,342	0.0007	0.9993	100.00
5.5	127,644,188	2,043,080	0.0160	0.9840	99.92
6.5	127,568,030		0.0000	1.0000	98.33
7.5	127,660,049	79,800	0.0006	0.9994	98.33
8.5	105,991,021	5,555,634	0.0524	0.9476	98.26
9.5	116,359,935		0.0000	1.0000	93.11
10.5	73,836,221		0.0000	1.0000	93.11
11.5	65,920,021		0.0000	1.0000	93.11
12.5	50,105,522	12,455,990	0.2486	0.7514	93.11
13.5	37,348,419		0.0000	1.0000	69.97
14.5	191,783,454	1,665,378	0.0087	0.9913	69.97
15.5	179,284,425	94,023	0.0005	0.9995	69.36
16.5	168,729,306	12,438,888	0.0737	0.9263	69.32
17.5	156,276,768	22,233	0.0001	0.9999	64.21
18.5	155,833,029	4,234,129	0.0272	0.9728	64.20
19.5	151,598,900	44,564	0.0003	0.9997	62.46
20.5	139,002,624		0.0000	1.0000	62.44
21.5	136,825,782	7,587,726	0.0555	0.9445	62.44
22.5	128,948,479	249,396	0.0019	0.9981	58.98
23.5	128,699,083	262,865	0.0020	0.9980	58.86
24.5	128,436,218	592,569	0.0046	0.9954	58.74
25.5	127,768,583		0.0000	1.0000	58.47
26.5	127,724,512	290,845	0.0023	0.9977	58.47
27.5	123,394,830	746,944	0.0061	0.9939	58.34
28.5	122,647,886	3,178,547	0.0259	0.9741	57.99
29.5					56.48

DUKE ENERGY KENTUCKY
ACCOUNT 3446 GENERATORS - SOLAR
ORIGINAL AND SMOOTH SURVIVOR CURVES



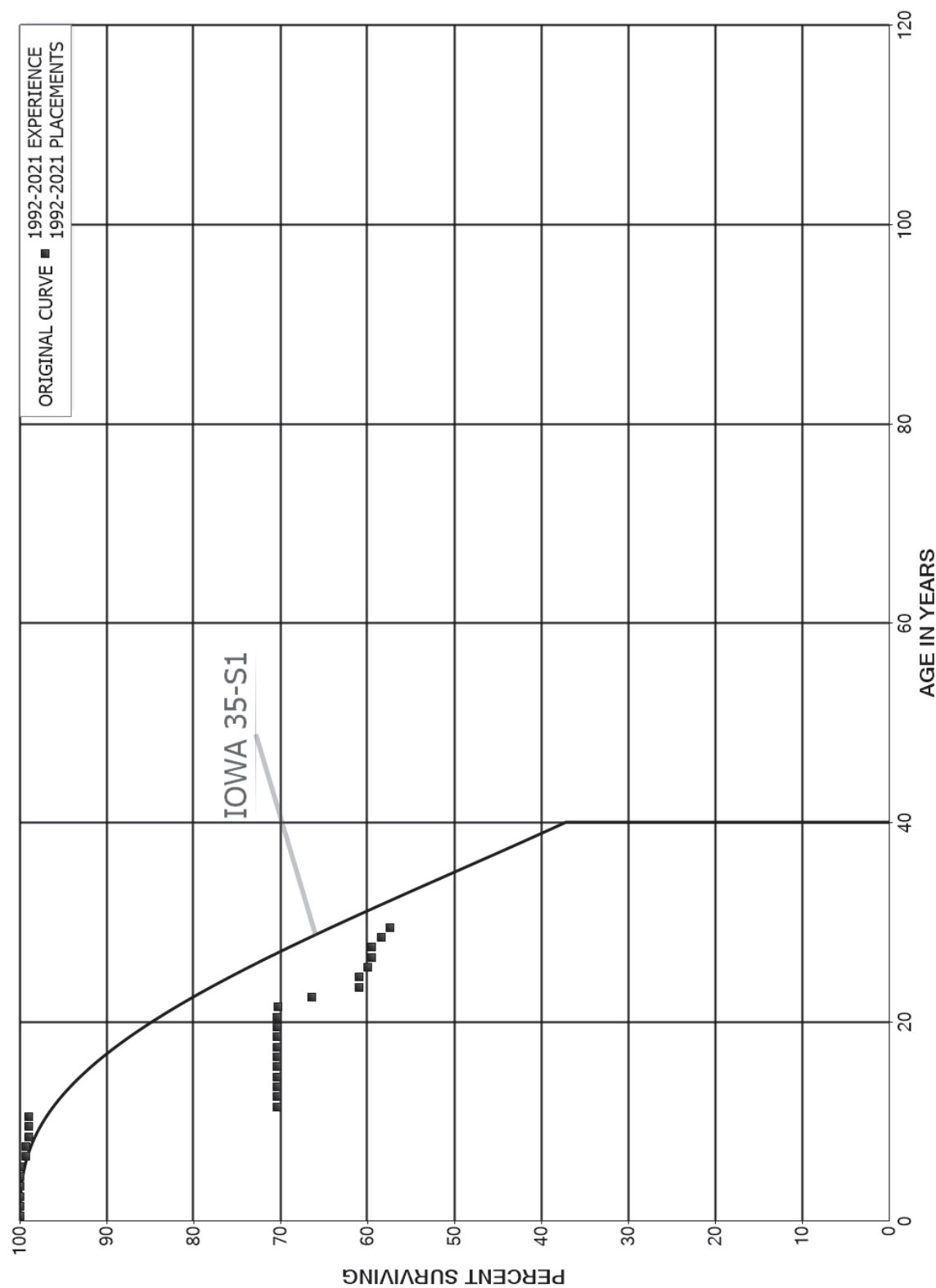
DUKE ENERGY KENTUCKY

ACCOUNT 3446 GENERATORS - SOLAR

ORIGINAL LIFE TABLE

PLACEMENT BAND 2017-2017			EXPERIENCE BAND 2017-2021		
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	9,813,806		0.0000	1.0000	100.00
0.5	9,813,806		0.0000	1.0000	100.00
1.5	9,813,806		0.0000	1.0000	100.00
2.5	9,813,806		0.0000	1.0000	100.00
3.5	9,813,806		0.0000	1.0000	100.00
4.5					100.00

DUKE ENERGY KENTUCKY
ACCOUNT 3450 ACCESSORY ELECTRIC EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



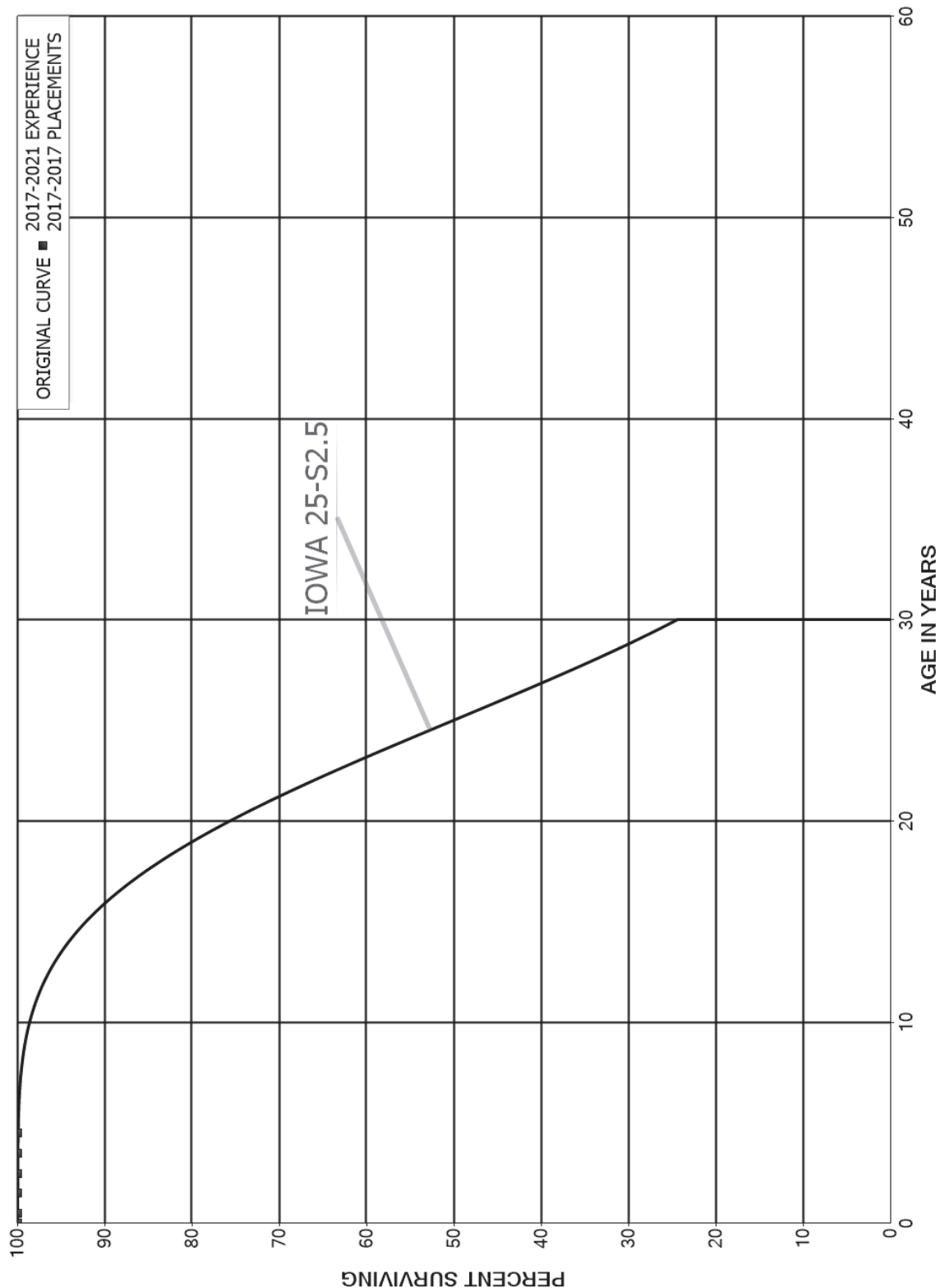
DUKE ENERGY KENTUCKY

ACCOUNT 3450 ACCESSORY ELECTRIC EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1992-2021			EXPERIENCE BAND 1992-2021		
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	8,235,312		0.0000	1.0000	100.00
0.5	7,630,698		0.0000	1.0000	100.00
1.5	7,630,698		0.0000	1.0000	100.00
2.5	7,102,386		0.0000	1.0000	100.00
3.5	6,875,271		0.0000	1.0000	100.00
4.5	6,656,633		0.0000	1.0000	100.00
5.5	6,548,311	45,150	0.0069	0.9931	100.00
6.5	6,139,973		0.0000	1.0000	99.31
7.5	5,866,529	24,565	0.0042	0.9958	99.31
8.5	5,357,436		0.0000	1.0000	98.89
9.5	3,174,411		0.0000	1.0000	98.89
10.5	181,905	52,428	0.2882	0.7118	98.89
11.5	129,477		0.0000	1.0000	70.39
12.5	122,214		0.0000	1.0000	70.39
13.5	116,431		0.0000	1.0000	70.39
14.5	16,869,359	6,651	0.0004	0.9996	70.39
15.5	16,854,091		0.0000	1.0000	70.36
16.5	16,854,091		0.0000	1.0000	70.36
17.5	16,854,091		0.0000	1.0000	70.36
18.5	16,854,091		0.0000	1.0000	70.36
19.5	16,811,382		0.0000	1.0000	70.36
20.5	16,805,095	11,907	0.0007	0.9993	70.36
21.5	16,770,071	937,109	0.0559	0.9441	70.31
22.5	15,830,743	1,296,543	0.0819	0.9181	66.39
23.5	14,534,201		0.0000	1.0000	60.95
24.5	14,534,201	234,654	0.0161	0.9839	60.95
25.5	14,286,019	100,781	0.0071	0.9929	59.96
26.5	14,185,238		0.0000	1.0000	59.54
27.5	12,591,603	247,331	0.0196	0.9804	59.54
28.5	12,344,271	216,055	0.0175	0.9825	58.37
29.5					57.35

DUKE ENERGY KENTUCKY
ACCOUNT 3456 ACCESSORY ELECTRIC EQUIPMENT - SOLAR
ORIGINAL AND SMOOTH SURVIVOR CURVES



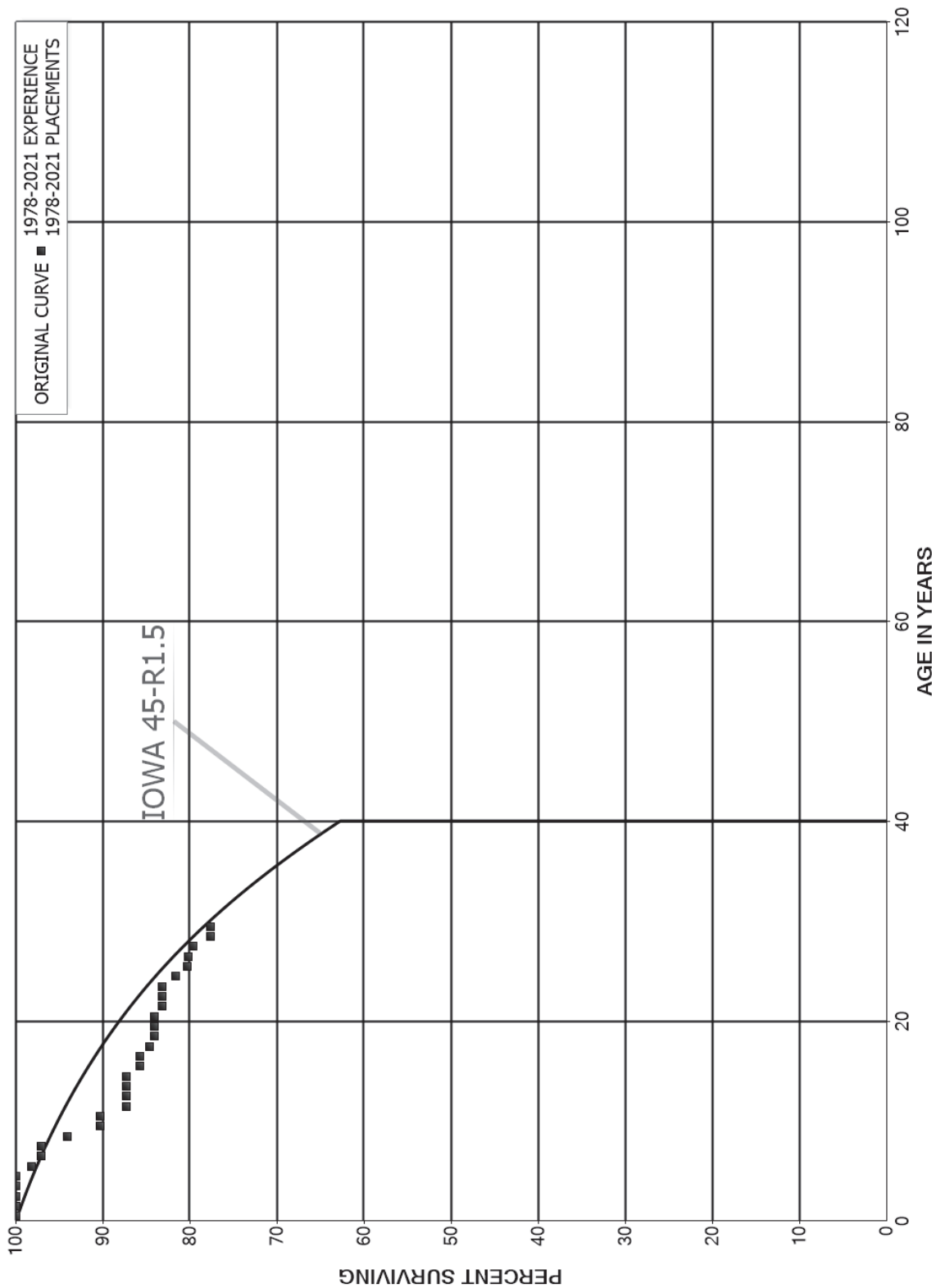
DUKE ENERGY KENTUCKY

ACCOUNT 3456 ACCESSORY ELECTRIC EQUIPMENT - SOLAR

ORIGINAL LIFE TABLE

PLACEMENT BAND 2017-2017			EXPERIENCE BAND 2017-2021		
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	1,616,959		0.0000	1.0000	100.00
0.5	1,616,959		0.0000	1.0000	100.00
1.5	1,616,959		0.0000	1.0000	100.00
2.5	1,616,959		0.0000	1.0000	100.00
3.5	1,616,959		0.0000	1.0000	100.00
4.5					100.00

DUKE ENERGY KENTUCKY
ACCOUNT 3460 MISCELLANEOUS POWER PLANT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3460 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1978-2021			EXPERIENCE BAND 1978-2021			
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	2,523,748	37	0.0000	1.0000	100.00	
0.5	2,187,132	12	0.0000	1.0000	100.00	
1.5	1,736,920	200	0.0001	0.9999	100.00	
2.5	1,702,902	80	0.0000	1.0000	99.99	
3.5	1,709,570	162	0.0001	0.9999	99.98	
4.5	1,287,558	23,751	0.0184	0.9816	99.97	
5.5	1,554,144	16,311	0.0105	0.9895	98.13	
6.5	1,602,763	218	0.0001	0.9999	97.10	
7.5	1,819,326	56,302	0.0309	0.9691	97.09	
8.5	1,667,174	67,368	0.0404	0.9596	94.08	
9.5	1,605,171	70	0.0000	1.0000	90.28	
10.5	1,307,847	42,546	0.0325	0.9675	90.28	
11.5	1,233,776	40	0.0000	1.0000	87.34	
12.5	1,315,062		0.0000	1.0000	87.34	
13.5	1,283,917		0.0000	1.0000	87.34	
14.5	3,674,927	65,934	0.0179	0.9821	87.34	
15.5	3,532,606	5	0.0000	1.0000	85.77	
16.5	3,535,724	48,385	0.0137	0.9863	85.77	
17.5	3,487,339	20,998	0.0060	0.9940	84.59	
18.5	3,457,692	317	0.0001	0.9999	84.09	
19.5	3,450,763	8	0.0000	1.0000	84.08	
20.5	3,110,762	32,922	0.0106	0.9894	84.08	
21.5	2,957,116	2	0.0000	1.0000	83.19	
22.5	2,514,235	3	0.0000	1.0000	83.19	
23.5	2,503,534	45,998	0.0184	0.9816	83.19	
24.5	2,455,259	41,675	0.0170	0.9830	81.66	
25.5	2,411,150	1,618	0.0007	0.9993	80.27	
26.5	2,404,854	17,054	0.0071	0.9929	80.22	
27.5	2,287,391	59,995	0.0262	0.9738	79.65	
28.5	2,193,331		0.0000	1.0000	77.56	
29.5	11,392		0.0000	1.0000	77.56	
30.5	3,873		0.0000	1.0000	77.56	
31.5	750		0.0000	1.0000	77.56	
32.5	750	0	0.0000	1.0000	77.56	
33.5	750		0.0000	1.0000	77.56	
34.5	750	46	0.0616	0.9384	77.56	
35.5	704		0.0000	1.0000	72.78	
36.5	704	295	0.4197	0.5803	72.78	
37.5	408	0	0.0001	0.9999	42.23	
38.5	408		0.0000	1.0000	42.22	

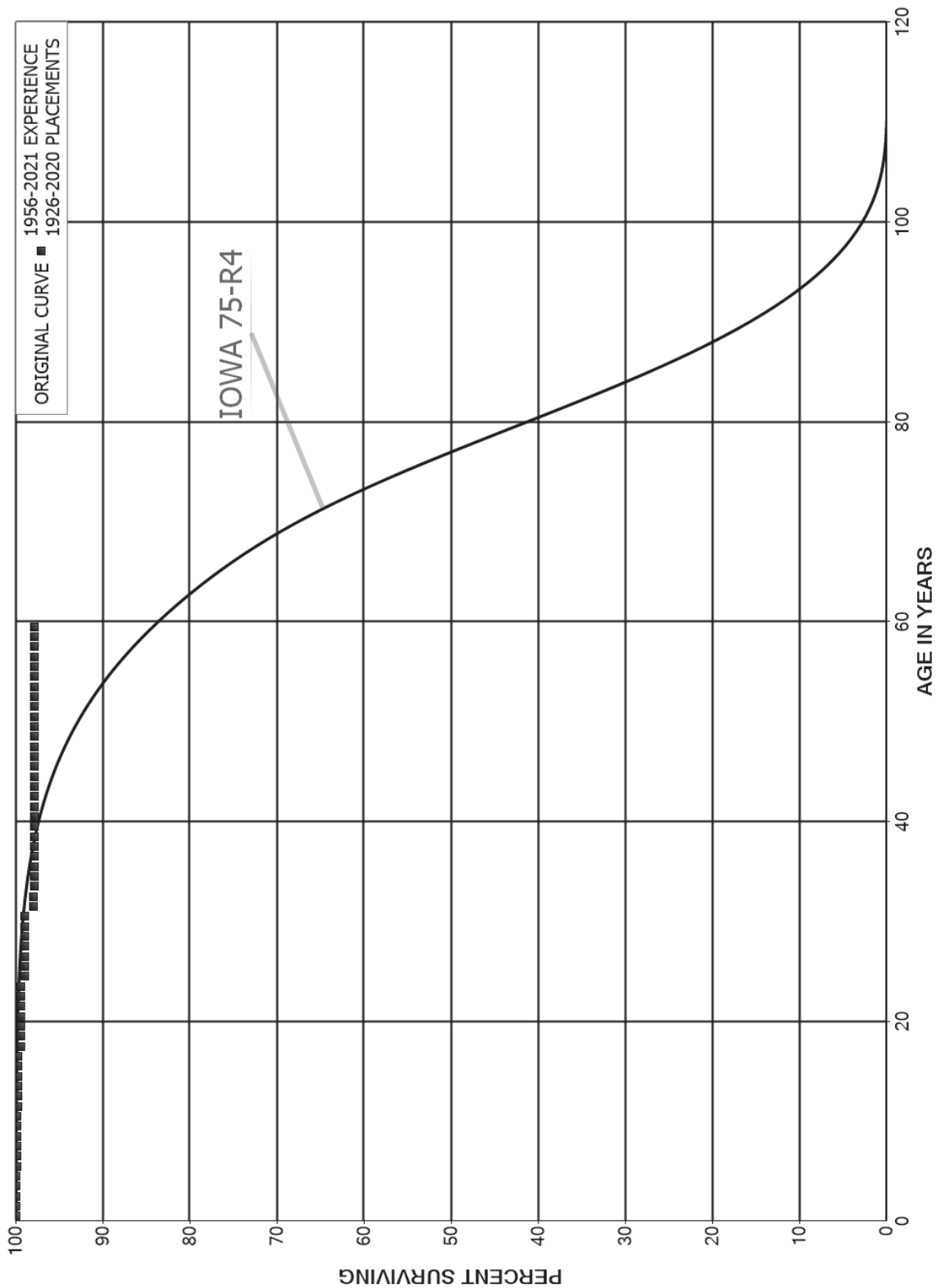
DUKE ENERGY KENTUCKY

ACCOUNT 3460 MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1978-2021			EXPERIENCE BAND 1978-2021			
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	408	79	0.1946	0.8054	42.22	
40.5	329		0.0000	1.0000	34.01	
41.5	329	329	1.0000		34.01	
42.5						

DUKE ENERGY KENTUCKY
ACCOUNT 3501 RIGHTS OF WAY
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3501 RIGHTS OF WAY

ORIGINAL LIFE TABLE

PLACEMENT BAND 1926-2020			EXPERIENCE BAND 1956-2021		
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	2,164,457		0.0000	1.0000	100.00
0.5	2,163,045	33	0.0000	1.0000	100.00
1.5	1,758,905		0.0000	1.0000	100.00
2.5	1,753,504		0.0000	1.0000	100.00
3.5	1,637,618		0.0000	1.0000	100.00
4.5	1,644,147	3,357	0.0020	0.9980	100.00
5.5	1,640,837		0.0000	1.0000	99.79
6.5	1,635,420		0.0000	1.0000	99.79
7.5	1,635,420		0.0000	1.0000	99.79
8.5	1,635,420		0.0000	1.0000	99.79
9.5	1,427,369		0.0000	1.0000	99.79
10.5	1,427,369	793	0.0006	0.9994	99.79
11.5	1,332,416	175	0.0001	0.9999	99.74
12.5	1,333,557		0.0000	1.0000	99.73
13.5	1,333,557		0.0000	1.0000	99.73
14.5	1,235,571		0.0000	1.0000	99.73
15.5	1,107,934		0.0000	1.0000	99.73
16.5	1,107,934	3,189	0.0029	0.9971	99.73
17.5	1,124,840		0.0000	1.0000	99.44
18.5	1,124,546		0.0000	1.0000	99.44
19.5	1,124,546		0.0000	1.0000	99.44
20.5	978,865	123	0.0001	0.9999	99.44
21.5	978,742	112	0.0001	0.9999	99.43
22.5	978,631	327	0.0003	0.9997	99.41
23.5	978,303	3,700	0.0038	0.9962	99.38
24.5	974,603		0.0000	1.0000	99.01
25.5	974,603		0.0000	1.0000	99.01
26.5	968,075		0.0000	1.0000	99.01
27.5	968,075		0.0000	1.0000	99.01
28.5	968,237		0.0000	1.0000	99.01
29.5	964,645		0.0000	1.0000	99.01
30.5	964,645	10,509	0.0109	0.9891	99.01
31.5	954,136		0.0000	1.0000	97.93
32.5	947,078	940	0.0010	0.9990	97.93
33.5	927,841		0.0000	1.0000	97.83
34.5	926,484		0.0000	1.0000	97.83
35.5	926,484		0.0000	1.0000	97.83
36.5	926,484		0.0000	1.0000	97.83
37.5	926,484		0.0000	1.0000	97.83
38.5	579,733		0.0000	1.0000	97.83

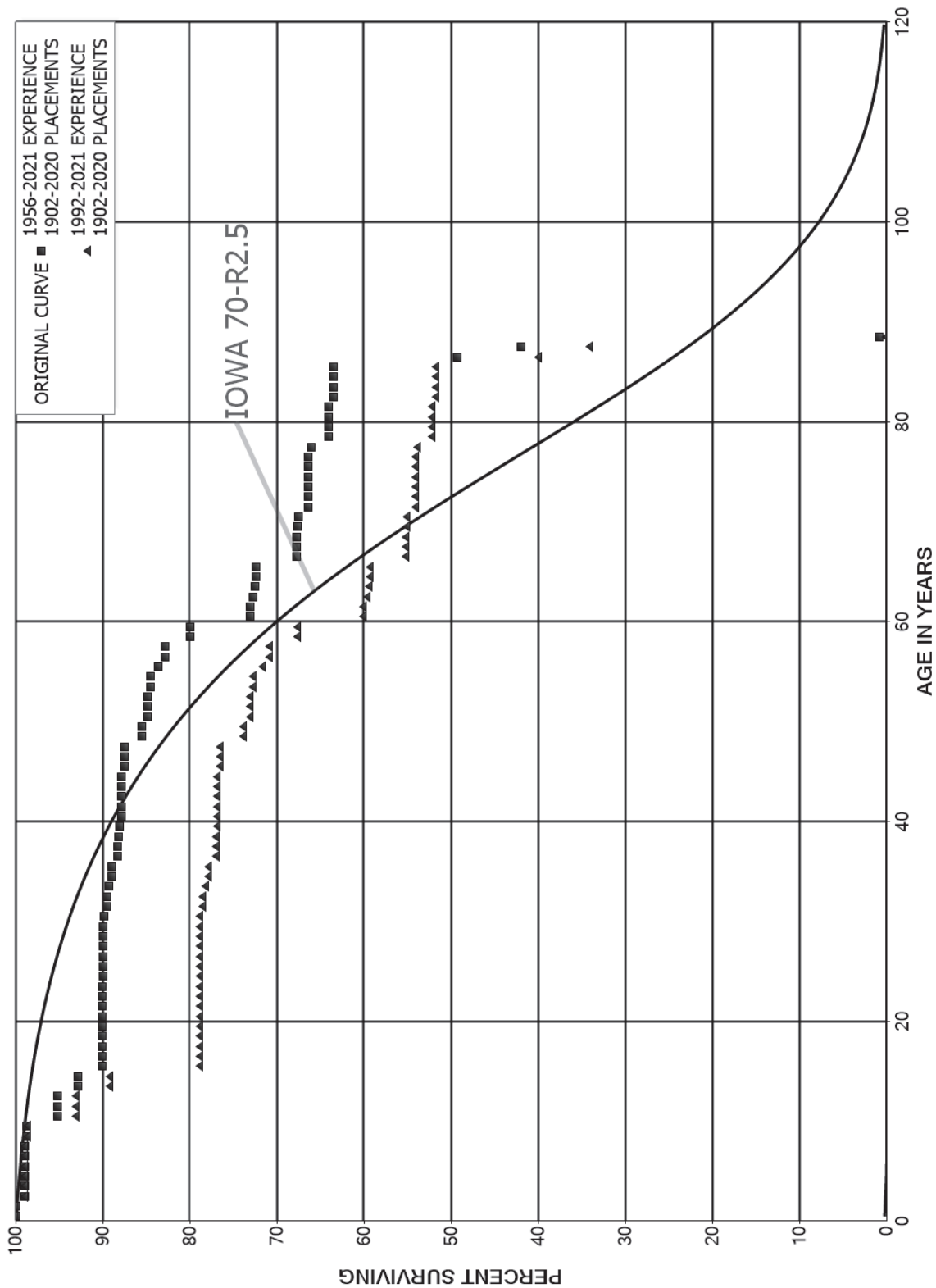
DUKE ENERGY KENTUCKY

ACCOUNT 3501 RIGHTS OF WAY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1926-2020			EXPERIENCE BAND 1956-2021		
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	530,434		0.0000	1.0000	97.83
40.5	444,769		0.0000	1.0000	97.83
41.5	444,769		0.0000	1.0000	97.83
42.5	444,769		0.0000	1.0000	97.83
43.5	444,769		0.0000	1.0000	97.83
44.5	444,494		0.0000	1.0000	97.83
45.5	429,896		0.0000	1.0000	97.83
46.5	428,318		0.0000	1.0000	97.83
47.5	401,996		0.0000	1.0000	97.83
48.5	367,219		0.0000	1.0000	97.83
49.5	342,046		0.0000	1.0000	97.83
50.5	332,988		0.0000	1.0000	97.83
51.5	332,543		0.0000	1.0000	97.83
52.5	331,452		0.0000	1.0000	97.83
53.5	326,696		0.0000	1.0000	97.83
54.5	240,382		0.0000	1.0000	97.83
55.5	236,536		0.0000	1.0000	97.83
56.5	161,261		0.0000	1.0000	97.83
57.5	161,261		0.0000	1.0000	97.83
58.5	139,172		0.0000	1.0000	97.83
59.5	138,937		0.0000	1.0000	97.83
60.5	88,889		0.0000	1.0000	97.83
61.5	86,533		0.0000	1.0000	97.83
62.5	84,571		0.0000	1.0000	97.83
63.5	4,762		0.0000	1.0000	97.83
64.5	4,399		0.0000	1.0000	97.83
65.5	1,695		0.0000	1.0000	97.83
66.5	1,695		0.0000	1.0000	97.83
67.5	1,695		0.0000	1.0000	97.83
68.5	1,695		0.0000	1.0000	97.83
69.5	1,695		0.0000	1.0000	97.83
70.5	1,695		0.0000	1.0000	97.83
71.5					97.83

DUKE ENERGY KENTUCKY
ACCOUNTS 3520 AND 3610 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNTS 3520 AND 3610 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1902-2020			EXPERIENCE BAND 1956-2021			
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	7,487,469	6	0.0000	1.0000	100.00	
0.5	7,567,287		0.0000	1.0000	100.00	
1.5	3,063,085	30,890	0.0101	0.9899	100.00	
2.5	3,044,009	379	0.0001	0.9999	98.99	
3.5	3,038,219	698	0.0002	0.9998	98.98	
4.5	3,037,521	51	0.0000	1.0000	98.96	
5.5	3,021,984		0.0000	1.0000	98.95	
6.5	2,647,069	6	0.0000	1.0000	98.95	
7.5	1,957,583	4,568	0.0023	0.9977	98.95	
8.5	1,679,820		0.0000	1.0000	98.72	
9.5	1,328,435	47,444	0.0357	0.9643	98.72	
10.5	1,274,959	10	0.0000	1.0000	95.20	
11.5	1,257,657		0.0000	1.0000	95.20	
12.5	1,260,385	31,741	0.0252	0.9748	95.20	
13.5	1,090,994		0.0000	1.0000	92.80	
14.5	661,250	19,258	0.0291	0.9709	92.80	
15.5	517,598		0.0000	1.0000	90.10	
16.5	558,894		0.0000	1.0000	90.10	
17.5	558,894		0.0000	1.0000	90.10	
18.5	558,894		0.0000	1.0000	90.10	
19.5	558,894		0.0000	1.0000	90.10	
20.5	558,894		0.0000	1.0000	90.10	
21.5	558,894		0.0000	1.0000	90.10	
22.5	558,894		0.0000	1.0000	90.10	
23.5	558,894	1,112	0.0020	0.9980	90.10	
24.5	557,782		0.0000	1.0000	89.92	
25.5	557,782		0.0000	1.0000	89.92	
26.5	607,053		0.0000	1.0000	89.92	
27.5	612,536		0.0000	1.0000	89.92	
28.5	602,592		0.0000	1.0000	89.92	
29.5	602,592	354	0.0006	0.9994	89.92	
30.5	614,012	2,513	0.0041	0.9959	89.86	
31.5	611,498	84	0.0001	0.9999	89.50	
32.5	611,414	1,728	0.0028	0.9972	89.48	
33.5	609,686	1,721	0.0028	0.9972	89.23	
34.5	607,965		0.0000	1.0000	88.98	
35.5	607,965	4,517	0.0074	0.9926	88.98	
36.5	603,448		0.0000	1.0000	88.32	
37.5	603,448	734	0.0012	0.9988	88.32	
38.5	602,713	808	0.0013	0.9987	88.21	

DUKE ENERGY KENTUCKY

ACCOUNTS 3520 AND 3610 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1902-2020			EXPERIENCE BAND 1956-2021		
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	601,906	1,389	0.0023	0.9977	88.09
40.5	600,516		0.0000	1.0000	87.89
41.5	600,516	308	0.0005	0.9995	87.89
42.5	600,208	0	0.0000	1.0000	87.84
43.5	600,208	361	0.0006	0.9994	87.84
44.5	599,847	1,717	0.0029	0.9971	87.79
45.5	451,823		0.0000	1.0000	87.54
46.5	451,731		0.0000	1.0000	87.54
47.5	361,651	8,595	0.0238	0.9762	87.54
48.5	353,056	3	0.0000	1.0000	85.46
49.5	353,053	2,388	0.0068	0.9932	85.46
50.5	348,637	139	0.0004	0.9996	84.88
51.5	348,498	24	0.0001	0.9999	84.85
52.5	345,934	1,231	0.0036	0.9964	84.84
53.5	343,702	2	0.0000	1.0000	84.54
54.5	341,088	3,728	0.0109	0.9891	84.54
55.5	337,360	2,969	0.0088	0.9912	83.62
56.5	333,161		0.0000	1.0000	82.88
57.5	330,721	11,652	0.0352	0.9648	82.88
58.5	319,070		0.0000	1.0000	79.96
59.5	319,070	27,426	0.0860	0.9140	79.96
60.5	291,644	25	0.0001	0.9999	73.09
61.5	219,637	1,049	0.0048	0.9952	73.08
62.5	218,588	787	0.0036	0.9964	72.73
63.5	168,298	272	0.0016	0.9984	72.47
64.5	168,026	0	0.0000	1.0000	72.35
65.5	168,026	10,713	0.0638	0.9362	72.35
66.5	107,726		0.0000	1.0000	67.74
67.5	107,726		0.0000	1.0000	67.74
68.5	107,639	129	0.0012	0.9988	67.74
69.5	107,510	197	0.0018	0.9982	67.66
70.5	107,313	1,876	0.0175	0.9825	67.53
71.5	105,437	1	0.0000	1.0000	66.35
72.5	105,437		0.0000	1.0000	66.35
73.5	105,437		0.0000	1.0000	66.35
74.5	105,437		0.0000	1.0000	66.35
75.5	104,947	1	0.0000	1.0000	66.35
76.5	104,945	475	0.0045	0.9955	66.35
77.5	104,471	3,068	0.0294	0.9706	66.05
78.5	101,402	29	0.0003	0.9997	64.11

DUKE ENERGY KENTUCKY

ACCOUNTS 3520 AND 3610 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1902-2020			EXPERIENCE BAND 1956-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	99,930		0.0000	1.0000	64.09
80.5	99,930		0.0000	1.0000	64.09
81.5	99,930	967	0.0097	0.9903	64.09
82.5	70,771		0.0000	1.0000	63.47
83.5	70,771		0.0000	1.0000	63.47
84.5	70,771		0.0000	1.0000	63.47
85.5	70,771	15,864	0.2242	0.7758	63.47
86.5	54,907	8,081	0.1472	0.8528	49.25
87.5	46,826	45,915	0.9806	0.0194	42.00
88.5	911		0.0000	1.0000	0.82
89.5	911		0.0000	1.0000	0.82
90.5	911		0.0000	1.0000	0.82
91.5	911		0.0000	1.0000	0.82
92.5	911		0.0000	1.0000	0.82
93.5	911		0.0000	1.0000	0.82
94.5	911		0.0000	1.0000	0.82
95.5	911		0.0000	1.0000	0.82
96.5	911		0.0000	1.0000	0.82
97.5	911		0.0000	1.0000	0.82
98.5	911		0.0000	1.0000	0.82
99.5	911		0.0000	1.0000	0.82
100.5	911		0.0000	1.0000	0.82
101.5	911		0.0000	1.0000	0.82
102.5	911		0.0000	1.0000	0.82
103.5	911		0.0000	1.0000	0.82
104.5	911		0.0000	1.0000	0.82
105.5	911		0.0000	1.0000	0.82
106.5	911		0.0000	1.0000	0.82
107.5	911		0.0000	1.0000	0.82
108.5	911	911	1.0000		0.82
109.5					

DUKE ENERGY KENTUCKY

ACCOUNTS 3520 AND 3610 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1902-2020			EXPERIENCE BAND 1992-2021			
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	7,069,055	6	0.0000	1.0000	100.00	
0.5	7,069,049		0.0000	1.0000	100.00	
1.5	2,583,180	28,958	0.0112	0.9888	100.00	
2.5	2,554,222	379	0.0001	0.9999	98.88	
3.5	2,548,131	698	0.0003	0.9997	98.86	
4.5	2,547,433	51	0.0000	1.0000	98.84	
5.5	2,531,624		0.0000	1.0000	98.84	
6.5	2,156,709	6	0.0000	1.0000	98.84	
7.5	1,467,223	4,542	0.0031	0.9969	98.83	
8.5	1,189,486		0.0000	1.0000	98.53	
9.5	837,610	47,444	0.0566	0.9434	98.53	
10.5	784,135	10	0.0000	1.0000	92.95	
11.5	766,832		0.0000	1.0000	92.95	
12.5	766,832	31,741	0.0414	0.9586	92.95	
13.5	595,867		0.0000	1.0000	89.10	
14.5	166,124	19,258	0.1159	0.8841	89.10	
15.5	169,478		0.0000	1.0000	78.77	
16.5	169,571		0.0000	1.0000	78.77	
17.5	263,891		0.0000	1.0000	78.77	
18.5	263,891		0.0000	1.0000	78.77	
19.5	263,891		0.0000	1.0000	78.77	
20.5	265,919		0.0000	1.0000	78.77	
21.5	265,919		0.0000	1.0000	78.77	
22.5	272,760		0.0000	1.0000	78.77	
23.5	274,672		0.0000	1.0000	78.77	
24.5	279,521		0.0000	1.0000	78.77	
25.5	279,521		0.0000	1.0000	78.77	
26.5	284,201		0.0000	1.0000	78.77	
27.5	286,644		0.0000	1.0000	78.77	
28.5	264,647		0.0000	1.0000	78.77	
29.5	268,375		0.0000	1.0000	78.77	
30.5	268,375	1,175	0.0044	0.9956	78.77	
31.5	339,181		0.0000	1.0000	78.43	
32.5	339,181	1,728	0.0051	0.9949	78.43	
33.5	396,253	1,721	0.0043	0.9957	78.03	
34.5	394,531		0.0000	1.0000	77.69	
35.5	394,531	4,462	0.0113	0.9887	77.69	
36.5	467,961		0.0000	1.0000	76.81	
37.5	468,886		0.0000	1.0000	76.81	
38.5	480,674	729	0.0015	0.9985	76.81	

DUKE ENERGY KENTUCKY

ACCOUNTS 3520 AND 3610 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1902-2020			EXPERIENCE BAND 1992-2021		
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	480,246		0.0000	1.0000	76.69
40.5	480,246		0.0000	1.0000	76.69
41.5	480,518		0.0000	1.0000	76.69
42.5	480,518	0	0.0000	1.0000	76.69
43.5	480,518	91	0.0002	0.9998	76.69
44.5	480,427	1,717	0.0036	0.9964	76.68
45.5	332,893		0.0000	1.0000	76.40
46.5	332,801		0.0000	1.0000	76.40
47.5	242,721	8,595	0.0354	0.9646	76.40
48.5	236,854	3	0.0000	1.0000	73.70
49.5	238,425	2,388	0.0100	0.9900	73.70
50.5	234,009	139	0.0006	0.9994	72.96
51.5	234,345	24	0.0001	0.9999	72.92
52.5	271,643	1,231	0.0045	0.9955	72.91
53.5	268,501	2	0.0000	1.0000	72.58
54.5	265,887	3,728	0.0140	0.9860	72.58
55.5	262,160	2,969	0.0113	0.9887	71.56
56.5	257,960		0.0000	1.0000	70.75
57.5	255,520	11,652	0.0456	0.9544	70.75
58.5	243,869		0.0000	1.0000	67.52
59.5	243,869	27,426	0.1125	0.8875	67.52
60.5	216,443	25	0.0001	0.9999	59.93
61.5	144,437	1,049	0.0073	0.9927	59.92
62.5	190,270	787	0.0041	0.9959	59.49
63.5	145,375	272	0.0019	0.9981	59.24
64.5	156,253	0	0.0000	1.0000	59.13
65.5	156,253	10,713	0.0686	0.9314	59.13
66.5	106,816		0.0000	1.0000	55.08
67.5	106,816		0.0000	1.0000	55.08
68.5	106,729	129	0.0012	0.9988	55.08
69.5	106,600	197	0.0018	0.9982	55.01
70.5	106,403	1,876	0.0176	0.9824	54.91
71.5	104,527	1	0.0000	1.0000	53.94
72.5	104,526		0.0000	1.0000	53.94
73.5	104,526		0.0000	1.0000	53.94
74.5	104,526		0.0000	1.0000	53.94
75.5	104,036	1	0.0000	1.0000	53.94
76.5	104,035	475	0.0046	0.9954	53.94
77.5	103,560	3,068	0.0296	0.9704	53.69
78.5	100,492	29	0.0003	0.9997	52.10

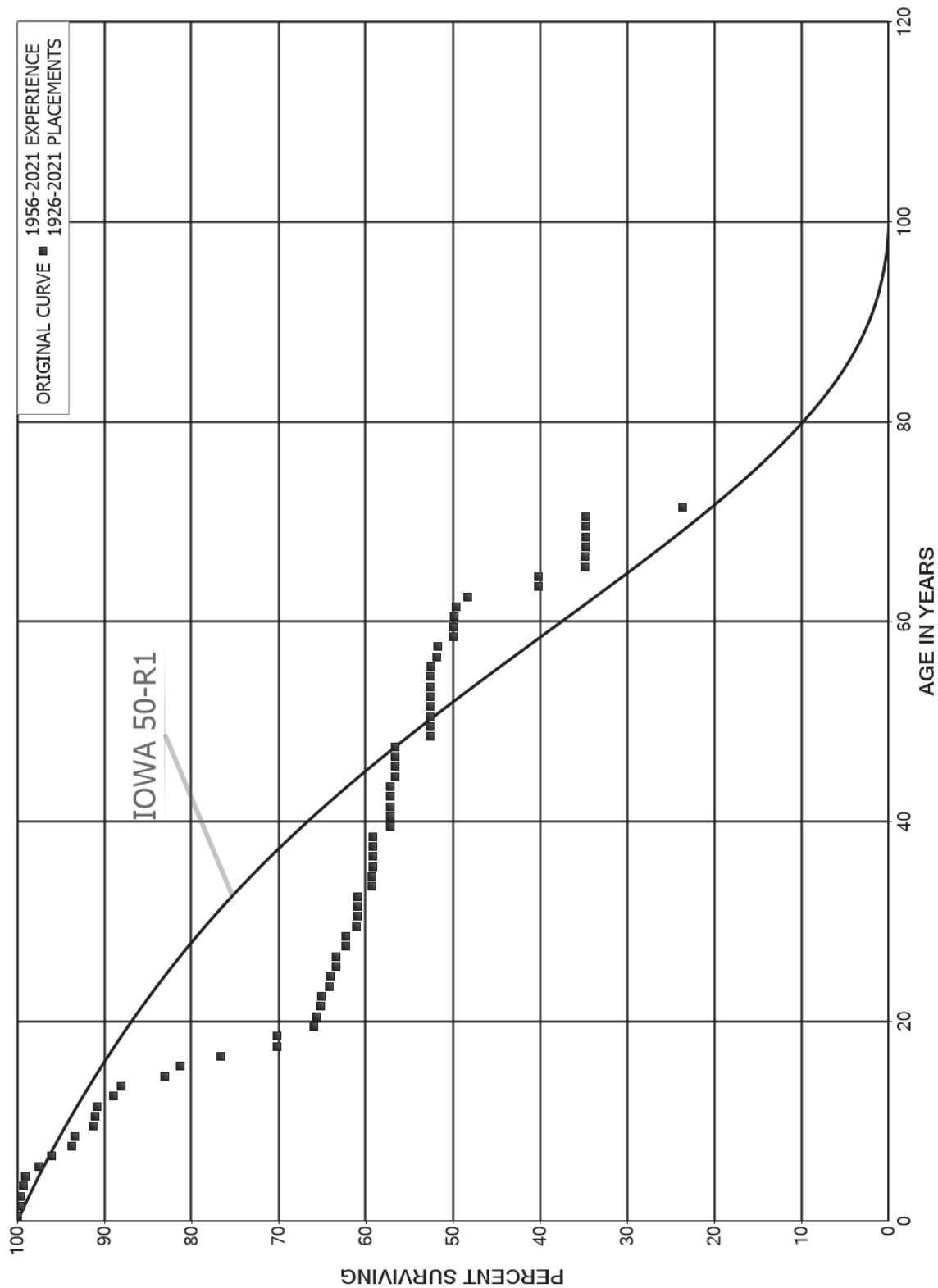
DUKE ENERGY KENTUCKY

ACCOUNTS 3520 AND 3610 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1902-2020			EXPERIENCE BAND 1992-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	99,020		0.0000	1.0000	52.09
80.5	99,020		0.0000	1.0000	52.09
81.5	99,020	967	0.0098	0.9902	52.09
82.5	69,861		0.0000	1.0000	51.58
83.5	69,861		0.0000	1.0000	51.58
84.5	69,861		0.0000	1.0000	51.58
85.5	69,861	15,864	0.2271	0.7729	51.58
86.5	53,997	8,081	0.1497	0.8503	39.87
87.5	45,915	45,915	1.0000		33.90
88.5					
89.5	911		0.0000		
90.5	911		0.0000		
91.5	911		0.0000		
92.5	911		0.0000		
93.5	911		0.0000		
94.5	911		0.0000		
95.5	911		0.0000		
96.5	911		0.0000		
97.5	911		0.0000		
98.5	911		0.0000		
99.5	911		0.0000		
100.5	911		0.0000		
101.5	911		0.0000		
102.5	911		0.0000		
103.5	911		0.0000		
104.5	911		0.0000		
105.5	911		0.0000		
106.5	911		0.0000		
107.5	911		0.0000		
108.5	911	911	1.0000		
109.5					

DUKE ENERGY KENTUCKY
ACCOUNT 3530 STATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3530 STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1926-2021

EXPERIENCE BAND 1956-2021

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	37,289,788		0.0000	1.0000	100.00
0.5	35,066,371	122,677	0.0035	0.9965	100.00
1.5	24,136,951	14,457	0.0006	0.9994	99.65
2.5	20,046,453	57,116	0.0028	0.9972	99.59
3.5	18,413,068	46,362	0.0025	0.9975	99.31
4.5	16,980,137	258,560	0.0152	0.9848	99.06
5.5	16,706,726	252,276	0.0151	0.9849	97.55
6.5	14,291,742	357,552	0.0250	0.9750	96.08
7.5	12,632,412	36,861	0.0029	0.9971	93.67
8.5	12,426,527	275,948	0.0222	0.9778	93.40
9.5	11,607,976	27,860	0.0024	0.9976	91.32
10.5	11,580,116	35,697	0.0031	0.9969	91.11
11.5	11,532,683	245,565	0.0213	0.9787	90.82
12.5	11,269,097	109,868	0.0097	0.9903	88.89
13.5	11,181,003	632,500	0.0566	0.9434	88.02
14.5	7,953,967	169,828	0.0214	0.9786	83.04
15.5	7,295,027	422,145	0.0579	0.9421	81.27
16.5	6,808,237	569,852	0.0837	0.9163	76.57
17.5	6,195,021	3,008	0.0005	0.9995	70.16
18.5	5,148,561	307,986	0.0598	0.9402	70.13
19.5	4,109,298	20,309	0.0049	0.9951	65.93
20.5	4,089,214	25,188	0.0062	0.9938	65.60
21.5	3,345,631	8,434	0.0025	0.9975	65.20
22.5	3,332,495	45,512	0.0137	0.9863	65.04
23.5	3,183,199	4,924	0.0015	0.9985	64.15
24.5	3,178,274	29,947	0.0094	0.9906	64.05
25.5	3,116,605	3,507	0.0011	0.9989	63.45
26.5	2,595,324	46,020	0.0177	0.9823	63.37
27.5	2,549,304		0.0000	1.0000	62.25
28.5	2,549,304	50,135	0.0197	0.9803	62.25
29.5	1,720,591	1,050	0.0006	0.9994	61.03
30.5	1,575,034		0.0000	1.0000	60.99
31.5	1,575,034	68	0.0000	1.0000	60.99
32.5	1,574,966	45,260	0.0287	0.9713	60.99
33.5	1,529,706		0.0000	1.0000	59.23
34.5	1,529,706	1,228	0.0008	0.9992	59.23
35.5	1,511,840	173	0.0001	0.9999	59.19
36.5	1,443,042		0.0000	1.0000	59.18
37.5	1,443,042		0.0000	1.0000	59.18
38.5	1,143,910	38,077	0.0333	0.9667	59.18

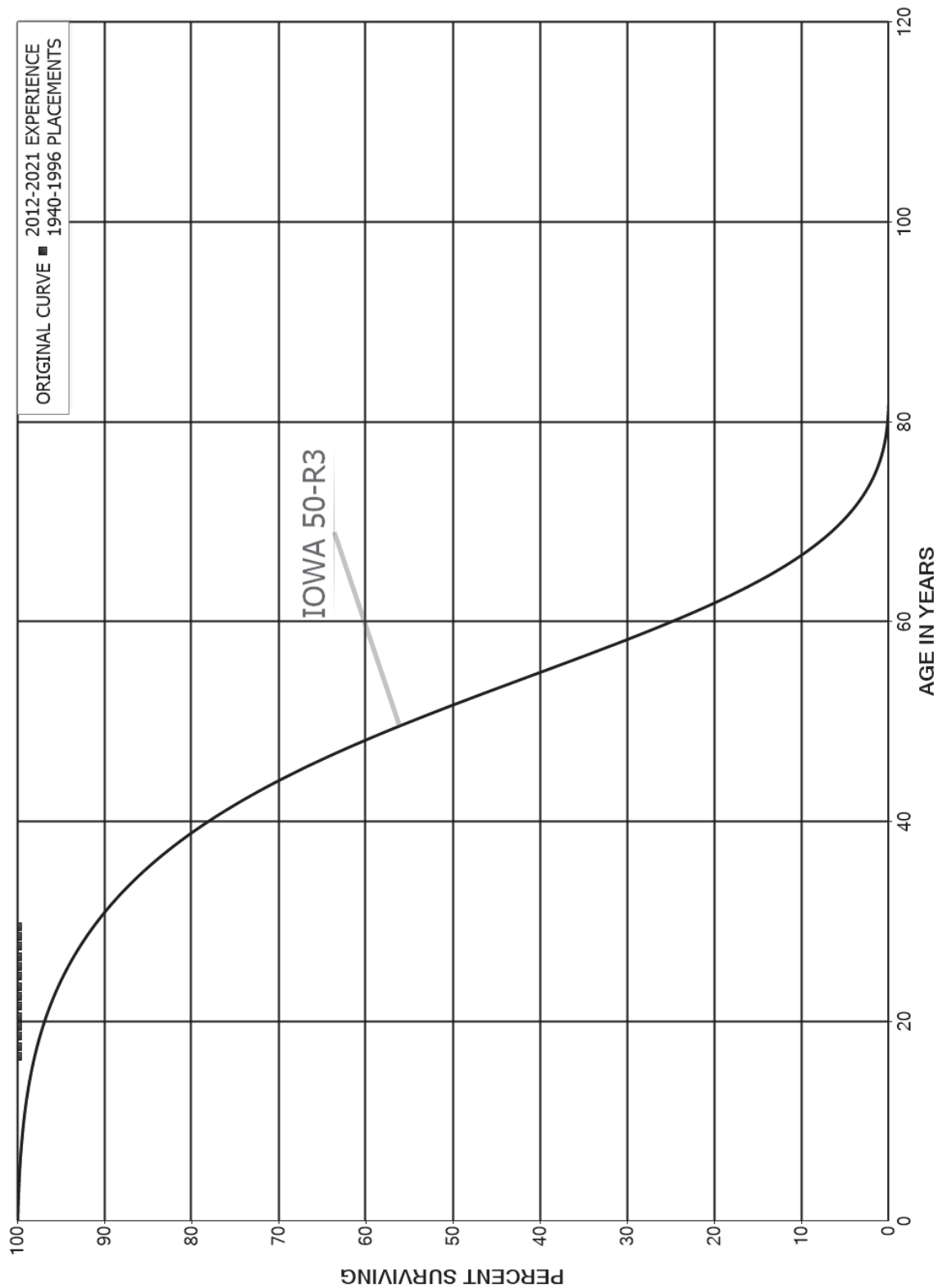
DUKE ENERGY KENTUCKY

ACCOUNT 3530 STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1926-2021			EXPERIENCE BAND 1956-2021			
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	1,164,309	7	0.0000	1.0000	57.21	
40.5	1,164,301		0.0000	1.0000	57.21	
41.5	1,164,301	1,389	0.0012	0.9988	57.21	
42.5	1,158,527	11	0.0000	1.0000	57.14	
43.5	1,156,706	10,134	0.0088	0.9912	57.14	
44.5	1,146,572	179	0.0002	0.9998	56.64	
45.5	807,980		0.0000	1.0000	56.63	
46.5	805,326	197	0.0002	0.9998	56.63	
47.5	804,722	56,271	0.0699	0.9301	56.62	
48.5	711,840		0.0000	1.0000	52.66	
49.5	711,840	16	0.0000	1.0000	52.66	
50.5	663,792	1	0.0000	1.0000	52.66	
51.5	663,790	12	0.0000	1.0000	52.66	
52.5	663,778	808	0.0012	0.9988	52.66	
53.5	658,985		0.0000	1.0000	52.59	
54.5	658,656	1,582	0.0024	0.9976	52.59	
55.5	655,680	8,238	0.0126	0.9874	52.47	
56.5	450,548	348	0.0008	0.9992	51.81	
57.5	450,200	15,431	0.0343	0.9657	51.77	
58.5	434,769		0.0000	1.0000	49.99	
59.5	434,769	1,537	0.0035	0.9965	49.99	
60.5	430,752	1,556	0.0036	0.9964	49.81	
61.5	363,236	9,493	0.0261	0.9739	49.64	
62.5	353,743	59,920	0.1694	0.8306	48.34	
63.5	28,471		0.0000	1.0000	40.15	
64.5	28,471	3,805	0.1336	0.8664	40.15	
65.5	22,807		0.0000	1.0000	34.78	
66.5	20,786	41	0.0019	0.9981	34.78	
67.5	20,745		0.0000	1.0000	34.72	
68.5	20,745		0.0000	1.0000	34.72	
69.5	20,745		0.0000	1.0000	34.72	
70.5	10,878	3,481	0.3200	0.6800	34.72	
71.5	7,397		0.0000	1.0000	23.61	
72.5	7,397		0.0000	1.0000	23.61	
73.5	7,397		0.0000	1.0000	23.61	
74.5	7,397	4,090	0.5529	0.4471	23.61	
75.5	3,307		0.0000	1.0000	10.55	
76.5	3,307		0.0000	1.0000	10.55	
77.5	3,307		0.0000	1.0000	10.55	
78.5					10.55	

DUKE ENERGY KENTUCKY
ACCOUNT 3531 STATION EQUIPMENT - STEP UP
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3531 STATION EQUIPMENT - STEP UP

ORIGINAL LIFE TABLE

PLACEMENT BAND 1940-1996			EXPERIENCE BAND 2012-2021		
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	968,381		0.0000	1.0000	100.00
17.5	968,381		0.0000	1.0000	100.00
18.5	968,381		0.0000	1.0000	100.00
19.5	968,381		0.0000	1.0000	100.00
20.5	9,373,634		0.0000	1.0000	100.00
21.5	9,373,634		0.0000	1.0000	100.00
22.5	9,373,634		0.0000	1.0000	100.00
23.5	9,373,634		0.0000	1.0000	100.00
24.5	9,373,634		0.0000	1.0000	100.00
25.5	8,405,253		0.0000	1.0000	100.00
26.5	8,405,253		0.0000	1.0000	100.00
27.5	8,405,253		0.0000	1.0000	100.00
28.5	8,405,253		0.0000	1.0000	100.00
29.5					100.00
30.5					
31.5					
32.5	22,193		0.0000		
33.5	22,193		0.0000		
34.5	22,193		0.0000		
35.5	36,091	22,193	0.6149		
36.5	29,659		0.0000		
37.5	29,659		0.0000		
38.5	35,928	13,897	0.3868		

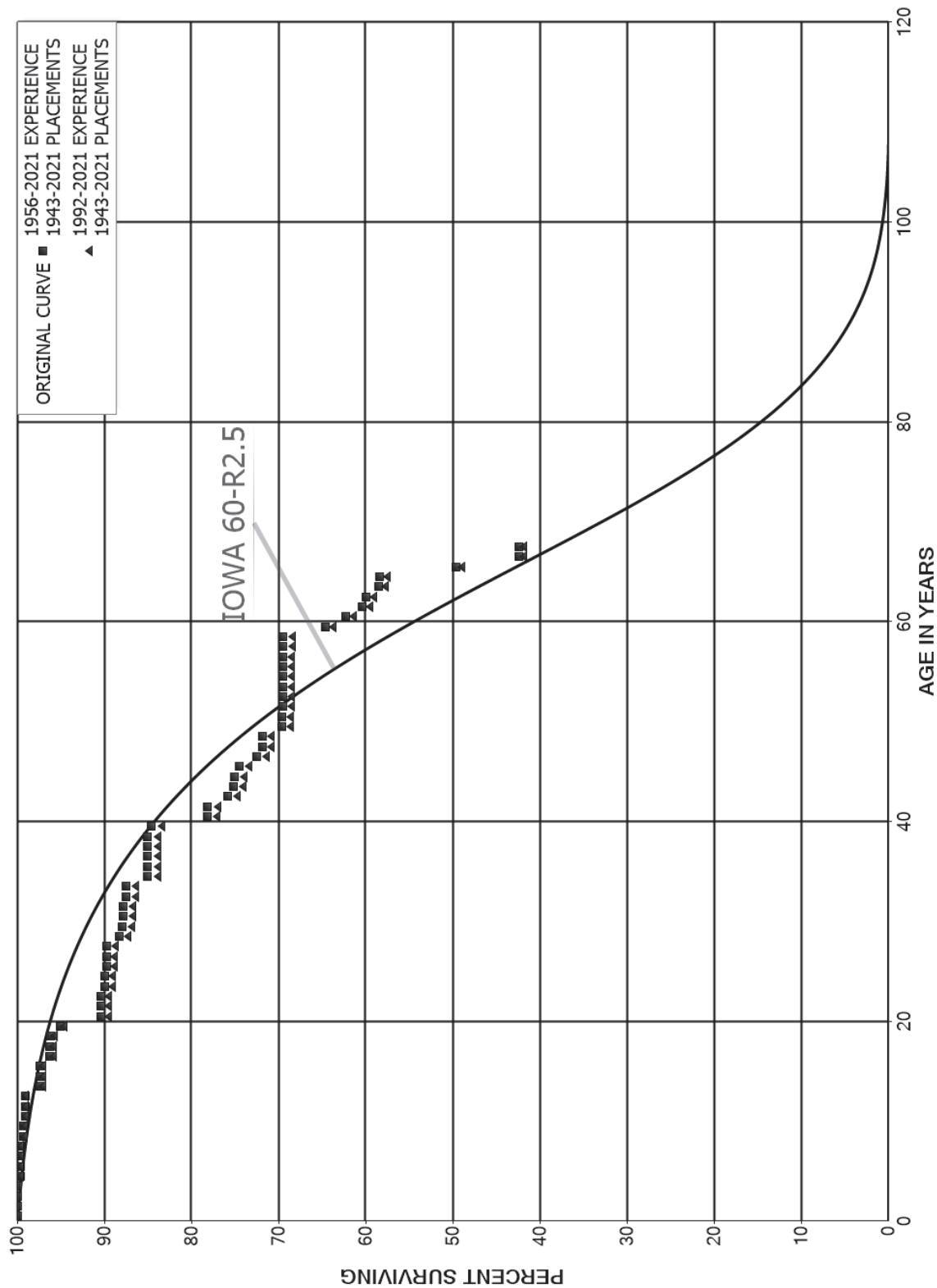
DUKE ENERGY KENTUCKY

ACCOUNT 3531 STATION EQUIPMENT - STEP UP

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1940-1996			EXPERIENCE BAND 2012-2021		
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	22,031	15,762	0.7155		
40.5	6,269		0.0000		
41.5	6,269	6,269	1.0000		
42.5					
43.5	5,339		0.0000		
44.5	5,339		0.0000		
45.5	5,339		0.0000		
46.5	5,339	5,339	1.0000		
47.5					
48.5					
49.5					
50.5					
51.5					
52.5	16,550		0.0000		
53.5	16,550		0.0000		
54.5	16,550		0.0000		
55.5	16,550	16,550	1.0000		
56.5					
57.5	900		0.0000		
58.5	900		0.0000		
59.5	900		0.0000		
60.5	900	900	1.0000		
61.5					
62.5					
63.5	18,783		0.0000		
64.5	18,783		0.0000		
65.5	18,783		0.0000		
66.5	18,783	18,783	1.0000		
67.5					
68.5					
69.5					
70.5					
71.5	561		0.0000		
72.5	6,628		0.0000		
73.5	6,628		0.0000		
74.5	6,628	561	0.0847		
75.5	6,067	6,067	1.0000		
76.5					

DUKE ENERGY KENTUCKY
ACCOUNTS 3532 AND 3622 STATION EQUIPMENT - MAJOR
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNTS 3532 AND 3622 STATION EQUIPMENT - MAJOR

ORIGINAL LIFE TABLE

PLACEMENT BAND 1943-2021			EXPERIENCE BAND 1956-2021		
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	55,289,845		0.0000	1.0000	100.00
0.5	52,451,433		0.0000	1.0000	100.00
1.5	42,787,415		0.0000	1.0000	100.00
2.5	35,498,353		0.0000	1.0000	100.00
3.5	31,757,267	127,686	0.0040	0.9960	100.00
4.5	31,786,883		0.0000	1.0000	99.60
5.5	31,814,998		0.0000	1.0000	99.60
6.5	30,356,961		0.0000	1.0000	99.60
7.5	29,098,250	101,291	0.0035	0.9965	99.60
8.5	28,996,959		0.0000	1.0000	99.25
9.5	29,588,560	40,579	0.0014	0.9986	99.25
10.5	29,465,724		0.0000	1.0000	99.12
11.5	27,429,430		0.0000	1.0000	99.12
12.5	26,535,511	462,540	0.0174	0.9826	99.12
13.5	24,142,809		0.0000	1.0000	97.39
14.5	20,994,667		0.0000	1.0000	97.39
15.5	19,402,549	227,166	0.0117	0.9883	97.39
16.5	18,021,641		0.0000	1.0000	96.25
17.5	17,077,810	16,975	0.0010	0.9990	96.25
18.5	15,421,990	175,470	0.0114	0.9886	96.15
19.5	13,955,943	683,187	0.0490	0.9510	95.06
20.5	9,854,448		0.0000	1.0000	90.40
21.5	8,361,574	4,710	0.0006	0.9994	90.40
22.5	8,356,863	35,635	0.0043	0.9957	90.35
23.5	8,321,228		0.0000	1.0000	89.97
24.5	8,321,228	18,286	0.0022	0.9978	89.97
25.5	8,302,942	1,292	0.0002	0.9998	89.77
26.5	8,090,099	5,925	0.0007	0.9993	89.76
27.5	8,084,174	124,760	0.0154	0.9846	89.69
28.5	7,019,778	30,269	0.0043	0.9957	88.31
29.5	6,477,943	9,017	0.0014	0.9986	87.93
30.5	5,368,781		0.0000	1.0000	87.80
31.5	5,334,412	19,543	0.0037	0.9963	87.80
32.5	5,213,735		0.0000	1.0000	87.48
33.5	5,129,934	141,294	0.0275	0.9725	87.48
34.5	4,952,914		0.0000	1.0000	85.07
35.5	4,910,944	1,471	0.0003	0.9997	85.07
36.5	4,857,516		0.0000	1.0000	85.05
37.5	4,456,388	949	0.0002	0.9998	85.05
38.5	3,661,425	19,241	0.0053	0.9947	85.03

DUKE ENERGY KENTUCKY

ACCOUNTS 3532 AND 3622 STATION EQUIPMENT - MAJOR

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1943-2021			EXPERIENCE BAND 1956-2021			
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	3,464,818	262,739	0.0758	0.9242	84.58	
40.5	3,051,702	1,614	0.0005	0.9995	78.17	
41.5	2,938,371	87,764	0.0299	0.9701	78.13	
42.5	2,741,867	22,285	0.0081	0.9919	75.79	
43.5	2,693,335	3,773	0.0014	0.9986	75.18	
44.5	2,293,324	17,444	0.0076	0.9924	75.07	
45.5	1,630,404	44,352	0.0272	0.9728	74.50	
46.5	1,586,052	13,357	0.0084	0.9916	72.47	
47.5	1,436,124		0.0000	1.0000	71.86	
48.5	1,386,888	43,524	0.0314	0.9686	71.86	
49.5	1,317,782	197	0.0001	0.9999	69.61	
50.5	1,116,655	1,514	0.0014	0.9986	69.60	
51.5	1,328,637		0.0000	1.0000	69.50	
52.5	1,230,152		0.0000	1.0000	69.50	
53.5	1,230,152		0.0000	1.0000	69.50	
54.5	1,214,340	366	0.0003	0.9997	69.50	
55.5	943,626		0.0000	1.0000	69.48	
56.5	878,585	323	0.0004	0.9996	69.48	
57.5	757,295		0.0000	1.0000	69.46	
58.5	746,864	51,545	0.0690	0.9310	69.46	
59.5	691,223	25,012	0.0362	0.9638	64.66	
60.5	666,211	21,159	0.0318	0.9682	62.32	
61.5	625,892	4,301	0.0069	0.9931	60.34	
62.5	621,591	14,414	0.0232	0.9768	59.93	
63.5	345,876	1,151	0.0033	0.9967	58.54	
64.5	344,725	51,583	0.1496	0.8504	58.35	
65.5	293,143	42,430	0.1447	0.8553	49.61	
66.5	244,561		0.0000	1.0000	42.43	
67.5	21,699		0.0000	1.0000	42.43	
68.5	21,699		0.0000	1.0000	42.43	
69.5	21,699		0.0000	1.0000	42.43	
70.5	21,699		0.0000	1.0000	42.43	
71.5	10,864	10,864	1.0000		42.43	
72.5						

DUKE ENERGY KENTUCKY

ACCOUNTS 3532 AND 3622 STATION EQUIPMENT - MAJOR

ORIGINAL LIFE TABLE

PLACEMENT BAND 1943-2021			EXPERIENCE BAND 1992-2021		
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	48,059,482		0.0000	1.0000	100.00
0.5	46,194,525		0.0000	1.0000	100.00
1.5	36,564,876		0.0000	1.0000	100.00
2.5	29,275,813		0.0000	1.0000	100.00
3.5	25,618,528	127,686	0.0050	0.9950	100.00
4.5	25,797,960		0.0000	1.0000	99.50
5.5	25,856,060		0.0000	1.0000	99.50
6.5	24,520,703		0.0000	1.0000	99.50
7.5	23,673,598	101,291	0.0043	0.9957	99.50
8.5	25,060,730		0.0000	1.0000	99.08
9.5	26,035,660	40,579	0.0016	0.9984	99.08
10.5	26,162,525		0.0000	1.0000	98.92
11.5	24,518,974		0.0000	1.0000	98.92
12.5	23,813,368	462,540	0.0194	0.9806	98.92
13.5	21,446,913		0.0000	1.0000	97.00
14.5	18,705,034		0.0000	1.0000	97.00
15.5	17,774,314	227,166	0.0128	0.9872	97.00
16.5	16,393,407		0.0000	1.0000	95.76
17.5	15,724,916	16,975	0.0011	0.9989	95.76
18.5	14,137,875	175,470	0.0124	0.9876	95.66
19.5	12,730,802	683,187	0.0537	0.9463	94.47
20.5	8,859,490		0.0000	1.0000	89.40
21.5	7,375,982	4,710	0.0006	0.9994	89.40
22.5	7,470,128	35,635	0.0048	0.9952	89.34
23.5	7,434,493		0.0000	1.0000	88.92
24.5	7,450,305	18,286	0.0025	0.9975	88.92
25.5	7,526,271	1,292	0.0002	0.9998	88.70
26.5	7,395,036	5,925	0.0008	0.9992	88.68
27.5	7,441,292	124,760	0.0168	0.9832	88.61
28.5	6,403,769	30,269	0.0047	0.9953	87.13
29.5	5,917,576	9,017	0.0015	0.9985	86.71
30.5	4,808,413		0.0000	1.0000	86.58
31.5	4,814,363	19,543	0.0041	0.9959	86.58
32.5	4,694,052		0.0000	1.0000	86.23
33.5	4,963,350	141,294	0.0285	0.9715	86.23
34.5	4,786,329		0.0000	1.0000	83.78
35.5	4,757,103	1,471	0.0003	0.9997	83.78
36.5	4,830,366		0.0000	1.0000	83.75
37.5	4,429,238	949	0.0002	0.9998	83.75
38.5	3,634,275	19,241	0.0053	0.9947	83.73

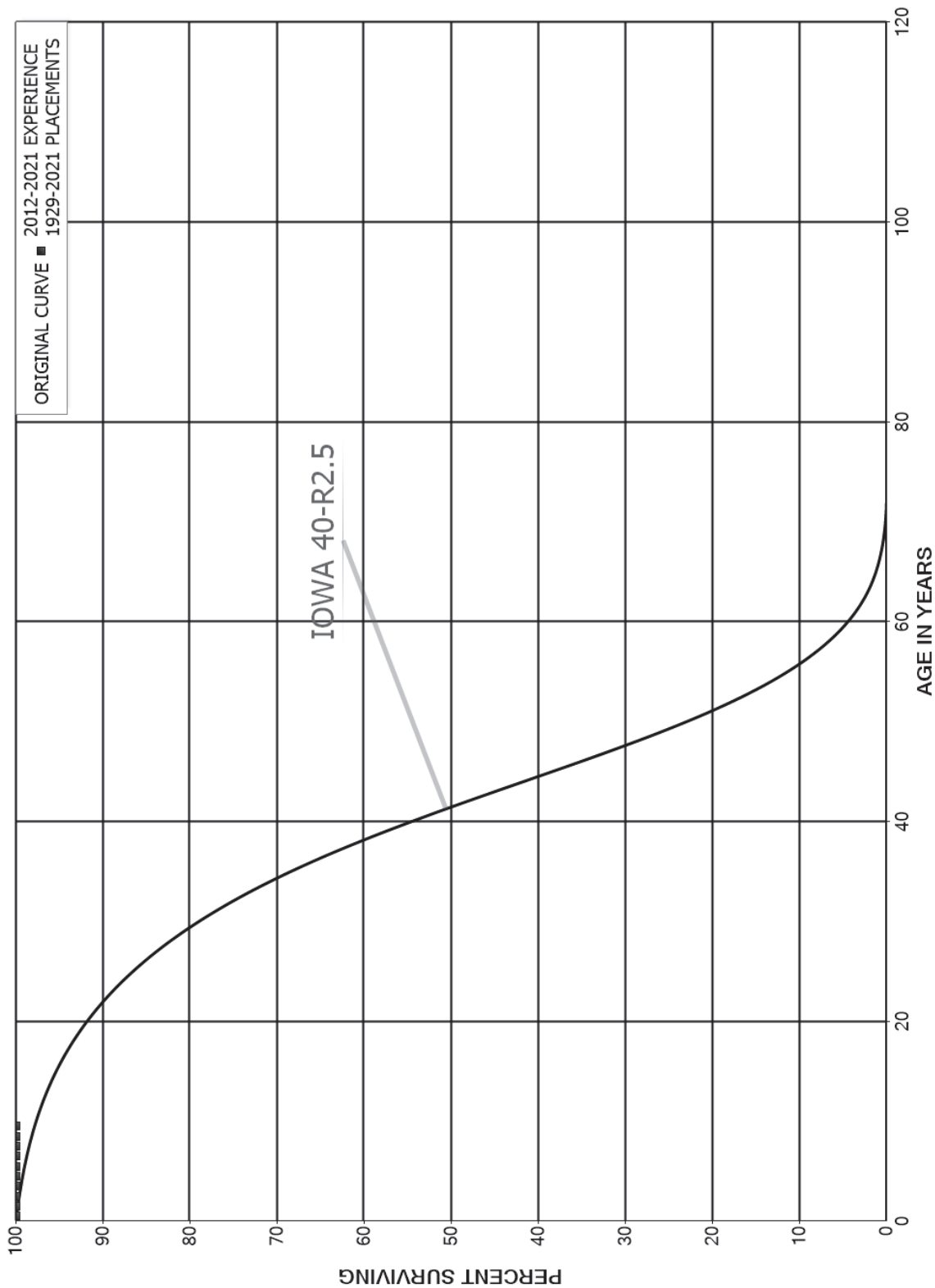
DUKE ENERGY KENTUCKY

ACCOUNTS 3532 AND 3622 STATION EQUIPMENT - MAJOR

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1943-2021			EXPERIENCE BAND 1992-2021		
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	3,437,668	262,739	0.0764	0.9236	83.29
40.5	3,028,853	1,614	0.0005	0.9995	76.92
41.5	2,927,506	87,764	0.0300	0.9700	76.88
42.5	2,731,003	22,285	0.0082	0.9918	74.58
43.5	2,682,470	3,773	0.0014	0.9986	73.97
44.5	2,282,460	17,444	0.0076	0.9924	73.87
45.5	1,619,539	44,352	0.0274	0.9726	73.30
46.5	1,575,187	13,357	0.0085	0.9915	71.29
47.5	1,425,259		0.0000	1.0000	70.69
48.5	1,386,888	43,524	0.0314	0.9686	70.69
49.5	1,317,782	197	0.0001	0.9999	68.47
50.5	1,116,655	1,514	0.0014	0.9986	68.46
51.5	1,328,637		0.0000	1.0000	68.37
52.5	1,230,152		0.0000	1.0000	68.37
53.5	1,230,152		0.0000	1.0000	68.37
54.5	1,214,340	366	0.0003	0.9997	68.37
55.5	943,626		0.0000	1.0000	68.35
56.5	878,585	323	0.0004	0.9996	68.35
57.5	757,295		0.0000	1.0000	68.32
58.5	746,864	51,545	0.0690	0.9310	68.32
59.5	691,223	25,012	0.0362	0.9638	63.61
60.5	666,211	21,159	0.0318	0.9682	61.30
61.5	625,892	4,301	0.0069	0.9931	59.36
62.5	621,591	14,414	0.0232	0.9768	58.95
63.5	345,876	1,151	0.0033	0.9967	57.58
64.5	344,725	51,583	0.1496	0.8504	57.39
65.5	293,143	42,430	0.1447	0.8553	48.80
66.5	244,561		0.0000	1.0000	41.74
67.5	21,699		0.0000	1.0000	41.74
68.5	21,699		0.0000	1.0000	41.74
69.5	21,699		0.0000	1.0000	41.74
70.5	21,699		0.0000	1.0000	41.74
71.5	10,864	10,864	1.0000		41.74
72.5					

DUKE ENERGY KENTUCKY
ACCOUNT 3534 STATION EQUIPMENT - STEP UP EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3534 STATION EQUIPMENT - STEP UP EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1929-2021			EXPERIENCE BAND 2012-2021		
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	6,453,325		0.0000	1.0000	100.00
0.5	5,838,602		0.0000	1.0000	100.00
1.5	5,838,602		0.0000	1.0000	100.00
2.5	5,838,602		0.0000	1.0000	100.00
3.5	5,838,602		0.0000	1.0000	100.00
4.5	5,838,602		0.0000	1.0000	100.00
5.5	5,838,602		0.0000	1.0000	100.00
6.5	5,838,602		0.0000	1.0000	100.00
7.5	5,838,602		0.0000	1.0000	100.00
8.5	5,838,602		0.0000	1.0000	100.00
9.5					100.00
10.5					
11.5					
12.5					
13.5					
14.5					
15.5					
16.5					
17.5					
18.5					
19.5					
20.5	1,218,688		0.0000		
21.5	1,218,688		0.0000		
22.5	1,218,688		0.0000		
23.5	1,218,688		0.0000		
24.5	1,218,688		0.0000		
25.5	1,218,688		0.0000		
26.5	1,218,688		0.0000		
27.5	1,218,688		0.0000		
28.5	1,218,688		0.0000		
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5					
38.5					

DUKE ENERGY KENTUCKY

ACCOUNT 3534 STATION EQUIPMENT - STEP UP EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2021			EXPERIENCE BAND 2012-2021		
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	42,134		0.0000		
40.5	42,134		0.0000		
41.5	42,134		0.0000		
42.5	42,134	42,134	1.0000		
43.5					
44.5					
45.5					
46.5					
47.5					
48.5					
49.5					
50.5					
51.5					
52.5	436,903		0.0000		
53.5	436,903		0.0000		
54.5	436,903		0.0000		
55.5	436,903	436,903	1.0000		
56.5					
57.5					
58.5					
59.5					
60.5					
61.5					
62.5					
63.5	233,844		0.0000		
64.5	233,844		0.0000		
65.5	233,844		0.0000		
66.5	235,505	233,844	0.9929		
67.5	1,661		0.0000		
68.5	1,661		0.0000		
69.5	1,661	1,661	1.0000		
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

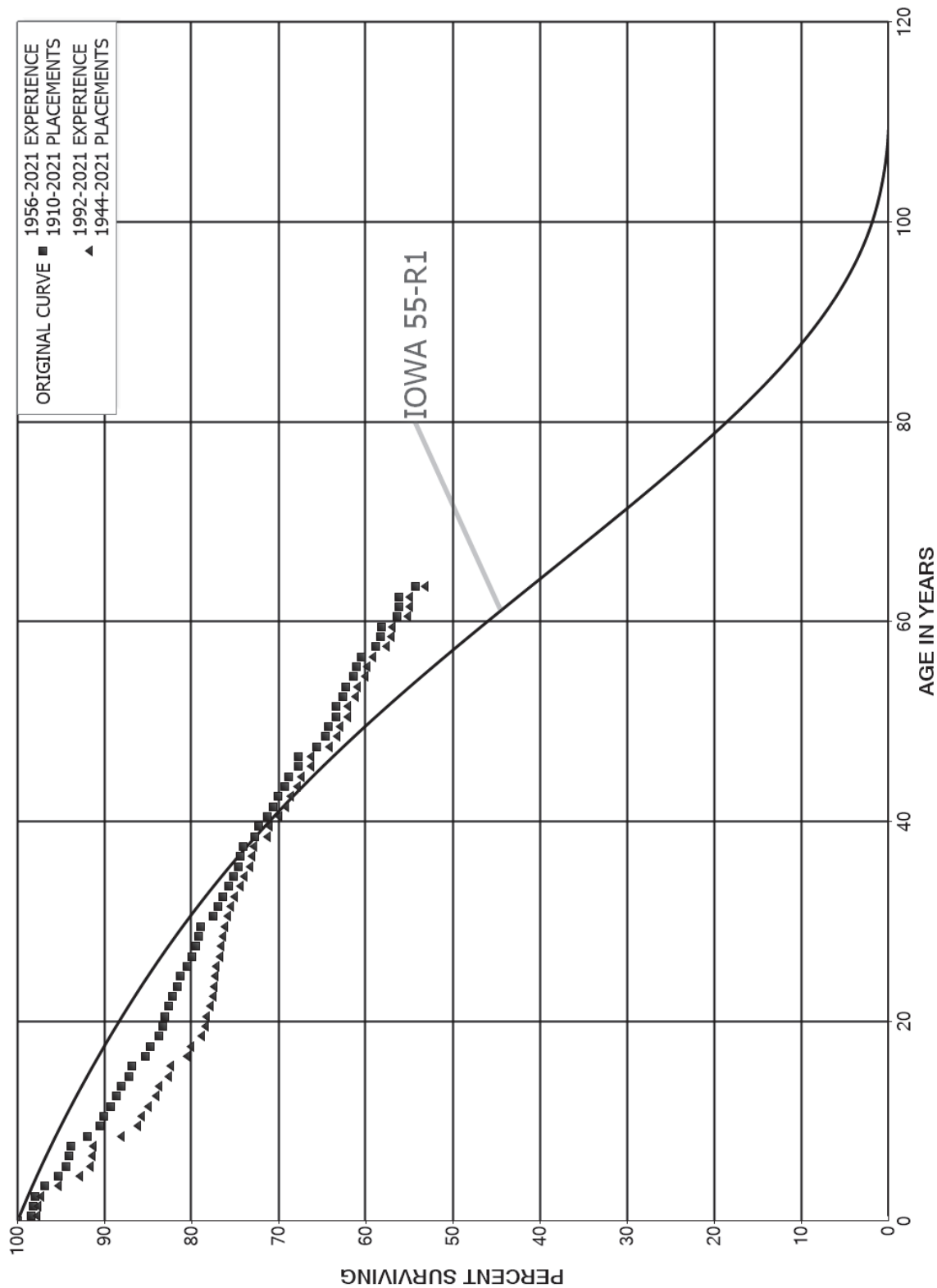
DUKE ENERGY KENTUCKY

ACCOUNT 3534 STATION EQUIPMENT - STEP UP EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2021			EXPERIENCE BAND 2012-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5	63,751		0.0000		
84.5	63,751		0.0000		
85.5	63,751		0.0000		
86.5	63,751	63,751	1.0000		
87.5					

DUKE ENERGY KENTUCKY
ACCOUNT 3550 POLES AND FIXTURES
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3550 POLES AND FIXTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2021

EXPERIENCE BAND 1956-2021

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	20,925,502	338,952	0.0162	0.9838	100.00
0.5	16,868,677	29,258	0.0017	0.9983	98.38
1.5	14,754,478	31,552	0.0021	0.9979	98.21
2.5	13,091,835	154,660	0.0118	0.9882	98.00
3.5	12,231,101	201,657	0.0165	0.9835	96.84
4.5	11,318,704	103,081	0.0091	0.9909	95.25
5.5	10,820,829	31,155	0.0029	0.9971	94.38
6.5	10,510,076	24,723	0.0024	0.9976	94.11
7.5	10,225,636	206,866	0.0202	0.9798	93.88
8.5	8,814,236	140,341	0.0159	0.9841	91.99
9.5	7,925,873	42,369	0.0053	0.9947	90.52
10.5	7,757,685	62,348	0.0080	0.9920	90.04
11.5	7,085,566	55,186	0.0078	0.9922	89.31
12.5	6,859,598	40,897	0.0060	0.9940	88.62
13.5	6,660,076	69,487	0.0104	0.9896	88.09
14.5	5,894,304	20,793	0.0035	0.9965	87.17
15.5	5,807,231	106,320	0.0183	0.9817	86.86
16.5	5,509,127	38,553	0.0070	0.9930	85.27
17.5	5,041,878	56,956	0.0113	0.9887	84.68
18.5	4,707,988	25,408	0.0054	0.9946	83.72
19.5	4,277,206	12,139	0.0028	0.9972	83.27
20.5	4,252,455	23,763	0.0056	0.9944	83.03
21.5	4,190,818	22,064	0.0053	0.9947	82.57
22.5	4,069,159	24,800	0.0061	0.9939	82.13
23.5	3,995,939	15,490	0.0039	0.9961	81.63
24.5	3,814,129	39,974	0.0105	0.9895	81.32
25.5	3,714,587	24,850	0.0067	0.9933	80.46
26.5	3,431,747	17,189	0.0050	0.9950	79.92
27.5	3,308,840	13,454	0.0041	0.9959	79.52
28.5	3,170,014	10,603	0.0033	0.9967	79.20
29.5	2,953,684	55,394	0.0188	0.9812	78.94
30.5	2,818,261	17,971	0.0064	0.9936	77.46
31.5	2,734,578	20,276	0.0074	0.9926	76.96
32.5	2,684,362	24,981	0.0093	0.9907	76.39
33.5	2,302,198	13,797	0.0060	0.9940	75.68
34.5	2,233,043	17,850	0.0080	0.9920	75.23
35.5	2,205,680	7,001	0.0032	0.9968	74.63
36.5	2,139,972	7,737	0.0036	0.9964	74.39
37.5	2,118,181	39,256	0.0185	0.9815	74.12
38.5	1,630,693	9,444	0.0058	0.9942	72.75

DUKE ENERGY KENTUCKY

ACCOUNT 3550 POLES AND FIXTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2021			EXPERIENCE BAND 1956-2021		
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	1,435,191	20,946	0.0146	0.9854	72.32
40.5	1,218,417	11,505	0.0094	0.9906	71.27
41.5	1,182,869	8,426	0.0071	0.9929	70.60
42.5	1,149,956	12,637	0.0110	0.9890	70.09
43.5	1,134,021	8,493	0.0075	0.9925	69.32
44.5	1,115,927	17,237	0.0154	0.9846	68.80
45.5	1,013,404	639	0.0006	0.9994	67.74
46.5	979,750	30,846	0.0315	0.9685	67.70
47.5	732,652	10,351	0.0141	0.9859	65.57
48.5	579,515	2,946	0.0051	0.9949	64.64
49.5	552,077	7,451	0.0135	0.9865	64.31
50.5	436,241	551	0.0013	0.9987	63.44
51.5	421,019	5,334	0.0127	0.9873	63.36
52.5	394,703	1,651	0.0042	0.9958	62.56
53.5	392,875	5,940	0.0151	0.9849	62.30
54.5	380,423	1,490	0.0039	0.9961	61.36
55.5	366,119	3,720	0.0102	0.9898	61.12
56.5	325,367	8,774	0.0270	0.9730	60.50
57.5	169,698	1,627	0.0096	0.9904	58.87
58.5	159,233	226	0.0014	0.9986	58.30
59.5	158,376	5,091	0.0321	0.9679	58.22
60.5	117,792	433	0.0037	0.9963	56.35
61.5	117,360	27	0.0002	0.9998	56.14
62.5	117,333	3,762	0.0321	0.9679	56.13
63.5	113,571		0.0000	1.0000	54.33
64.5	113,571		0.0000	1.0000	54.33
65.5	113,571		0.0000	1.0000	54.33
66.5	113,571		0.0000	1.0000	54.33
67.5	113,571		0.0000	1.0000	54.33
68.5	113,571	4	0.0000	1.0000	54.33
69.5	113,567		0.0000	1.0000	54.33
70.5	113,567	69	0.0006	0.9994	54.33
71.5	113,497	113,351	0.9987	0.0013	54.29
72.5	12		0.0000	1.0000	0.07
73.5	12		0.0000	1.0000	0.07
74.5	12		0.0000	1.0000	0.07
75.5					0.07

DUKE ENERGY KENTUCKY

ACCOUNT 3550 POLES AND FIXTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1944-2021			EXPERIENCE BAND 1992-2021		
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	14,452,159	338,952	0.0235	0.9765	100.00
0.5	10,515,843	19,886	0.0019	0.9981	97.65
1.5	8,935,480	29,631	0.0033	0.9967	97.47
2.5	7,411,324	148,516	0.0200	0.9800	97.15
3.5	7,515,600	195,762	0.0260	0.9740	95.20
4.5	6,633,616	90,189	0.0136	0.9864	92.72
5.5	6,108,672	10,481	0.0017	0.9983	91.46
6.5	5,779,111	10,521	0.0018	0.9982	91.30
7.5	5,522,864	194,647	0.0352	0.9648	91.14
8.5	5,699,025	119,603	0.0210	0.9790	87.92
9.5	5,290,068	30,430	0.0058	0.9942	86.08
10.5	5,407,959	48,267	0.0089	0.9911	85.58
11.5	4,989,981	47,903	0.0096	0.9904	84.82
12.5	4,837,781	20,776	0.0043	0.9957	84.01
13.5	4,662,128	62,715	0.0135	0.9865	83.65
14.5	3,917,908	9,044	0.0023	0.9977	82.52
15.5	4,028,015	95,845	0.0238	0.9762	82.33
16.5	3,786,234	19,979	0.0053	0.9947	80.37
17.5	3,377,828	49,618	0.0147	0.9853	79.95
18.5	3,218,457	18,534	0.0058	0.9942	78.77
19.5	3,175,509	3,788	0.0012	0.9988	78.32
20.5	3,289,086	19,946	0.0061	0.9939	78.23
21.5	3,237,907	13,637	0.0042	0.9958	77.75
22.5	3,152,475	7,305	0.0023	0.9977	77.42
23.5	3,097,634	4,588	0.0015	0.9985	77.24
24.5	2,942,312	3,085	0.0010	0.9990	77.13
25.5	2,895,338	15,725	0.0054	0.9946	77.05
26.5	2,669,718	5,602	0.0021	0.9979	76.63
27.5	2,765,008	6,865	0.0025	0.9975	76.47
28.5	2,673,123	6,194	0.0023	0.9977	76.28
29.5	2,441,353	11,040	0.0045	0.9955	76.10
30.5	2,414,865	13,340	0.0055	0.9945	75.76
31.5	2,343,805	13,484	0.0058	0.9942	75.34
32.5	2,302,947	19,292	0.0084	0.9916	74.91
33.5	1,963,636	12,177	0.0062	0.9938	74.28
34.5	1,914,957	17,302	0.0090	0.9910	73.82
35.5	1,890,178	5,779	0.0031	0.9969	73.15
36.5	1,831,504	4,497	0.0025	0.9975	72.93
37.5	1,813,005	39,160	0.0216	0.9784	72.75
38.5	1,325,815	4,526	0.0034	0.9966	71.18

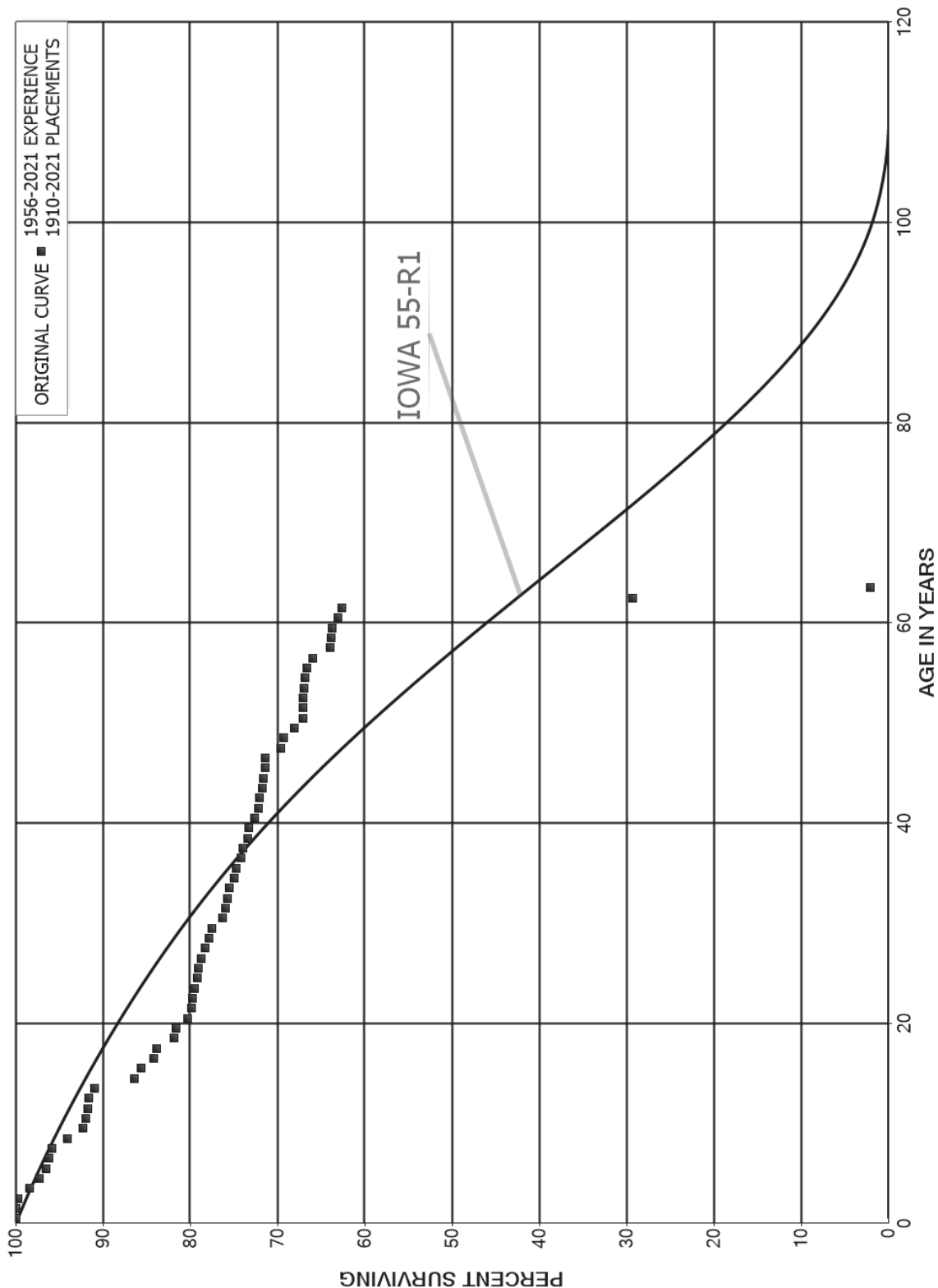
DUKE ENERGY KENTUCKY

ACCOUNT 3550 POLES AND FIXTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1944-2021			EXPERIENCE BAND 1992-2021		
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	1,311,523	20,881	0.0159	0.9841	70.93
40.5	1,094,813	11,505	0.0105	0.9895	69.81
41.5	1,059,652	8,334	0.0079	0.9921	69.07
42.5	1,140,320	12,628	0.0111	0.9889	68.53
43.5	1,124,393	8,414	0.0075	0.9925	67.77
44.5	1,106,419	17,237	0.0156	0.9844	67.26
45.5	1,003,913	639	0.0006	0.9994	66.21
46.5	970,259	30,711	0.0317	0.9683	66.17
47.5	723,319	10,351	0.0143	0.9857	64.08
48.5	570,182	2,946	0.0052	0.9948	63.16
49.5	542,744	7,451	0.0137	0.9863	62.83
50.5	426,909	551	0.0013	0.9987	61.97
51.5	420,846	5,334	0.0127	0.9873	61.89
52.5	394,678	1,651	0.0042	0.9958	61.11
53.5	392,851	5,940	0.0151	0.9849	60.85
54.5	380,398	1,490	0.0039	0.9961	59.93
55.5	366,119	3,720	0.0102	0.9898	59.70
56.5	325,367	8,774	0.0270	0.9730	59.09
57.5	169,698	1,627	0.0096	0.9904	57.50
58.5	159,233	226	0.0014	0.9986	56.95
59.5	158,376	5,091	0.0321	0.9679	56.87
60.5	117,792	433	0.0037	0.9963	55.04
61.5	117,360	27	0.0002	0.9998	54.84
62.5	117,333	3,762	0.0321	0.9679	54.82
63.5	113,571		0.0000	1.0000	53.06
64.5	113,571		0.0000	1.0000	53.06
65.5	113,571		0.0000	1.0000	53.06
66.5	113,571		0.0000	1.0000	53.06
67.5	113,571		0.0000	1.0000	53.06
68.5	113,571	4	0.0000	1.0000	53.06
69.5	113,567		0.0000	1.0000	53.06
70.5	113,567	69	0.0006	0.9994	53.06
71.5	113,497	113,351	0.9987	0.0013	53.03
72.5	12		0.0000	1.0000	0.07
73.5	12		0.0000	1.0000	0.07
74.5	12		0.0000	1.0000	0.07
75.5					0.07

DUKE ENERGY KENTUCKY
ACCOUNT 3560 OVERHEAD CONDUCTORS AND DEVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3560 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2021			EXPERIENCE BAND 1956-2021			
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	15,428,880	203	0.0000	1.0000	100.00	
0.5	13,359,139	2,071	0.0002	0.9998	100.00	
1.5	10,563,154	23,452	0.0022	0.9978	99.98	
2.5	9,062,794	127,684	0.0141	0.9859	99.76	
3.5	8,488,839	96,474	0.0114	0.9886	98.36	
4.5	8,416,506	68,155	0.0081	0.9919	97.24	
5.5	7,934,862	21,379	0.0027	0.9973	96.45	
6.5	7,700,020	31,300	0.0041	0.9959	96.19	
7.5	7,638,664	141,547	0.0185	0.9815	95.80	
8.5	7,165,375	136,528	0.0191	0.9809	94.02	
9.5	6,764,891	24,412	0.0036	0.9964	92.23	
10.5	6,623,900	16,121	0.0024	0.9976	91.90	
11.5	6,255,708	7,887	0.0013	0.9987	91.68	
12.5	6,124,290	40,288	0.0066	0.9934	91.56	
13.5	6,053,345	303,571	0.0501	0.9499	90.96	
14.5	5,029,062	45,067	0.0090	0.9910	86.40	
15.5	4,913,540	85,945	0.0175	0.9825	85.62	
16.5	4,773,694	15,662	0.0033	0.9967	84.13	
17.5	4,626,079	112,606	0.0243	0.9757	83.85	
18.5	4,242,005	8,742	0.0021	0.9979	81.81	
19.5	4,157,296	67,787	0.0163	0.9837	81.64	
20.5	4,041,654	25,261	0.0063	0.9937	80.31	
21.5	3,945,276	1,659	0.0004	0.9996	79.81	
22.5	3,829,562	10,912	0.0028	0.9972	79.77	
23.5	3,816,394	17,535	0.0046	0.9954	79.55	
24.5	3,694,550	4,824	0.0013	0.9987	79.18	
25.5	3,617,967	14,453	0.0040	0.9960	79.08	
26.5	3,384,384	20,369	0.0060	0.9940	78.76	
27.5	3,338,292	20,042	0.0060	0.9940	78.29	
28.5	3,266,684	10,876	0.0033	0.9967	77.82	
29.5	2,933,184	47,277	0.0161	0.9839	77.56	
30.5	2,845,446	15,150	0.0053	0.9947	76.31	
31.5	2,765,115	4,992	0.0018	0.9982	75.90	
32.5	2,760,122	11,199	0.0041	0.9959	75.76	
33.5	2,346,679	15,579	0.0066	0.9934	75.46	
34.5	2,328,476	6,905	0.0030	0.9970	74.96	
35.5	2,318,196	17,289	0.0075	0.9925	74.73	
36.5	2,188,868	5,245	0.0024	0.9976	74.18	
37.5	2,182,967	18,561	0.0085	0.9915	74.00	
38.5	1,579,084	1,481	0.0009	0.9991	73.37	

DUKE ENERGY KENTUCKY

ACCOUNT 3560 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2021			EXPERIENCE BAND 1956-2021		
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	1,468,159	13,580	0.0092	0.9908	73.30
40.5	1,227,438	8,363	0.0068	0.9932	72.62
41.5	1,208,329	1,425	0.0012	0.9988	72.13
42.5	1,200,078	5,786	0.0048	0.9952	72.04
43.5	1,194,292	1,155	0.0010	0.9990	71.70
44.5	1,170,945	3,267	0.0028	0.9972	71.63
45.5	1,067,672	1,273	0.0012	0.9988	71.43
46.5	1,045,606	25,691	0.0246	0.9754	71.34
47.5	855,953	4,380	0.0051	0.9949	69.59
48.5	721,746	12,265	0.0170	0.9830	69.23
49.5	700,302	9,677	0.0138	0.9862	68.06
50.5	614,528	117	0.0002	0.9998	67.11
51.5	613,348	657	0.0011	0.9989	67.10
52.5	581,084	346	0.0006	0.9994	67.03
53.5	580,649	1,070	0.0018	0.9982	66.99
54.5	572,536	2,534	0.0044	0.9956	66.87
55.5	550,660	4,742	0.0086	0.9914	66.57
56.5	480,070	14,562	0.0303	0.9697	66.00
57.5	379,646	1,188	0.0031	0.9969	64.00
58.5	367,525	196	0.0005	0.9995	63.80
59.5	366,511	4,161	0.0114	0.9886	63.76
60.5	285,255	1,941	0.0068	0.9932	63.04
61.5	266,864	142,034	0.5322	0.4678	62.61
62.5	117,665	109,288	0.9288	0.0712	29.29
63.5	8,376	37	0.0044	0.9956	2.08
64.5	8,340	16	0.0019	0.9981	2.08
65.5	8,323	212	0.0254	0.9746	2.07
66.5	8,112		0.0000	1.0000	2.02
67.5	8,112		0.0000	1.0000	2.02
68.5	8,112	1	0.0001	0.9999	2.02
69.5	8,111	17	0.0020	0.9980	2.02
70.5	8,094		0.0000	1.0000	2.01
71.5	8,094	113	0.0139	0.9861	2.01
72.5	7,981		0.0000	1.0000	1.99
73.5	7,981		0.0000	1.0000	1.99
74.5	7,981		0.0000	1.0000	1.99
75.5	7,981		0.0000	1.0000	1.99
76.5	7,981		0.0000	1.0000	1.99
77.5	7,981		0.0000	1.0000	1.99
78.5	7,981		0.0000	1.0000	1.99

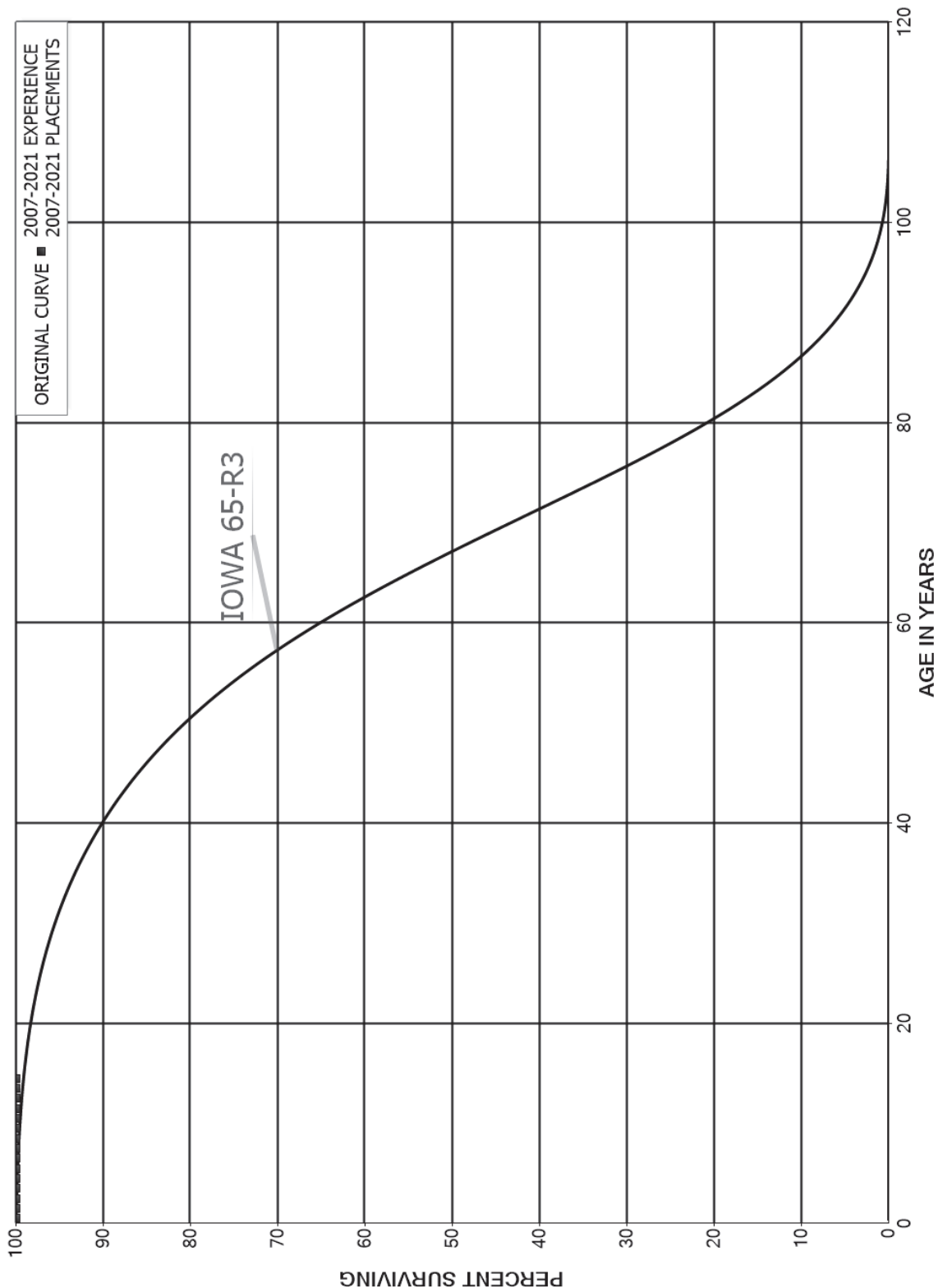
DUKE ENERGY KENTUCKY

ACCOUNT 3560 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2021			EXPERIENCE BAND 1956-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	7,981	1,883	0.2359	0.7641	1.99	
80.5	6,098		0.0000	1.0000	1.52	
81.5	6,098		0.0000	1.0000	1.52	
82.5	6,098		0.0000	1.0000	1.52	
83.5	6,098		0.0000	1.0000	1.52	
84.5	6,098		0.0000	1.0000	1.52	
85.5	6,098		0.0000	1.0000	1.52	
86.5	6,098		0.0000	1.0000	1.52	
87.5	6,098		0.0000	1.0000	1.52	
88.5	6,098	27	0.0045	0.9955	1.52	
89.5	6,071		0.0000	1.0000	1.51	
90.5	6,071		0.0000	1.0000	1.51	
91.5	6,071		0.0000	1.0000	1.51	
92.5	6,071	0	0.0000	1.0000	1.51	
93.5	6,071	50	0.0082	0.9918	1.51	
94.5	6,021		0.0000	1.0000	1.50	
95.5	6,021	6,021	1.0000		1.50	
96.5						

DUKE ENERGY KENTUCKY
ACCOUNT 3561 OVERHEAD CONDUCTORS AND DEVICES - CLEARING AND RIGHT OF WAY
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

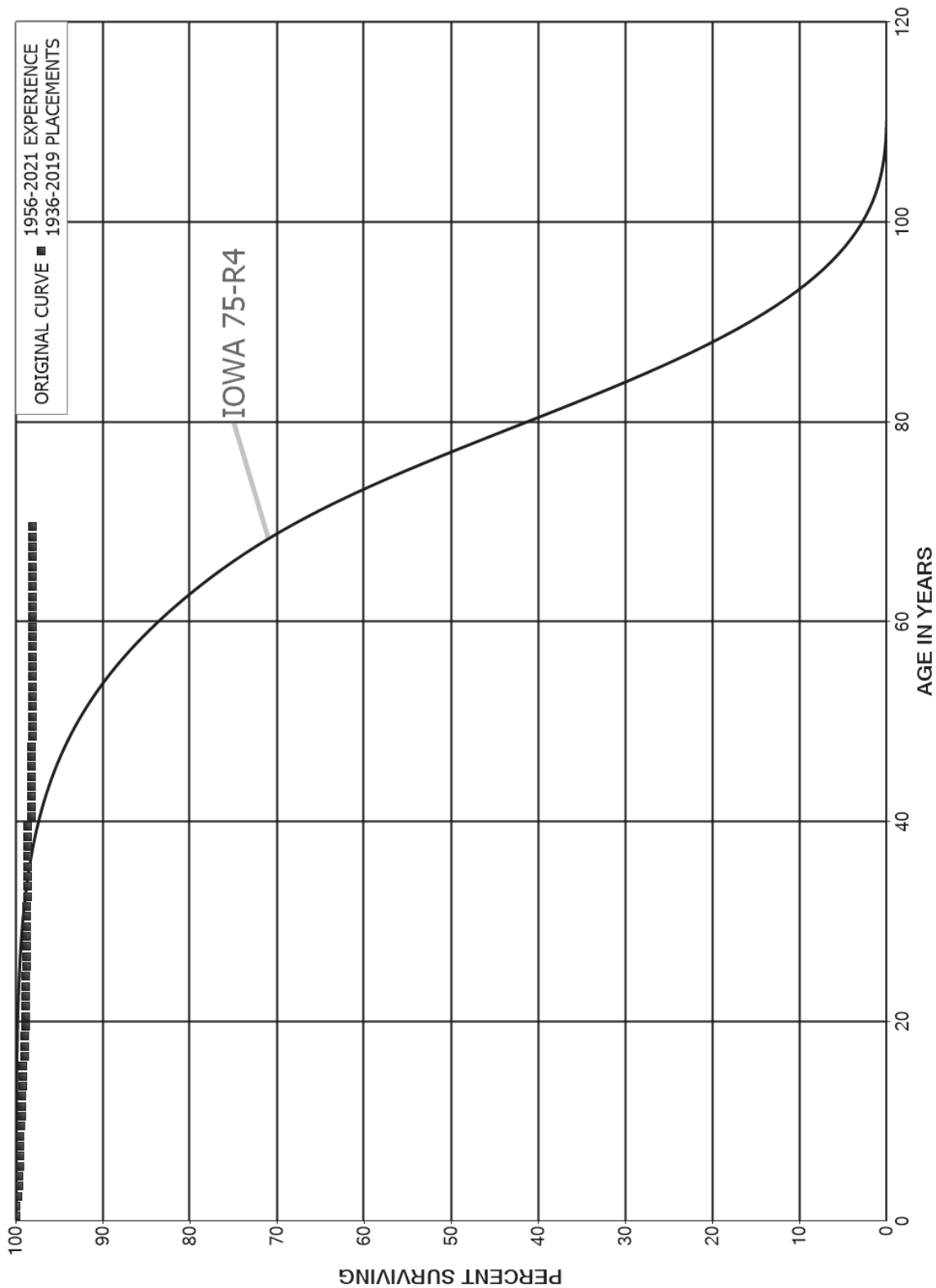
ACCOUNT 3561 OVERHEAD CONDUCTORS AND DEVICES - CLEARING AND RIGHT OF WAY

ORIGINAL LIFE TABLE

PLACEMENT BAND 2007-2021 EXPERIENCE BAND 2007-2021

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	1,841,853		0.0000	1.0000	100.00
0.5	1,187,047		0.0000	1.0000	100.00
1.5	914,774		0.0000	1.0000	100.00
2.5	752,634		0.0000	1.0000	100.00
3.5	457,190		0.0000	1.0000	100.00
4.5	180,619		0.0000	1.0000	100.00
5.5	156,913		0.0000	1.0000	100.00
6.5	128,082		0.0000	1.0000	100.00
7.5	99,459		0.0000	1.0000	100.00
8.5	81,625		0.0000	1.0000	100.00
9.5	36,897		0.0000	1.0000	100.00
10.5	19,605		0.0000	1.0000	100.00
11.5	11,603		0.0000	1.0000	100.00
12.5	4,953		0.0000	1.0000	100.00
13.5	4,274		0.0000	1.0000	100.00
14.5					100.00

DUKE ENERGY KENTUCKY
ACCOUNT 3601 RIGHTS OF WAY
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3601 RIGHTS OF WAY

ORIGINAL LIFE TABLE

PLACEMENT BAND 1936-2019			EXPERIENCE BAND 1956-2021		
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	4,462,878		0.0000	1.0000	100.00
0.5	4,473,783	948	0.0002	0.9998	100.00
1.5	4,482,503	10,790	0.0024	0.9976	99.98
2.5	4,464,805	3,382	0.0008	0.9992	99.74
3.5	4,465,663	1,615	0.0004	0.9996	99.66
4.5	4,452,400	3,935	0.0009	0.9991	99.63
5.5	4,450,230	209	0.0000	1.0000	99.54
6.5	4,458,828	1,239	0.0003	0.9997	99.53
7.5	4,460,938	980	0.0002	0.9998	99.51
8.5	4,461,793	2,431	0.0005	0.9995	99.48
9.5	4,460,165	5,195	0.0012	0.9988	99.43
10.5	4,455,301	2,117	0.0005	0.9995	99.31
11.5	4,453,646	1,347	0.0003	0.9997	99.27
12.5	4,457,196	1,492	0.0003	0.9997	99.24
13.5	4,460,869	139	0.0000	1.0000	99.20
14.5	4,462,304	1,621	0.0004	0.9996	99.20
15.5	4,463,714	8,197	0.0018	0.9982	99.16
16.5	4,456,083	1,492	0.0003	0.9997	98.98
17.5	4,459,147	2,116	0.0005	0.9995	98.95
18.5	4,478,172	1,091	0.0002	0.9998	98.90
19.5	4,477,113	1,160	0.0003	0.9997	98.88
20.5	4,475,953	79	0.0000	1.0000	98.85
21.5	4,457,596	388	0.0001	0.9999	98.85
22.5	4,457,208	1,110	0.0002	0.9998	98.84
23.5	4,456,098	1,535	0.0003	0.9997	98.82
24.5	4,454,563	650	0.0001	0.9999	98.78
25.5	4,387,134	179	0.0000	1.0000	98.77
26.5	4,208,005	554	0.0001	0.9999	98.77
27.5	4,064,567	410	0.0001	0.9999	98.75
28.5	3,897,532	750	0.0002	0.9998	98.74
29.5	3,689,846	883	0.0002	0.9998	98.72
30.5	3,404,863	344	0.0001	0.9999	98.70
31.5	3,166,164	1,255	0.0004	0.9996	98.69
32.5	2,891,550	323	0.0001	0.9999	98.65
33.5	2,728,964	411	0.0002	0.9998	98.64
34.5	2,354,371	459	0.0002	0.9998	98.62
35.5	2,127,030	268	0.0001	0.9999	98.61
36.5	1,904,533	139	0.0001	0.9999	98.59
37.5	1,763,777	113	0.0001	0.9999	98.59
38.5	1,525,354	143	0.0001	0.9999	98.58

DUKE ENERGY KENTUCKY

ACCOUNT 3601 RIGHTS OF WAY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1936-2019			EXPERIENCE BAND 1956-2021			
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	1,410,381	6,052	0.0043	0.9957	98.57	
40.5	1,280,357	8	0.0000	1.0000	98.15	
41.5	1,159,892	54	0.0000	1.0000	98.15	
42.5	1,088,710	121	0.0001	0.9999	98.14	
43.5	1,026,278	10	0.0000	1.0000	98.13	
44.5	973,665	1	0.0000	1.0000	98.13	
45.5	898,113		0.0000	1.0000	98.13	
46.5	836,224		0.0000	1.0000	98.13	
47.5	695,418	84	0.0001	0.9999	98.13	
48.5	617,157		0.0000	1.0000	98.12	
49.5	549,585		0.0000	1.0000	98.12	
50.5	503,848		0.0000	1.0000	98.12	
51.5	456,732		0.0000	1.0000	98.12	
52.5	425,713		0.0000	1.0000	98.12	
53.5	391,103	10	0.0000	1.0000	98.12	
54.5	353,432		0.0000	1.0000	98.12	
55.5	324,863	26	0.0001	0.9999	98.12	
56.5	277,780	12	0.0000	1.0000	98.11	
57.5	256,470	14	0.0001	0.9999	98.10	
58.5	232,867		0.0000	1.0000	98.10	
59.5	202,801		0.0000	1.0000	98.10	
60.5	166,838		0.0000	1.0000	98.10	
61.5	149,610		0.0000	1.0000	98.10	
62.5	138,012		0.0000	1.0000	98.10	
63.5	123,907		0.0000	1.0000	98.10	
64.5	110,002		0.0000	1.0000	98.10	
65.5	95,957		0.0000	1.0000	98.10	
66.5	91,197		0.0000	1.0000	98.10	
67.5	81,694		0.0000	1.0000	98.10	
68.5	79,091		0.0000	1.0000	98.10	
69.5	66,364		0.0000	1.0000	98.10	
70.5	58,017		0.0000	1.0000	98.10	
71.5	56,279		0.0000	1.0000	98.10	
72.5	47,603		0.0000	1.0000	98.10	
73.5	44,254		0.0000	1.0000	98.10	
74.5	42,454		0.0000	1.0000	98.10	
75.5	41,672		0.0000	1.0000	98.10	
76.5	41,342		0.0000	1.0000	98.10	
77.5	40,879		0.0000	1.0000	98.10	
78.5	35,982		0.0000	1.0000	98.10	

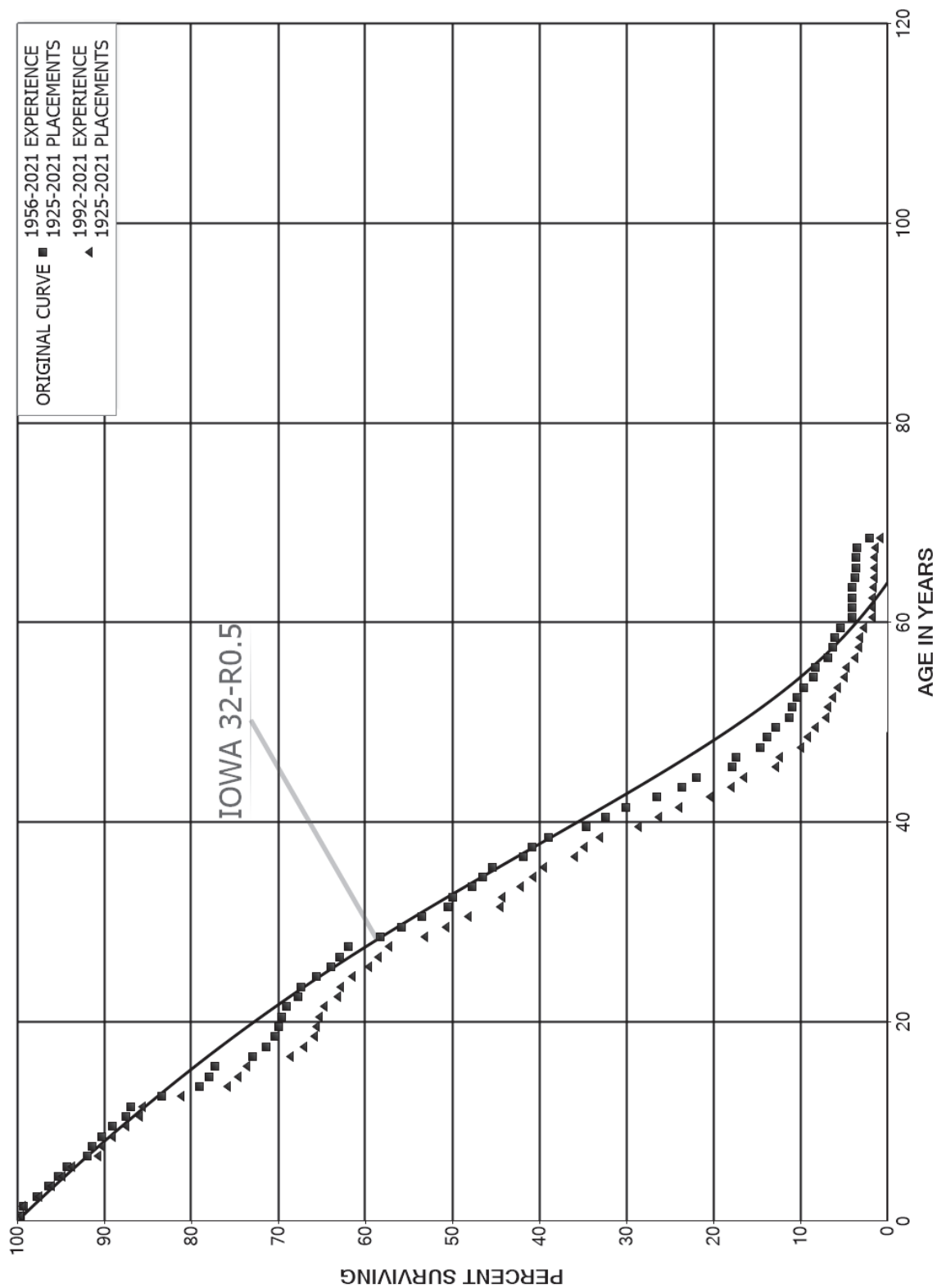
DUKE ENERGY KENTUCKY

ACCOUNT 3601 RIGHTS OF WAY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1936-2019			EXPERIENCE BAND 1956-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	30,818		0.0000	1.0000	98.10
80.5	29,244		0.0000	1.0000	98.10
81.5	26,213		0.0000	1.0000	98.10
82.5	25,646		0.0000	1.0000	98.10
83.5	21,091		0.0000	1.0000	98.10
84.5					98.10

DUKE ENERGY KENTUCKY
ACCOUNT 3620 STATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3620 STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1925-2021			EXPERIENCE BAND 1956-2021		
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	92,572,076	370,036	0.0040	0.9960	100.00
0.5	88,429,127	236,593	0.0027	0.9973	99.60
1.5	74,733,681	1,211,495	0.0162	0.9838	99.33
2.5	54,970,504	751,839	0.0137	0.9863	97.72
3.5	46,723,275	528,294	0.0113	0.9887	96.39
4.5	43,110,128	469,307	0.0109	0.9891	95.30
5.5	40,038,801	990,543	0.0247	0.9753	94.26
6.5	37,591,972	201,642	0.0054	0.9946	91.93
7.5	34,547,654	435,681	0.0126	0.9874	91.43
8.5	31,203,755	422,639	0.0135	0.9865	90.28
9.5	29,055,996	506,954	0.0174	0.9826	89.06
10.5	28,330,191	178,029	0.0063	0.9937	87.50
11.5	28,094,916	1,139,050	0.0405	0.9595	86.95
12.5	26,757,056	1,406,697	0.0526	0.9474	83.43
13.5	24,559,042	321,376	0.0131	0.9869	79.04
14.5	23,285,668	225,530	0.0097	0.9903	78.01
15.5	21,621,175	1,202,105	0.0556	0.9444	77.25
16.5	19,542,511	425,883	0.0218	0.9782	72.96
17.5	18,200,035	252,790	0.0139	0.9861	71.37
18.5	17,020,298	112,524	0.0066	0.9934	70.38
19.5	16,018,168	72,458	0.0045	0.9955	69.91
20.5	14,653,701	116,124	0.0079	0.9921	69.60
21.5	14,536,079	280,076	0.0193	0.9807	69.04
22.5	14,231,793	67,275	0.0047	0.9953	67.71
23.5	14,165,983	375,544	0.0265	0.9735	67.39
24.5	13,694,562	337,963	0.0247	0.9753	65.61
25.5	13,490,987	221,904	0.0164	0.9836	63.99
26.5	12,641,298	198,619	0.0157	0.9843	62.94
27.5	12,440,646	737,172	0.0593	0.9407	61.95
28.5	11,117,276	457,680	0.0412	0.9588	58.28
29.5	9,982,209	424,119	0.0425	0.9575	55.88
30.5	9,225,795	525,702	0.0570	0.9430	53.50
31.5	8,700,093	93,289	0.0107	0.9893	50.45
32.5	8,606,804	368,497	0.0428	0.9572	49.91
33.5	7,917,809	211,349	0.0267	0.9733	47.78
34.5	7,704,068	175,689	0.0228	0.9772	46.50
35.5	7,514,736	592,619	0.0789	0.9211	45.44
36.5	6,850,048	176,078	0.0257	0.9743	41.86
37.5	6,505,483	284,129	0.0437	0.9563	40.78
38.5	6,114,849	683,850	0.1118	0.8882	39.00

DUKE ENERGY KENTUCKY

ACCOUNT 3620 STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1925-2021			EXPERIENCE BAND 1956-2021		
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	5,153,936	339,851	0.0659	0.9341	34.64
40.5	4,807,794	335,849	0.0699	0.9301	32.35
41.5	4,465,005	532,369	0.1192	0.8808	30.09
42.5	3,927,952	423,616	0.1078	0.8922	26.51
43.5	3,504,337	253,057	0.0722	0.9278	23.65
44.5	3,244,998	602,743	0.1857	0.8143	21.94
45.5	2,452,507	67,695	0.0276	0.9724	17.86
46.5	2,384,784	371,860	0.1559	0.8441	17.37
47.5	2,012,348	120,772	0.0600	0.9400	14.66
48.5	1,891,576	130,690	0.0691	0.9309	13.78
49.5	1,759,178	204,432	0.1162	0.8838	12.83
50.5	1,548,023	53,735	0.0347	0.9653	11.34
51.5	1,491,432	76,997	0.0516	0.9484	10.95
52.5	1,412,909	103,371	0.0732	0.9268	10.38
53.5	1,309,538	145,494	0.1111	0.8889	9.62
54.5	1,161,007	37,007	0.0319	0.9681	8.55
55.5	1,123,246	196,403	0.1749	0.8251	8.28
56.5	926,844	74,590	0.0805	0.9195	6.83
57.5	764,435	22,215	0.0291	0.9709	6.28
58.5	742,220	80,554	0.1085	0.8915	6.10
59.5	661,667	163,349	0.2469	0.7531	5.44
60.5	498,318	95	0.0002	0.9998	4.10
61.5	476,645	1,117	0.0023	0.9977	4.09
62.5	475,528	6,139	0.0129	0.9871	4.08
63.5	469,389	38,084	0.0811	0.9189	4.03
64.5	431,306	8,926	0.0207	0.9793	3.70
65.5	422,379	3,414	0.0081	0.9919	3.63
66.5	418,965	9,663	0.0231	0.9769	3.60
67.5	409,302	169,540	0.4142	0.5858	3.52
68.5	239,762	18,153	0.0757	0.9243	2.06
69.5	219,681	6,907	0.0314	0.9686	1.90
70.5	212,774	109,514	0.5147	0.4853	1.84
71.5	103,260	2,935	0.0284	0.9716	0.89
72.5	100,325	4,990	0.0497	0.9503	0.87
73.5	95,335		0.0000	1.0000	0.83
74.5	95,335	40	0.0004	0.9996	0.83
75.5	95,296	73	0.0008	0.9992	0.83
76.5	95,223	1,590	0.0167	0.9833	0.83
77.5	93,632		0.0000	1.0000	0.81
78.5	93,632		0.0000	1.0000	0.81

DUKE ENERGY KENTUCKY
ACCOUNT 3620 STATION EQUIPMENT
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1925-2021			EXPERIENCE BAND 1956-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	93,632	6,434	0.0687	0.9313	0.81
80.5	87,198		0.0000	1.0000	0.76
81.5	87,198	870	0.0100	0.9900	0.76
82.5	86,328		0.0000	1.0000	0.75
83.5	86,328		0.0000	1.0000	0.75
84.5	86,328	51,525	0.5969	0.4031	0.75
85.5	34,803		0.0000	1.0000	0.30
86.5	34,803	34,803	1.0000		0.30
87.5					

DUKE ENERGY KENTUCKY

ACCOUNT 3620 STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1925-2021			EXPERIENCE BAND 1992-2021		
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	81,961,403	370,031	0.0045	0.9955	100.00
0.5	79,210,047	233,327	0.0029	0.9971	99.55
1.5	65,335,217	1,205,891	0.0185	0.9815	99.26
2.5	45,486,639	668,812	0.0147	0.9853	97.42
3.5	37,926,826	480,352	0.0127	0.9873	95.99
4.5	34,366,108	434,216	0.0126	0.9874	94.78
5.5	31,256,990	976,324	0.0312	0.9688	93.58
6.5	28,463,166	141,669	0.0050	0.9950	90.65
7.5	25,813,519	358,088	0.0139	0.9861	90.20
8.5	23,167,816	396,741	0.0171	0.9829	88.95
9.5	21,417,705	395,682	0.0185	0.9815	87.43
10.5	21,040,175	80,986	0.0038	0.9962	85.81
11.5	21,350,276	1,104,655	0.0517	0.9483	85.48
12.5	20,300,939	1,348,306	0.0664	0.9336	81.06
13.5	18,147,212	290,722	0.0160	0.9840	75.68
14.5	17,432,989	212,482	0.0122	0.9878	74.46
15.5	17,097,764	1,167,424	0.0683	0.9317	73.56
16.5	15,052,060	360,623	0.0240	0.9760	68.53
17.5	13,883,658	232,559	0.0168	0.9832	66.89
18.5	12,883,582	44,945	0.0035	0.9965	65.77
19.5	12,023,253	67,012	0.0056	0.9944	65.54
20.5	11,112,486	86,907	0.0078	0.9922	65.18
21.5	11,068,758	267,195	0.0241	0.9759	64.67
22.5	10,930,056	63,292	0.0058	0.9942	63.11
23.5	10,878,305	237,892	0.0219	0.9781	62.74
24.5	10,603,105	324,394	0.0306	0.9694	61.37
25.5	10,515,906	189,626	0.0180	0.9820	59.49
26.5	9,696,670	197,320	0.0203	0.9797	58.42
27.5	9,896,497	715,868	0.0723	0.9277	57.23
28.5	8,561,629	404,563	0.0473	0.9527	53.09
29.5	7,589,079	379,791	0.0500	0.9500	50.58
30.5	6,926,617	524,852	0.0758	0.9242	48.05
31.5	6,527,014	37,523	0.0057	0.9943	44.41
32.5	6,588,251	313,683	0.0476	0.9524	44.15
33.5	6,123,757	209,421	0.0342	0.9658	42.05
34.5	6,012,765	172,857	0.0287	0.9713	40.61
35.5	5,959,781	551,746	0.0926	0.9074	39.45
36.5	5,448,303	169,619	0.0311	0.9689	35.79
37.5	5,331,208	267,672	0.0502	0.9498	34.68
38.5	4,969,904	675,693	0.1360	0.8640	32.94

DUKE ENERGY KENTUCKY

ACCOUNT 3620 STATION EQUIPMENT

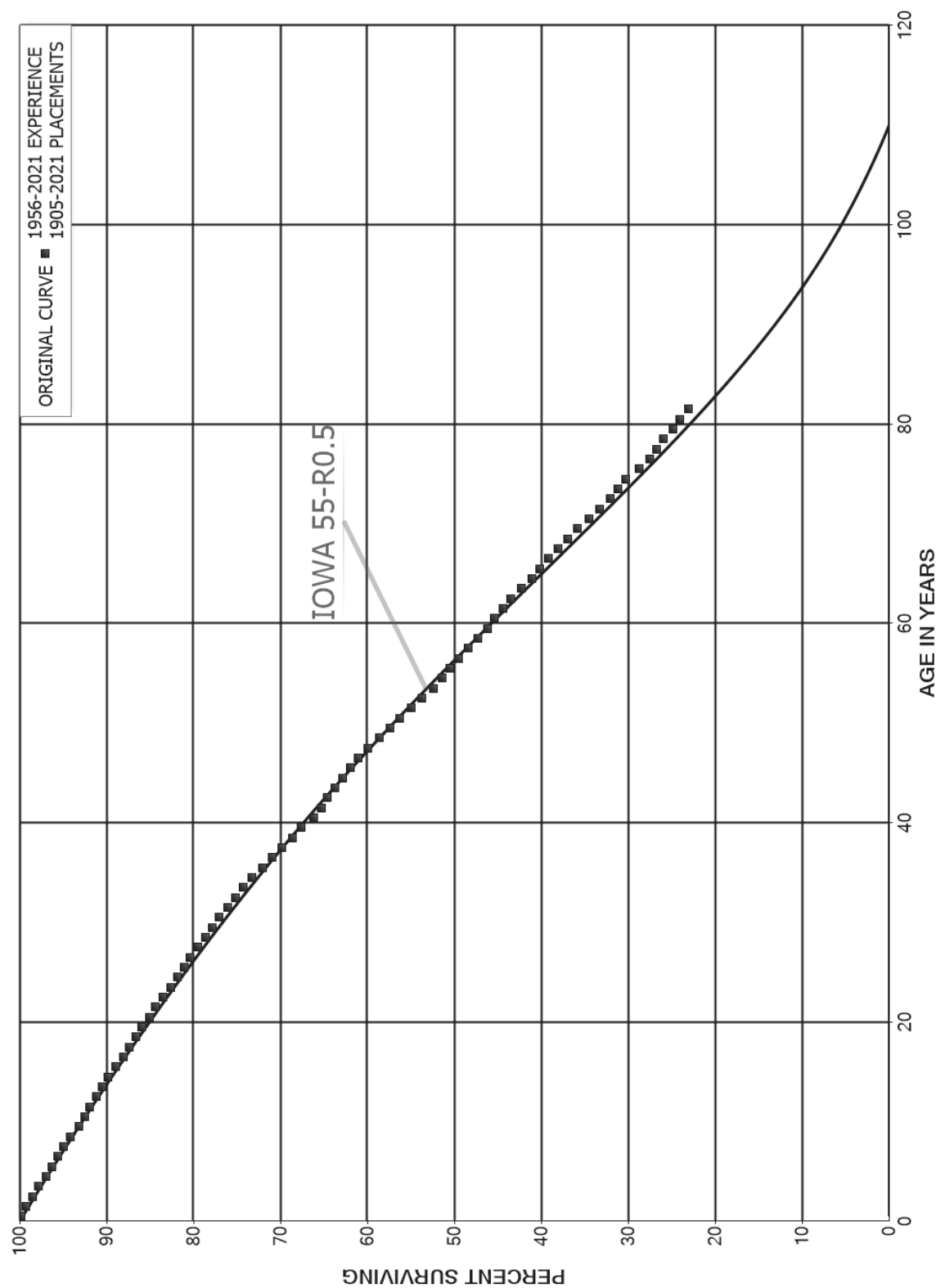
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1925-2021			EXPERIENCE BAND 1992-2021		
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	4,144,998	339,851	0.0820	0.9180	28.46
40.5	3,870,580	334,166	0.0863	0.9137	26.13
41.5	3,560,880	528,093	0.1483	0.8517	23.87
42.5	3,375,301	417,724	0.1238	0.8762	20.33
43.5	2,958,181	242,638	0.0820	0.9180	17.81
44.5	2,709,295	601,008	0.2218	0.7782	16.35
45.5	1,926,438	67,614	0.0351	0.9649	12.73
46.5	1,859,453	370,413	0.1992	0.8008	12.28
47.5	1,509,969	120,694	0.0799	0.9201	9.83
48.5	1,390,645	129,763	0.0933	0.9067	9.05
49.5	1,271,555	185,995	0.1463	0.8537	8.20
50.5	1,149,089	53,735	0.0468	0.9532	7.00
51.5	1,092,498	76,997	0.0705	0.9295	6.68
52.5	1,015,759	103,371	0.1018	0.8982	6.21
53.5	1,067,808	145,494	0.1363	0.8637	5.57
54.5	919,278	37,007	0.0403	0.9597	4.81
55.5	881,517	196,403	0.2228	0.7772	4.62
56.5	685,114	74,590	0.1089	0.8911	3.59
57.5	522,706	22,215	0.0425	0.9575	3.20
58.5	500,491	80,554	0.1609	0.8391	3.06
59.5	419,937	163,349	0.3890	0.6110	2.57
60.5	256,589	95	0.0004	0.9996	1.57
61.5	356,548	1,117	0.0031	0.9969	1.57
62.5	388,982	6,139	0.0158	0.9842	1.57
63.5	382,844	38,084	0.0995	0.9005	1.54
64.5	379,563	8,926	0.0235	0.9765	1.39
65.5	422,161	3,414	0.0081	0.9919	1.35
66.5	418,965	9,663	0.0231	0.9769	1.34
67.5	409,302	169,540	0.4142	0.5858	1.31
68.5	239,762	18,153	0.0757	0.9243	0.77
69.5	219,681	6,907	0.0314	0.9686	0.71
70.5	212,774	109,514	0.5147	0.4853	0.69
71.5	103,260	2,935	0.0284	0.9716	0.33
72.5	100,325	4,990	0.0497	0.9503	0.32
73.5	95,335		0.0000	1.0000	0.31
74.5	95,335	40	0.0004	0.9996	0.31
75.5	95,296	73	0.0008	0.9992	0.31
76.5	95,223	1,590	0.0167	0.9833	0.31
77.5	93,632		0.0000	1.0000	0.30
78.5	93,632		0.0000	1.0000	0.30

DUKE ENERGY KENTUCKY
ACCOUNT 3620 STATION EQUIPMENT
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1925-2021			EXPERIENCE BAND 1992-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	93,632	6,434	0.0687	0.9313	0.30	
80.5	87,198		0.0000	1.0000	0.28	
81.5	87,198	870	0.0100	0.9900	0.28	
82.5	86,328		0.0000	1.0000	0.28	
83.5	86,328		0.0000	1.0000	0.28	
84.5	86,328	51,525	0.5969	0.4031	0.28	
85.5	34,803		0.0000	1.0000	0.11	
86.5	34,803	34,803	1.0000		0.11	
87.5						

DUKE ENERGY KENTUCKY
ACCOUNT 3640 POLES, TOWERS AND FIXTURES
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3640 POLES, TOWERS AND FIXTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2021			EXPERIENCE BAND 1956-2021		
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	102,224,402	142,825	0.0014	0.9986	100.00
0.5	88,980,239	521,089	0.0059	0.9941	99.86
1.5	84,973,640	642,327	0.0076	0.9924	99.28
2.5	78,889,196	588,051	0.0075	0.9925	98.53
3.5	71,582,543	584,334	0.0082	0.9918	97.79
4.5	65,773,396	469,618	0.0071	0.9929	96.99
5.5	62,187,129	475,547	0.0076	0.9924	96.30
6.5	57,869,356	406,064	0.0070	0.9930	95.56
7.5	54,983,535	436,934	0.0079	0.9921	94.89
8.5	52,201,495	505,319	0.0097	0.9903	94.14
9.5	49,321,460	366,910	0.0074	0.9926	93.23
10.5	48,274,780	301,540	0.0062	0.9938	92.53
11.5	46,787,114	412,098	0.0088	0.9912	91.96
12.5	44,721,272	322,005	0.0072	0.9928	91.15
13.5	44,472,710	346,334	0.0078	0.9922	90.49
14.5	42,953,908	393,521	0.0092	0.9908	89.79
15.5	40,982,355	403,511	0.0098	0.9902	88.96
16.5	39,370,982	326,504	0.0083	0.9917	88.09
17.5	38,331,506	306,696	0.0080	0.9920	87.36
18.5	37,202,255	319,279	0.0086	0.9914	86.66
19.5	36,788,972	347,014	0.0094	0.9906	85.91
20.5	35,803,568	317,610	0.0089	0.9911	85.10
21.5	34,523,966	333,854	0.0097	0.9903	84.35
22.5	32,945,816	359,305	0.0109	0.9891	83.53
23.5	31,170,798	294,642	0.0095	0.9905	82.62
24.5	29,779,675	267,614	0.0090	0.9910	81.84
25.5	28,187,361	262,143	0.0093	0.9907	81.10
26.5	26,315,648	280,204	0.0106	0.9894	80.35
27.5	24,264,710	253,196	0.0104	0.9896	79.50
28.5	22,297,255	233,779	0.0105	0.9895	78.67
29.5	20,437,357	213,528	0.0104	0.9896	77.84
30.5	18,865,181	223,116	0.0118	0.9882	77.03
31.5	17,649,127	225,484	0.0128	0.9872	76.12
32.5	15,723,946	168,285	0.0107	0.9893	75.14
33.5	14,820,352	219,607	0.0148	0.9852	74.34
34.5	13,511,992	212,053	0.0157	0.9843	73.24
35.5	12,533,043	208,018	0.0166	0.9834	72.09
36.5	11,619,162	180,742	0.0156	0.9844	70.89
37.5	10,827,746	190,261	0.0176	0.9824	69.79
38.5	9,961,785	141,224	0.0142	0.9858	68.56

DUKE ENERGY KENTUCKY

ACCOUNT 3640 POLES, TOWERS AND FIXTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2021			EXPERIENCE BAND 1956-2021		
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	9,166,390	188,255	0.0205	0.9795	67.59
40.5	8,242,729	112,750	0.0137	0.9863	66.20
41.5	7,268,629	81,570	0.0112	0.9888	65.30
42.5	6,611,106	85,527	0.0129	0.9871	64.56
43.5	6,088,224	80,455	0.0132	0.9868	63.73
44.5	5,585,891	78,681	0.0141	0.9859	62.89
45.5	5,242,588	76,774	0.0146	0.9854	62.00
46.5	4,913,213	92,350	0.0188	0.9812	61.09
47.5	4,539,220	102,301	0.0225	0.9775	59.95
48.5	4,027,314	85,933	0.0213	0.9787	58.59
49.5	3,623,128	69,283	0.0191	0.9809	57.34
50.5	3,313,765	75,945	0.0229	0.9771	56.25
51.5	3,003,184	69,950	0.0233	0.9767	54.96
52.5	2,737,473	65,938	0.0241	0.9759	53.68
53.5	2,483,898	46,465	0.0187	0.9813	52.39
54.5	2,290,547	42,184	0.0184	0.9816	51.41
55.5	2,108,680	41,466	0.0197	0.9803	50.46
56.5	1,912,087	39,506	0.0207	0.9793	49.47
57.5	1,712,038	42,136	0.0246	0.9754	48.44
58.5	1,577,452	35,218	0.0223	0.9777	47.25
59.5	1,447,861	26,185	0.0181	0.9819	46.20
60.5	1,291,424	27,174	0.0210	0.9790	45.36
61.5	1,179,141	23,929	0.0203	0.9797	44.41
62.5	1,054,440	30,024	0.0285	0.9715	43.51
63.5	935,039	25,822	0.0276	0.9724	42.27
64.5	824,294	19,423	0.0236	0.9764	41.10
65.5	732,785	16,912	0.0231	0.9769	40.13
66.5	630,882	18,617	0.0295	0.9705	39.21
67.5	547,699	14,983	0.0274	0.9726	38.05
68.5	471,657	15,368	0.0326	0.9674	37.01
69.5	393,010	14,010	0.0356	0.9644	35.80
70.5	333,814	11,550	0.0346	0.9654	34.53
71.5	283,179	11,104	0.0392	0.9608	33.33
72.5	244,120	6,312	0.0259	0.9741	32.02
73.5	220,886	6,152	0.0279	0.9721	31.20
74.5	196,716	10,496	0.0534	0.9466	30.33
75.5	178,637	7,290	0.0408	0.9592	28.71
76.5	161,559	4,572	0.0283	0.9717	27.54
77.5	152,017	4,381	0.0288	0.9712	26.76
78.5	144,855	6,443	0.0445	0.9555	25.99

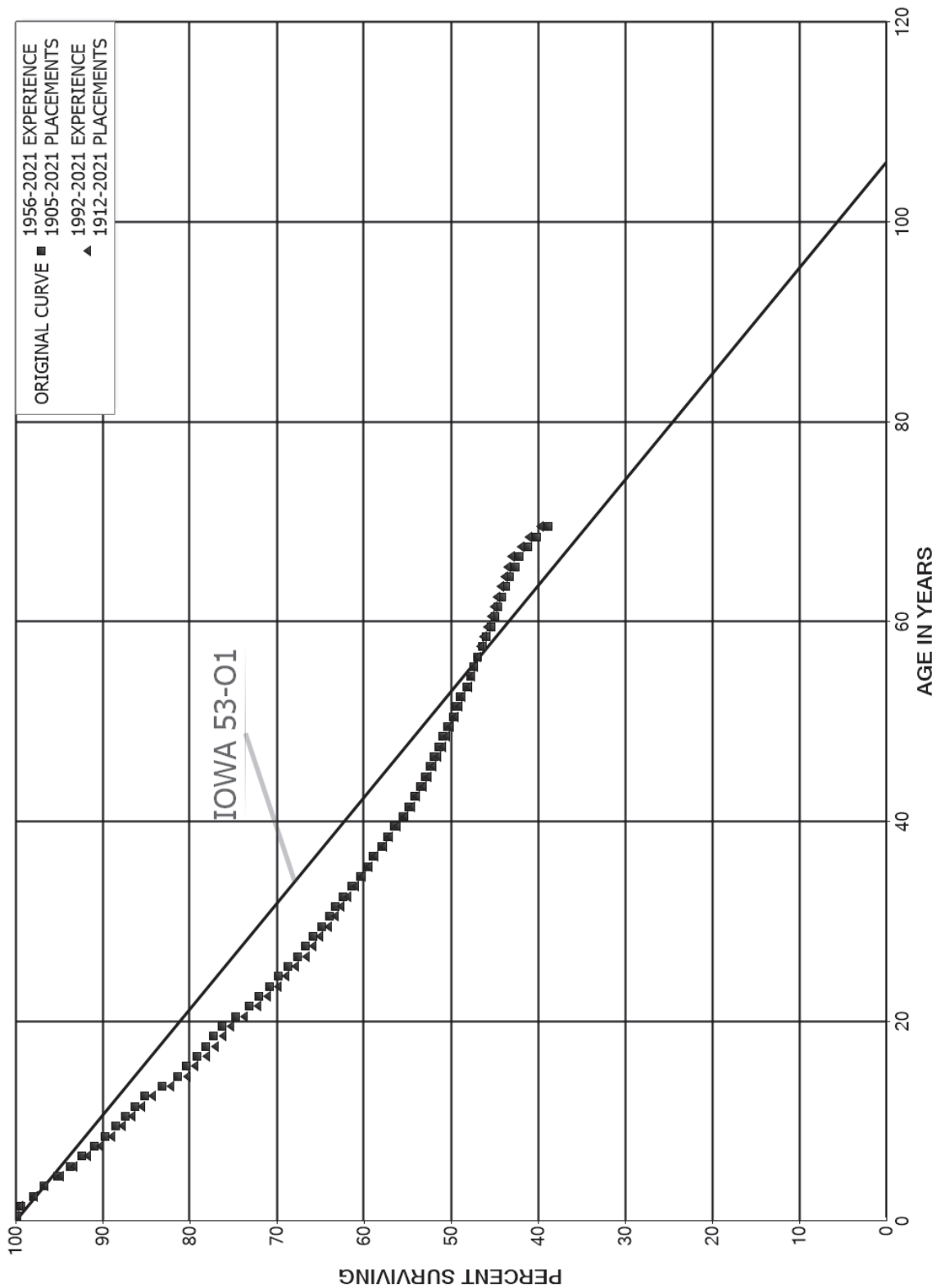
DUKE ENERGY KENTUCKY

ACCOUNT 3640 POLES, TOWERS AND FIXTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2021			EXPERIENCE BAND 1956-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	125,382	4,125	0.0329	0.9671	24.83	
80.5	112,799	4,207	0.0373	0.9627	24.01	
81.5	98,278	4,916	0.0500	0.9500	23.12	
82.5	87,441	5,169	0.0591	0.9409	21.96	
83.5	74,888	4,598	0.0614	0.9386	20.66	
84.5	63,792	5,344	0.0838	0.9162	19.39	
85.5	56,733	5,910	0.1042	0.8958	17.77	
86.5	45,250	6,708	0.1482	0.8518	15.92	
87.5	32,574	7,643	0.2346	0.7654	13.56	
88.5	19,862	4,988	0.2511	0.7489	10.38	
89.5	12,600	2,310	0.1833	0.8167	7.77	
90.5	6,383	961	0.1505	0.8495	6.35	
91.5	4,369	560	0.1283	0.8717	5.39	
92.5	2,989	276	0.0925	0.9075	4.70	
93.5	2,162	173	0.0801	0.9199	4.27	
94.5	1,648	68	0.0416	0.9584	3.92	
95.5	1,245	106	0.0855	0.9145	3.76	
96.5	475	81	0.1704	0.8296	3.44	
97.5	316	6	0.0174	0.9826	2.85	
98.5	274	33	0.1194	0.8806	2.80	
99.5	201	8	0.0376	0.9624	2.47	
100.5	158	48	0.3022	0.6978	2.38	
101.5	110	24	0.2217	0.7783	1.66	
102.5	65	0	0.0005	0.9995	1.29	
103.5	47		0.0000	1.0000	1.29	
104.5	25	3	0.1279	0.8721	1.29	
105.5	22		0.0000	1.0000	1.12	
106.5					1.12	

DUKE ENERGY KENTUCKY
ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2021

EXPERIENCE BAND 1956-2021

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	162,501,710	225,648	0.0014	0.9986	100.00
0.5	146,402,337	692,684	0.0047	0.9953	99.86
1.5	139,665,258	2,007,088	0.0144	0.9856	99.39
2.5	133,622,342	1,639,471	0.0123	0.9877	97.96
3.5	131,497,152	2,119,300	0.0161	0.9839	96.76
4.5	126,748,047	1,895,908	0.0150	0.9850	95.20
5.5	121,928,943	1,858,226	0.0152	0.9848	93.78
6.5	114,742,577	1,707,908	0.0149	0.9851	92.35
7.5	110,541,196	1,506,227	0.0136	0.9864	90.97
8.5	104,469,761	1,386,418	0.0133	0.9867	89.73
9.5	94,097,151	1,220,637	0.0130	0.9870	88.54
10.5	91,736,985	1,159,434	0.0126	0.9874	87.39
11.5	85,129,900	1,139,125	0.0134	0.9866	86.29
12.5	81,251,381	1,896,121	0.0233	0.9767	85.13
13.5	77,971,053	1,634,361	0.0210	0.9790	83.15
14.5	73,028,228	872,828	0.0120	0.9880	81.40
15.5	66,317,312	1,039,536	0.0157	0.9843	80.43
16.5	62,525,224	749,294	0.0120	0.9880	79.17
17.5	57,168,000	697,264	0.0122	0.9878	78.22
18.5	51,260,694	651,493	0.0127	0.9873	77.27
19.5	50,348,343	1,030,595	0.0205	0.9795	76.29
20.5	47,302,683	968,377	0.0205	0.9795	74.72
21.5	41,831,803	628,235	0.0150	0.9850	73.19
22.5	40,008,607	710,544	0.0178	0.9822	72.09
23.5	37,454,770	505,129	0.0135	0.9865	70.81
24.5	36,033,166	562,580	0.0156	0.9844	69.86
25.5	34,235,756	578,488	0.0169	0.9831	68.77
26.5	31,744,897	436,787	0.0138	0.9862	67.61
27.5	28,107,723	372,870	0.0133	0.9867	66.68
28.5	25,849,595	390,760	0.0151	0.9849	65.79
29.5	23,453,378	294,772	0.0126	0.9874	64.80
30.5	21,493,639	242,306	0.0113	0.9887	63.98
31.5	19,987,240	289,771	0.0145	0.9855	63.26
32.5	17,519,877	257,428	0.0147	0.9853	62.34
33.5	16,526,830	271,326	0.0164	0.9836	61.43
34.5	15,036,312	227,600	0.0151	0.9849	60.42
35.5	13,901,293	141,933	0.0102	0.9898	59.51
36.5	12,891,149	202,850	0.0157	0.9843	58.90
37.5	12,105,883	149,054	0.0123	0.9877	57.97
38.5	11,003,491	153,775	0.0140	0.9860	57.26

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2021			EXPERIENCE BAND 1956-2021		
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	10,266,083	169,576	0.0165	0.9835	56.46
40.5	9,638,512	123,895	0.0129	0.9871	55.52
41.5	8,690,127	92,347	0.0106	0.9894	54.81
42.5	7,946,933	98,400	0.0124	0.9876	54.23
43.5	7,552,647	82,981	0.0110	0.9890	53.56
44.5	7,151,341	76,211	0.0107	0.9893	52.97
45.5	6,728,894	65,680	0.0098	0.9902	52.40
46.5	6,237,957	61,386	0.0098	0.9902	51.89
47.5	5,628,217	45,807	0.0081	0.9919	51.38
48.5	4,931,595	59,101	0.0120	0.9880	50.96
49.5	4,508,883	53,029	0.0118	0.9882	50.35
50.5	4,042,438	30,423	0.0075	0.9925	49.76
51.5	3,595,985	34,259	0.0095	0.9905	49.39
52.5	3,354,598	47,636	0.0142	0.9858	48.92
53.5	3,069,565	28,094	0.0092	0.9908	48.22
54.5	2,833,851	22,865	0.0081	0.9919	47.78
55.5	2,519,279	23,707	0.0094	0.9906	47.39
56.5	2,233,193	26,326	0.0118	0.9882	46.95
57.5	1,936,329	17,232	0.0089	0.9911	46.39
58.5	1,724,148	21,459	0.0124	0.9876	45.98
59.5	1,527,992	15,566	0.0102	0.9898	45.41
60.5	1,333,029	10,988	0.0082	0.9918	44.95
61.5	1,229,308	11,331	0.0092	0.9908	44.58
62.5	1,144,749	11,996	0.0105	0.9895	44.17
63.5	1,040,013	9,257	0.0089	0.9911	43.70
64.5	949,702	15,108	0.0159	0.9841	43.31
65.5	851,749	7,899	0.0093	0.9907	42.62
66.5	764,720	19,904	0.0260	0.9740	42.23
67.5	648,665	15,198	0.0234	0.9766	41.13
68.5	592,531	18,906	0.0319	0.9681	40.17
69.5	472,291	5,263	0.0111	0.9889	38.88
70.5	415,174	3,296	0.0079	0.9921	38.45
71.5	335,856	1,304	0.0039	0.9961	38.15
72.5	302,189	1,980	0.0066	0.9934	38.00
73.5	284,997	1,845	0.0065	0.9935	37.75
74.5	257,358	2,168	0.0084	0.9916	37.51
75.5	246,591	5,698	0.0231	0.9769	37.19
76.5	237,182	652	0.0027	0.9973	36.33
77.5	235,805	1,102	0.0047	0.9953	36.23
78.5	229,427	1,716	0.0075	0.9925	36.06

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2021			EXPERIENCE BAND 1956-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	218,644	7,302	0.0334	0.9666	35.79	
80.5	200,869	1,706	0.0085	0.9915	34.60	
81.5	198,707	1,677	0.0084	0.9916	34.30	
82.5	188,229	1,296	0.0069	0.9931	34.01	
83.5	170,703	564	0.0033	0.9967	33.78	
84.5	170,140	1,869	0.0110	0.9890	33.67	
85.5	168,271	3,280	0.0195	0.9805	33.30	
86.5	165,724	2,522	0.0152	0.9848	32.65	
87.5	163,893	7,463	0.0455	0.9545	32.15	
88.5	156,430	9,379	0.0600	0.9400	30.69	
89.5	146,911	1,735	0.0118	0.9882	28.85	
90.5	145,176	13,545	0.0933	0.9067	28.51	
91.5	131,631	1,817	0.0138	0.9862	25.85	
92.5	129,814	6,337	0.0488	0.9512	25.49	
93.5	123,477	2,848	0.0231	0.9769	24.25	
94.5	120,609	6,571	0.0545	0.9455	23.69	
95.5	114,036	11,805	0.1035	0.8965	22.40	
96.5					20.08	

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1912-2021			EXPERIENCE BAND 1992-2021		
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	133,234,370	191,935	0.0014	0.9986	100.00
0.5	119,506,774	557,222	0.0047	0.9953	99.86
1.5	114,333,444	1,890,484	0.0165	0.9835	99.39
2.5	111,279,365	1,427,775	0.0128	0.9872	97.75
3.5	110,278,220	1,990,691	0.0181	0.9819	96.49
4.5	107,079,260	1,770,066	0.0165	0.9835	94.75
5.5	103,426,131	1,725,296	0.0167	0.9833	93.18
6.5	97,568,792	1,582,573	0.0162	0.9838	91.63
7.5	94,314,046	1,327,260	0.0141	0.9859	90.14
8.5	89,548,657	1,236,219	0.0138	0.9862	88.88
9.5	80,216,828	1,039,450	0.0130	0.9870	87.65
10.5	78,693,235	1,008,216	0.0128	0.9872	86.51
11.5	73,344,790	1,016,842	0.0139	0.9861	85.40
12.5	70,421,443	1,791,290	0.0254	0.9746	84.22
13.5	67,591,048	1,526,175	0.0226	0.9774	82.08
14.5	63,175,134	778,864	0.0123	0.9877	80.22
15.5	57,017,693	948,898	0.0166	0.9834	79.24
16.5	53,822,832	641,464	0.0119	0.9881	77.92
17.5	49,093,114	585,680	0.0119	0.9881	76.99
18.5	44,133,264	525,476	0.0119	0.9881	76.07
19.5	43,857,724	885,693	0.0202	0.9798	75.16
20.5	41,584,813	882,312	0.0212	0.9788	73.65
21.5	36,774,251	562,232	0.0153	0.9847	72.08
22.5	35,310,064	630,549	0.0179	0.9821	70.98
23.5	33,147,284	442,993	0.0134	0.9866	69.71
24.5	32,063,612	508,179	0.0158	0.9842	68.78
25.5	30,692,473	524,203	0.0171	0.9829	67.69
26.5	28,587,984	362,916	0.0127	0.9873	66.54
27.5	25,333,889	307,519	0.0121	0.9879	65.69
28.5	23,359,687	343,324	0.0147	0.9853	64.89
29.5	21,245,971	250,362	0.0118	0.9882	63.94
30.5	19,311,891	206,592	0.0107	0.9893	63.19
31.5	17,972,893	236,432	0.0132	0.9868	62.51
32.5	15,677,438	204,844	0.0131	0.9869	61.69
33.5	14,915,613	203,228	0.0136	0.9864	60.88
34.5	13,605,086	181,873	0.0134	0.9866	60.05
35.5	12,627,746	131,618	0.0104	0.9896	59.25
36.5	11,745,923	194,767	0.0166	0.9834	58.63
37.5	11,106,637	135,157	0.0122	0.9878	57.66
38.5	10,084,922	150,542	0.0149	0.9851	56.96

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1912-2021			EXPERIENCE BAND 1992-2021		
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	9,502,865	164,200	0.0173	0.9827	56.11
40.5	8,958,731	122,453	0.0137	0.9863	55.14
41.5	8,116,797	89,689	0.0110	0.9890	54.39
42.5	7,417,923	95,891	0.0129	0.9871	53.78
43.5	7,047,491	80,673	0.0114	0.9886	53.09
44.5	6,690,160	75,130	0.0112	0.9888	52.48
45.5	6,283,833	65,119	0.0104	0.9896	51.89
46.5	5,799,349	60,832	0.0105	0.9895	51.35
47.5	5,191,509	45,205	0.0087	0.9913	50.82
48.5	4,503,140	40,274	0.0089	0.9911	50.37
49.5	4,129,830	46,520	0.0113	0.9887	49.92
50.5	3,682,395	27,183	0.0074	0.9926	49.36
51.5	3,240,099	27,393	0.0085	0.9915	49.00
52.5	3,016,159	43,279	0.0143	0.9857	48.58
53.5	2,762,579	19,762	0.0072	0.9928	47.88
54.5	2,535,197	18,593	0.0073	0.9927	47.54
55.5	2,224,898	16,315	0.0073	0.9927	47.19
56.5	1,946,203	15,187	0.0078	0.9922	46.85
57.5	1,660,478	11,174	0.0067	0.9933	46.48
58.5	1,454,355	14,097	0.0097	0.9903	46.17
59.5	1,265,739	12,227	0.0097	0.9903	45.72
60.5	1,074,114	8,060	0.0075	0.9925	45.28
61.5	973,321	8,217	0.0084	0.9916	44.94
62.5	891,876	7,107	0.0080	0.9920	44.56
63.5	811,618	9,257	0.0114	0.9886	44.21
64.5	721,337	4,919	0.0068	0.9932	43.70
65.5	633,573	5,967	0.0094	0.9906	43.40
66.5	764,538	19,904	0.0260	0.9740	42.99
67.5	648,483	15,027	0.0232	0.9768	41.88
68.5	592,521	18,906	0.0319	0.9681	40.90
69.5	472,281	5,263	0.0111	0.9889	39.60
70.5	415,164	3,296	0.0079	0.9921	39.16
71.5	335,846	1,304	0.0039	0.9961	38.85
72.5	302,179	1,980	0.0066	0.9934	38.70
73.5	284,987	1,845	0.0065	0.9935	38.44
74.5	257,348	2,168	0.0084	0.9916	38.19
75.5	246,581	5,698	0.0231	0.9769	37.87
76.5	237,171	652	0.0027	0.9973	37.00
77.5	235,795	1,091	0.0046	0.9954	36.90
78.5	229,427	1,716	0.0075	0.9925	36.72

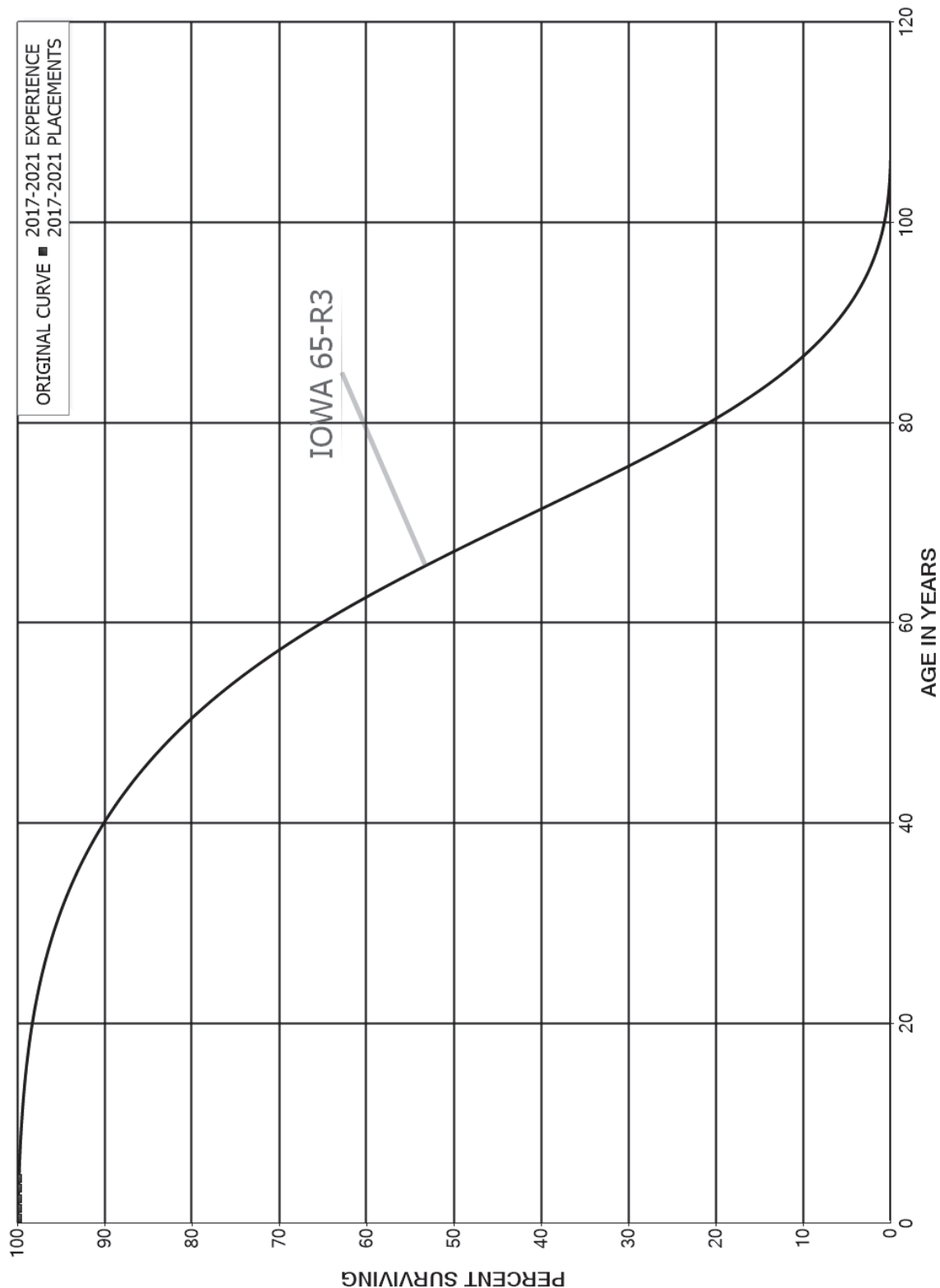
DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1912-2021			EXPERIENCE BAND 1992-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	218,644	7,302	0.0334	0.9666	36.45	
80.5	200,869	1,706	0.0085	0.9915	35.23	
81.5	198,707	1,677	0.0084	0.9916	34.93	
82.5	188,229	1,296	0.0069	0.9931	34.64	
83.5	170,703	564	0.0033	0.9967	34.40	
84.5	170,140	1,869	0.0110	0.9890	34.29	
85.5	168,271	3,280	0.0195	0.9805	33.91	
86.5	165,724	2,522	0.0152	0.9848	33.25	
87.5	163,893	7,463	0.0455	0.9545	32.74	
88.5	156,430	9,379	0.0600	0.9400	31.25	
89.5	146,911	1,735	0.0118	0.9882	29.38	
90.5	145,176	13,545	0.0933	0.9067	29.03	
91.5	131,631	1,817	0.0138	0.9862	26.32	
92.5	129,814	6,337	0.0488	0.9512	25.96	
93.5	123,477	2,848	0.0231	0.9769	24.69	
94.5	120,609	6,571	0.0545	0.9455	24.12	
95.5	114,036	11,805	0.1035	0.8965	22.81	
96.5					20.45	

DUKE ENERGY KENTUCKY
ACCOUNT 3651 OVERHEAD CONDUCTORS AND DEVICES - CLEARING AND RIGHT OF WAY
ORIGINAL AND SMOOTH SURVIVOR CURVES



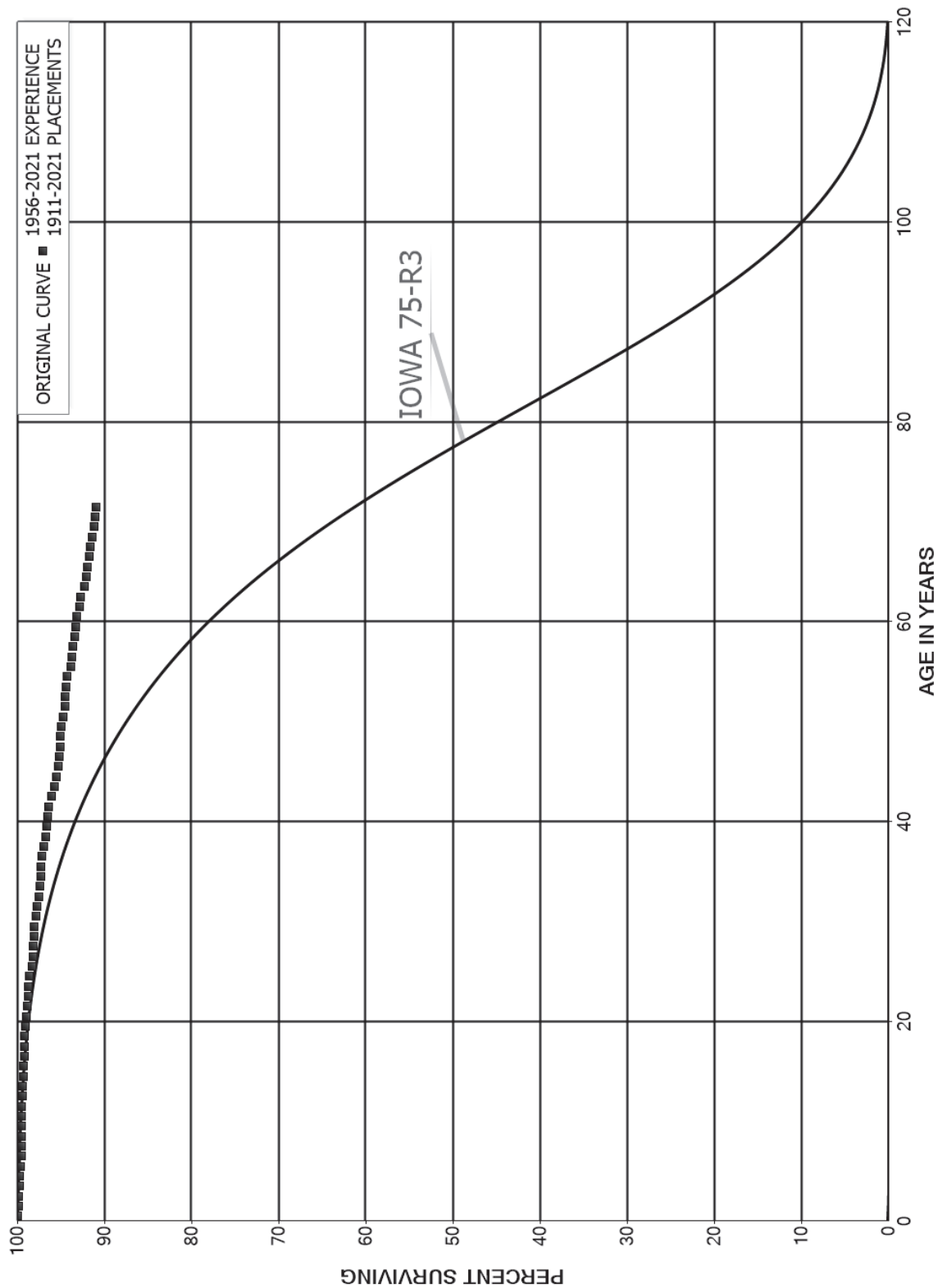
DUKE ENERGY KENTUCKY

ACCOUNT 3651 OVERHEAD CONDUCTORS AND DEVICES - CLEARING AND RIGHT OF WAY

ORIGINAL LIFE TABLE

PLACEMENT BAND 2017-2021			EXPERIENCE BAND 2017-2021		
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	7,177,612		0.0000	1.0000	100.00
0.5	5,467,671		0.0000	1.0000	100.00
1.5	5,183,262		0.0000	1.0000	100.00
2.5	4,456,060		0.0000	1.0000	100.00
3.5	4,136,476		0.0000	1.0000	100.00
4.5					100.00

DUKE ENERGY KENTUCKY
ACCOUNT 3660 UNDERGROUND CONDUIT
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3660 UNDERGROUND CONDUIT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1911-2021

EXPERIENCE BAND 1956-2021

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	42,816,832	2,984	0.0001	0.9999	100.00
0.5	41,016,704	55,743	0.0014	0.9986	99.99
1.5	29,065,071	3,693	0.0001	0.9999	99.86
2.5	23,655,994	23,300	0.0010	0.9990	99.84
3.5	21,098,172	15,870	0.0008	0.9992	99.75
4.5	18,510,244	5,544	0.0003	0.9997	99.67
5.5	18,265,174	16,525	0.0009	0.9991	99.64
6.5	17,679,076	8,186	0.0005	0.9995	99.55
7.5	16,924,404	1,528	0.0001	0.9999	99.50
8.5	16,636,230	2,147	0.0001	0.9999	99.50
9.5	16,203,887	1,926	0.0001	0.9999	99.48
10.5	15,893,834	2,071	0.0001	0.9999	99.47
11.5	15,583,833	1,718	0.0001	0.9999	99.46
12.5	15,273,060	10,160	0.0007	0.9993	99.45
13.5	15,066,337	6,776	0.0004	0.9996	99.38
14.5	14,543,691	12,435	0.0009	0.9991	99.34
15.5	14,080,619	4,494	0.0003	0.9997	99.25
16.5	13,699,313	4,997	0.0004	0.9996	99.22
17.5	13,488,954	5,119	0.0004	0.9996	99.18
18.5	10,429,672	11,720	0.0011	0.9989	99.15
19.5	10,338,701	8,057	0.0008	0.9992	99.03
20.5	10,180,151	12,725	0.0012	0.9988	98.96
21.5	9,765,810	5,794	0.0006	0.9994	98.83
22.5	7,970,785	8,413	0.0011	0.9989	98.78
23.5	7,130,241	5,552	0.0008	0.9992	98.67
24.5	6,253,928	21,593	0.0035	0.9965	98.59
25.5	5,453,388	4,069	0.0007	0.9993	98.25
26.5	4,631,142	819	0.0002	0.9998	98.18
27.5	3,568,578	1,614	0.0005	0.9995	98.16
28.5	2,733,769	1,807	0.0007	0.9993	98.12
29.5	2,112,079	5,615	0.0027	0.9973	98.05
30.5	2,047,604	1,102	0.0005	0.9995	97.79
31.5	1,879,659	3,835	0.0020	0.9980	97.74
32.5	1,707,011	1,855	0.0011	0.9989	97.54
33.5	1,575,700	1,759	0.0011	0.9989	97.44
34.5	1,556,716	298	0.0002	0.9998	97.33
35.5	1,503,665	2,153	0.0014	0.9986	97.31
36.5	1,495,503	3,023	0.0020	0.9980	97.17
37.5	1,392,200	2,759	0.0020	0.9980	96.97
38.5	1,371,862	1,934	0.0014	0.9986	96.78

DUKE ENERGY KENTUCKY

ACCOUNT 3660 UNDERGROUND CONDUIT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1911-2021			EXPERIENCE BAND 1956-2021			
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	1,331,519	2,552	0.0019	0.9981	96.64	
40.5	1,329,714	1,523	0.0011	0.9989	96.46	
41.5	1,199,683	3,711	0.0031	0.9969	96.35	
42.5	1,192,334	4,195	0.0035	0.9965	96.05	
43.5	1,181,875	2,362	0.0020	0.9980	95.71	
44.5	1,147,022	3,145	0.0027	0.9973	95.52	
45.5	966,302	534	0.0006	0.9994	95.26	
46.5	759,601	868	0.0011	0.9989	95.21	
47.5	682,114	560	0.0008	0.9992	95.10	
48.5	561,878	442	0.0008	0.9992	95.02	
49.5	539,818	1,367	0.0025	0.9975	94.94	
50.5	453,657	762	0.0017	0.9983	94.70	
51.5	417,510	413	0.0010	0.9990	94.54	
52.5	394,435	414	0.0011	0.9989	94.45	
53.5	393,885	421	0.0011	0.9989	94.35	
54.5	385,072	1,567	0.0041	0.9959	94.25	
55.5	382,506	563	0.0015	0.9985	93.87	
56.5	368,153	435	0.0012	0.9988	93.73	
57.5	362,292	871	0.0024	0.9976	93.62	
58.5	281,981	408	0.0014	0.9986	93.39	
59.5	270,139	388	0.0014	0.9986	93.26	
60.5	251,030	647	0.0026	0.9974	93.12	
61.5	249,271	448	0.0018	0.9982	92.88	
62.5	245,192	1,102	0.0045	0.9955	92.72	
63.5	234,744	673	0.0029	0.9971	92.30	
64.5	227,883	270	0.0012	0.9988	92.04	
65.5	218,933	563	0.0026	0.9974	91.93	
66.5	195,047	179	0.0009	0.9991	91.69	
67.5	191,209	460	0.0024	0.9976	91.61	
68.5	187,540	503	0.0027	0.9973	91.39	
69.5	175,642	174	0.0010	0.9990	91.14	
70.5	170,364	297	0.0017	0.9983	91.05	
71.5	151,138	572	0.0038	0.9962	90.89	
72.5	138,063	3,395	0.0246	0.9754	90.55	
73.5	134,534	1,100	0.0082	0.9918	88.32	
74.5	131,190	2,634	0.0201	0.9799	87.60	
75.5	128,556	1,003	0.0078	0.9922	85.84	
76.5	126,593	595	0.0047	0.9953	85.17	
77.5	125,733	2,944	0.0234	0.9766	84.77	
78.5	120,903	110	0.0009	0.9991	82.79	

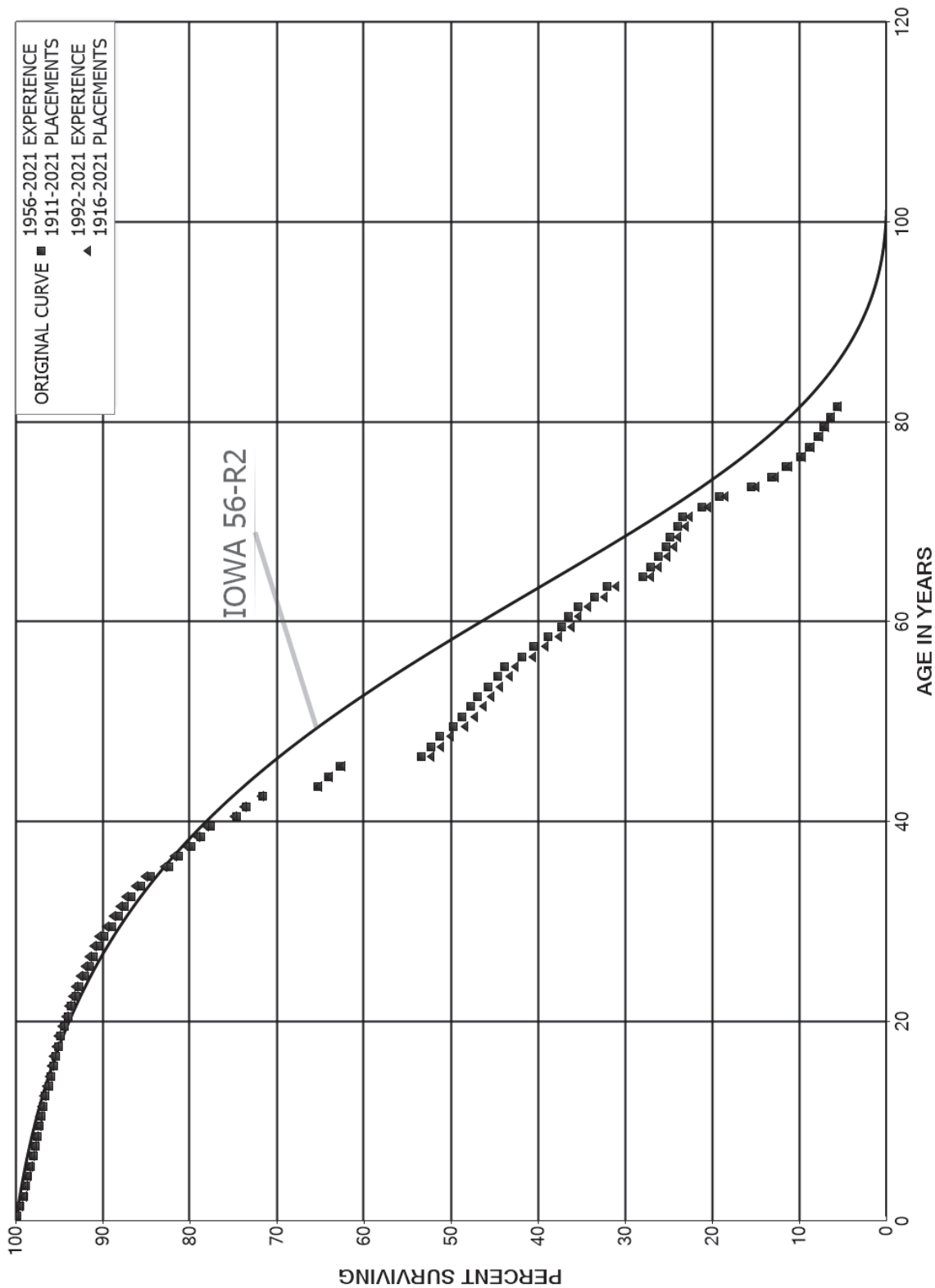
DUKE ENERGY KENTUCKY

ACCOUNT 3660 UNDERGROUND CONDUIT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1911-2021			EXPERIENCE BAND 1956-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	118,779	1,748	0.0147	0.9853	82.71
80.5	107,999	213	0.0020	0.9980	81.49
81.5	62,629	1,500	0.0239	0.9761	81.33
82.5	61,128	661	0.0108	0.9892	79.38
83.5	37,790	1,065	0.0282	0.9718	78.53
84.5	36,634	353	0.0096	0.9904	76.31
85.5	36,281	432	0.0119	0.9881	75.58
86.5	34,395	1,261	0.0367	0.9633	74.68
87.5	33,101	92	0.0028	0.9972	71.94
88.5	32,785	709	0.0216	0.9784	71.74
89.5	29,320	1,241	0.0423	0.9577	70.19
90.5	17,597	514	0.0292	0.9708	67.22
91.5	16,892	168	0.0099	0.9901	65.26
92.5	9,822	98	0.0100	0.9900	64.61
93.5	9,498	25	0.0026	0.9974	63.96
94.5	7,818	837	0.1071	0.8929	63.80
95.5	6,354	13	0.0020	0.9980	56.97
96.5	6,341	225	0.0355	0.9645	56.85
97.5	6,046	95	0.0157	0.9843	54.83
98.5	1,354	15	0.0114	0.9886	53.97
99.5	1,338	10	0.0074	0.9926	53.36
100.5	1,328	2	0.0018	0.9982	52.96
101.5	1,218	414	0.3403	0.6597	52.86
102.5	803	54	0.0672	0.9328	34.88
103.5	749	14	0.0186	0.9814	32.53
104.5	735	9	0.0124	0.9876	31.93
105.5	242		0.0000	1.0000	31.53
106.5	242	154	0.6368	0.3632	31.53
107.5	88	1	0.0138	0.9862	11.45
108.5	87		0.0000	1.0000	11.29
109.5	87		0.0000	1.0000	11.29
110.5					11.29

DUKE ENERGY KENTUCKY
ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1911-2021			EXPERIENCE BAND 1956-2021		
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	81,387,085	122,832	0.0015	0.9985	100.00
0.5	70,067,636	260,908	0.0037	0.9963	99.85
1.5	64,375,042	262,196	0.0041	0.9959	99.48
2.5	64,292,027	140,935	0.0022	0.9978	99.07
3.5	60,152,565	163,456	0.0027	0.9973	98.85
4.5	58,141,196	175,206	0.0030	0.9970	98.59
5.5	56,650,562	163,772	0.0029	0.9971	98.29
6.5	54,734,808	131,044	0.0024	0.9976	98.01
7.5	53,351,381	143,483	0.0027	0.9973	97.77
8.5	52,502,220	147,242	0.0028	0.9972	97.51
9.5	49,322,892	79,941	0.0016	0.9984	97.23
10.5	48,802,611	125,837	0.0026	0.9974	97.08
11.5	46,787,477	128,520	0.0027	0.9973	96.83
12.5	43,895,121	163,479	0.0037	0.9963	96.56
13.5	41,914,098	129,178	0.0031	0.9969	96.20
14.5	39,618,438	112,020	0.0028	0.9972	95.90
15.5	36,789,578	93,766	0.0025	0.9975	95.63
16.5	32,689,739	105,041	0.0032	0.9968	95.39
17.5	30,886,720	94,338	0.0031	0.9969	95.08
18.5	28,308,595	109,287	0.0039	0.9961	94.79
19.5	27,623,619	150,623	0.0055	0.9945	94.43
20.5	25,504,227	93,478	0.0037	0.9963	93.91
21.5	22,799,055	115,669	0.0051	0.9949	93.57
22.5	20,438,467	90,120	0.0044	0.9956	93.09
23.5	19,620,778	122,753	0.0063	0.9937	92.68
24.5	18,409,331	108,494	0.0059	0.9941	92.10
25.5	17,637,652	97,621	0.0055	0.9945	91.56
26.5	16,826,014	103,886	0.0062	0.9938	91.05
27.5	15,666,457	120,572	0.0077	0.9923	90.49
28.5	13,944,151	132,898	0.0095	0.9905	89.79
29.5	12,808,422	117,094	0.0091	0.9909	88.94
30.5	11,681,554	89,028	0.0076	0.9924	88.13
31.5	10,425,441	88,074	0.0084	0.9916	87.45
32.5	9,110,509	113,185	0.0124	0.9876	86.71
33.5	8,074,128	102,534	0.0127	0.9873	85.64
34.5	6,803,638	175,561	0.0258	0.9742	84.55
35.5	6,044,990	82,928	0.0137	0.9863	82.37
36.5	5,464,753	91,237	0.0167	0.9833	81.24
37.5	4,845,123	68,929	0.0142	0.9858	79.88
38.5	4,378,566	61,408	0.0140	0.9860	78.75

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1911-2021			EXPERIENCE BAND 1956-2021		
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	4,076,193	159,012	0.0390	0.9610	77.64
40.5	3,675,974	52,341	0.0142	0.9858	74.61
41.5	3,213,573	85,053	0.0265	0.9735	73.55
42.5	2,671,935	236,656	0.0886	0.9114	71.60
43.5	2,234,444	39,828	0.0178	0.9822	65.26
44.5	1,809,806	37,625	0.0208	0.9792	64.10
45.5	1,488,326	222,606	0.1496	0.8504	62.77
46.5	1,104,881	22,420	0.0203	0.9797	53.38
47.5	907,016	18,039	0.0199	0.9801	52.29
48.5	777,618	22,779	0.0293	0.9707	51.25
49.5	683,621	14,315	0.0209	0.9791	49.75
50.5	595,729	12,054	0.0202	0.9798	48.71
51.5	526,897	9,118	0.0173	0.9827	47.73
52.5	501,858	12,035	0.0240	0.9760	46.90
53.5	479,836	11,835	0.0247	0.9753	45.78
54.5	455,790	7,726	0.0170	0.9830	44.65
55.5	439,251	20,595	0.0469	0.9531	43.89
56.5	399,277	13,062	0.0327	0.9673	41.83
57.5	361,332	14,923	0.0413	0.9587	40.46
58.5	311,219	11,922	0.0383	0.9617	38.79
59.5	294,118	6,184	0.0210	0.9790	37.31
60.5	278,492	8,429	0.0303	0.9697	36.52
61.5	263,872	14,057	0.0533	0.9467	35.42
62.5	240,089	10,121	0.0422	0.9578	33.53
63.5	228,529	29,331	0.1283	0.8717	32.12
64.5	194,384	6,117	0.0315	0.9685	27.99
65.5	178,414	6,496	0.0364	0.9636	27.11
66.5	145,107	4,524	0.0312	0.9688	26.13
67.5	137,767	2,374	0.0172	0.9828	25.31
68.5	134,359	5,020	0.0374	0.9626	24.88
69.5	128,829	2,690	0.0209	0.9791	23.95
70.5	123,770	11,779	0.0952	0.9048	23.45
71.5	99,890	9,633	0.0964	0.9036	21.21
72.5	86,195	16,674	0.1934	0.8066	19.17
73.5	69,521	10,170	0.1463	0.8537	15.46
74.5	58,372	7,573	0.1297	0.8703	13.20
75.5	50,799	7,181	0.1414	0.8586	11.49
76.5	43,446	4,584	0.1055	0.8945	9.86
77.5	38,862	4,452	0.1145	0.8855	8.82
78.5	34,347	2,842	0.0827	0.9173	7.81

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1911-2021			EXPERIENCE BAND 1956-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	31,419	3,216	0.1024	0.8976	7.17	
80.5	27,998	3,507	0.1253	0.8747	6.43	
81.5	9,916	1,322	0.1333	0.8667	5.63	
82.5	8,447	1,227	0.1452	0.8548	4.88	
83.5	4,633	910	0.1964	0.8036	4.17	
84.5	3,682	549	0.1492	0.8508	3.35	
85.5	3,132	452	0.1443	0.8557	2.85	
86.5	2,662	332	0.1245	0.8755	2.44	
87.5	2,331	493	0.2116	0.7884	2.13	
88.5	1,813	366	0.2020	0.7980	1.68	
89.5	1,426	515	0.3611	0.6389	1.34	
90.5	835	138	0.1650	0.8350	0.86	
91.5	697	124	0.1772	0.8228	0.72	
92.5	448	82	0.1832	0.8168	0.59	
93.5	366	42	0.1159	0.8841	0.48	
94.5	317	103	0.3230	0.6770	0.43	
95.5	205	66	0.3245	0.6755	0.29	
96.5	138	74	0.5347	0.4653	0.19	
97.5	64	32	0.4923	0.5077	0.09	
98.5	16	8	0.5003	0.4997	0.05	
99.5	8	4	0.5330	0.4670	0.02	
100.5	4	2	0.4266	0.5734	0.01	
101.5	2	1	0.5024	0.4976	0.01	
102.5	1	1	0.5049	0.4951	0.00	
103.5	1		0.0000	1.0000	0.00	
104.5	1	1	1.0000		0.00	
105.5						

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1916-2021			EXPERIENCE BAND 1992-2021		
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	67,412,847	121,351	0.0018	0.9982	100.00
0.5	57,080,928	220,722	0.0039	0.9961	99.82
1.5	52,731,255	231,496	0.0044	0.9956	99.43
2.5	54,053,417	103,990	0.0019	0.9981	99.00
3.5	50,995,362	132,959	0.0026	0.9974	98.81
4.5	50,348,679	139,172	0.0028	0.9972	98.55
5.5	49,506,993	116,741	0.0024	0.9976	98.28
6.5	48,182,246	104,831	0.0022	0.9978	98.05
7.5	47,560,983	121,991	0.0026	0.9974	97.83
8.5	47,193,263	133,846	0.0028	0.9972	97.58
9.5	44,309,993	63,791	0.0014	0.9986	97.30
10.5	44,120,161	116,385	0.0026	0.9974	97.16
11.5	42,611,048	97,258	0.0023	0.9977	96.91
12.5	40,441,887	120,661	0.0030	0.9970	96.69
13.5	38,781,734	112,951	0.0029	0.9971	96.40
14.5	37,044,656	99,462	0.0027	0.9973	96.12
15.5	34,745,114	86,503	0.0025	0.9975	95.86
16.5	30,869,996	98,054	0.0032	0.9968	95.62
17.5	29,330,581	88,671	0.0030	0.9970	95.32
18.5	27,185,879	105,169	0.0039	0.9961	95.03
19.5	26,624,120	138,804	0.0052	0.9948	94.66
20.5	24,625,540	84,039	0.0034	0.9966	94.17
21.5	22,018,881	105,206	0.0048	0.9952	93.85
22.5	19,698,168	74,500	0.0038	0.9962	93.40
23.5	18,917,284	114,342	0.0060	0.9940	93.04
24.5	17,736,838	93,968	0.0053	0.9947	92.48
25.5	16,995,005	93,857	0.0055	0.9945	91.99
26.5	16,212,814	91,805	0.0057	0.9943	91.48
27.5	15,103,965	98,122	0.0065	0.9935	90.97
28.5	13,488,201	127,999	0.0095	0.9905	90.38
29.5	12,364,621	112,733	0.0091	0.9909	89.52
30.5	11,261,762	88,040	0.0078	0.9922	88.70
31.5	10,018,555	84,388	0.0084	0.9916	88.01
32.5	8,722,944	107,795	0.0124	0.9876	87.27
33.5	7,695,847	100,739	0.0131	0.9869	86.19
34.5	6,440,440	166,487	0.0259	0.9741	85.06
35.5	5,712,962	81,945	0.0143	0.9857	82.86
36.5	5,240,943	89,360	0.0171	0.9829	81.67
37.5	4,629,713	67,214	0.0145	0.9855	80.28
38.5	4,167,249	54,235	0.0130	0.9870	79.11

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1916-2021			EXPERIENCE BAND 1992-2021		
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	3,878,836	158,947	0.0410	0.9590	78.09
40.5	3,488,226	51,569	0.0148	0.9852	74.89
41.5	3,062,584	84,993	0.0278	0.9722	73.78
42.5	2,537,686	236,526	0.0932	0.9068	71.73
43.5	2,100,325	39,585	0.0188	0.9812	65.05
44.5	1,678,736	37,321	0.0222	0.9778	63.82
45.5	1,357,560	222,492	0.1639	0.8361	62.40
46.5	975,486	19,783	0.0203	0.9797	52.17
47.5	780,257	17,157	0.0220	0.9780	51.12
48.5	652,036	22,518	0.0345	0.9655	49.99
49.5	560,143	12,622	0.0225	0.9775	48.26
50.5	475,067	10,490	0.0221	0.9779	47.18
51.5	493,920	9,038	0.0183	0.9817	46.14
52.5	470,028	10,304	0.0219	0.9781	45.29
53.5	470,181	11,493	0.0244	0.9756	44.30
54.5	446,840	7,577	0.0170	0.9830	43.22
55.5	430,529	20,534	0.0477	0.9523	42.48
56.5	390,808	13,062	0.0334	0.9666	40.46
57.5	352,862	14,697	0.0417	0.9583	39.10
58.5	303,299	11,752	0.0387	0.9613	37.48
59.5	286,695	6,184	0.0216	0.9784	36.02
60.5	272,273	8,429	0.0310	0.9690	35.25
61.5	257,654	14,057	0.0546	0.9454	34.16
62.5	237,070	10,121	0.0427	0.9573	32.29
63.5	225,511	29,331	0.1301	0.8699	30.91
64.5	191,576	6,117	0.0319	0.9681	26.89
65.5	175,990	6,496	0.0369	0.9631	26.03
66.5	142,683	4,524	0.0317	0.9683	25.07
67.5	135,342	2,374	0.0175	0.9825	24.28
68.5	133,653	5,020	0.0376	0.9624	23.85
69.5	128,147	2,690	0.0210	0.9790	22.96
70.5	123,088	11,373	0.0924	0.9076	22.47
71.5	99,614	9,633	0.0967	0.9033	20.40
72.5	85,919	16,674	0.1941	0.8059	18.43
73.5	69,245	10,170	0.1469	0.8531	14.85
74.5	58,096	7,573	0.1303	0.8697	12.67
75.5	50,799	7,181	0.1414	0.8586	11.02
76.5	43,446	4,584	0.1055	0.8945	9.46
77.5	38,862	4,452	0.1145	0.8855	8.46
78.5	34,347	2,842	0.0827	0.9173	7.49

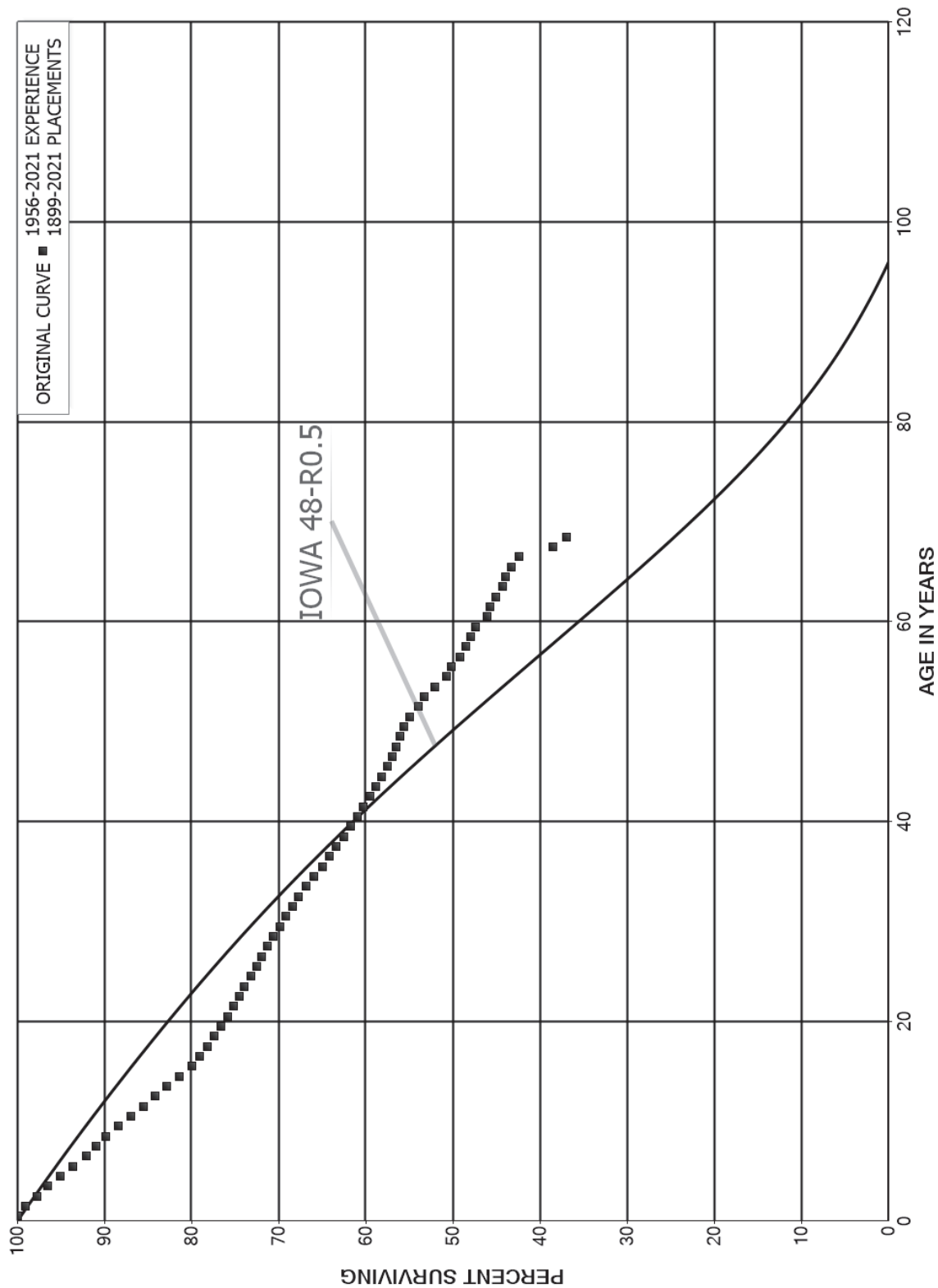
DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1916-2021			EXPERIENCE BAND 1992-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	31,419	3,216	0.1024	0.8976	6.87	
80.5	27,998	3,507	0.1253	0.8747	6.17	
81.5	9,916	1,322	0.1333	0.8667	5.40	
82.5	8,447	1,227	0.1452	0.8548	4.68	
83.5	4,633	910	0.1964	0.8036	4.00	
84.5	3,682	549	0.1492	0.8508	3.21	
85.5	3,132	452	0.1443	0.8557	2.73	
86.5	2,662	332	0.1245	0.8755	2.34	
87.5	2,331	493	0.2116	0.7884	2.05	
88.5	1,813	366	0.2020	0.7980	1.61	
89.5	1,426	515	0.3611	0.6389	1.29	
90.5	835	138	0.1650	0.8350	0.82	
91.5	697	124	0.1772	0.8228	0.69	
92.5	448	82	0.1832	0.8168	0.57	
93.5	366	42	0.1159	0.8841	0.46	
94.5	317	103	0.3230	0.6770	0.41	
95.5	205	66	0.3245	0.6755	0.28	
96.5	138	74	0.5347	0.4653	0.19	
97.5	64	32	0.4923	0.5077	0.09	
98.5	16	8	0.5003	0.4997	0.04	
99.5	8	4	0.5330	0.4670	0.02	
100.5	4	2	0.4266	0.5734	0.01	
101.5	2	1	0.5024	0.4976	0.01	
102.5	1	1	0.5049	0.4951	0.00	
103.5	1		0.0000	1.0000	0.00	
104.5	1	1	1.0000		0.00	
105.5						

DUKE ENERGY KENTUCKY
ACCOUNT 3680 LINE TRANSFORMERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3680 LINE TRANSFORMERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1899-2021

EXPERIENCE BAND 1956-2021

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	93,972,484	89,206	0.0009	0.9991	100.00
0.5	82,096,636	649,664	0.0079	0.9921	99.91
1.5	84,148,256	1,153,060	0.0137	0.9863	99.11
2.5	84,108,487	1,116,645	0.0133	0.9867	97.76
3.5	82,151,547	1,206,184	0.0147	0.9853	96.46
4.5	79,128,792	1,143,851	0.0145	0.9855	95.04
5.5	76,200,650	1,347,783	0.0177	0.9823	93.67
6.5	72,172,091	850,417	0.0118	0.9882	92.01
7.5	68,499,211	861,056	0.0126	0.9874	90.93
8.5	66,160,556	1,063,305	0.0161	0.9839	89.78
9.5	63,196,619	1,002,829	0.0159	0.9841	88.34
10.5	62,142,274	1,025,623	0.0165	0.9835	86.94
11.5	59,390,695	929,791	0.0157	0.9843	85.50
12.5	56,835,832	921,186	0.0162	0.9838	84.17
13.5	54,755,377	905,264	0.0165	0.9835	82.80
14.5	51,989,434	932,325	0.0179	0.9821	81.43
15.5	49,792,037	579,367	0.0116	0.9884	79.97
16.5	48,165,520	502,890	0.0104	0.9896	79.04
17.5	46,061,491	493,104	0.0107	0.9893	78.22
18.5	44,304,025	452,723	0.0102	0.9898	77.38
19.5	43,090,944	443,754	0.0103	0.9897	76.59
20.5	41,976,774	362,840	0.0086	0.9914	75.80
21.5	40,264,523	326,182	0.0081	0.9919	75.14
22.5	38,393,857	329,184	0.0086	0.9914	74.54
23.5	36,413,254	368,767	0.0101	0.9899	73.90
24.5	34,091,497	291,769	0.0086	0.9914	73.15
25.5	32,521,364	278,183	0.0086	0.9914	72.52
26.5	30,905,263	282,072	0.0091	0.9909	71.90
27.5	28,183,475	264,030	0.0094	0.9906	71.25
28.5	26,021,314	258,210	0.0099	0.9901	70.58
29.5	24,321,180	247,956	0.0102	0.9898	69.88
30.5	22,149,305	234,347	0.0106	0.9894	69.17
31.5	19,968,182	217,037	0.0109	0.9891	68.43
32.5	17,793,032	235,568	0.0132	0.9868	67.69
33.5	15,604,301	199,941	0.0128	0.9872	66.79
34.5	14,271,617	205,059	0.0144	0.9856	65.94
35.5	13,031,394	155,325	0.0119	0.9881	64.99
36.5	11,840,357	159,663	0.0135	0.9865	64.22
37.5	10,714,243	147,056	0.0137	0.9863	63.35
38.5	9,516,603	116,802	0.0123	0.9877	62.48

DUKE ENERGY KENTUCKY

ACCOUNT 3680 LINE TRANSFORMERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1899-2021			EXPERIENCE BAND 1956-2021			
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	8,817,002	113,847	0.0129	0.9871	61.71	
40.5	7,883,651	83,898	0.0106	0.9894	60.92	
41.5	7,152,301	86,554	0.0121	0.9879	60.27	
42.5	6,473,016	77,941	0.0120	0.9880	59.54	
43.5	5,771,555	67,781	0.0117	0.9883	58.82	
44.5	5,230,724	57,170	0.0109	0.9891	58.13	
45.5	4,855,944	47,182	0.0097	0.9903	57.50	
46.5	4,412,945	30,985	0.0070	0.9930	56.94	
47.5	3,722,934	33,036	0.0089	0.9911	56.54	
48.5	3,114,277	25,556	0.0082	0.9918	56.04	
49.5	2,604,664	30,105	0.0116	0.9884	55.58	
50.5	2,133,819	36,431	0.0171	0.9829	54.93	
51.5	1,698,314	23,477	0.0138	0.9862	54.00	
52.5	1,379,055	32,009	0.0232	0.9768	53.25	
53.5	1,137,165	27,385	0.0241	0.9759	52.01	
54.5	1,008,217	11,277	0.0112	0.9888	50.76	
55.5	819,567	16,959	0.0207	0.9793	50.19	
56.5	697,467	8,699	0.0125	0.9875	49.15	
57.5	544,563	6,298	0.0116	0.9884	48.54	
58.5	473,534	5,498	0.0116	0.9884	47.98	
59.5	423,029	12,175	0.0288	0.9712	47.42	
60.5	365,207	2,852	0.0078	0.9922	46.06	
61.5	323,162	4,720	0.0146	0.9854	45.70	
62.5	275,721	4,675	0.0170	0.9830	45.03	
63.5	239,814	1,642	0.0068	0.9932	44.27	
64.5	226,743	3,309	0.0146	0.9854	43.96	
65.5	177,537	3,787	0.0213	0.9787	43.32	
66.5	137,663	12,745	0.0926	0.9074	42.40	
67.5	111,277	4,387	0.0394	0.9606	38.47	
68.5	101,695	698	0.0069	0.9931	36.96	
69.5	90,980	1,770	0.0195	0.9805	36.70	
70.5	73,933	3,115	0.0421	0.9579	35.99	
71.5	65,533	468	0.0071	0.9929	34.47	
72.5	61,668	231	0.0037	0.9963	34.23	
73.5	59,525	508	0.0085	0.9915	34.10	
74.5	56,728	251	0.0044	0.9956	33.81	
75.5	56,227	134	0.0024	0.9976	33.66	
76.5	55,608	0	0.0000	1.0000	33.58	
77.5	55,608	48	0.0009	0.9991	33.58	
78.5	55,560	189	0.0034	0.9966	33.55	

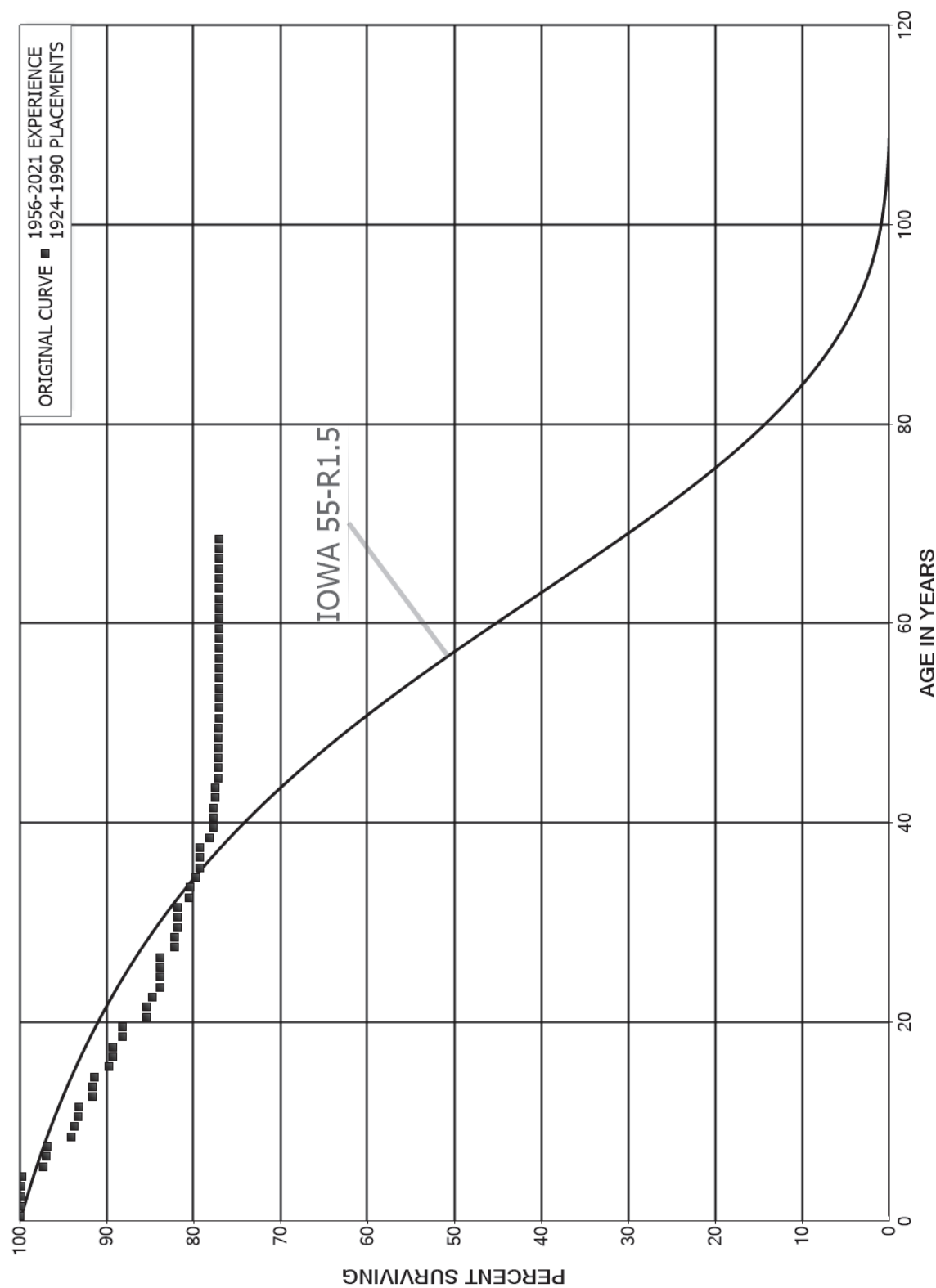
DUKE ENERGY KENTUCKY

ACCOUNT 3680 LINE TRANSFORMERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1899-2021			EXPERIENCE BAND 1956-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	55,206	1,207	0.0219	0.9781	33.43	
80.5	52,806	509	0.0096	0.9904	32.70	
81.5	49,977	123	0.0025	0.9975	32.39	
82.5	49,731	36	0.0007	0.9993	32.31	
83.5	49,581	13	0.0003	0.9997	32.28	
84.5	47,310	201	0.0043	0.9957	32.28	
85.5	45,645	0	0.0000	1.0000	32.14	
86.5	45,298		0.0000	1.0000	32.14	
87.5	44,607	0	0.0000	1.0000	32.14	
88.5	44,424	0	0.0000	1.0000	32.14	
89.5	45,801	1,950	0.0426	0.9574	32.14	
90.5	43,851	62	0.0014	0.9986	30.77	
91.5	43,665	0	0.0000	1.0000	30.73	
92.5	43,485	0	0.0000	1.0000	30.73	
93.5	43,304	97	0.0022	0.9978	30.73	
94.5	44,781	1,010	0.0226	0.9774	30.66	
95.5	43,523	0	0.0000	1.0000	29.97	
96.5	42,863	0	0.0000	1.0000	29.97	
97.5	42,863	82	0.0019	0.9981	29.97	
98.5	42,618	49	0.0011	0.9989	29.91	
99.5	41,965		0.0000	1.0000	29.88	
100.5	41,847	151	0.0036	0.9964	29.88	
101.5	40,956	0	0.0000	1.0000	29.77	
102.5	40,956		0.0000	1.0000	29.77	
103.5	40,956		0.0000	1.0000	29.77	
104.5	40,917		0.0000	1.0000	29.77	
105.5	40,824		0.0000	1.0000	29.77	
106.5	40,824		0.0000	1.0000	29.77	
107.5	40,824	0	0.0000	1.0000	29.77	
108.5	40,823		0.0000	1.0000	29.77	
109.5	40,823		0.0000	1.0000	29.77	
110.5	40,823		0.0000	1.0000	29.77	
111.5	39,891		0.0000	1.0000	29.77	
112.5	39,891		0.0000	1.0000	29.77	
113.5	39,891		0.0000	1.0000	29.77	
114.5	39,891		0.0000	1.0000	29.77	
115.5	39,891		0.0000	1.0000	29.77	
116.5	39,891		0.0000	1.0000	29.77	
117.5	39,891		0.0000	1.0000	29.77	
118.5	39,891		0.0000	1.0000	29.77	
119.5	39,891	8,308	0.2083	0.7917	29.77	
120.5					23.57	

DUKE ENERGY KENTUCKY
ACCOUNT 3682 LINE TRANSFORMERS - CUSTOMER
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3682 LINE TRANSFORMERS - CUSTOMER

ORIGINAL LIFE TABLE

PLACEMENT BAND 1924-1990			EXPERIENCE BAND 1956-2021		
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	267,971		0.0000	1.0000	100.00
0.5	277,289	442	0.0016	0.9984	100.00
1.5	290,361	139	0.0005	0.9995	99.84
2.5	320,097	17	0.0001	0.9999	99.79
3.5	323,303	92	0.0003	0.9997	99.79
4.5	334,199	8,295	0.0248	0.9752	99.76
5.5	331,764	1,266	0.0038	0.9962	97.28
6.5	339,385	339	0.0010	0.9990	96.91
7.5	345,628	9,890	0.0286	0.9714	96.82
8.5	338,039	1,100	0.0033	0.9967	94.04
9.5	340,268	1,484	0.0044	0.9956	93.74
10.5	340,703	393	0.0012	0.9988	93.33
11.5	340,310	5,669	0.0167	0.9833	93.22
12.5	334,708		0.0000	1.0000	91.67
13.5	334,719	811	0.0024	0.9976	91.67
14.5	335,744	6,359	0.0189	0.9811	91.45
15.5	329,385	1,561	0.0047	0.9953	89.72
16.5	330,701		0.0000	1.0000	89.29
17.5	330,703	3,956	0.0120	0.9880	89.29
18.5	326,748		0.0000	1.0000	88.22
19.5	326,748	10,565	0.0323	0.9677	88.22
20.5	321,257		0.0000	1.0000	85.37
21.5	321,826	2,358	0.0073	0.9927	85.37
22.5	319,469	3,363	0.0105	0.9895	84.74
23.5	317,846	64	0.0002	0.9998	83.85
24.5	322,183	52	0.0002	0.9998	83.84
25.5	312,484		0.0000	1.0000	83.82
26.5	309,240	6,196	0.0200	0.9800	83.82
27.5	303,216	67	0.0002	0.9998	82.14
28.5	303,880	1,029	0.0034	0.9966	82.12
29.5	302,352		0.0000	1.0000	81.85
30.5	301,651		0.0000	1.0000	81.85
31.5	279,307	4,497	0.0161	0.9839	81.85
32.5	273,717	444	0.0016	0.9984	80.53
33.5	273,274	2,405	0.0088	0.9912	80.40
34.5	270,868	1,404	0.0052	0.9948	79.69
35.5	262,259		0.0000	1.0000	79.28
36.5	262,259		0.0000	1.0000	79.28
37.5	256,304	3,431	0.0134	0.9866	79.28
38.5	252,873	1,452	0.0057	0.9943	78.22

DUKE ENERGY KENTUCKY

ACCOUNT 3682 LINE TRANSFORMERS - CUSTOMER

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1924-1990			EXPERIENCE BAND 1956-2021		
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	247,188		0.0000	1.0000	77.77
40.5	247,188		0.0000	1.0000	77.77
41.5	247,188	951	0.0038	0.9962	77.77
42.5	246,237		0.0000	1.0000	77.47
43.5	230,046	731	0.0032	0.9968	77.47
44.5	218,115		0.0000	1.0000	77.22
45.5	194,983		0.0000	1.0000	77.22
46.5	189,770		0.0000	1.0000	77.22
47.5	187,529		0.0000	1.0000	77.22
48.5	181,396		0.0000	1.0000	77.22
49.5	176,874	420	0.0024	0.9976	77.22
50.5	152,988		0.0000	1.0000	77.04
51.5	148,207		0.0000	1.0000	77.04
52.5	122,917		0.0000	1.0000	77.04
53.5	96,040		0.0000	1.0000	77.04
54.5	93,899		0.0000	1.0000	77.04
55.5	87,129		0.0000	1.0000	77.04
56.5	82,013		0.0000	1.0000	77.04
57.5	77,620		0.0000	1.0000	77.04
58.5	63,369		0.0000	1.0000	77.04
59.5	59,386		0.0000	1.0000	77.04
60.5	54,156		0.0000	1.0000	77.04
61.5	54,156		0.0000	1.0000	77.04
62.5	51,285		0.0000	1.0000	77.04
63.5	51,071		0.0000	1.0000	77.04
64.5	48,638		0.0000	1.0000	77.04
65.5	21,685		0.0000	1.0000	77.04
66.5	21,103		0.0000	1.0000	77.04
67.5	19,545		0.0000	1.0000	77.04
68.5	18,092		0.0000	1.0000	77.04
69.5	18,043		0.0000	1.0000	77.04
70.5	12,088		0.0000	1.0000	77.04
71.5	11,671		0.0000	1.0000	77.04
72.5	7,814		0.0000	1.0000	77.04
73.5	7,413		0.0000	1.0000	77.04
74.5	5,113		0.0000	1.0000	77.04
75.5	1,783		0.0000	1.0000	77.04
76.5	18		0.0000	1.0000	77.04
77.5	18		0.0000	1.0000	77.04
78.5	15		0.0000	1.0000	77.04

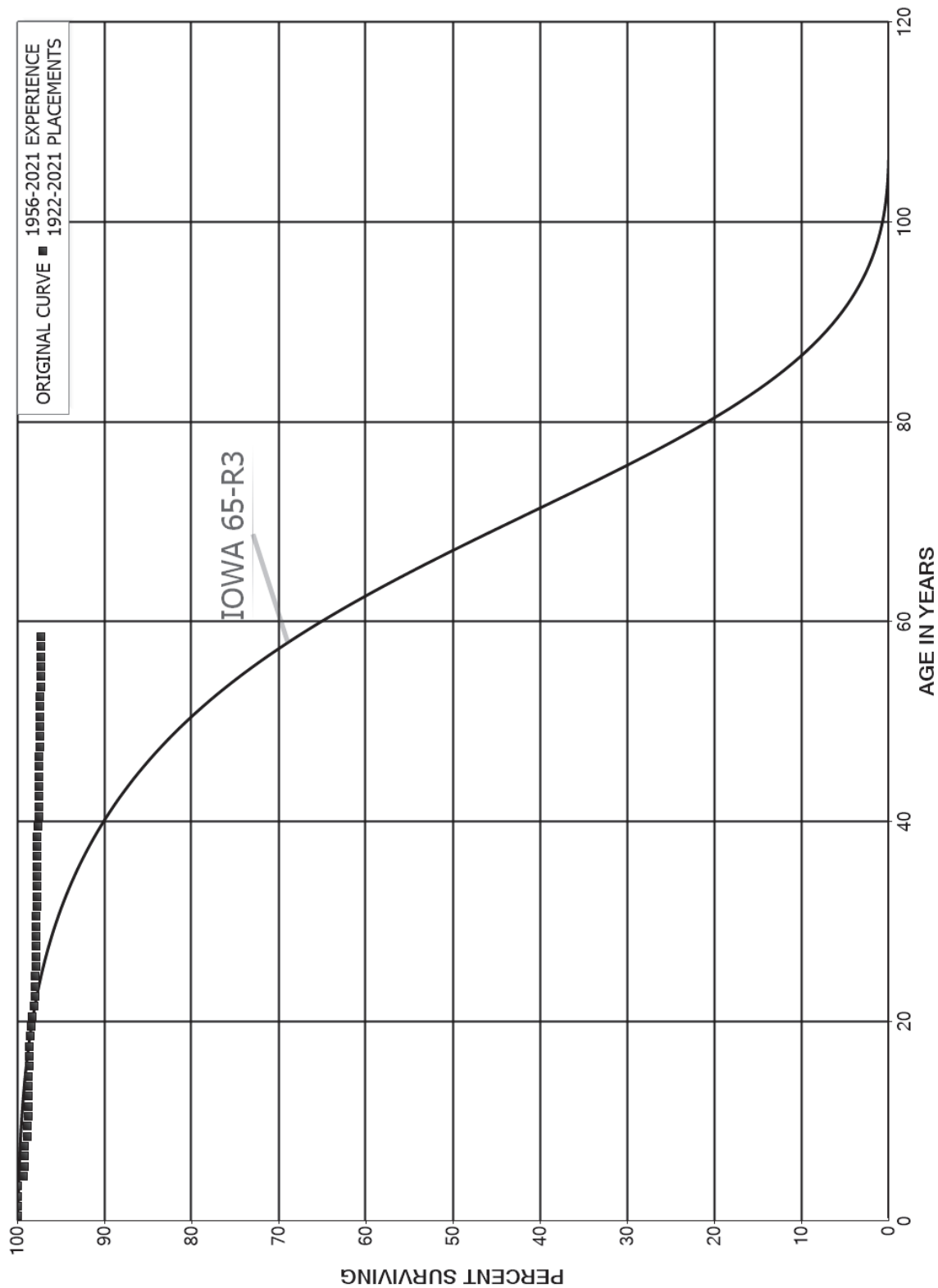
DUKE ENERGY KENTUCKY

ACCOUNT 3682 LINE TRANSFORMERS - CUSTOMER

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1924-1990			EXPERIENCE BAND 1956-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	5		0.0000	1.0000	77.04
80.5	4		0.0000	1.0000	77.04
81.5	4		0.0000	1.0000	77.04
82.5	4		0.0000	1.0000	77.04
83.5	1		0.0000	1.0000	77.04
84.5					77.04

DUKE ENERGY KENTUCKY
ACCOUNT 3691 SERVICES - UNDERGROUND
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3691 SERVICES - UNDERGROUND

ORIGINAL LIFE TABLE

PLACEMENT BAND 1922-2021			EXPERIENCE BAND 1956-2021		
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	2,741,993		0.0000	1.0000	100.00
0.5	2,561,514	619	0.0002	0.9998	100.00
1.5	2,447,296		0.0000	1.0000	99.98
2.5	2,473,062	665	0.0003	0.9997	99.98
3.5	2,462,536	17,691	0.0072	0.9928	99.95
4.5	2,437,762	677	0.0003	0.9997	99.23
5.5	2,440,444	431	0.0002	0.9998	99.20
6.5	2,421,113	1,602	0.0007	0.9993	99.19
7.5	440,170	1,295	0.0029	0.9971	99.12
8.5	439,161	156	0.0004	0.9996	98.83
9.5	439,118	82	0.0002	0.9998	98.79
10.5	439,091	59	0.0001	0.9999	98.77
11.5	439,040		0.0000	1.0000	98.76
12.5	438,120		0.0000	1.0000	98.76
13.5	438,571	319	0.0007	0.9993	98.76
14.5	438,030	98	0.0002	0.9998	98.69
15.5	437,313	163	0.0004	0.9996	98.67
16.5	437,035	120	0.0003	0.9997	98.63
17.5	436,956	376	0.0009	0.9991	98.60
18.5	126,373	229	0.0018	0.9982	98.52
19.5	126,280	53	0.0004	0.9996	98.34
20.5	126,227	357	0.0028	0.9972	98.30
21.5	125,870	53	0.0004	0.9996	98.02
22.5	124,552	51	0.0004	0.9996	97.98
23.5	124,501		0.0000	1.0000	97.94
24.5	124,501	85	0.0007	0.9993	97.94
25.5	124,415		0.0000	1.0000	97.87
26.5	124,438		0.0000	1.0000	97.87
27.5	124,438	23	0.0002	0.9998	97.87
28.5	124,415	85	0.0007	0.9993	97.85
29.5	124,330	6	0.0000	1.0000	97.79
30.5	124,324	42	0.0003	0.9997	97.78
31.5	124,282		0.0000	1.0000	97.75
32.5	124,568	3	0.0000	1.0000	97.75
33.5	124,574	9	0.0001	0.9999	97.75
34.5	122,506		0.0000	1.0000	97.74
35.5	122,506		0.0000	1.0000	97.74
36.5	122,506	19	0.0002	0.9998	97.74
37.5	122,487	45	0.0004	0.9996	97.73
38.5	122,442	74	0.0006	0.9994	97.69

DUKE ENERGY KENTUCKY

ACCOUNT 3691 SERVICES - UNDERGROUND

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1922-2021			EXPERIENCE BAND 1956-2021			
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	122,368	182	0.0015	0.9985	97.63	
40.5	122,186		0.0000	1.0000	97.49	
41.5	122,186		0.0000	1.0000	97.49	
42.5	122,186		0.0000	1.0000	97.49	
43.5	122,186		0.0000	1.0000	97.49	
44.5	121,316	42	0.0003	0.9997	97.49	
45.5	120,746		0.0000	1.0000	97.45	
46.5	120,264	57	0.0005	0.9995	97.45	
47.5	120,207		0.0000	1.0000	97.41	
48.5	119,432		0.0000	1.0000	97.41	
49.5	118,804		0.0000	1.0000	97.41	
50.5	115,334		0.0000	1.0000	97.41	
51.5	104,256		0.0000	1.0000	97.41	
52.5	87,748	85	0.0010	0.9990	97.41	
53.5	81,294	0	0.0000	1.0000	97.31	
54.5	72,698		0.0000	1.0000	97.31	
55.5	61,883		0.0000	1.0000	97.31	
56.5	56,880		0.0000	1.0000	97.31	
57.5	49,390		0.0000	1.0000	97.31	
58.5	39,566		0.0000	1.0000	97.31	
59.5	35,515		0.0000	1.0000	97.31	
60.5	30,520		0.0000	1.0000	97.31	
61.5	28,772		0.0000	1.0000	97.31	
62.5	26,556		0.0000	1.0000	97.31	
63.5	22,165	0	0.0000	1.0000	97.31	
64.5	20,422		0.0000	1.0000	97.31	
65.5	15,169		0.0000	1.0000	97.31	
66.5	9,481		0.0000	1.0000	97.31	
67.5	9,478	1	0.0001	0.9999	97.31	
68.5	7,380		0.0000	1.0000	97.30	
69.5	7,218		0.0000	1.0000	97.30	
70.5	6,255		0.0000	1.0000	97.30	
71.5	3,532		0.0000	1.0000	97.30	
72.5	2,821		0.0000	1.0000	97.30	
73.5	2,788		0.0000	1.0000	97.30	
74.5	2,787		0.0000	1.0000	97.30	
75.5	2,674		0.0000	1.0000	97.30	
76.5	2,619		0.0000	1.0000	97.30	
77.5	2,611		0.0000	1.0000	97.30	
78.5	2,571		0.0000	1.0000	97.30	

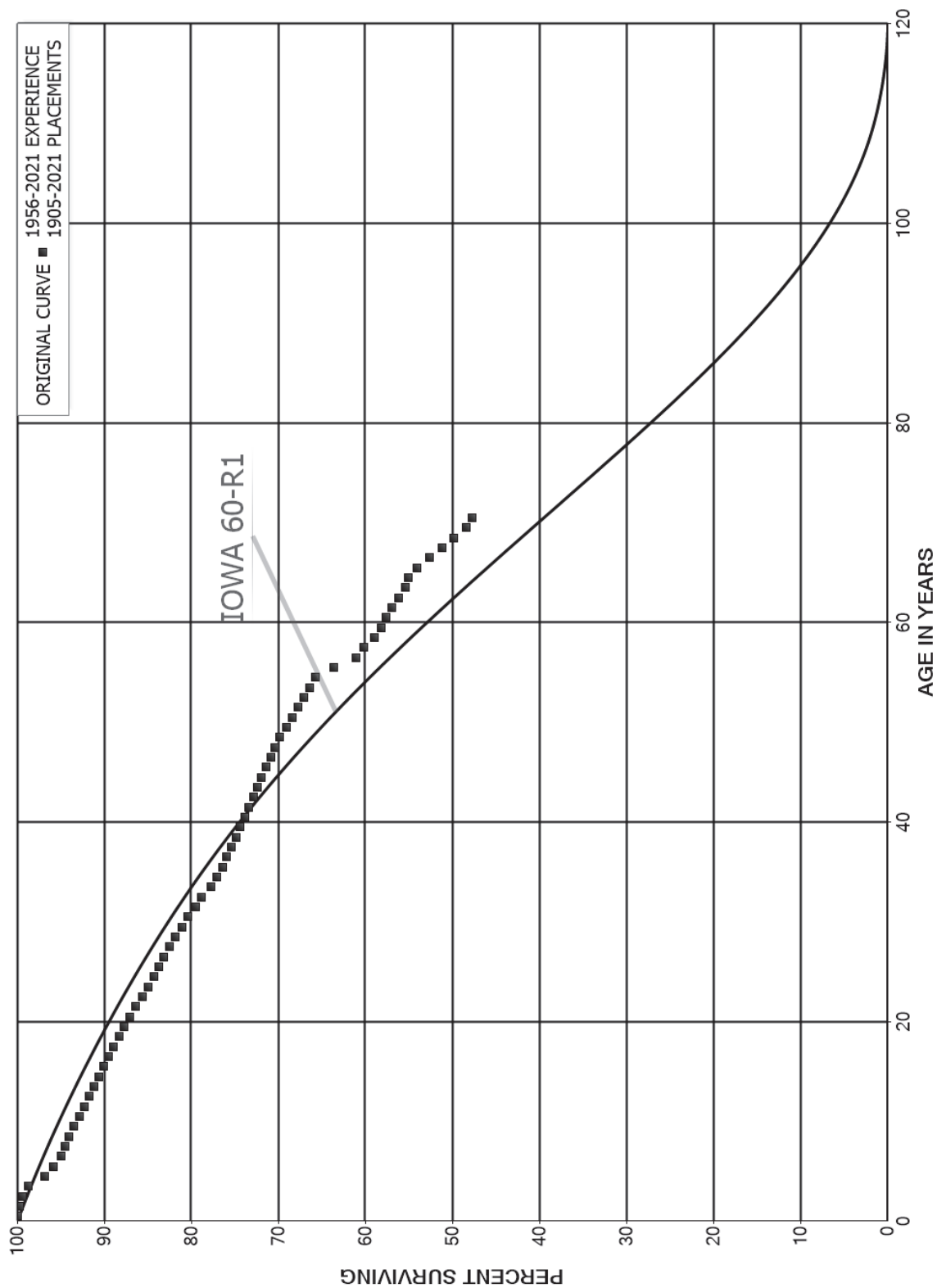
DUKE ENERGY KENTUCKY

ACCOUNT 3691 SERVICES - UNDERGROUND

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1922-2021			EXPERIENCE BAND 1956-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	2,491		0.0000	1.0000	97.30
80.5	2,430		0.0000	1.0000	97.30
81.5	2,388		0.0000	1.0000	97.30
82.5	2,388		0.0000	1.0000	97.30
83.5	2,103		0.0000	1.0000	97.30
84.5					97.30

DUKE ENERGY KENTUCKY
ACCOUNT 3692 SERVICES - OVERHEAD
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3692 SERVICES - OVERHEAD

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2021			EXPERIENCE BAND 1956-2021		
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	22,988,836	14,257	0.0006	0.9994	100.00
0.5	19,433,482	49,506	0.0025	0.9975	99.94
1.5	18,709,948	60,140	0.0032	0.9968	99.68
2.5	19,683,797	133,467	0.0068	0.9932	99.36
3.5	19,198,976	367,892	0.0192	0.9808	98.69
4.5	18,308,980	187,794	0.0103	0.9897	96.80
5.5	17,665,629	147,704	0.0084	0.9916	95.81
6.5	15,902,707	79,386	0.0050	0.9950	95.00
7.5	15,727,493	81,840	0.0052	0.9948	94.53
8.5	14,429,917	88,467	0.0061	0.9939	94.04
9.5	13,705,963	89,295	0.0065	0.9935	93.46
10.5	13,600,389	78,254	0.0058	0.9942	92.85
11.5	13,222,693	85,585	0.0065	0.9935	92.32
12.5	12,522,178	75,738	0.0060	0.9940	91.72
13.5	11,938,604	71,344	0.0060	0.9940	91.17
14.5	11,419,083	68,456	0.0060	0.9940	90.62
15.5	10,809,015	66,449	0.0061	0.9939	90.08
16.5	10,471,954	68,663	0.0066	0.9934	89.52
17.5	10,269,003	71,522	0.0070	0.9930	88.94
18.5	9,271,178	64,882	0.0070	0.9930	88.32
19.5	9,206,312	68,882	0.0075	0.9925	87.70
20.5	9,134,168	72,522	0.0079	0.9921	87.04
21.5	8,551,689	69,794	0.0082	0.9918	86.35
22.5	8,276,291	63,212	0.0076	0.9924	85.65
23.5	7,963,200	63,845	0.0080	0.9920	84.99
24.5	7,614,962	53,075	0.0070	0.9930	84.31
25.5	7,161,261	49,632	0.0069	0.9931	83.72
26.5	6,823,372	54,248	0.0080	0.9920	83.14
27.5	6,509,888	52,949	0.0081	0.9919	82.48
28.5	6,167,901	53,018	0.0086	0.9914	81.81
29.5	5,821,036	55,140	0.0095	0.9905	81.11
30.5	5,623,838	55,843	0.0099	0.9901	80.34
31.5	5,329,106	46,500	0.0087	0.9913	79.54
32.5	5,037,339	69,442	0.0138	0.9862	78.85
33.5	4,706,432	44,087	0.0094	0.9906	77.76
34.5	4,376,367	34,126	0.0078	0.9922	77.03
35.5	4,059,324	27,595	0.0068	0.9932	76.43
36.5	3,782,958	26,812	0.0071	0.9929	75.91
37.5	3,452,492	23,788	0.0069	0.9931	75.38
38.5	3,214,076	20,715	0.0064	0.9936	74.86

DUKE ENERGY KENTUCKY

ACCOUNT 3692 SERVICES - OVERHEAD

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2021			EXPERIENCE BAND 1956-2021		
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	2,980,170	20,199	0.0068	0.9932	74.37
40.5	2,717,102	19,291	0.0071	0.9929	73.87
41.5	2,497,904	16,721	0.0067	0.9933	73.34
42.5	2,281,783	14,413	0.0063	0.9937	72.85
43.5	2,068,578	13,497	0.0065	0.9935	72.39
44.5	1,888,633	13,101	0.0069	0.9931	71.92
45.5	1,725,340	13,363	0.0077	0.9923	71.42
46.5	1,555,791	11,256	0.0072	0.9928	70.87
47.5	1,388,408	9,597	0.0069	0.9931	70.36
48.5	1,269,863	13,930	0.0110	0.9890	69.87
49.5	1,141,897	11,089	0.0097	0.9903	69.10
50.5	1,021,130	10,152	0.0099	0.9901	68.43
51.5	925,960	9,132	0.0099	0.9901	67.75
52.5	832,163	8,573	0.0103	0.9897	67.08
53.5	758,825	8,230	0.0108	0.9892	66.39
54.5	675,410	21,383	0.0317	0.9683	65.67
55.5	591,773	23,074	0.0390	0.9610	63.59
56.5	512,315	7,461	0.0146	0.9854	61.11
57.5	455,178	9,234	0.0203	0.9797	60.22
58.5	397,634	5,267	0.0132	0.9868	59.00
59.5	343,687	3,705	0.0108	0.9892	58.22
60.5	288,873	2,969	0.0103	0.9897	57.59
61.5	237,675	3,286	0.0138	0.9862	57.00
62.5	193,615	2,885	0.0149	0.9851	56.21
63.5	156,059	794	0.0051	0.9949	55.38
64.5	127,531	2,459	0.0193	0.9807	55.09
65.5	106,159	2,722	0.0256	0.9744	54.03
66.5	102,921	2,808	0.0273	0.9727	52.65
67.5	92,260	2,453	0.0266	0.9734	51.21
68.5	81,110	2,313	0.0285	0.9715	49.85
69.5	69,607	1,087	0.0156	0.9844	48.43
70.5	62,303	913	0.0147	0.9853	47.67
71.5	54,598	168	0.0031	0.9969	46.97
72.5	48,780	228	0.0047	0.9953	46.83
73.5	43,873	162	0.0037	0.9963	46.61
74.5	40,418	242	0.0060	0.9940	46.44
75.5	37,918	1,005	0.0265	0.9735	46.16
76.5	35,862	149	0.0042	0.9958	44.94
77.5	34,743	311	0.0089	0.9911	44.75
78.5	33,429	977	0.0292	0.9708	44.35

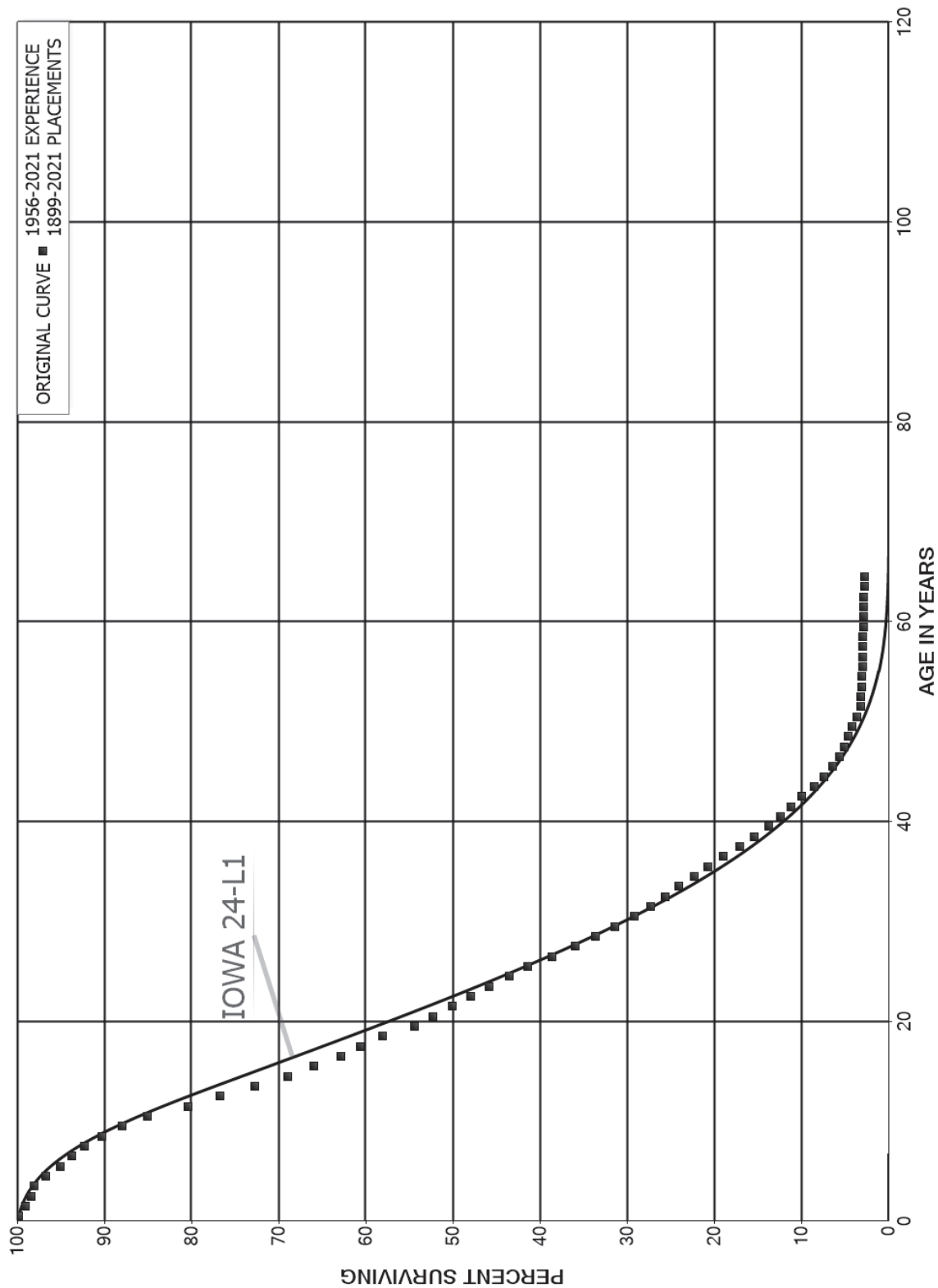
DUKE ENERGY KENTUCKY

ACCOUNT 3692 SERVICES - OVERHEAD

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2021			EXPERIENCE BAND 1956-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	31,725	977	0.0308	0.9692	43.05	
80.5	29,330	334	0.0114	0.9886	41.73	
81.5	27,777	368	0.0132	0.9868	41.25	
82.5	26,245	359	0.0137	0.9863	40.71	
83.5	25,373	207	0.0081	0.9919	40.15	
84.5	25,166		0.0000	1.0000	39.82	
85.5	25,166	138	0.0055	0.9945	39.82	
86.5	25,029	44	0.0018	0.9982	39.60	
87.5	24,985	56	0.0023	0.9977	39.54	
88.5	24,928	5,211	0.2090	0.7910	39.45	
89.5	19,718	895	0.0454	0.9546	31.20	
90.5	18,823	1,282	0.0681	0.9319	29.79	
91.5	17,541	1,095	0.0624	0.9376	27.76	
92.5	16,446	757	0.0460	0.9540	26.02	
93.5	15,689	982	0.0626	0.9374	24.83	
94.5	14,707	726	0.0493	0.9507	23.27	
95.5	13,982	715	0.0511	0.9489	22.12	
96.5					20.99	

DUKE ENERGY KENTUCKY
ACCOUNT 3700 METERS AND METERING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3700 METERS AND METERING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1899-2021

EXPERIENCE BAND 1956-2021

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	23,484,177	47,056	0.0020	0.9980	100.00
0.5	23,307,289	166,768	0.0072	0.9928	99.80
1.5	23,101,676	148,502	0.0064	0.9936	99.09
2.5	22,617,251	93,805	0.0041	0.9959	98.45
3.5	22,535,204	307,701	0.0137	0.9863	98.04
4.5	22,381,583	375,863	0.0168	0.9832	96.70
5.5	21,905,900	323,625	0.0148	0.9852	95.08
6.5	21,043,447	323,673	0.0154	0.9846	93.67
7.5	20,194,531	418,206	0.0207	0.9793	92.23
8.5	22,085,881	583,765	0.0264	0.9736	90.32
9.5	21,458,882	689,370	0.0321	0.9679	87.93
10.5	18,133,282	1,014,244	0.0559	0.9441	85.11
11.5	17,027,754	757,522	0.0445	0.9555	80.35
12.5	16,218,795	860,370	0.0530	0.9470	76.77
13.5	15,004,166	775,054	0.0517	0.9483	72.70
14.5	13,714,568	604,525	0.0441	0.9559	68.95
15.5	12,856,782	599,424	0.0466	0.9534	65.91
16.5	12,001,448	422,669	0.0352	0.9648	62.83
17.5	11,346,136	485,091	0.0428	0.9572	60.62
18.5	10,519,896	663,404	0.0631	0.9369	58.03
19.5	9,833,280	370,148	0.0376	0.9624	54.37
20.5	8,884,980	378,118	0.0426	0.9574	52.32
21.5	7,923,324	338,548	0.0427	0.9573	50.10
22.5	7,375,386	333,622	0.0452	0.9548	47.96
23.5	6,810,280	332,998	0.0489	0.9511	45.79
24.5	6,250,387	306,157	0.0490	0.9510	43.55
25.5	5,681,259	379,167	0.0667	0.9333	41.42
26.5	5,071,029	353,564	0.0697	0.9303	38.65
27.5	4,506,903	291,147	0.0646	0.9354	35.96
28.5	4,001,965	271,183	0.0678	0.9322	33.63
29.5	3,568,060	243,384	0.0682	0.9318	31.35
30.5	3,204,116	213,509	0.0666	0.9334	29.22
31.5	2,870,961	175,641	0.0612	0.9388	27.27
32.5	2,635,020	158,208	0.0600	0.9400	25.60
33.5	2,427,981	178,117	0.0734	0.9266	24.06
34.5	2,193,381	153,226	0.0699	0.9301	22.30
35.5	1,969,041	166,021	0.0843	0.9157	20.74
36.5	1,746,705	174,065	0.0997	0.9003	18.99
37.5	1,528,165	156,713	0.1025	0.8975	17.10
38.5	1,316,473	139,413	0.1059	0.8941	15.35

DUKE ENERGY KENTUCKY

ACCOUNT 3700 METERS AND METERING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1899-2021			EXPERIENCE BAND 1956-2021		
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	1,144,425	114,508	0.1001	0.8999	13.72
40.5	998,161	94,098	0.0943	0.9057	12.35
41.5	865,719	97,534	0.1127	0.8873	11.18
42.5	747,272	108,675	0.1454	0.8546	9.92
43.5	625,479	82,921	0.1326	0.8674	8.48
44.5	528,923	67,334	0.1273	0.8727	7.36
45.5	454,223	53,336	0.1174	0.8826	6.42
46.5	395,117	38,076	0.0964	0.9036	5.67
47.5	335,618	32,295	0.0962	0.9038	5.12
48.5	291,106	30,549	0.1049	0.8951	4.63
49.5	245,688	32,082	0.1306	0.8694	4.14
50.5	205,522	23,387	0.1138	0.8862	3.60
51.5	173,397	3,841	0.0221	0.9779	3.19
52.5	158,231	2,960	0.0187	0.9813	3.12
53.5	142,016	1,670	0.0118	0.9882	3.06
54.5	132,657	1,152	0.0087	0.9913	3.03
55.5	121,783	839	0.0069	0.9931	3.00
56.5	118,844	1,725	0.0145	0.9855	2.98
57.5	110,753	872	0.0079	0.9921	2.94
58.5	105,173	1,129	0.0107	0.9893	2.91
59.5	99,048	734	0.0074	0.9926	2.88
60.5	90,413	1,134	0.0125	0.9875	2.86
61.5	81,726	1,247	0.0153	0.9847	2.82
62.5	75,130	1,157	0.0154	0.9846	2.78
63.5	69,678	614	0.0088	0.9912	2.74
64.5	59,117	193	0.0033	0.9967	2.71
65.5	53,477	295	0.0055	0.9945	2.71
66.5	49,222	274	0.0056	0.9944	2.69
67.5	45,716	124	0.0027	0.9973	2.68
68.5	39,131	315	0.0081	0.9919	2.67
69.5	33,775	315	0.0093	0.9907	2.65
70.5	31,443	1,280	0.0407	0.9593	2.62
71.5	26,848	582	0.0217	0.9783	2.52
72.5	24,220	17	0.0007	0.9993	2.46
73.5	21,191	9	0.0004	0.9996	2.46
74.5	16,892	35	0.0020	0.9980	2.46
75.5	16,037		0.0000	1.0000	2.45
76.5	15,763		0.0000	1.0000	2.45
77.5	15,324		0.0000	1.0000	2.45
78.5	15,119		0.0000	1.0000	2.45

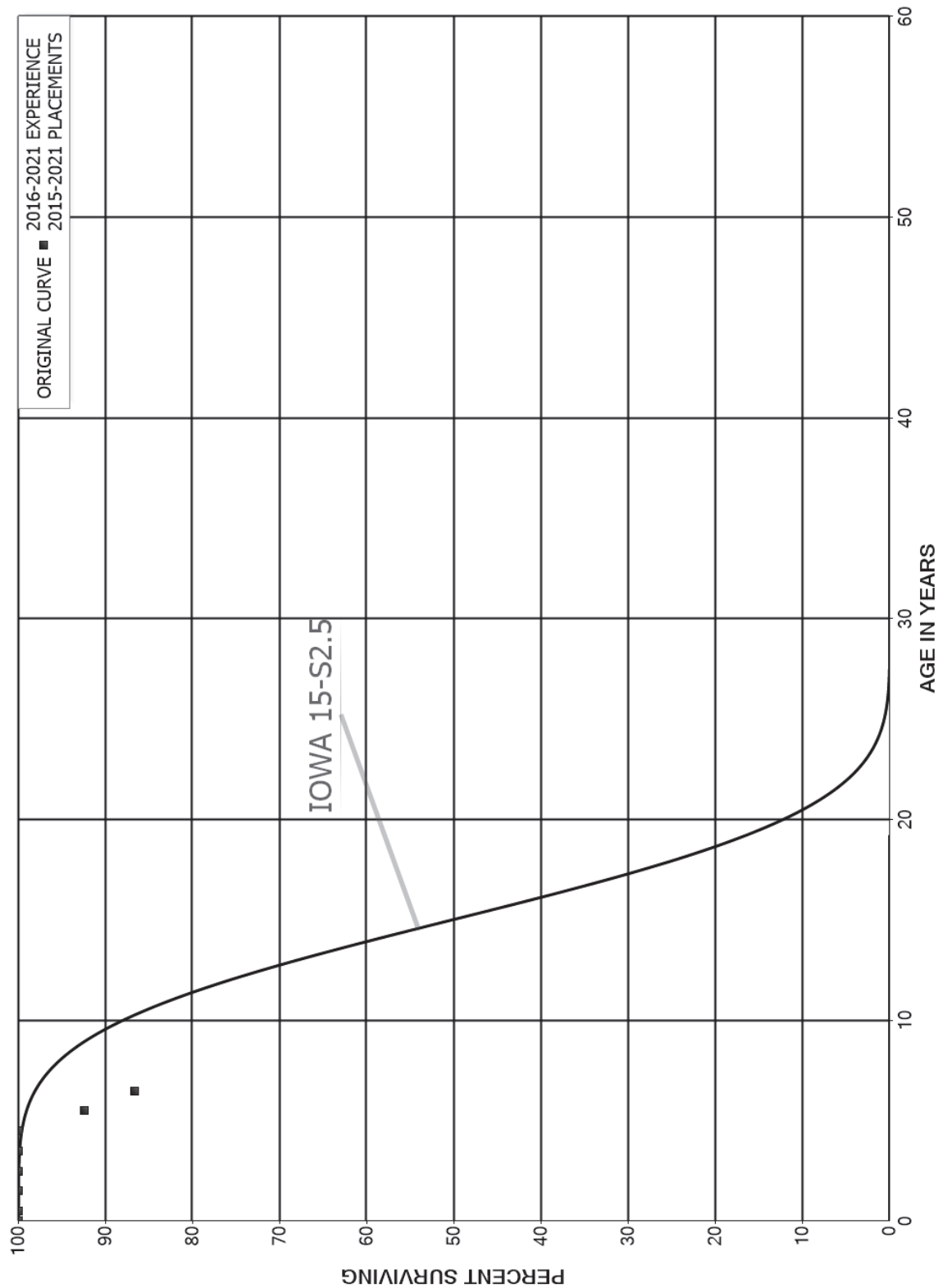
DUKE ENERGY KENTUCKY

ACCOUNT 3700 METERS AND METERING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1899-2021			EXPERIENCE BAND 1956-2021			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	13,846	30	0.0022	0.9978	2.45	
80.5	11,699		0.0000	1.0000	2.45	
81.5	10,940		0.0000	1.0000	2.45	
82.5	9,753	33	0.0034	0.9966	2.45	
83.5	9,561		0.0000	1.0000	2.44	
84.5	8,246		0.0000	1.0000	2.44	
85.5	7,347		0.0000	1.0000	2.44	
86.5	7,106		0.0000	1.0000	2.44	
87.5	6,756		0.0000	1.0000	2.44	
88.5	6,730		0.0000	1.0000	2.44	
89.5	6,730		0.0000	1.0000	2.44	
90.5	5,893		0.0000	1.0000	2.44	
91.5	5,191		0.0000	1.0000	2.44	
92.5	3,711		0.0000	1.0000	2.44	
93.5	2,952		0.0000	1.0000	2.44	
94.5	2,036		0.0000	1.0000	2.44	
95.5	1,642		0.0000	1.0000	2.44	
96.5	1,046		0.0000	1.0000	2.44	
97.5	708		0.0000	1.0000	2.44	
98.5	304		0.0000	1.0000	2.44	
99.5	158		0.0000	1.0000	2.44	
100.5	125		0.0000	1.0000	2.44	
101.5					2.44	

DUKE ENERGY KENTUCKY
ACCOUNT 3702 UoF METERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



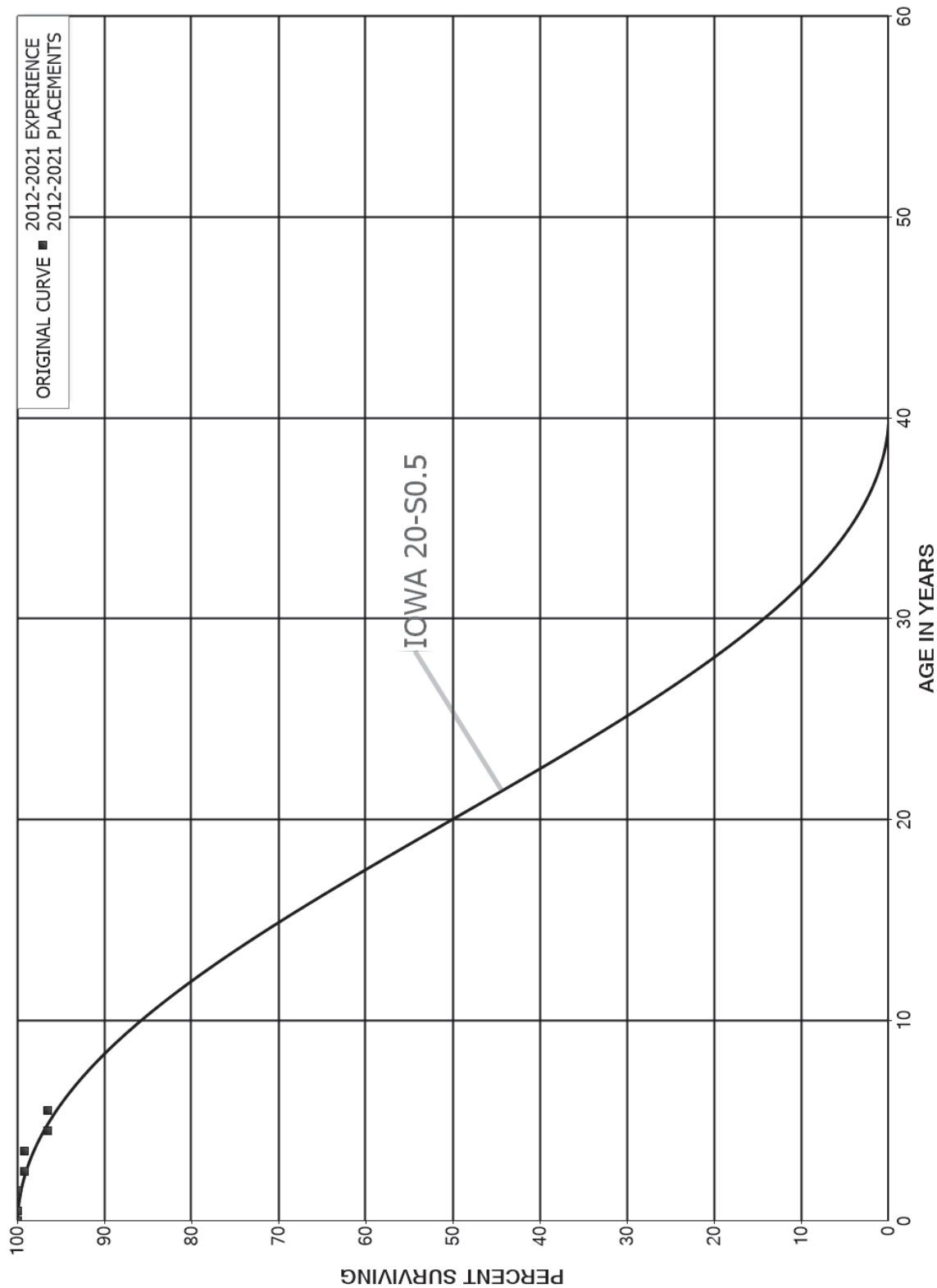
DUKE ENERGY KENTUCKY

ACCOUNT 3702 UoF METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2015-2021			EXPERIENCE BAND 2016-2021		
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	25,448,878		0.0000	1.0000	100.00
0.5	25,131,585		0.0000	1.0000	100.00
1.5	25,058,490		0.0000	1.0000	100.00
2.5	511,283		0.0000	1.0000	100.00
3.5	510,419		0.0000	1.0000	100.00
4.5	510,419	38,889	0.0762	0.9238	100.00
5.5	208,337	12,963	0.0622	0.9378	92.38
6.5					86.63

DUKE ENERGY KENTUCKY
ACCOUNT 3711 INSTALLATIONS ON CUSTOMERS' PREMISES - AREA LIGHTING
ORIGINAL AND SMOOTH SURVIVOR CURVES



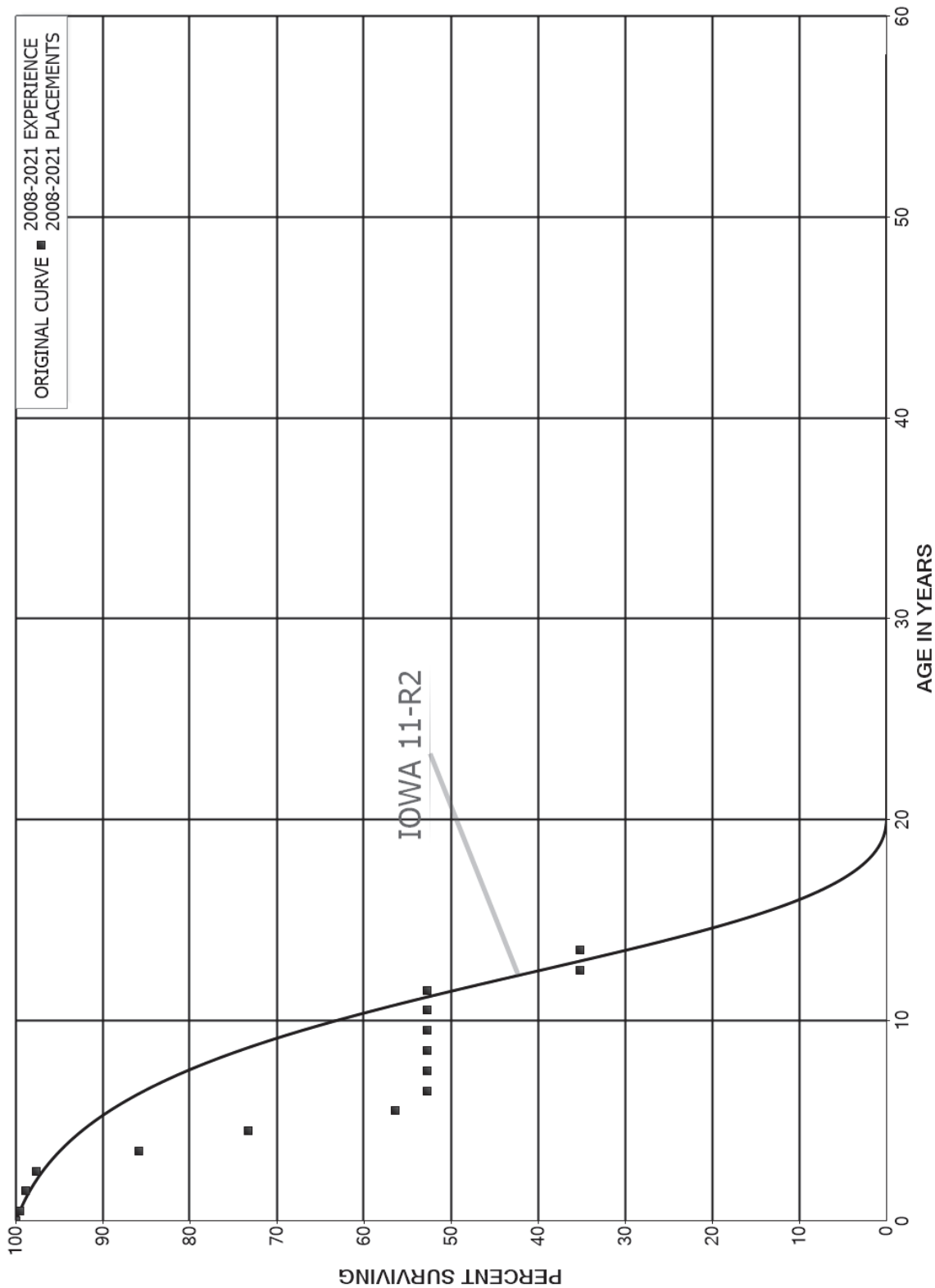
DUKE ENERGY KENTUCKY

ACCOUNT 3711 INSTALLATIONS ON CUSTOMERS' PREMISES - AREA LIGHTING

ORIGINAL LIFE TABLE

PLACEMENT BAND 2012-2021			EXPERIENCE BAND 2012-2021		
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	181,546		0.0000	1.0000	100.00
0.5	167,757		0.0000	1.0000	100.00
1.5	151,778	1,222	0.0080	0.9920	100.00
2.5	98,501		0.0000	1.0000	99.20
3.5	71,758	1,943	0.0271	0.9729	99.20
4.5	0		0.0000	1.0000	96.51
5.5					96.51

DUKE ENERGY KENTUCKY
ACCOUNT 3712 COMPANY-OWNED OUTDOOR LIGHTING
ORIGINAL AND SMOOTH SURVIVOR CURVES



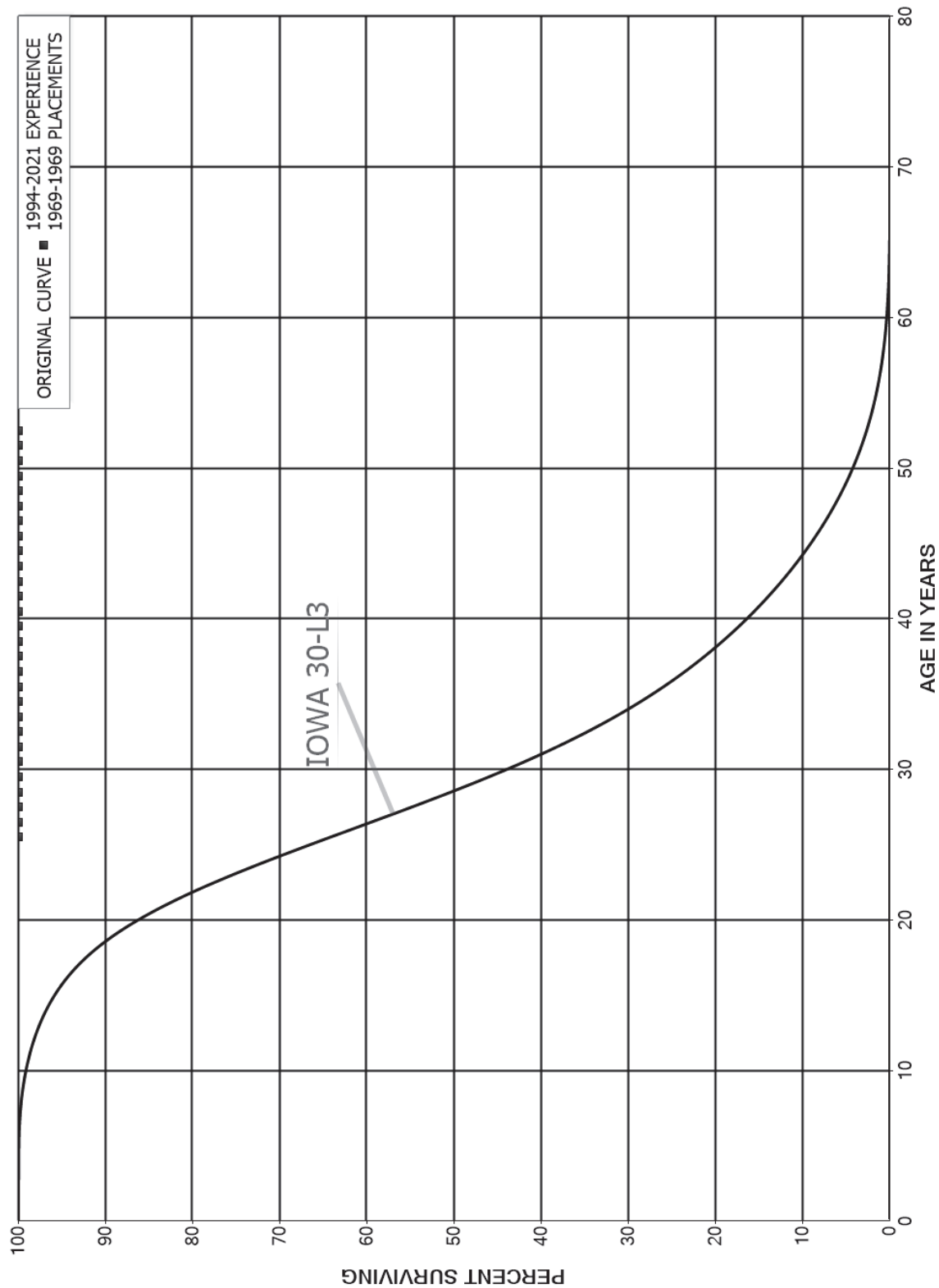
DUKE ENERGY KENTUCKY

ACCOUNT 3712 COMPANY-OWNED OUTDOOR LIGHTING

ORIGINAL LIFE TABLE

PLACEMENT BAND 2008-2021			EXPERIENCE BAND 2008-2021		
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	962,912	5,104	0.0053	0.9947	100.00
0.5	758,069	4,549	0.0060	0.9940	99.47
1.5	533,651	7,076	0.0133	0.9867	98.87
2.5	381,670	45,792	0.1200	0.8800	97.56
3.5	320,625	47,040	0.1467	0.8533	85.86
4.5	310,295	71,665	0.2310	0.7690	73.26
5.5	102,750	6,613	0.0644	0.9356	56.34
6.5	813		0.0000	1.0000	52.71
7.5	813		0.0000	1.0000	52.71
8.5	813		0.0000	1.0000	52.71
9.5	813		0.0000	1.0000	52.71
10.5	813		0.0000	1.0000	52.71
11.5	813	271	0.3333	0.6667	52.71
12.5	542		0.0000	1.0000	35.14
13.5					35.14

DUKE ENERGY KENTUCKY
ACCOUNT 3720 LEASED PROPERTY ON CUSTOMERS' PREMISES
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3720 LEASED PROPERTY ON CUSTOMERS' PREMISES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1969-1969			EXPERIENCE BAND 1994-2021		
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					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5	9,647		0.0000	1.0000	100.00
26.5	9,647		0.0000	1.0000	100.00
27.5	9,647		0.0000	1.0000	100.00
28.5	9,647		0.0000	1.0000	100.00
29.5	9,647		0.0000	1.0000	100.00
30.5	9,647		0.0000	1.0000	100.00
31.5	9,647		0.0000	1.0000	100.00
32.5	9,647		0.0000	1.0000	100.00
33.5	9,647		0.0000	1.0000	100.00
34.5	9,647		0.0000	1.0000	100.00
35.5	9,647		0.0000	1.0000	100.00
36.5	9,647		0.0000	1.0000	100.00
37.5	9,647		0.0000	1.0000	100.00
38.5	9,647		0.0000	1.0000	100.00

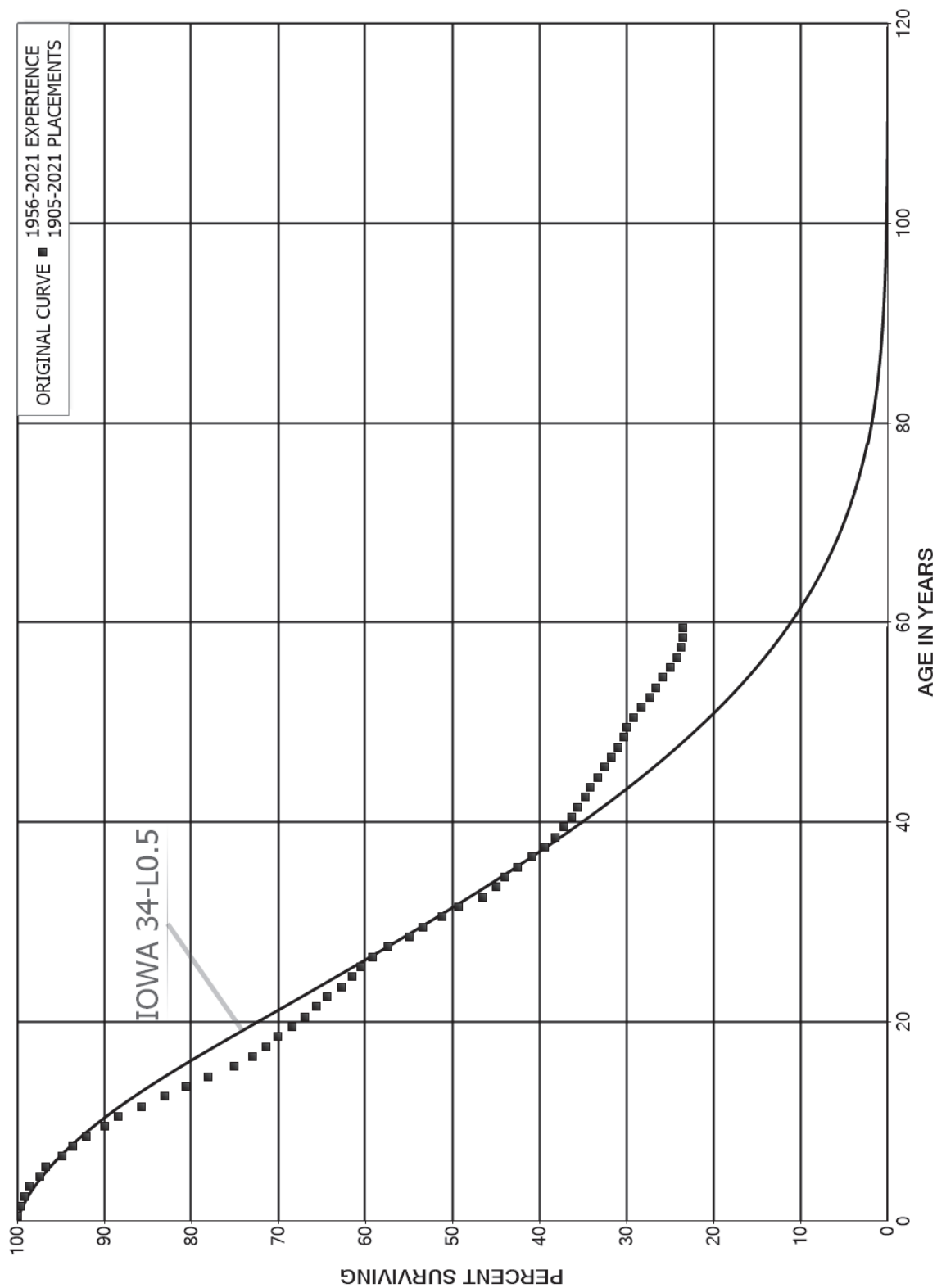
DUKE ENERGY KENTUCKY

ACCOUNT 3720 LEASED PROPERTY ON CUSTOMERS' PREMISES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1969-1969			EXPERIENCE BAND 1994-2021		
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	9,647		0.0000	1.0000	100.00
40.5	9,647		0.0000	1.0000	100.00
41.5	9,647		0.0000	1.0000	100.00
42.5	9,647		0.0000	1.0000	100.00
43.5	9,647		0.0000	1.0000	100.00
44.5	9,647		0.0000	1.0000	100.00
45.5	9,647		0.0000	1.0000	100.00
46.5	9,647		0.0000	1.0000	100.00
47.5	9,647		0.0000	1.0000	100.00
48.5	9,647		0.0000	1.0000	100.00
49.5	9,647		0.0000	1.0000	100.00
50.5	9,647		0.0000	1.0000	100.00
51.5	9,647		0.0000	1.0000	100.00
52.5					100.00

DUKE ENERGY KENTUCKY
ACCOUNT 3731 STREET LIGHTING - OVERHEAD
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3731 STREET LIGHTING - OVERHEAD

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2021			EXPERIENCE BAND 1956-2021			
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	5,496,142	3,439	0.0006	0.9994	100.00	
0.5	5,462,009	19,678	0.0036	0.9964	99.94	
1.5	5,415,892	20,946	0.0039	0.9961	99.58	
2.5	5,076,163	30,965	0.0061	0.9939	99.19	
3.5	5,045,219	58,580	0.0116	0.9884	98.59	
4.5	4,559,930	32,808	0.0072	0.9928	97.44	
5.5	4,525,283	90,515	0.0200	0.9800	96.74	
6.5	4,154,543	50,973	0.0123	0.9877	94.81	
7.5	4,115,548	68,926	0.0167	0.9833	93.64	
8.5	4,060,934	95,920	0.0236	0.9764	92.07	
9.5	3,939,750	67,778	0.0172	0.9828	89.90	
10.5	3,877,574	113,239	0.0292	0.9708	88.35	
11.5	3,759,403	119,850	0.0319	0.9681	85.77	
12.5	3,608,597	105,943	0.0294	0.9706	83.04	
13.5	3,502,672	108,714	0.0310	0.9690	80.60	
14.5	3,348,244	130,577	0.0390	0.9610	78.10	
15.5	3,190,820	88,546	0.0278	0.9722	75.05	
16.5	3,054,177	66,939	0.0219	0.9781	72.97	
17.5	2,873,507	53,307	0.0186	0.9814	71.37	
18.5	2,820,200	68,103	0.0241	0.9759	70.05	
19.5	2,748,079	54,892	0.0200	0.9800	68.36	
20.5	2,665,144	54,886	0.0206	0.9794	66.99	
21.5	2,510,917	45,364	0.0181	0.9819	65.61	
22.5	2,320,808	59,794	0.0258	0.9742	64.43	
23.5	2,154,506	41,465	0.0192	0.9808	62.77	
24.5	2,032,248	34,857	0.0172	0.9828	61.56	
25.5	1,951,855	44,353	0.0227	0.9773	60.50	
26.5	1,845,120	52,604	0.0285	0.9715	59.13	
27.5	1,725,230	74,208	0.0430	0.9570	57.44	
28.5	1,578,559	45,108	0.0286	0.9714	54.97	
29.5	1,496,105	62,901	0.0420	0.9580	53.40	
30.5	1,429,557	51,550	0.0361	0.9639	51.15	
31.5	1,339,900	75,915	0.0567	0.9433	49.31	
32.5	1,200,836	38,936	0.0324	0.9676	46.52	
33.5	1,139,565	25,950	0.0228	0.9772	45.01	
34.5	1,097,667	36,662	0.0334	0.9666	43.98	
35.5	1,029,460	41,260	0.0401	0.9599	42.51	
36.5	944,859	31,947	0.0338	0.9662	40.81	
37.5	900,436	29,632	0.0329	0.9671	39.43	
38.5	858,366	21,728	0.0253	0.9747	38.13	

DUKE ENERGY KENTUCKY

ACCOUNT 3731 STREET LIGHTING - OVERHEAD

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2021			EXPERIENCE BAND 1956-2021		
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	824,905	19,627	0.0238	0.9762	37.17
40.5	784,833	15,104	0.0192	0.9808	36.28
41.5	728,979	17,202	0.0236	0.9764	35.58
42.5	681,052	11,894	0.0175	0.9825	34.75
43.5	650,002	15,845	0.0244	0.9756	34.14
44.5	621,065	14,252	0.0229	0.9771	33.31
45.5	598,300	15,655	0.0262	0.9738	32.54
46.5	561,810	12,539	0.0223	0.9777	31.69
47.5	532,142	11,072	0.0208	0.9792	30.98
48.5	478,070	6,006	0.0126	0.9874	30.34
49.5	435,206	10,690	0.0246	0.9754	29.96
50.5	376,718	12,173	0.0323	0.9677	29.22
51.5	314,661	11,226	0.0357	0.9643	28.28
52.5	253,654	5,919	0.0233	0.9767	27.27
53.5	235,002	7,103	0.0302	0.9698	26.63
54.5	202,488	6,522	0.0322	0.9678	25.83
55.5	156,142	4,878	0.0312	0.9688	25.00
56.5	104,842	1,976	0.0188	0.9812	24.21
57.5	85,943	807	0.0094	0.9906	23.76
58.5	64,750	19	0.0003	0.9997	23.54
59.5	44,398	282	0.0064	0.9936	23.53
60.5	25,112	138	0.0055	0.9945	23.38
61.5	17,271	28	0.0016	0.9984	23.25
62.5	12,756	435	0.0341	0.9659	23.21
63.5	11,142		0.0000	1.0000	22.42
64.5	10,603	648	0.0611	0.9389	22.42
65.5	8,620	348	0.0404	0.9596	21.05
66.5	7,848	249	0.0317	0.9683	20.20
67.5	7,426	178	0.0239	0.9761	19.56
68.5	6,984	248	0.0355	0.9645	19.09
69.5	6,425	11	0.0017	0.9983	18.41
70.5	6,269	2	0.0003	0.9997	18.38
71.5	6,211	346	0.0557	0.9443	18.38
72.5	5,660		0.0000	1.0000	17.35
73.5	5,566		0.0000	1.0000	17.35
74.5	4,277	38	0.0089	0.9911	17.35
75.5	4,137	544	0.1314	0.8686	17.20
76.5	3,517	2	0.0005	0.9995	14.94
77.5	3,494		0.0000	1.0000	14.93
78.5	3,484		0.0000	1.0000	14.93

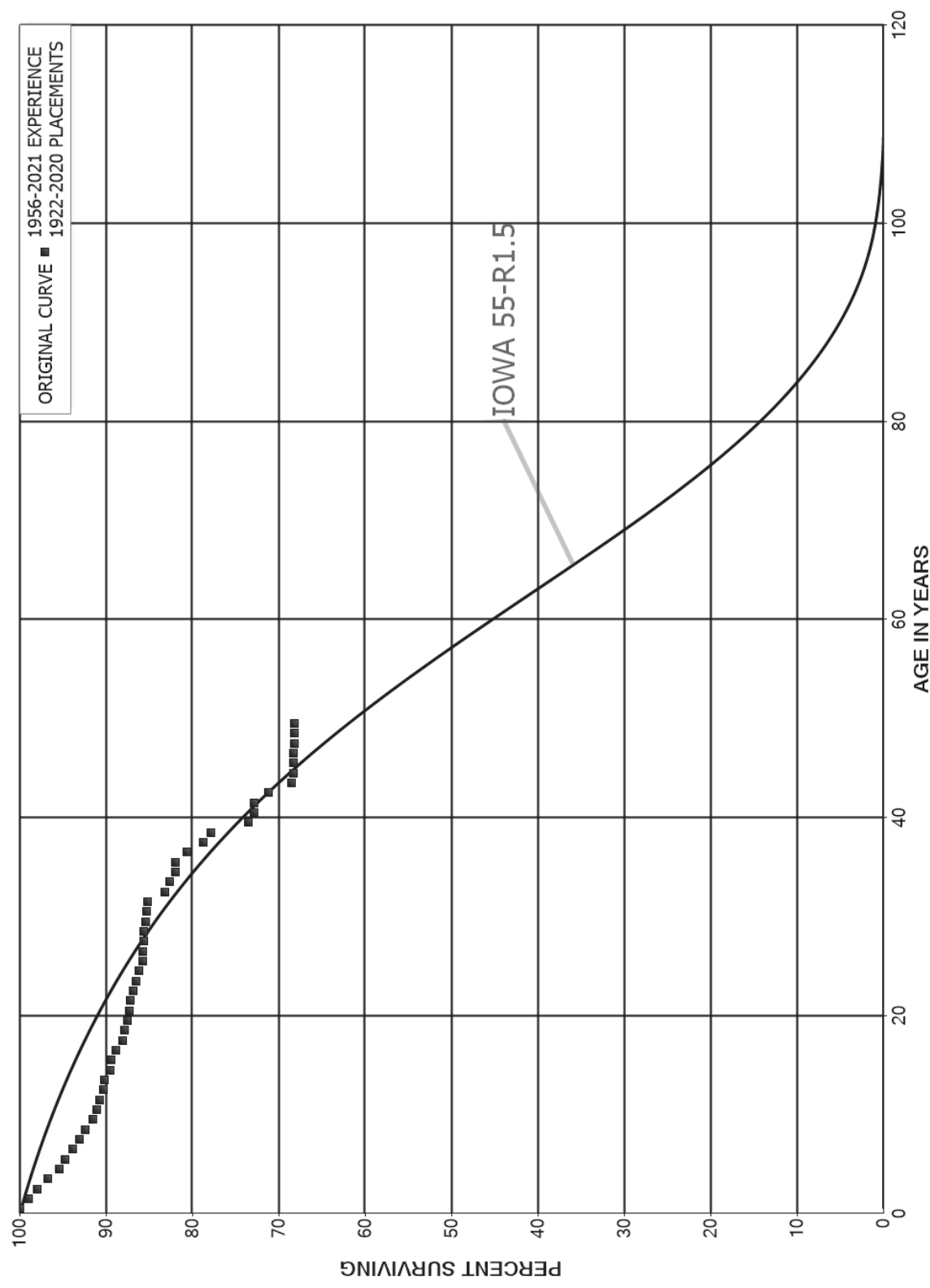
DUKE ENERGY KENTUCKY

ACCOUNT 3731 STREET LIGHTING - OVERHEAD

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2021			EXPERIENCE BAND 1956-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	3,459		0.0000	1.0000	14.93
80.5	3,080		0.0000	1.0000	14.93
81.5	2,965		0.0000	1.0000	14.93
82.5	2,939		0.0000	1.0000	14.93
83.5	2,768	24	0.0088	0.9912	14.93
84.5	2,744		0.0000	1.0000	14.80
85.5	2,744		0.0000	1.0000	14.80
86.5	2,744		0.0000	1.0000	14.80
87.5	2,744		0.0000	1.0000	14.80
88.5	2,744		0.0000	1.0000	14.80
89.5	2,744	156	0.0567	0.9433	14.80
90.5	2,588	556	0.2150	0.7850	13.96
91.5	2,032	65	0.0319	0.9681	10.96
92.5	1,967		0.0000	1.0000	10.61
93.5	1,967		0.0000	1.0000	10.61
94.5	1,964		0.0000	1.0000	10.61
95.5	1,964		0.0000	1.0000	10.61
96.5	79		0.0000	1.0000	10.61
97.5	79		0.0000	1.0000	10.61
98.5	79		0.0000	1.0000	10.61
99.5	79		0.0000	1.0000	10.61
100.5	79		0.0000	1.0000	10.61
101.5	79		0.0000	1.0000	10.61
102.5	79		0.0000	1.0000	10.61
103.5	79		0.0000	1.0000	10.61
104.5	79		0.0000	1.0000	10.61
105.5	79		0.0000	1.0000	10.61
106.5	79		0.0000	1.0000	10.61
107.5	79		0.0000	1.0000	10.61
108.5	79		0.0000	1.0000	10.61
109.5	79		0.0000	1.0000	10.61
110.5	79		0.0000	1.0000	10.61
111.5					10.61

DUKE ENERGY KENTUCKY
ACCOUNT 3732 STREET LIGHTING - BOULEVARD
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3732 STREET LIGHTING - BOULEVARD

ORIGINAL LIFE TABLE

PLACEMENT BAND 1922-2020			EXPERIENCE BAND 1956-2021		
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	3,544,374		0.0000	1.0000	100.00
0.5	3,529,753	37,981	0.0108	0.9892	100.00
1.5	3,509,488	32,481	0.0093	0.9907	98.92
2.5	3,475,412	45,238	0.0130	0.9870	98.01
3.5	3,439,330	48,647	0.0141	0.9859	96.73
4.5	3,637,131	24,760	0.0068	0.9932	95.36
5.5	3,613,011	32,820	0.0091	0.9909	94.72
6.5	3,580,191	29,254	0.0082	0.9918	93.85
7.5	3,550,937	27,082	0.0076	0.9924	93.09
8.5	3,523,935	33,170	0.0094	0.9906	92.38
9.5	3,465,720	18,029	0.0052	0.9948	91.51
10.5	3,448,110	12,193	0.0035	0.9965	91.03
11.5	3,402,539	15,473	0.0045	0.9955	90.71
12.5	3,332,081	2,703	0.0008	0.9992	90.30
13.5	3,329,479	24,624	0.0074	0.9926	90.22
14.5	3,266,454	6,565	0.0020	0.9980	89.56
15.5	3,059,432	19,123	0.0063	0.9937	89.38
16.5	2,677,039	24,337	0.0091	0.9909	88.82
17.5	2,266,229	5,151	0.0023	0.9977	88.01
18.5	2,261,226	7,580	0.0034	0.9966	87.81
19.5	2,221,640	5,292	0.0024	0.9976	87.52
20.5	2,203,147	4,667	0.0021	0.9979	87.31
21.5	2,063,180	7,078	0.0034	0.9966	87.12
22.5	1,428,593	4,466	0.0031	0.9969	86.82
23.5	1,280,043	5,340	0.0042	0.9958	86.55
24.5	1,139,464	5,783	0.0051	0.9949	86.19
25.5	1,034,277	365	0.0004	0.9996	85.75
26.5	927,462	632	0.0007	0.9993	85.72
27.5	840,354	381	0.0005	0.9995	85.67
28.5	768,140	2,385	0.0031	0.9969	85.63
29.5	659,357	592	0.0009	0.9991	85.36
30.5	611,642	825	0.0013	0.9987	85.28
31.5	478,850	11,149	0.0233	0.9767	85.17
32.5	383,308	2,639	0.0069	0.9931	83.19
33.5	310,222	2,394	0.0077	0.9923	82.61
34.5	249,662	166	0.0007	0.9993	81.98
35.5	228,434	3,653	0.0160	0.9840	81.92
36.5	186,687	4,418	0.0237	0.9763	80.61
37.5	169,392	1,816	0.0107	0.9893	78.70
38.5	165,168	9,291	0.0563	0.9437	77.86

DUKE ENERGY KENTUCKY

ACCOUNT 3732 STREET LIGHTING - BOULEVARD

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1922-2020			EXPERIENCE BAND 1956-2021		
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	145,092	1,257	0.0087	0.9913	73.48
40.5	131,047		0.0000	1.0000	72.84
41.5	114,321	2,668	0.0233	0.9767	72.84
42.5	98,432	3,704	0.0376	0.9624	71.14
43.5	79,973	159	0.0020	0.9980	68.47
44.5	72,094		0.0000	1.0000	68.33
45.5	64,767		0.0000	1.0000	68.33
46.5	60,249	124	0.0021	0.9979	68.33
47.5	41,524		0.0000	1.0000	68.19
48.5	27,899		0.0000	1.0000	68.19
49.5	26,317	370	0.0141	0.9859	68.19
50.5	25,947		0.0000	1.0000	67.23
51.5	25,546		0.0000	1.0000	67.23
52.5	25,546		0.0000	1.0000	67.23
53.5	25,546		0.0000	1.0000	67.23
54.5	25,546	2	0.0001	0.9999	67.23
55.5	25,545		0.0000	1.0000	67.23
56.5	20,627		0.0000	1.0000	67.23
57.5	20,627		0.0000	1.0000	67.23
58.5	20,373		0.0000	1.0000	67.23
59.5	20,100		0.0000	1.0000	67.23
60.5	20,071		0.0000	1.0000	67.23
61.5	20,050		0.0000	1.0000	67.23
62.5	19,756		0.0000	1.0000	67.23
63.5	19,247		0.0000	1.0000	67.23
64.5	19,247	14	0.0007	0.9993	67.23
65.5	18,667		0.0000	1.0000	67.18
66.5	18,305		0.0000	1.0000	67.18
67.5	18,134		0.0000	1.0000	67.18
68.5	18,134	71	0.0039	0.9961	67.18
69.5	17,949	104	0.0058	0.9942	66.91
70.5	16,587		0.0000	1.0000	66.53
71.5	16,416	242	0.0147	0.9853	66.53
72.5	16,174		0.0000	1.0000	65.55
73.5	16,174		0.0000	1.0000	65.55
74.5	16,174		0.0000	1.0000	65.55
75.5	16,174	43	0.0027	0.9973	65.55
76.5	16,131		0.0000	1.0000	65.37
77.5	16,131		0.0000	1.0000	65.37
78.5	15,848	106	0.0067	0.9933	65.37

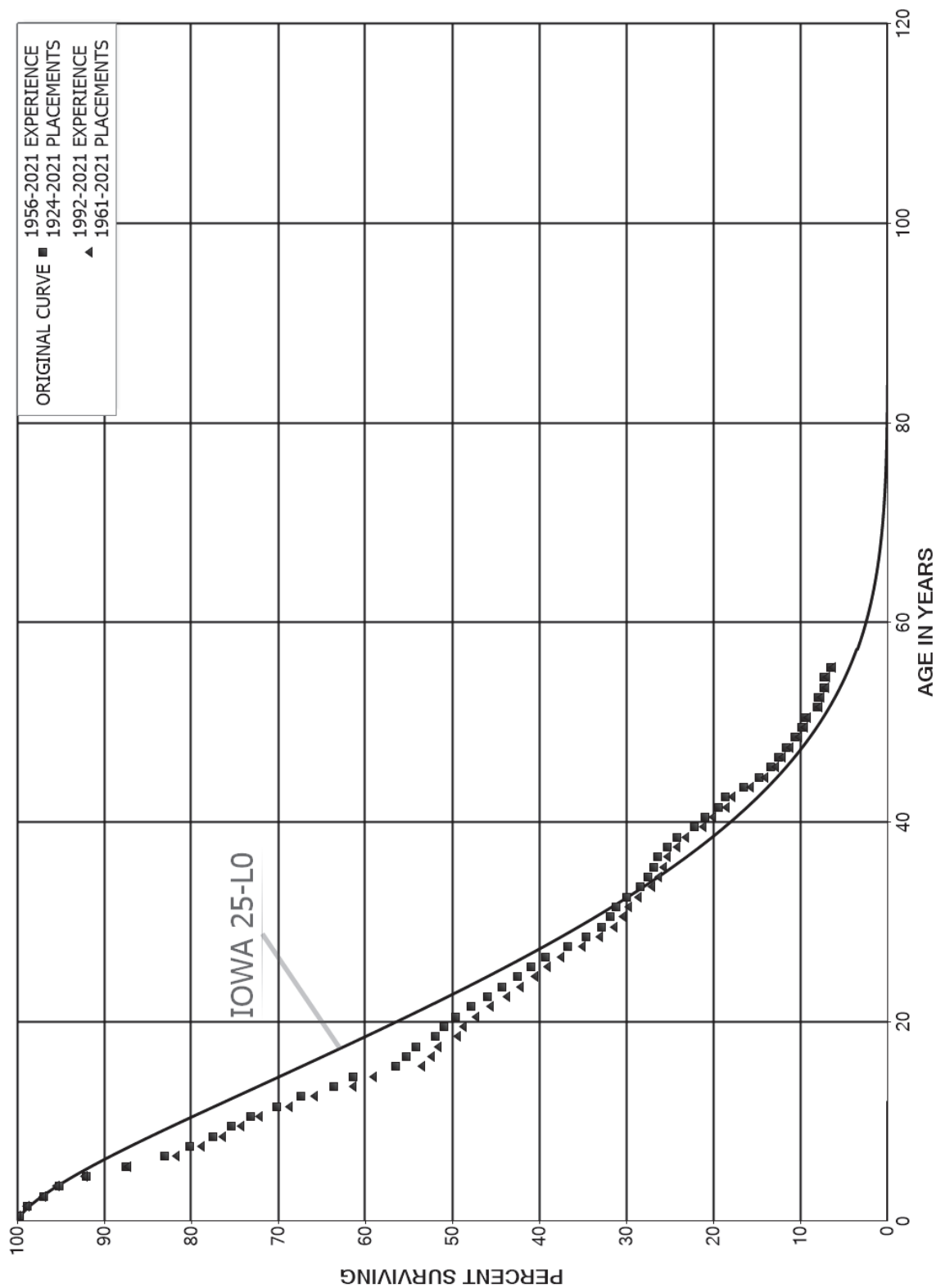
DUKE ENERGY KENTUCKY

ACCOUNT 3732 STREET LIGHTING - BOULEVARD

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1922-2020			EXPERIENCE BAND 1956-2021		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	15,715		0.0000	1.0000	64.93
80.5	14,266		0.0000	1.0000	64.93
81.5	14,266		0.0000	1.0000	64.93
82.5	14,202		0.0000	1.0000	64.93
83.5	13,911		0.0000	1.0000	64.93
84.5	13,764		0.0000	1.0000	64.93
85.5	13,710		0.0000	1.0000	64.93
86.5	13,710		0.0000	1.0000	64.93
87.5	13,710		0.0000	1.0000	64.93
88.5	13,356		0.0000	1.0000	64.93
89.5	12,753		0.0000	1.0000	64.93
90.5	10,977		0.0000	1.0000	64.93
91.5	10,923		0.0000	1.0000	64.93
92.5	7,199		0.0000	1.0000	64.93
93.5	5,747		0.0000	1.0000	64.93
94.5	3,751		0.0000	1.0000	64.93
95.5	3,751		0.0000	1.0000	64.93
96.5	3,751		0.0000	1.0000	64.93
97.5	3,751		0.0000	1.0000	64.93
98.5	269		0.0000	1.0000	64.93
99.5					64.93

DUKE ENERGY KENTUCKY
ACCOUNT 3733 STREET LIGHTING - CUSTOMER POLES
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3733 STREET LIGHTING - CUSTOMER POLES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1924-2021			EXPERIENCE BAND 1956-2021		
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	6,358,895	14,151	0.0022	0.9978	100.00
0.5	5,941,139	56,658	0.0095	0.9905	99.78
1.5	5,415,872	105,554	0.0195	0.9805	98.83
2.5	4,863,544	89,012	0.0183	0.9817	96.90
3.5	4,541,756	145,421	0.0320	0.9680	95.13
4.5	4,223,089	207,416	0.0491	0.9509	92.08
5.5	3,101,443	157,673	0.0508	0.9492	87.56
6.5	2,852,848	99,087	0.0347	0.9653	83.11
7.5	2,753,744	91,694	0.0333	0.9667	80.22
8.5	2,622,508	72,545	0.0277	0.9723	77.55
9.5	2,511,459	73,159	0.0291	0.9709	75.40
10.5	2,430,666	101,789	0.0419	0.9581	73.21
11.5	2,324,698	89,860	0.0387	0.9613	70.14
12.5	2,214,392	124,600	0.0563	0.9437	67.43
13.5	2,054,779	73,759	0.0359	0.9641	63.64
14.5	1,949,777	152,702	0.0783	0.9217	61.35
15.5	1,759,979	40,323	0.0229	0.9771	56.55
16.5	1,698,781	32,764	0.0193	0.9807	55.25
17.5	1,462,094	60,030	0.0411	0.9589	54.19
18.5	1,401,921	25,673	0.0183	0.9817	51.96
19.5	1,375,895	39,080	0.0284	0.9716	51.01
20.5	1,314,930	44,383	0.0338	0.9662	49.56
21.5	1,264,602	51,853	0.0410	0.9590	47.89
22.5	1,190,336	41,877	0.0352	0.9648	45.92
23.5	1,116,803	45,553	0.0408	0.9592	44.31
24.5	1,042,167	37,065	0.0356	0.9644	42.50
25.5	970,716	40,752	0.0420	0.9580	40.99
26.5	894,750	56,788	0.0635	0.9365	39.27
27.5	810,937	47,157	0.0582	0.9418	36.78
28.5	735,450	38,661	0.0526	0.9474	34.64
29.5	669,046	19,679	0.0294	0.9706	32.82
30.5	621,173	14,139	0.0228	0.9772	31.85
31.5	584,072	23,193	0.0397	0.9603	31.13
32.5	547,852	28,357	0.0518	0.9482	29.89
33.5	507,473	15,428	0.0304	0.9696	28.34
34.5	488,877	10,612	0.0217	0.9783	27.48
35.5	471,526	8,090	0.0172	0.9828	26.89
36.5	456,553	19,081	0.0418	0.9582	26.42
37.5	428,139	18,545	0.0433	0.9567	25.32
38.5	398,287	33,691	0.0846	0.9154	24.22

DUKE ENERGY KENTUCKY

ACCOUNT 3733 STREET LIGHTING - CUSTOMER POLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1924-2021			EXPERIENCE BAND 1956-2021		
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	348,588	18,362	0.0527	0.9473	22.17
40.5	307,992	23,930	0.0777	0.9223	21.01
41.5	261,321	10,794	0.0413	0.9587	19.37
42.5	224,517	25,628	0.1141	0.8859	18.57
43.5	181,589	19,123	0.1053	0.8947	16.45
44.5	152,582	14,182	0.0929	0.9071	14.72
45.5	128,780	8,142	0.0632	0.9368	13.35
46.5	111,752	8,308	0.0743	0.9257	12.51
47.5	94,536	7,978	0.0844	0.9156	11.58
48.5	78,826	5,333	0.0677	0.9323	10.60
49.5	66,072	2,710	0.0410	0.9590	9.88
50.5	54,093	7,771	0.1437	0.8563	9.48
51.5	40,813	964	0.0236	0.9764	8.12
52.5	32,810	2,467	0.0752	0.9248	7.93
53.5	23,640	303	0.0128	0.9872	7.33
54.5	19,858	2,000	0.1007	0.8993	7.24
55.5	12,080		0.0000	1.0000	6.51
56.5	7,415		0.0000	1.0000	6.51
57.5	3,666		0.0000	1.0000	6.51
58.5	884		0.0000	1.0000	6.51
59.5	128		0.0000	1.0000	6.51
60.5	128		0.0000	1.0000	6.51
61.5	128		0.0000	1.0000	6.51
62.5	128	128	1.0000		6.51
63.5					

DUKE ENERGY KENTUCKY

ACCOUNT 3733 STREET LIGHTING - CUSTOMER POLES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1961-2021			EXPERIENCE BAND 1992-2021			
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	4,807,167	7,888	0.0016	0.9984	100.00	
0.5	4,480,218	43,538	0.0097	0.9903	99.84	
1.5	4,044,435	77,783	0.0192	0.9808	98.87	
2.5	3,562,558	57,798	0.0162	0.9838	96.96	
3.5	3,308,248	112,161	0.0339	0.9661	95.39	
4.5	3,058,401	164,452	0.0538	0.9462	92.16	
5.5	2,023,278	128,551	0.0635	0.9365	87.20	
6.5	1,835,898	65,066	0.0354	0.9646	81.66	
7.5	1,800,305	57,414	0.0319	0.9681	78.77	
8.5	1,724,174	45,963	0.0267	0.9733	76.26	
9.5	1,695,899	48,737	0.0287	0.9713	74.22	
10.5	1,693,207	80,897	0.0478	0.9522	72.09	
11.5	1,703,355	72,842	0.0428	0.9572	68.65	
12.5	1,684,107	112,214	0.0666	0.9334	65.71	
13.5	1,589,499	60,589	0.0381	0.9619	61.33	
14.5	1,527,103	143,800	0.0942	0.9058	58.99	
15.5	1,398,191	29,855	0.0214	0.9786	53.44	
16.5	1,385,500	20,431	0.0147	0.9853	52.30	
17.5	1,208,890	51,593	0.0427	0.9573	51.53	
18.5	1,190,654	18,465	0.0155	0.9845	49.33	
19.5	1,191,640	34,351	0.0288	0.9712	48.56	
20.5	1,158,870	39,859	0.0344	0.9656	47.16	
21.5	1,134,455	47,112	0.0415	0.9585	45.54	
22.5	1,087,158	38,612	0.0355	0.9645	43.65	
23.5	1,045,223	41,971	0.0402	0.9598	42.10	
24.5	983,188	34,596	0.0352	0.9648	40.41	
25.5	929,547	38,635	0.0416	0.9584	38.99	
26.5	866,527	55,631	0.0642	0.9358	37.37	
27.5	796,867	46,958	0.0589	0.9411	34.97	
28.5	729,834	37,110	0.0508	0.9492	32.91	
29.5	666,781	19,679	0.0295	0.9705	31.23	
30.5	620,957	14,139	0.0228	0.9772	30.31	
31.5	583,728	22,976	0.0394	0.9606	29.62	
32.5	547,724	28,357	0.0518	0.9482	28.46	
33.5	507,345	15,428	0.0304	0.9696	26.98	
34.5	488,749	10,612	0.0217	0.9783	26.16	
35.5	471,397	8,090	0.0172	0.9828	25.59	
36.5	456,425	19,081	0.0418	0.9582	25.15	
37.5	428,011	18,545	0.0433	0.9567	24.10	
38.5	398,159	33,691	0.0846	0.9154	23.06	

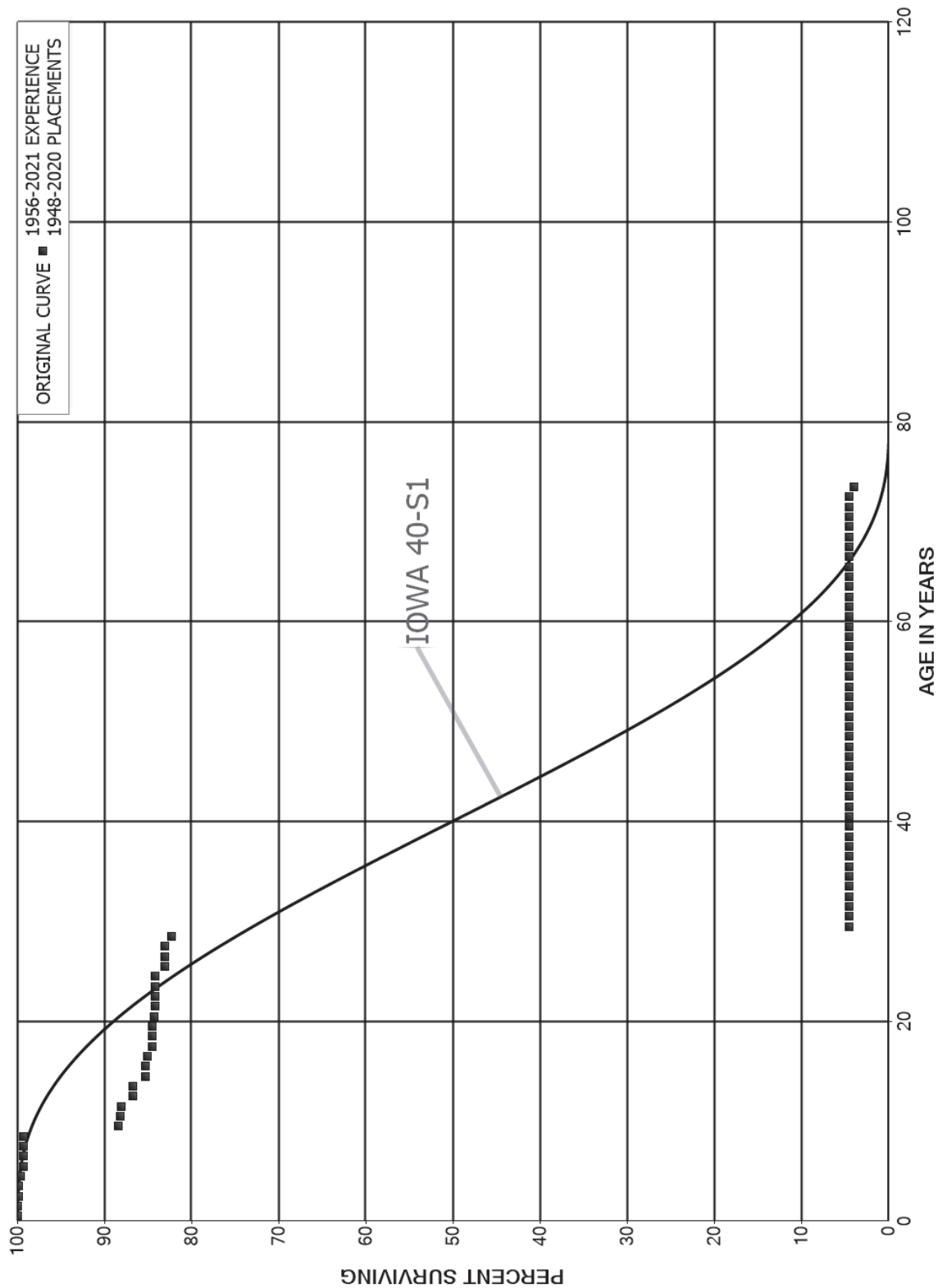
DUKE ENERGY KENTUCKY

ACCOUNT 3733 STREET LIGHTING - CUSTOMER POLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1961-2021			EXPERIENCE BAND 1992-2021		
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	348,460	18,362	0.0527	0.9473	21.11
40.5	307,864	23,930	0.0777	0.9223	20.00
41.5	261,193	10,794	0.0413	0.9587	18.44
42.5	224,389	25,628	0.1142	0.8858	17.68
43.5	181,461	19,123	0.1054	0.8946	15.66
44.5	152,454	14,182	0.0930	0.9070	14.01
45.5	128,652	8,142	0.0633	0.9367	12.71
46.5	111,624	8,308	0.0744	0.9256	11.90
47.5	94,408	7,978	0.0845	0.9155	11.02
48.5	78,698	5,333	0.0678	0.9322	10.09
49.5	65,944	2,710	0.0411	0.9589	9.40
50.5	53,965	7,771	0.1440	0.8560	9.02
51.5	40,685	964	0.0237	0.9763	7.72
52.5	32,682	2,467	0.0755	0.9245	7.53
53.5	23,512	303	0.0129	0.9871	6.97
54.5	19,729	2,000	0.1014	0.8986	6.88
55.5	11,952		0.0000	1.0000	6.18
56.5	7,286		0.0000	1.0000	6.18
57.5	3,538		0.0000	1.0000	6.18
58.5	756		0.0000	1.0000	6.18
59.5					6.18

DUKE ENERGY KENTUCKY
ACCOUNT 3900 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3900 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2020			EXPERIENCE BAND 1956-2021		
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	559,930		0.0000	1.0000	100.00
0.5	559,930		0.0000	1.0000	100.00
1.5	538,072	885	0.0016	0.9984	100.00
2.5	537,235		0.0000	1.0000	99.84
3.5	543,078	1,460	0.0027	0.9973	99.84
4.5	541,946	1,349	0.0025	0.9975	99.57
5.5	487,717		0.0000	1.0000	99.32
6.5	487,717		0.0000	1.0000	99.32
7.5	505,837		0.0000	1.0000	99.32
8.5	505,837	55,847	0.1104	0.8896	99.32
9.5	449,990	916	0.0020	0.9980	88.35
10.5	449,074	759	0.0017	0.9983	88.17
11.5	419,513	6,356	0.0152	0.9848	88.03
12.5	413,157		0.0000	1.0000	86.69
13.5	353,921	5,843	0.0165	0.9835	86.69
14.5	307,419		0.0000	1.0000	85.26
15.5	307,419	588	0.0019	0.9981	85.26
16.5	306,831	2,160	0.0070	0.9930	85.10
17.5	304,670		0.0000	1.0000	84.50
18.5	304,670		0.0000	1.0000	84.50
19.5	304,670	760	0.0025	0.9975	84.50
20.5	303,911	459	0.0015	0.9985	84.29
21.5	303,451		0.0000	1.0000	84.16
22.5	303,451		0.0000	1.0000	84.16
23.5	303,451		0.0000	1.0000	84.16
24.5	303,451	3,764	0.0124	0.9876	84.16
25.5	299,687		0.0000	1.0000	83.12
26.5	299,687		0.0000	1.0000	83.12
27.5	299,687	2,935	0.0098	0.9902	83.12
28.5	296,752	280,465	0.9451	0.0549	82.30
29.5	16,286		0.0000	1.0000	4.52
30.5	16,286		0.0000	1.0000	4.52
31.5	16,286		0.0000	1.0000	4.52
32.5	16,286		0.0000	1.0000	4.52
33.5	16,286		0.0000	1.0000	4.52
34.5	16,286		0.0000	1.0000	4.52
35.5	16,286		0.0000	1.0000	4.52
36.5	16,286		0.0000	1.0000	4.52
37.5	16,286		0.0000	1.0000	4.52
38.5	16,286		0.0000	1.0000	4.52

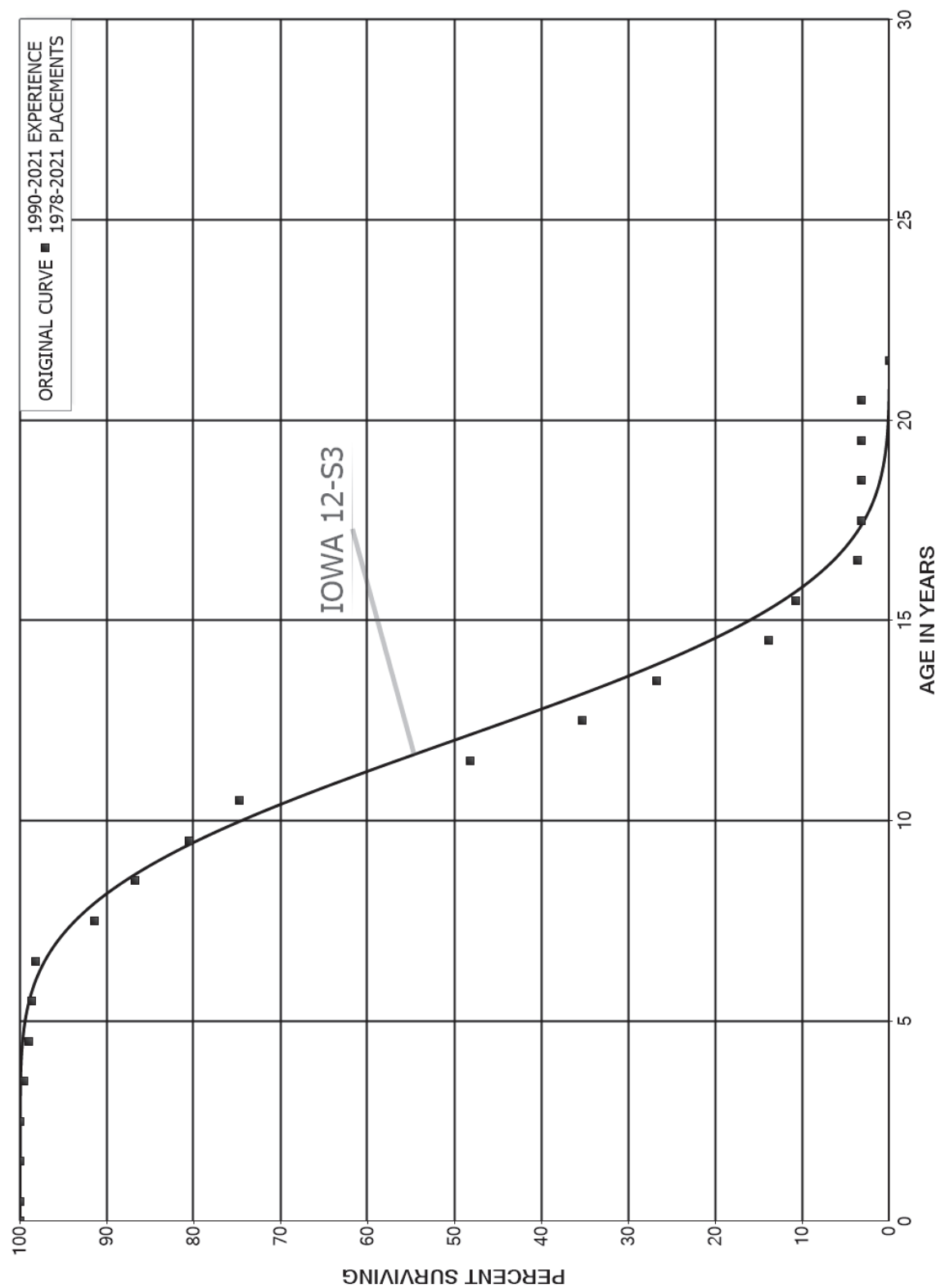
DUKE ENERGY KENTUCKY

ACCOUNT 3900 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1948-2020			EXPERIENCE BAND 1956-2021		
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	16,286		0.0000	1.0000	4.52
40.5	16,286		0.0000	1.0000	4.52
41.5	16,286		0.0000	1.0000	4.52
42.5	16,286		0.0000	1.0000	4.52
43.5	16,286		0.0000	1.0000	4.52
44.5	12,989		0.0000	1.0000	4.52
45.5	12,989		0.0000	1.0000	4.52
46.5	12,989		0.0000	1.0000	4.52
47.5	12,989		0.0000	1.0000	4.52
48.5	12,989		0.0000	1.0000	4.52
49.5	12,989		0.0000	1.0000	4.52
50.5	12,989		0.0000	1.0000	4.52
51.5	12,989		0.0000	1.0000	4.52
52.5	12,989		0.0000	1.0000	4.52
53.5	12,989		0.0000	1.0000	4.52
54.5	12,989		0.0000	1.0000	4.52
55.5	12,989		0.0000	1.0000	4.52
56.5	12,989		0.0000	1.0000	4.52
57.5	12,989		0.0000	1.0000	4.52
58.5	12,989		0.0000	1.0000	4.52
59.5	12,989		0.0000	1.0000	4.52
60.5	12,989		0.0000	1.0000	4.52
61.5	12,989		0.0000	1.0000	4.52
62.5	12,989		0.0000	1.0000	4.52
63.5	12,989		0.0000	1.0000	4.52
64.5	12,989		0.0000	1.0000	4.52
65.5	12,989		0.0000	1.0000	4.52
66.5	12,989		0.0000	1.0000	4.52
67.5	12,989		0.0000	1.0000	4.52
68.5	12,989		0.0000	1.0000	4.52
69.5	12,989		0.0000	1.0000	4.52
70.5	12,661		0.0000	1.0000	4.52
71.5	12,661		0.0000	1.0000	4.52
72.5	12,661	1,698	0.1341	0.8659	4.52
73.5					3.91

DUKE ENERGY KENTUCKY
ACCOUNT 3920 TRANSPORTATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



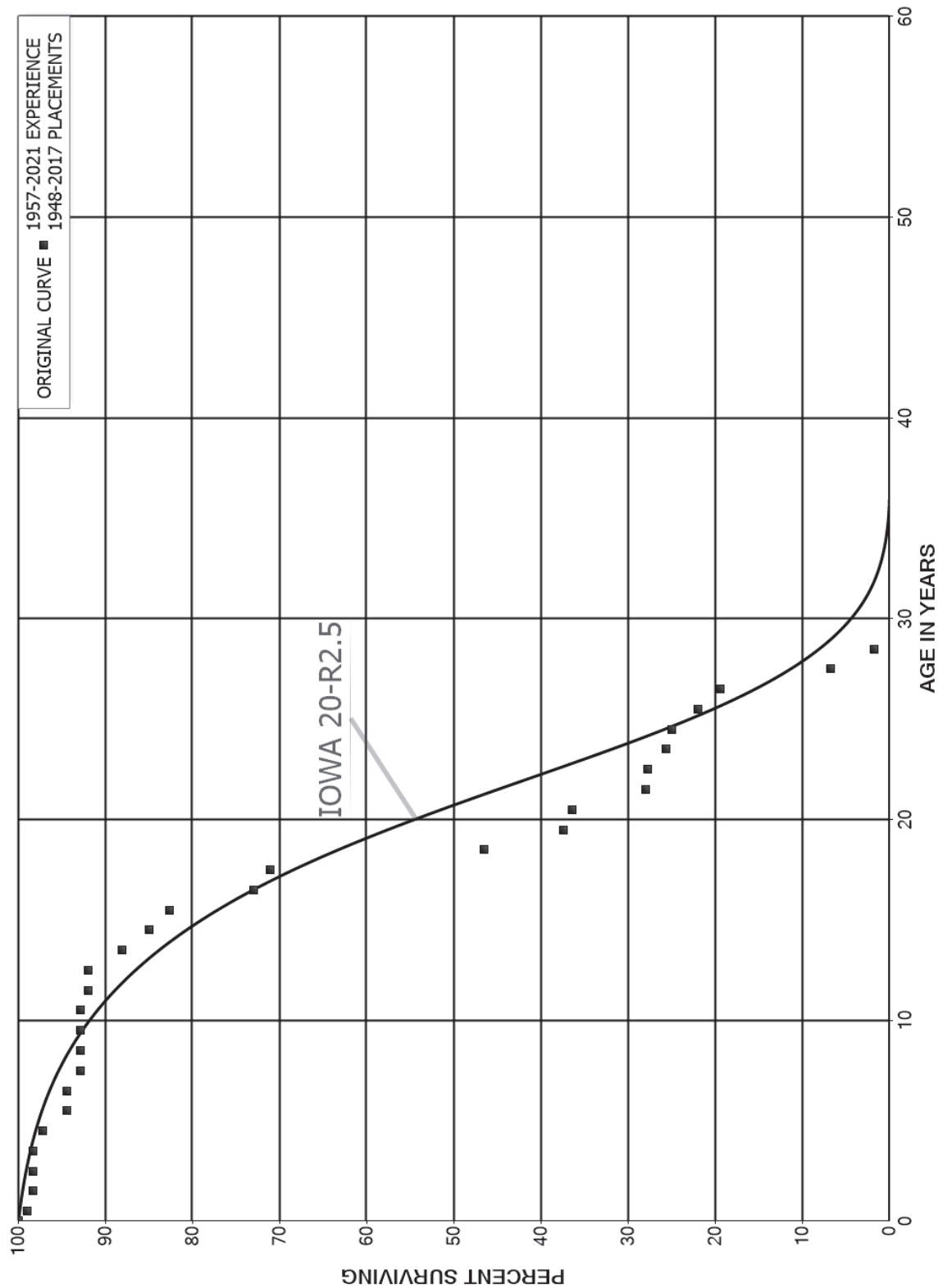
DUKE ENERGY KENTUCKY

ACCOUNT 3920 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1978-2021			EXPERIENCE BAND 1990-2021		
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	3,206,740		0.0000	1.0000	100.00
0.5	3,199,118		0.0000	1.0000	100.00
1.5	2,603,469		0.0000	1.0000	100.00
2.5	2,940,163	16,029	0.0055	0.9945	100.00
3.5	3,040,364	16,752	0.0055	0.9945	99.45
4.5	3,460,791	10,972	0.0032	0.9968	98.91
5.5	3,641,621	15,415	0.0042	0.9958	98.59
6.5	3,578,272	246,789	0.0690	0.9310	98.18
7.5	3,775,103	192,801	0.0511	0.9489	91.40
8.5	4,128,747	297,268	0.0720	0.9280	86.74
9.5	4,459,194	321,061	0.0720	0.9280	80.49
10.5	4,060,888	1,441,390	0.3549	0.6451	74.70
11.5	2,746,695	732,153	0.2666	0.7334	48.18
12.5	2,036,275	497,909	0.2445	0.7555	35.34
13.5	1,538,365	738,102	0.4798	0.5202	26.70
14.5	800,263	180,803	0.2259	0.7741	13.89
15.5	619,460	412,999	0.6667	0.3333	10.75
16.5	206,462	21,227	0.1028	0.8972	3.58
17.5	185,235		0.0000	1.0000	3.21
18.5	185,235		0.0000	1.0000	3.21
19.5	185,235		0.0000	1.0000	3.21
20.5	185,235	185,235	1.0000		3.21
21.5					

DUKE ENERGY KENTUCKY
ACCOUNT 3921 TRANSPORTATION EQUIPMENT - TRAILERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3921 TRANSPORTATION EQUIPMENT - TRAILERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2017			EXPERIENCE BAND 1957-2021			
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	479,782	5,120	0.0107	0.9893	100.00	
0.5	474,662	2,848	0.0060	0.9940	98.93	
1.5	471,814		0.0000	1.0000	98.34	
2.5	471,814		0.0000	1.0000	98.34	
3.5	506,204	5,805	0.0115	0.9885	98.34	
4.5	501,053	14,690	0.0293	0.9707	97.21	
5.5	392,625		0.0000	1.0000	94.36	
6.5	401,173	6,574	0.0164	0.9836	94.36	
7.5	394,599		0.0000	1.0000	92.82	
8.5	395,004		0.0000	1.0000	92.82	
9.5	395,004		0.0000	1.0000	92.82	
10.5	395,004	3,452	0.0087	0.9913	92.82	
11.5	391,552		0.0000	1.0000	92.00	
12.5	391,552	16,932	0.0432	0.9568	92.00	
13.5	374,619	12,873	0.0344	0.9656	88.03	
14.5	361,746	10,102	0.0279	0.9721	85.00	
15.5	259,621	30,566	0.1177	0.8823	82.63	
16.5	202,821	5,209	0.0257	0.9743	72.90	
17.5	197,612	68,373	0.3460	0.6540	71.03	
18.5	114,961	22,513	0.1958	0.8042	46.45	
19.5	92,448	2,246	0.0243	0.9757	37.36	
20.5	68,439	16,052	0.2345	0.7655	36.45	
21.5	46,549	259	0.0056	0.9944	27.90	
22.5	30,554	2,336	0.0765	0.9235	27.74	
23.5	28,218	733	0.0260	0.9740	25.62	
24.5	27,485	3,256	0.1185	0.8815	24.96	
25.5	24,229	2,879	0.1188	0.8812	22.00	
26.5	21,350	13,967	0.6542	0.3458	19.39	
27.5	7,383	5,489	0.7434	0.2566	6.70	
28.5	1,894	553	0.2920	0.7080	1.72	
29.5	1,341		0.0000	1.0000	1.22	
30.5	1,341		0.0000	1.0000	1.22	
31.5	1,341		0.0000	1.0000	1.22	
32.5	1,341	606	0.4517	0.5483	1.22	
33.5	735		0.0000	1.0000	0.67	
34.5	735		0.0000	1.0000	0.67	
35.5	735		0.0000	1.0000	0.67	
36.5	735		0.0000	1.0000	0.67	
37.5	735		0.0000	1.0000	0.67	
38.5	735		0.0000	1.0000	0.67	

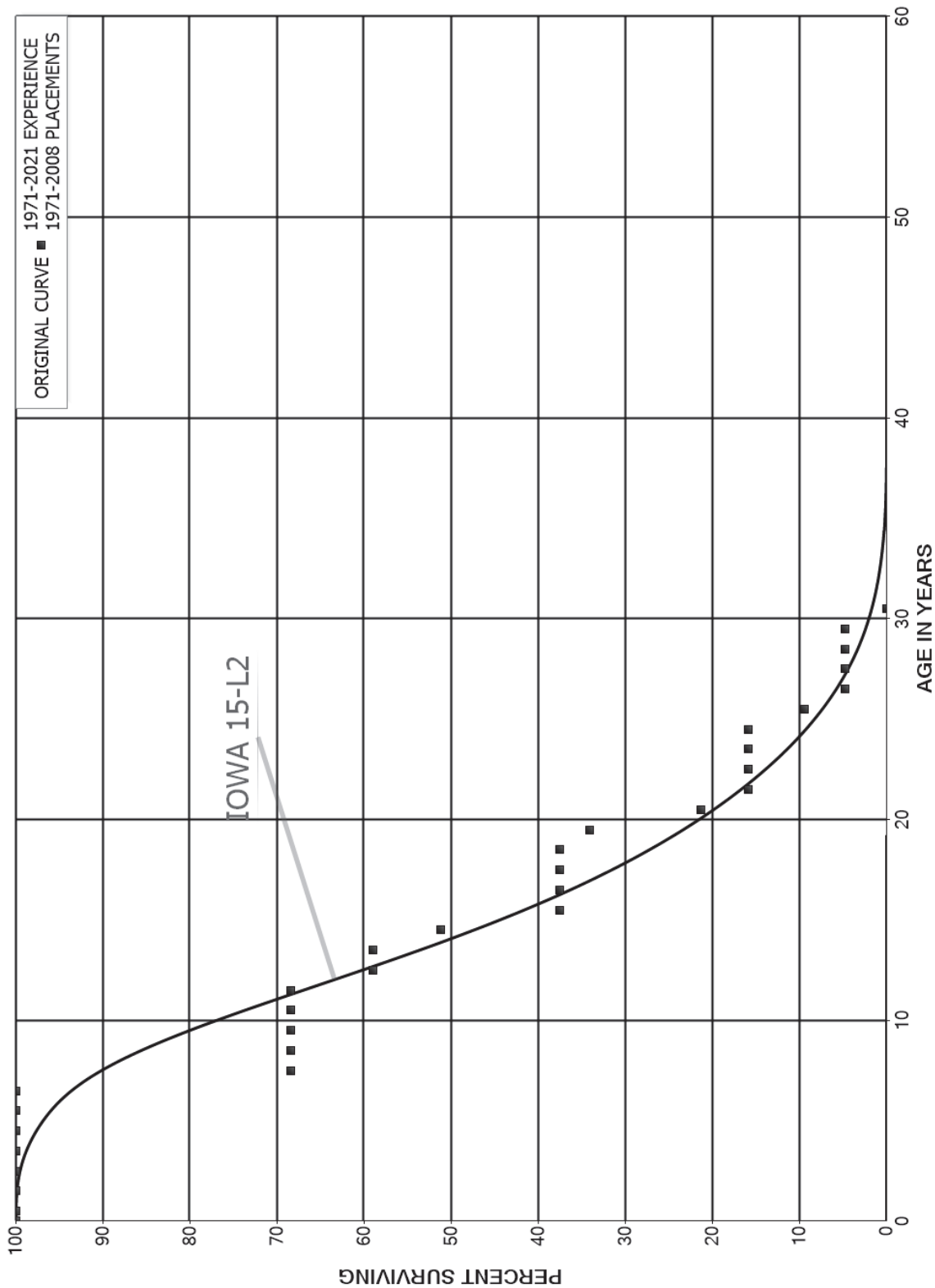
DUKE ENERGY KENTUCKY

ACCOUNT 3921 TRANSPORTATION EQUIPMENT - TRAILERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1948-2017			EXPERIENCE BAND 1957-2021		
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	735		0.0000	1.0000	0.67
40.5	735		0.0000	1.0000	0.67
41.5	735		0.0000	1.0000	0.67
42.5	735		0.0000	1.0000	0.67
43.5	735	560	0.7621	0.2379	0.67
44.5	175		0.0000	1.0000	0.16
45.5	175	175	1.0000		0.16
46.5					

DUKE ENERGY KENTUCKY
ACCOUNT 3960 POWER OPERATED EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY

ACCOUNT 3960 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1971-2008			EXPERIENCE BAND 1971-2021		
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	126,051		0.0000	1.0000	100.00
0.5	126,051		0.0000	1.0000	100.00
1.5	185,500		0.0000	1.0000	100.00
2.5	185,500		0.0000	1.0000	100.00
3.5	185,500		0.0000	1.0000	100.00
4.5	185,500		0.0000	1.0000	100.00
5.5	221,774		0.0000	1.0000	100.00
6.5	230,837	72,991	0.3162	0.6838	100.00
7.5	157,846		0.0000	1.0000	68.38
8.5	157,846		0.0000	1.0000	68.38
9.5	157,846		0.0000	1.0000	68.38
10.5	190,933		0.0000	1.0000	68.38
11.5	190,933	26,356	0.1380	0.8620	68.38
12.5	164,577		0.0000	1.0000	58.94
13.5	152,807	20,191	0.1321	0.8679	58.94
14.5	132,617	35,307	0.2662	0.7338	51.15
15.5	97,310		0.0000	1.0000	37.53
16.5	97,310		0.0000	1.0000	37.53
17.5	97,310		0.0000	1.0000	37.53
18.5	97,310	9,064	0.0931	0.9069	37.53
19.5	88,246	33,087	0.3749	0.6251	34.04
20.5	55,159	13,984	0.2535	0.7465	21.28
21.5	41,175		0.0000	1.0000	15.88
22.5	41,175		0.0000	1.0000	15.88
23.5	41,175		0.0000	1.0000	15.88
24.5	41,175	16,943	0.4115	0.5885	15.88
25.5	24,232	12,045	0.4970	0.5030	9.35
26.5	12,188		0.0000	1.0000	4.70
27.5	12,188		0.0000	1.0000	4.70
28.5	12,188		0.0000	1.0000	4.70
29.5	12,188	12,188	1.0000		4.70
30.5					

PART VIII. NET SALVAGE STATISTICS

DUKE ENERGY KENTUCKY

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

LOCATION (1)	PROJECTED RETIREMENTS		TOTAL OF ALL RETIREMENTS (4)=(2)+(3)	TERMINAL RETIREMENT % (5)=(2)/(4)	INTERIM RETIREMENT % (6)=(3)/(4)
	TERMINAL (2)	INTERIM (3)			
STEAM PRODUCTION					
EAST BEND	(775,508,953)	(135,033,090)	(910,542,042)	85.17	14.83
OTHER PRODUCTION					
WOODSDALE	(231,850,064)	(112,440,232)	(344,290,296)	67.34	32.66
SOLAR PRODUCTION					
CRITTENDEN	(1,273,955)	(3,506,736)	(4,780,691)	26.65	73.35
WALTON	(1,772,107)	(4,877,967)	(6,650,073)	26.65	73.35

DUKE ENERGY KENTUCKY

TABLE 2. CALCULATION OF WEIGHTED NET SALVAGE PERCENT

LOCATION (1)	TERMINAL RETIREMENTS		INTERIM RETIREMENTS		WEIGHTED AVERAGE NET SALVAGE % (6)=(2)*(3)+(4)*(5)
	RETIREMENTS (%) (2)	NET SALVAGE (%) (3)	RETIREMENTS (%) (4)	NET SALVAGE (%) (5)	
STEAM PRODUCTION					
EAST BEND	85.17	(8)	14.83	(20)	(10)
OTHER PRODUCTION					
WOODSDALE	67.34	(8)	32.66	(7)	(8)
SOLAR PRODUCTION					
CRITTENDEN	26.65	(62)	73.35	(5)	(20)
WALTON	26.65	(63)	73.35	(5)	(20)

DUKE ENERGY KENTUCKY

TABLE 3. CALCULATION OF TERMINAL NET SALVAGE PRECENT

UNIT (1)	ESTIMATED RETIREMENT YEAR (2)	TOTAL DECOMMISSIONING COSTS (CURRENT \$) (3)	TOTAL DECOMMISSIONING COSTS (FUTURE \$) (4)	ESTIMATED TERMINAL RETIREMENTS (5)	TERMINAL NET SALVAGE (%) (6)=(4)/(5)
STEAM PRODUCTION					
EAST BEND	2035	38,715,000	54,703,281	(775,508,953)	(8)
OTHER PRODUCTION					
WOODSDALE	2040	11,327,000	18,107,911	(231,850,064)	(8)
SOLAR PRODUCTION					
CRITTENDEN	2047	412,300	783,491	(1,273,955)	(62)
WALTON	2047	586,200	1,113,952	(1,772,107)	(63)

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990		204,571				204,571-	
1991	10,904	93,952	862	156	1	93,796-	860-
1992	44,601	33,254	75		0	33,254-	75-
1993	3,829	2,179	57		0	2,179-	57-
1994	8,622	107,169			0	107,169-	
1995		46,859				46,859-	
1996	20,300	22,697	112		0	22,697-	112-
1997							
1998	236,952	1,816	1		0	1,816-	1-
1999							
2000							
2001							
2002	466,414	124,993	27		0	124,993-	27-
2003	360,388	117,298	33		0	117,298-	33-
2004	1,563,054	14,188	1		0	14,188-	1-
2005	67,932	23,891	35		0	23,891-	35-
2006	5,259	7,978	152		0	7,978-	152-
2007							
2008	95		0		0		0
2009							
2010							
2011	3,604	184,588			0	184,588-	
2012	32,273		0		0		0
2013	140,504	51,500	37		0	51,500-	37-
2014	60,096	15,414	26		0	15,414-	26-
2015	433,044	75,712	17		0	75,712-	17-
2016	23,642	2,850	12		0	2,850-	12-
2017							
2018	83,765	8,487	10		0	8,487-	10-
2019	1,875,000	29,304	2		0	29,304-	2-
2020	256,919-		0		0		0
2021	259,035	109,663	42		0	109,663-	42-
TOTAL	5,442,394	1,278,361	23	156	0	1,278,204-	23-

THREE-YEAR MOVING AVERAGES

90-92	18,502	110,592	598	52	0	110,540-	597-
91-93	19,778	43,128	218	52	0	43,076-	218-
92-94	19,017	47,534	250		0	47,534-	250-
93-95	4,150	52,069			0	52,069-	
94-96	9,641	58,908	611		0	58,908-	611-
95-97	6,767	23,185	343		0	23,185-	343-

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	85,751	8,171	10		0	8,171-	10-
97-99	78,984	605	1		0	605-	1-
98-00	78,984	605	1		0	605-	1-
99-01							
00-02	155,471	41,664	27		0	41,664-	27-
01-03	275,601	80,764	29		0	80,764-	29-
02-04	796,619	85,493	11		0	85,493-	11-
03-05	663,791	51,792	8		0	51,792-	8-
04-06	545,415	15,352	3		0	15,352-	3-
05-07	24,397	10,623	44		0	10,623-	44-
06-08	1,785	2,659	149		0	2,659-	149-
07-09	32		0		0		0
08-10	32		0		0		0
09-11	1,201	61,529			0	61,529-	
10-12	11,959	61,529	514		0	61,529-	514-
11-13	58,794	78,696	134		0	78,696-	134-
12-14	77,624	22,305	29		0	22,305-	29-
13-15	211,215	47,542	23		0	47,542-	23-
14-16	172,260	31,325	18		0	31,325-	18-
15-17	152,228	26,187	17		0	26,187-	17-
16-18	35,802	3,779	11		0	3,779-	11-
17-19	652,922	12,597	2		0	12,597-	2-
18-20	567,282	12,597	2		0	12,597-	2-
19-21	625,705	46,322	7		0	46,322-	7-
FIVE-YEAR AVERAGE							
17-21	392,176	29,491	8		0	29,491-	8-

DUKE ENERGY KENTUCKY

ACCOUNT 3110 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1991	42,371		0		0		0
1992	2,324		0		0		0
1993	106,507		0		0		0
1994	69,982		0		0		0
1995	93,406		0		0		0
1996							
1997	23,706		0		0		0
1998	1,522		0		0		0
1999	30,871		0		0		0
2000							
2001							
2002							
2003	139,027		0		0		0
2004							
2005	35,327		0		0		0
2006	4,577	698	15		0	698-	15-
2007	103,253	4,811	5		0	4,811-	5-
2008	52,248	29,431	56		0	29,431-	56-
2009	164,778	38,462	23		0	38,462-	23-
2010	205,463		0		0		0
2011	133,143		0		0		0
2012	137,116	1,729	1	1,178	1	551-	0
2013	208,790	4,535	2	982	0	3,553-	2-
2014	95,194	84,571	89	184-	0	84,754-	89-
2015	238,901	34,324	14	1-	0	34,325-	14-
2016	304,327	68,004	22		0	68,004-	22-
2017	188,595	68,577	36	68-	0	68,645-	36-
2018	32,838	300,424	915		0	300,424-	915-
2019	3,809,329	207,110	5	7,633	0	199,477-	5-
2020	93,354	430,155	461	527	1	429,629-	460-
2021	2,092,566	61,318	3		0	61,318-	3-
TOTAL	8,409,518	1,334,148	16	10,067	0	1,324,081-	16-

THREE-YEAR MOVING AVERAGES

91-93	50,401		0		0		0
92-94	59,604		0		0		0
93-95	89,965		0		0		0
94-96	54,463		0		0		0
95-97	39,038		0		0		0
96-98	8,410		0		0		0
97-99	18,700		0		0		0

DUKE ENERGY KENTUCKY

ACCOUNT 3110 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
98-00	10,798		0		0		0
99-01	10,290		0		0		0
00-02							
01-03	46,342		0		0		0
02-04	46,342		0		0		0
03-05	58,118		0		0		0
04-06	13,301	233	2		0	233-	2-
05-07	47,719	1,836	4		0	1,836-	4-
06-08	53,359	11,647	22		0	11,647-	22-
07-09	106,760	24,235	23		0	24,235-	23-
08-10	140,830	22,631	16		0	22,631-	16-
09-11	167,795	12,821	8		0	12,821-	8-
10-12	158,574	576	0	393	0	184-	0
11-13	159,683	2,088	1	720	0	1,368-	1-
12-14	147,033	30,278	21	659	0	29,619-	20-
13-15	180,962	41,143	23	266	0	40,877-	23-
14-16	212,808	62,299	29	62-	0	62,361-	29-
15-17	243,941	56,968	23	23-	0	56,991-	23-
16-18	175,253	145,668	83	23-	0	145,691-	83-
17-19	1,343,587	192,037	14	2,522	0	189,516-	14-
18-20	1,311,840	312,563	24	2,720	0	309,844-	24-
19-21	1,998,416	232,861	12	2,720	0	230,141-	12-
FIVE-YEAR AVERAGE							
17-21	1,243,337	213,517	17	1,618	0	211,899-	17-

DUKE ENERGY KENTUCKY

ACCOUNT 3120 BOILER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	422,833		0		0		0
1991	1,469,830		0		0		0
1992	1,290,307		0		0		0
1993	707,064		0		0		0
1994	861,329		0		0		0
1995	2,682,145		0		0		0
1996	32,885		0		0		0
1997	161,263		0		0		0
1998	758,949		0		0		0
1999	1,804,001		0		0		0
2000							
2001							
2002							
2003	7,226,804	1,220,923	17	54,200	1	1,166,723-	16-
2004	2,486,903		0		0		0
2005	3,191,937		0		0		0
2006	240,430	40,960	17		0	40,960-	17-
2007	5,469,792	73,271	1		0	73,271-	1-
2008	3,572,224	80,159	2		0	80,159-	2-
2009	924,041	191,354	21		0	191,354-	21-
2010	1,212,900	79,959	7	87,500	7	7,541	1
2011	1,109,358	42,153	4	1,937	0	40,215-	4-
2012	4,914,871	14,746	0	4,744	0	10,001-	0
2013	1,819,921	2,704	0	2,682	0	22-	0
2014	13,802,178	883,055	6	32,201-	0	915,256-	7-
2015	4,903,758	3,524,212	72	80,135	2	3,444,077-	70-
2016	1,402,060	559,727	40	11,773	1	547,954-	39-
2017	2,128,162	912,244	43	46,736	2	865,508-	41-
2018	2,473,840	12,951,712	524	71,725	3	12,879,987-	521-
2019	12,081,941	3,814,760	32	79,482	1	3,735,278-	31-
2020	16,118,391	8,017,882	50	43,786	0	7,974,095-	49-
2021	19,256,090	1,759,208	9	31,623	0	1,727,585-	9-
TOTAL	114,526,205	34,169,029	30	484,124	0	33,684,905-	29-

THREE-YEAR MOVING AVERAGES

90-92	1,060,990		0		0		0
91-93	1,155,734		0		0		0
92-94	952,900		0		0		0
93-95	1,416,846		0		0		0
94-96	1,192,120		0		0		0
95-97	958,764		0		0		0

DUKE ENERGY KENTUCKY

ACCOUNT 3120 BOILER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	317,699		0		0		0
97-99	908,071		0		0		0
98-00	854,316		0		0		0
99-01	601,334		0		0		0
00-02							
01-03	2,408,935	406,974	17	18,067	1	388,908-	16-
02-04	3,237,902	406,974	13	18,067	1	388,908-	12-
03-05	4,301,881	406,974	9	18,067	0	388,908-	9-
04-06	1,973,090	13,653	1		0	13,653-	1-
05-07	2,967,386	38,077	1		0	38,077-	1-
06-08	3,094,149	64,797	2		0	64,797-	2-
07-09	3,322,019	114,928	3		0	114,928-	3-
08-10	1,903,055	117,158	6	29,167	2	87,991-	5-
09-11	1,082,099	104,489	10	29,812	3	74,676-	7-
10-12	2,412,376	45,619	2	31,394	1	14,225-	1-
11-13	2,614,716	19,868	1	3,121	0	16,746-	1-
12-14	6,845,657	300,168	4	8,258-	0	308,426-	5-
13-15	6,841,952	1,469,990	21	16,872	0	1,453,118-	21-
14-16	6,702,666	1,655,665	25	19,902	0	1,635,762-	24-
15-17	2,811,327	1,665,394	59	46,215	2	1,619,180-	58-
16-18	2,001,354	4,807,895	240	43,412	2	4,764,483-	238-
17-19	5,561,314	5,892,905	106	65,981	1	5,826,924-	105-
18-20	10,224,724	8,261,451	81	64,998	1	8,196,453-	80-
19-21	15,818,807	4,530,617	29	51,630	0	4,478,986-	28-
FIVE-YEAR AVERAGE							
17-21	10,411,685	5,491,161	53	54,671	1	5,436,491-	52-

DUKE ENERGY KENTUCKY

ACCOUNT 3140 TURBOGENERATOR UNITS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1991	847,893		0		0		0
1992	538,297		0		0		0
1993	102,328		0		0		0
1994	555,226		0		0		0
1995	66,228		0		0		0
1996	5,992		0		0		0
1997	229,904		0		0		0
1998	210,493		0		0		0
1999	40,715		0		0		0
2000							
2001							
2002							
2003	311,366	43,075	14		0	43,075-	14-
2004	582,032		0		0		0
2005	850,980		0		0		0
2006	7,944	1,284	16		0	1,284-	16-
2007	1,044,758	9,522	1		0	9,522-	1-
2008	5,669,977	481,747	8	537,424	9	55,677	1
2009	1,787,235	137,589	8		0	137,589-	8-
2010	549,448		0		0		0
2011	16,313-	78,687	482-		0	78,687-	482
2012	689,392	2,218	0	1,511	0	706-	0
2013	205,842	78,030	38		0	78,030-	38-
2014	904,388	48,776	5	538-	0	49,314-	5-
2015	143,768	37,396	26	4-	0	37,399-	26-
2016	904,828	230,533	25	83,112	9	147,421-	16-
2017	490,139	270,220	55		0	270,220-	55-
2018	2,523,836	908,932	36	743,314	29	165,618-	7-
2019	1,255,969	3,541,847	282	704,873	56	2,836,975-	226-
2020	5,826,342	366,888	6	117,823	2	249,065-	4-
2021	6,092,323	726,528	12	466,504	8	260,023-	4-
TOTAL	32,421,330	6,963,271	21	2,654,019	8	4,309,252-	13-

THREE-YEAR MOVING AVERAGES

91-93	496,173		0		0		0
92-94	398,617		0		0		0
93-95	241,260		0		0		0
94-96	209,149		0		0		0
95-97	100,708		0		0		0
96-98	148,796		0		0		0
97-99	160,371		0		0		0

DUKE ENERGY KENTUCKY

ACCOUNT 3140 TURBOGENERATOR UNITS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
98-00	83,736		0		0		0
99-01	13,572		0		0		0
00-02							
01-03	103,789	14,358	14		0	14,358-	14-
02-04	297,799	14,358	5		0	14,358-	5-
03-05	581,459	14,358	2		0	14,358-	2-
04-06	480,319	428	0		0	428-	0
05-07	634,561	3,602	1		0	3,602-	1-
06-08	2,240,893	164,184	7	179,141	8	14,957	1
07-09	2,833,990	209,619	7	179,141	6	30,478-	1-
08-10	2,668,887	206,445	8	179,141	7	27,304-	1-
09-11	773,456	72,092	9		0	72,092-	9-
10-12	407,509	26,968	7	504	0	26,464-	6-
11-13	292,974	52,978	18	504	0	52,474-	18-
12-14	599,874	43,008	7	324	0	42,683-	7-
13-15	417,999	54,734	13	181-	0	54,914-	13-
14-16	650,995	105,568	16	27,523	4	78,045-	12-
15-17	512,912	179,383	35	27,703	5	151,680-	30-
16-18	1,306,267	469,895	36	275,475	21	194,420-	15-
17-19	1,423,314	1,573,667	111	482,729	34	1,090,938-	77-
18-20	3,202,049	1,605,889	50	522,003	16	1,083,886-	34-
19-21	4,391,545	1,545,088	35	429,733	10	1,115,355-	25-
FIVE-YEAR AVERAGE							
17-21	3,237,722	1,162,883	36	406,503	13	756,380-	23-

DUKE ENERGY KENTUCKY

ACCOUNT 3150 ACCESSORY ELECTRIC EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	32,390		0		0		0
1991	71,444		0		0		0
1992	32,766		0		0		0
1993							
1994							
1995	259,537		0		0		0
1996	69,143		0		0		0
1997	68,288		0		0		0
1998							
1999							
2000							
2001							
2002							
2003	75,714		0		0		0
2004	729,582		0		0		0
2005	69,401		0		0		0
2006							
2007	201,141	9,407	5		0	9,407-	5-
2008	3,085		0		0		0
2009	43,091	49	0		0	49-	0
2010	109,381		0		0		0
2011	142,864	972	1		0	972-	1-
2012	3,785,797		0		0		0
2013	96,218		0		0		0
2014	7,950	18,667	235	1,000	13	17,667-	222-
2015	23,366	8,386	36		0	8,386-	36-
2016	138,337	174,762	126	3,644	3	171,118-	124-
2017							
2018	2,104	880	42		0	880-	42-
2019	243,525	23,367	10		0	23,367-	10-
2020							
2021	20,769	3,759	18		0	3,759-	18-
TOTAL	6,225,893	240,249	4	4,644	0	235,606-	4-

THREE-YEAR MOVING AVERAGES

90-92	45,533		0		0		0
91-93	34,737		0		0		0
92-94	10,922		0		0		0
93-95	86,512		0		0		0
94-96	109,560		0		0		0
95-97	132,323		0		0		0

DUKE ENERGY KENTUCKY

ACCOUNT 3150 ACCESSORY ELECTRIC EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	45,810		0		0		0
97-99	22,763		0		0		0
98-00							
99-01							
00-02							
01-03	25,238		0		0		0
02-04	268,432		0		0		0
03-05	291,566		0		0		0
04-06	266,328		0		0		0
05-07	90,181	3,136	3		0	3,136-	3-
06-08	68,075	3,136	5		0	3,136-	5-
07-09	82,439	3,152	4		0	3,152-	4-
08-10	51,852	16	0		0	16-	0
09-11	98,445	340	0		0	340-	0
10-12	1,346,014	324	0		0	324-	0
11-13	1,341,626	324	0		0	324-	0
12-14	1,296,655	6,222	0	333	0	5,889-	0
13-15	42,512	9,018	21	333	1	8,684-	20-
14-16	56,551	67,272	119	1,548	3	65,724-	116-
15-17	53,901	61,049	113	1,215	2	59,834-	111-
16-18	46,814	58,547	125	1,215	3	57,333-	122-
17-19	81,876	8,082	10		0	8,082-	10-
18-20	81,876	8,082	10		0	8,082-	10-
19-21	88,098	9,042	10		0	9,042-	10-
FIVE-YEAR AVERAGE							
17-21	53,280	5,601	11		0	5,601-	11-

DUKE ENERGY KENTUCKY

ACCOUNT 3160 MISCELLANEOUS POWER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	46,577		0		0		0
1991	17,681		0		0		0
1992							
1993							
1994	19,547		0		0		0
1995	13,008		0		0		0
1996							
1997							
1998							
1999							
2000							
2001							
2002							
2003	138,740		0		0		0
2004							
2005	113,268	775	1	2,500	2	1,725	2
2006							
2007	36,418	354	1		0	354-	1-
2008							
2009	28,970		0		0		0
2010	1,129,078	13,421	1		0	13,421-	1-
2011	77,470-		0		0		0
2012	29,490		0		0		0
2013	161,855		0		0		0
2014	106,228	6,571	6		0	6,571-	6-
2015	84,021	1,485	2		0	1,485-	2-
2016	123,305	453	0		0	453-	0
2017	7,976-	143,623			0	143,623-	
2018		16,582				16,582-	
2019	353,290	47,256-	13-		0	47,256	13
2020	513,676	1,372	0		0	1,372-	0
2021	244,149		0		0		0
TOTAL	3,073,856	137,380	4	2,500	0	134,880-	4-

THREE-YEAR MOVING AVERAGES

90-92	21,420		0		0		0
91-93	5,894		0		0		0
92-94	6,516		0		0		0
93-95	10,852		0		0		0
94-96	10,852		0		0		0
95-97	4,336		0		0		0

DUKE ENERGY KENTUCKY

ACCOUNT 3160 MISCELLANEOUS POWER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98							
97-99							
98-00							
99-01							
00-02							
01-03	46,247		0		0		0
02-04	46,247		0		0		0
03-05	84,003	258	0	833	1	575	1
04-06	37,756	258	1	833	2	575	2
05-07	49,895	376	1	833	2	457	1
06-08	12,139	118	1		0	118-	1-
07-09	21,796	118	1		0	118-	1-
08-10	386,016	4,474	1		0	4,474-	1-
09-11	360,193	4,474	1		0	4,474-	1-
10-12	360,366	4,474	1		0	4,474-	1-
11-13	37,959		0		0		0
12-14	99,191	2,190	2		0	2,190-	2-
13-15	117,368	2,685	2		0	2,685-	2-
14-16	104,518	2,836	3		0	2,836-	3-
15-17	66,450	48,520	73		0	48,520-	73-
16-18	38,443	53,553	139		0	53,553-	139-
17-19	115,105	37,650	33		0	37,650-	33-
18-20	288,989	9,767-	3-		0	9,767	3
19-21	370,372	15,295-	4-		0	15,295	4
FIVE-YEAR AVERAGE							
17-21	220,628	22,864	10		0	22,864-	10-

DUKE ENERGY KENTUCKY

ACCOUNT 3410 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2007	10,618	936	9		0	936-	9-
2008	22,463	5,016	22		0	5,016-	22-
2009							
2010	15,621	4,410	28		0	4,410-	28-
2011							
2012	6,963		0		0		0
2013							
2014	75,984	5,933	8		0	5,933-	8-
2015							
2016							
2017	172,056	37,476	22		0	37,476-	22-
2018		33,596				33,596-	
2019	14,301	1,238	9		0	1,238-	9-
2020	150,447	54,195	36		0	54,195-	36-
2021	10,444	2,094	20		0	2,094-	20-
TOTAL	478,897	144,893	30		0	144,893-	30-

THREE-YEAR MOVING AVERAGES

07-09	11,027	1,984	18		0	1,984-	18-
08-10	12,694	3,142	25		0	3,142-	25-
09-11	5,207	1,470	28		0	1,470-	28-
10-12	7,528	1,470	20		0	1,470-	20-
11-13	2,321		0		0		0
12-14	27,649	1,978	7		0	1,978-	7-
13-15	25,328	1,978	8		0	1,978-	8-
14-16	25,328	1,978	8		0	1,978-	8-
15-17	57,352	12,492	22		0	12,492-	22-
16-18	57,352	23,691	41		0	23,691-	41-
17-19	62,119	24,103	39		0	24,103-	39-
18-20	54,916	29,676	54		0	29,676-	54-
19-21	58,397	19,176	33		0	19,176-	33-

FIVE-YEAR AVERAGE

17-21	69,450	25,720	37		0	25,720-	37-
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DUKE ENERGY KENTUCKY

ACCOUNT 3420 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2004	42,403		0		0		0
2005							
2006							
2007							
2008							
2009							
2010							
2011							
2012	98,945		0		0		0
2013							
2014	21,496	777	4		0	777-	4-
2015	83,669	4,996	6		0	4,996-	6-
2016	70,159	3,042	4		0	3,042-	4-
2017							
2018							
2019	2,054,051	4,375	0		0	4,375-	0
2020	73,342	2,032,046		100,473	137	1,931,573-	
2021							
TOTAL	2,444,064	2,045,236	84	100,473	4	1,944,763-	80-

THREE-YEAR MOVING AVERAGES

04-06	14,134		0		0		0
05-07							
06-08							
07-09							
08-10							
09-11							
10-12	32,982		0		0		0
11-13	32,982		0		0		0
12-14	40,147	259	1		0	259-	1-
13-15	35,055	1,924	5		0	1,924-	5-
14-16	58,441	2,938	5		0	2,938-	5-
15-17	51,276	2,679	5		0	2,679-	5-
16-18	23,386	1,014	4		0	1,014-	4-
17-19	684,684	1,458	0		0	1,458-	0

DUKE ENERGY KENTUCKY

ACCOUNT 3420 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
18-20	709,131	678,807	96	33,491	5	645,316-	91-
19-21	709,131	678,807	96	33,491	5	645,316-	91-
FIVE-YEAR AVERAGE							
17-21	425,479	407,284	96	20,095	5	387,190-	91-

DUKE ENERGY KENTUCKY

ACCOUNT 3440 GENERATORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2003	5,187		0		0		0
2004	32,402		0		0		0
2005	8,425,368		0	5,014,886	60	5,014,886	60
2006	4,742		0		0		0
2007	3,708,458		0		0		0
2008	11,539,368	5,444	0		0	5,444-	0
2009	12,561,235		0	2,595,016	21	2,595,016	21
2010	2,460,899		0		0		0
2011	3,261,267		0	786,306	24	786,306	24
2012	6,057,335		0		0		0
2013	199,816		0		0		0
2014	1,410,294-		0		0		0
2015	928,074-	65,681	7-		0	65,681-	7
2016	66,004-	24,500	37-		0	24,500-	37
2017	12,261-	14,900	122-		0	14,900-	122
2018		15,959		2,127,028		2,111,069	
2019	290,845	43,338	15		0	43,338-	15-
2020	2,236,503	93,647	4		0	93,647-	4-
2021	2,912,065	173,627	6	7,638	0	165,989-	6-
TOTAL	51,278,858	437,095	1	10,530,873	21	10,093,777	20

THREE-YEAR MOVING AVERAGES

03-05	2,820,986		0	1,671,629	59	1,671,629	59
04-06	2,820,837		0	1,671,629	59	1,671,629	59
05-07	4,046,189		0	1,671,629	41	1,671,629	41
06-08	5,084,189	1,815	0		0	1,815-	0
07-09	9,269,687	1,815	0	865,005	9	863,190	9
08-10	8,853,834	1,815	0	865,005	10	863,190	10
09-11	6,094,467		0	1,127,107	18	1,127,107	18
10-12	3,926,500		0	262,102	7	262,102	7
11-13	3,172,806		0	262,102	8	262,102	8
12-14	1,615,619		0		0		0
13-15	712,851-	21,894	3-		0	21,894-	3
14-16	801,457-	30,060	4-		0	30,060-	4
15-17	335,446-	35,027	10-		0	35,027-	10
16-18	26,088-	18,453	71-	709,009		690,556	
17-19	92,861	24,732	27	709,009	764	684,277	737

DUKE ENERGY KENTUCKY

ACCOUNT 3440 GENERATORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
18-20	842,449	50,981	6	709,009	84	658,028	78
19-21	1,813,138	103,537	6	2,546	0	100,991-	6-
FIVE-YEAR AVERAGE							
17-21	1,085,430	68,294	6	426,933	39	358,639	33

DUKE ENERGY KENTUCKY

ACCOUNT 3450 ACCESSORY ELECTRIC EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2003	52,428		0		0		0
2004							
2005							
2006							
2007	6,651	873	13		0	873-	13-
2008	6,268	892	14		0	892-	14-
2009							
2010							
2011	198,105-		0		0		0
2012	1,186,043		0		0		0
2013							
2014	55,185	12,089	22		0	12,089-	22-
2015	1,368,190	17,000	1	8,391	1	8,609-	1-
2016							
2017	146,082	11,870	8		0	11,870-	8-
2018	61,462	2,067	3		0	2,067-	3-
2019							
2020	247,331	27,602	11		0	27,602-	11-
2021	223,341	252	0		0	252-	0
TOTAL	3,154,876	72,645	2	8,391	0	64,254-	2-

THREE-YEAR MOVING AVERAGES

03-05	17,476		0		0		0
04-06							
05-07	2,217	291	13		0	291-	13-
06-08	4,306	588	14		0	588-	14-
07-09	4,306	588	14		0	588-	14-
08-10	2,089	297	14		0	297-	14-
09-11	66,035-		0		0		0
10-12	329,313		0		0		0
11-13	329,313		0		0		0
12-14	413,743	4,030	1		0	4,030-	1-
13-15	474,458	9,696	2	2,797	1	6,899-	1-
14-16	474,458	9,696	2	2,797	1	6,899-	1-
15-17	504,757	9,623	2	2,797	1	6,826-	1-
16-18	69,181	4,646	7		0	4,646-	7-
17-19	69,181	4,646	7		0	4,646-	7-

DUKE ENERGY KENTUCKY

ACCOUNT 3450 ACCESSORY ELECTRIC EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
18-20	102,931	9,890	10		0	9,890-	10-
19-21	156,891	9,285	6		0	9,285-	6-
FIVE-YEAR AVERAGE							
17-21	135,643	8,358	6		0	8,358-	6-

DUKE ENERGY KENTUCKY

ACCOUNT 3460 MISCELLANEOUS POWER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2003	37,219		0		0		0
2004							
2005	23,673		0		0		0
2006							
2007	82,232	2,907	4		0	2,907-	4-
2008							
2009	146,504		0		0		0
2010	71,076-		0		0		0
2011	90,281	956	1		0	956-	1-
2012							
2013	6,098		0		0		0
2014							
2015							
2016	254-	2,955			0	2,955-	
2017	84,101	4,246	5		0	4,246-	5-
2018	7,407	2,358	32		0	2,358-	32-
2019	17,049	344	2		0	344-	2-
2020	60,742	95	0		0	95-	0
2021							
TOTAL	483,976	13,861	3		0	13,861-	3-

THREE-YEAR MOVING AVERAGES

03-05	20,297		0		0		0
04-06	7,891		0		0		0
05-07	35,302	969	3		0	969-	3-
06-08	27,411	969	4		0	969-	4-
07-09	76,245	969	1		0	969-	1-
08-10	25,143		0		0		0
09-11	55,237	319	1		0	319-	1-
10-12	6,402	319	5		0	319-	5-
11-13	32,126	319	1		0	319-	1-
12-14	2,032		0		0		0
13-15	2,032		0		0		0
14-16	85-	985			0	985-	
15-17	27,949	2,401	9		0	2,401-	9-
16-18	30,418	3,186	10		0	3,186-	10-
17-19	36,186	2,316	6		0	2,316-	6-

DUKE ENERGY KENTUCKY

ACCOUNT 3460 MISCELLANEOUS POWER PLANT EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
18-20	28,399	932	3		0	932-	3-
19-21	25,930	146	1		0	146-	1-
FIVE-YEAR AVERAGE							
17-21	33,860	1,409	4		0	1,409-	4-

DUKE ENERGY KENTUCKY

ACCOUNTS 3520 AND 3610 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1992	930	2,208	237		0	2,208-	237-
1993							
1994	1,042		0		0		0
1995							
1996							
1997							
1998	1,925		0		0		0
1999	1,918	370-	19-		0	370	19
2000							
2001							
2002							
2003							
2004							
2005	34,703		0		0		0
2006	6,015	9,055	151		0	9,055-	151-
2007	1,175	39,895			0	39,895-	
2008							
2009							
2010	4,149	2,333	56		0	2,333-	56-
2011	56,262	14,966	27		0	14,966-	27-
2012							
2013							
2014	67,048	44,740	67		0	44,740-	67-
2015	60,906	112,689	185		0	112,689-	185-
2016							
2017	55,722		0		0		0
2018							
2019							
2020							
2021							
TOTAL	291,795	225,515	77		0	225,515-	77-

THREE-YEAR MOVING AVERAGES

92-94	657	736	112		0	736-	112-
93-95	347		0		0		0
94-96	347		0		0		0
95-97							
96-98	642		0		0		0
97-99	1,281	123-	10-		0	123	10
98-00	1,281	123-	10-		0	123	10
99-01	639	123-	19-		0	123	19

DUKE ENERGY KENTUCKY

ACCOUNTS 3520 AND 3610 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
00-02							
01-03							
02-04							
03-05	11,568		0		0		0
04-06	13,573	3,018	22		0	3,018-	22-
05-07	13,964	16,317	117		0	16,317-	117-
06-08	2,397	16,317	681		0	16,317-	681-
07-09	392	13,298			0	13,298-	
08-10	1,383	778	56		0	778-	56-
09-11	20,137	5,766	29		0	5,766-	29-
10-12	20,137	5,766	29		0	5,766-	29-
11-13	18,754	4,989	27		0	4,989-	27-
12-14	22,349	14,913	67		0	14,913-	67-
13-15	42,652	52,476	123		0	52,476-	123-
14-16	42,652	52,476	123		0	52,476-	123-
15-17	38,876	37,563	97		0	37,563-	97-
16-18	18,574		0		0		0
17-19	18,574		0		0		0
18-20							
19-21							
FIVE-YEAR AVERAGE							
17-21	11,144		0		0		0

DUKE ENERGY KENTUCKY
ACCOUNT 3530 STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1996	5,552	1,770	32		0	1,770-	32-
1997							
1998							
1999	4,924		0		0		0
2000							
2001							
2002							
2003	8,271	971	12		0	971-	12-
2004	28,699		0		0		0
2005	8,525	244	3		0	244-	3-
2006							
2007							
2008	25,000		0		0		0
2009							
2010							
2011							
2012							
2013							
2014	10,106	5,940	59		0	5,940-	59-
2015	251,224	67,833	27		0	67,833-	27-
2016	18,716	5,459	29		0	5,459-	29-
2017	124,854	8,210	7		0	8,210-	7-
2018	219,257	21,551	10		0	21,551-	10-
2019							
2020	1,179,021	205,362	17		0	205,362-	17-
2021	1,881,249	225,179	12		0	225,179-	12-
TOTAL	3,765,400	542,518	14		0	542,518-	14-

THREE-YEAR MOVING AVERAGES

96-98	1,851	590	32		0	590-	32-
97-99	1,641		0		0		0
98-00	1,641		0		0		0
99-01	1,641		0		0		0
00-02							
01-03	2,757	324	12		0	324-	12-
02-04	12,323	324	3		0	324-	3-
03-05	15,165	405	3		0	405-	3-
04-06	12,408	81	1		0	81-	1-
05-07	2,842	81	3		0	81-	3-
06-08	8,333		0		0		0
07-09	8,333		0		0		0

DUKE ENERGY KENTUCKY

ACCOUNT 3530 STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
08-10	8,333		0		0		0
09-11							
10-12							
11-13							
12-14	3,369	1,980	59		0	1,980-	59-
13-15	87,110	24,591	28		0	24,591-	28-
14-16	93,349	26,410	28		0	26,410-	28-
15-17	131,598	27,167	21		0	27,167-	21-
16-18	120,942	11,740	10		0	11,740-	10-
17-19	114,704	9,920	9		0	9,920-	9-
18-20	466,093	75,638	16		0	75,638-	16-
19-21	1,020,090	143,514	14		0	143,514-	14-
FIVE-YEAR AVERAGE							
17-21	680,876	92,060	14		0	92,060-	14-

DUKE ENERGY KENTUCKY

ACCOUNTS 3532 AND 3622 STATION EQUIPMENT - MAJOR

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2000	24,335		0		0		0
2001							
2002	40,579		0		0		0
2003	683,187	13,017	2		0	13,017-	2-
2004	70,129	66,253	94		0	66,253-	94-
2005	105,868	3,406	3		0	3,406-	3-
2006	11,848	5,524	47		0	5,524-	47-
2007	32,151	4,148	13		0	4,148-	13-
2008	154,112	28,695	19	30,651	20	1,956	1
2009	2,241	1,357	61		0	1,357-	61-
2010	109,099	10,604	10		0	10,604-	10-
2011							
2012							
2013							
2014							
2015							
2016							
2017							
2018	2,674	1,032	39		0	1,032-	39-
2019							
2020							
2021							
TOTAL	1,236,224	134,036	11	30,651	2	103,385-	8-

THREE-YEAR MOVING AVERAGES

00-02	21,638		0		0		0
01-03	241,255	4,339	2		0	4,339-	2-
02-04	264,632	26,423	10		0	26,423-	10-
03-05	286,395	27,559	10		0	27,559-	10-
04-06	62,615	25,061	40		0	25,061-	40-
05-07	49,956	4,359	9		0	4,359-	9-
06-08	66,037	12,789	19	10,217	15	2,572-	4-
07-09	62,835	11,400	18	10,217	16	1,183-	2-
08-10	88,484	13,552	15	10,217	12	3,335-	4-
09-11	37,113	3,987	11		0	3,987-	11-
10-12	36,366	3,535	10		0	3,535-	10-
11-13							
12-14							
13-15							
14-16							
15-17							

DUKE ENERGY KENTUCKY

ACCOUNTS 3532 AND 3622 STATION EQUIPMENT - MAJOR

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
16-18	891	344	39		0	344-	39-
17-19	891	344	39		0	344-	39-
18-20	891	344	39		0	344-	39-
19-21							
FIVE-YEAR AVERAGE							
17-21	535	206	39		0	206-	39-

DUKE ENERGY KENTUCKY
ACCOUNT 3550 POLES AND FIXTURES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	763	972	127	1,766	232	794	104
1991	14,549	4,066	28	17,670	121	13,605	94
1992	8,323	6,604	79	1,262	15	5,342-	64-
1993	27,199	4,929	18	12,384	46	7,455	27
1994	83,911	17,032	20	150,518	179	133,486	159
1995	46,396	8,076	17	8,057	17	19-	0
1996	109,925	9,135	8		0	9,135-	8-
1997	4,381	5,437	124	279	6	5,158-	118-
1998	4,211	862	20	5,114	121	4,252	101
1999	50,612	14,338	28	18,395	36	4,057	8
2000	9,767	3,084	32		0	3,084-	32-
2001	117,966	20,992	18		0	20,992-	18-
2002	13,673	6,716	49		0	6,716-	49-
2003	517	1,763	341		0	1,763-	341-
2004	12,902	5,311	41		0	5,311-	41-
2005	36,647	17,279	47	2,000	5	15,279-	42-
2006	47,381	3,638	8		0	3,638-	8-
2007	75,430	45,207	60		0	45,207-	60-
2008	43,933	5,851	13		0	5,851-	13-
2009	19,683	17,472	89		0	17,472-	89-
2010							
2011	69,526	18,700	27		0	18,700-	27-
2012	20,502		0		0		0
2013	9,915		0		0		0
2014	4,760	8,199	172		0	8,199-	172-
2015		3,338				3,338-	
2016	16,021	33,955	212		0	33,955-	212-
2017	45,555	54,776	120		0	54,776-	120-
2018		84,870				84,870-	
2019	3,366	73	2		0	73-	2-
2020							
2021	995,920	1,972,555	198	1,882	0	1,970,673-	198-
TOTAL	1,893,732	2,375,229	125	219,327	12	2,155,902-	114-

THREE-YEAR MOVING AVERAGES

90-92	7,878	3,880	49	6,899	88	3,019	38
91-93	16,690	5,200	31	10,439	63	5,239	31
92-94	39,811	9,521	24	54,721	137	45,200	114
93-95	52,502	10,012	19	56,986	109	46,974	89
94-96	80,077	11,414	14	52,858	66	41,444	52
95-97	53,567	7,549	14	2,779	5	4,770-	9-

DUKE ENERGY KENTUCKY

ACCOUNT 3550 POLES AND FIXTURES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	39,506	5,145	13	1,798	5	3,347-	8-
97-99	19,735	6,879	35	7,929	40	1,050	5
98-00	21,530	6,095	28	7,836	36	1,741	8
99-01	59,448	12,805	22	6,132	10	6,673-	11-
00-02	47,135	10,264	22		0	10,264-	22-
01-03	44,052	9,823	22		0	9,823-	22-
02-04	9,031	4,597	51		0	4,597-	51-
03-05	16,689	8,118	49	667	4	7,451-	45-
04-06	32,310	8,743	27	667	2	8,076-	25-
05-07	53,152	22,041	41	667	1	21,375-	40-
06-08	55,581	18,232	33		0	18,232-	33-
07-09	46,349	22,844	49		0	22,844-	49-
08-10	21,205	7,775	37		0	7,775-	37-
09-11	29,737	12,057	41		0	12,057-	41-
10-12	30,009	6,233	21		0	6,233-	21-
11-13	33,314	6,233	19		0	6,233-	19-
12-14	11,726	2,733	23		0	2,733-	23-
13-15	4,891	3,846	79		0	3,846-	79-
14-16	6,927	15,164	219		0	15,164-	219-
15-17	20,525	30,690	150		0	30,690-	150-
16-18	20,525	57,867	282		0	57,867-	282-
17-19	16,307	46,573	286		0	46,573-	286-
18-20	1,122	28,314			0	28,314-	
19-21	333,095	657,542	197	627	0	656,915-	197-
FIVE-YEAR AVERAGE							
17-21	208,968	422,455	202	376	0	422,078-	202-

DUKE ENERGY KENTUCKY

ACCOUNT 3560 OVERHEAD CONDUCTORS AND DEVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	399	425	107	26	7	399-	100-
1991	5,146	752	15	11,297	220	10,545	205
1992	6,930	5,658	82	584	8	5,074-	73-
1993	10,050	915	9	385	4	530-	5-
1994	74,663	15,269	20		0	15,269-	20-
1995	47,175	6,437	14	7,803	17	1,366	3
1996	115,748		0		0		0
1997							
1998	50		0		0		0
1999	38,345	27,198-	71-	1,288	3	28,486	74
2000							
2001	140,500	13,093	9		0	13,093-	9-
2002	2,879	3,919	136		0	3,919-	136-
2003		1,834				1,834-	
2004	5,376	6,881	128		0	6,881-	128-
2005	20,039		0	2,000	10	2,000	10
2006	71,240	11,817	17		0	11,817-	17-
2007	39,937	6,050	15		0	6,050-	15-
2008	64,045	16,180	25		0	16,180-	25-
2009	456	1,919-	421-		0	1,919	421
2010							
2011		1,563-				1,563	
2012							
2013	13,949		0		0		0
2014	10,588		0		0		0
2015		1,589				1,589-	
2016	4,853	7,125	147		0	7,125-	147-
2017	43	10	24		0	10-	24-
2018	6,523	6,995	107		0	6,995-	107-
2019	289,816		0		0		0
2020	2,822		0		0		0
2021	246,104	532,334	216	943	0	531,391-	216-
TOTAL	1,217,675	606,603	50	24,327	2	582,276-	48-

THREE-YEAR MOVING AVERAGES

90-92	4,158	2,279	55	3,969	95	1,691	41
91-93	7,375	2,442	33	4,089	55	1,647	22
92-94	30,547	7,281	24	323	1	6,958-	23-
93-95	43,963	7,540	17	2,729	6	4,811-	11-
94-96	79,195	7,235	9	2,601	3	4,634-	6-
95-97	54,308	2,146	4	2,601	5	455	1

DUKE ENERGY KENTUCKY

ACCOUNT 3560 OVERHEAD CONDUCTORS AND DEVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	38,599		0		0		0
97-99	12,798	9,066-	71-	430	3	9,495	74
98-00	12,798	9,066-	71-	430	3	9,495	74
99-01	59,615	4,702-	8-	430	1	5,131	9
00-02	47,793	5,670	12		0	5,670-	12-
01-03	47,793	6,282	13		0	6,282-	13-
02-04	2,752	4,211	153		0	4,211-	153-
03-05	8,472	2,905	34	667	8	2,238-	26-
04-06	32,219	6,233	19	667	2	5,566-	17-
05-07	43,739	5,956	14	667	2	5,289-	12-
06-08	58,407	11,349	19		0	11,349-	19-
07-09	34,812	6,770	19		0	6,770-	19-
08-10	21,500	4,754	22		0	4,754-	22-
09-11	152	1,161-	764-		0	1,161	764
10-12		521-				521	
11-13	4,650	521-	11-		0	521	11
12-14	8,179		0		0		0
13-15	8,179	530	6		0	530-	6-
14-16	5,147	2,905	56		0	2,905-	56-
15-17	1,632	2,908	178		0	2,908-	178-
16-18	3,806	4,710	124		0	4,710-	124-
17-19	98,794	2,335	2		0	2,335-	2-
18-20	99,720	2,332	2		0	2,332-	2-
19-21	179,581	177,445	99	314	0	177,130-	99-
FIVE-YEAR AVERAGE							
17-21	109,061	107,868	99	189	0	107,679-	99-

DUKE ENERGY KENTUCKY
ACCOUNT 3620 STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	35,343	23,601	67		0	23,601-	67-
1991		14,827				14,827-	
1992	21,444	3,732	17		0	3,732-	17-
1993	395,717	4,265	1		0	4,265-	1-
1994	608,354	59,357	10	2,449-	0	61,807-	10-
1995	141,231	28,005	20	214	0	27,791-	20-
1996	35,982	13,491	37	16	0	13,476-	37-
1997	63,344	7,053	11	70	0	6,983-	11-
1998	686,272	3,445-	1-		0	3,445	1
1999	181,674-	7,267	4-	5,655	3-	1,612-	1
2000							
2001							
2002							
2003	134,044	50,103	37		0	50,103-	37-
2004	3,033	857	28		0	857-	28-
2005	121,086	25,083	21		0	25,083-	21-
2006	115,429	160,756	139		0	160,756-	139-
2007	45,070	1,576	3		0	1,576-	3-
2008	18,828	864	5		0	864-	5-
2009	511	1,009	197		0	1,009-	197-
2010	59,547	27,855	47		0	27,855-	47-
2011	260,714	62,252	24		0	62,252-	24-
2012							
2013	356,343	67,546	19	16,665	5	50,881-	14-
2014	638,580	204,028	32		0	204,028-	32-
2015	372,145	44,602	12	15,327	4	29,275-	8-
2016	30,518	10,846	36		0	10,846-	36-
2017	24,595	4,715	19		0	4,715-	19-
2018	3,168,288	168,588	5		0	168,588-	5-
2019	2,356,661	40,437	2		0	40,437-	2-
2020	1,064,614	307,364	29		0	307,364-	29-
2021	7,240,542	498,290	7		0	498,290-	7-
TOTAL	17,816,562	1,834,927	10	35,497	0	1,799,430-	10-

THREE-YEAR MOVING AVERAGES

90-92	18,929	14,053	74		0	14,053-	74-
91-93	139,054	7,608	5		0	7,608-	5-
92-94	341,838	22,452	7	816-	0	23,268-	7-
93-95	381,768	30,543	8	745-	0	31,288-	8-
94-96	261,856	33,618	13	740-	0	34,358-	13-
95-97	80,186	16,183	20	100	0	16,083-	20-

DUKE ENERGY KENTUCKY

ACCOUNT 3620 STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	261,866	5,700	2	28	0	5,671-	2-
97-99	189,314	3,625	2	1,908	1	1,717-	1-
98-00	168,199	1,274	1	1,885	1	611	0
99-01	60,558-	2,422	4-	1,885	3-	537-	1
00-02							
01-03	44,681	16,701	37		0	16,701-	37-
02-04	45,692	16,987	37		0	16,987-	37-
03-05	86,054	25,348	29		0	25,348-	29-
04-06	79,849	62,232	78		0	62,232-	78-
05-07	93,861	62,472	67		0	62,472-	67-
06-08	59,776	54,399	91		0	54,399-	91-
07-09	21,470	1,150	5		0	1,150-	5-
08-10	26,295	9,909	38		0	9,909-	38-
09-11	106,924	30,372	28		0	30,372-	28-
10-12	106,754	30,036	28		0	30,036-	28-
11-13	205,686	43,266	21	5,555	3	37,711-	18-
12-14	331,641	90,525	27	5,555	2	84,970-	26-
13-15	455,689	105,392	23	10,664	2	94,728-	21-
14-16	347,081	86,492	25	5,109	1	81,383-	23-
15-17	142,419	20,054	14	5,109	4	14,945-	10-
16-18	1,074,467	61,383	6		0	61,383-	6-
17-19	1,849,848	71,247	4		0	71,247-	4-
18-20	2,196,521	172,130	8		0	172,130-	8-
19-21	3,553,939	282,030	8		0	282,030-	8-
FIVE-YEAR AVERAGE							
17-21	2,770,940	203,879	7		0	203,879-	7-

DUKE ENERGY KENTUCKY

ACCOUNT 3640 POLES, TOWERS AND FIXTURES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	217,732	98,829	45	151,720	70	52,891	24
1991	220,355	160,349	73	133,244	60	27,105-	12-
1992	838,996	181,086	22	373,355	45	192,269	23
1993	187,297	118,920	63	213,890	114	94,970	51
1994	383,269	194,529	51	144,301	38	50,228-	13-
1995	477,684	171,827	36	380,720	80	208,893	44
1996	174,965	58,850	34	32,929-	19-	91,778-	52-
1997	147,637	45,107-	31-	107,087	73	152,194	103
1998	207,158	27,024	13	20,768	10	6,256-	3-
1999	395,043	108,686	28	7,371	2	101,315-	26-
2000	102,198	7,376-	7-		0	7,376	7
2001	548,586	74,872	14	12,273	2	62,599-	11-
2002	101,028	5,918	6		0	5,918-	6-
2003	138,540	153,817	111		0	153,817-	111-
2004	504,478	3,253	1		0	3,253-	1-
2005	656,916	76,489	12	4	0	76,485-	12-
2006	307,789	6,199	2		0	6,199-	2-
2007	485,951	38,788	8		0	38,788-	8-
2008	406,689	35,745	9		0	35,745-	9-
2009	329,339	191,659	58	46-	0	191,705-	58-
2010	299,289	467,435	156		0	467,435-	156-
2011	270,974	2,001	1		0	2,001-	1-
2012	154,070	72,712	47		0	72,712-	47-
2013	295,418		0		0		0
2014	571,297	392,057	69	272	0	391,785-	69-
2015	15,426	60,190	390	6-	0	60,197-	390-
2016	655,881	314,794	48		0	314,794-	48-
2017	244,982	740,748	302	76,865	31	663,883-	271-
2018	409,478	1,465,094	358	1,989	0	1,463,105-	357-
2019	276,844	67,523	24		0	67,523-	24-
2020	392,112	186,530	48		0	186,530-	48-
2021	793,617	2,463,131	310	123-	0	2,463,253-	310-
TOTAL	11,211,038	7,886,572	70	1,590,755	14	6,295,817-	56-

THREE-YEAR MOVING AVERAGES

90-92	425,694	146,755	34	219,440	52	72,685	17
91-93	415,549	153,452	37	240,163	58	86,711	21
92-94	469,854	164,845	35	243,849	52	79,004	17
93-95	349,417	161,759	46	246,304	70	84,545	24
94-96	345,306	141,735	41	164,031	48	22,295	6
95-97	266,762	61,857	23	151,626	57	89,769	34

DUKE ENERGY KENTUCKY

ACCOUNT 3640 POLES, TOWERS AND FIXTURES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	176,586	13,589	8	31,642	18	18,053	10
97-99	249,946	30,201	12	45,076	18	14,875	6
98-00	234,800	42,778	18	9,380	4	33,398-	14-
99-01	348,609	58,728	17	6,548	2	52,179-	15-
00-02	250,604	24,471	10	4,091	2	20,380-	8-
01-03	262,718	78,202	30	4,091	2	74,111-	28-
02-04	248,015	54,329	22		0	54,329-	22-
03-05	433,311	77,853	18	1	0	77,851-	18-
04-06	489,728	28,647	6	1	0	28,645-	6-
05-07	483,552	40,492	8	1	0	40,491-	8-
06-08	400,143	26,911	7		0	26,911-	7-
07-09	407,326	88,731	22	15-	0	88,746-	22-
08-10	345,106	231,613	67	15-	0	231,629-	67-
09-11	299,867	220,365	73	15-	0	220,380-	73-
10-12	241,444	180,716	75		0	180,716-	75-
11-13	240,154	24,904	10		0	24,904-	10-
12-14	340,261	154,923	46	91	0	154,832-	46-
13-15	294,047	150,749	51	88	0	150,661-	51-
14-16	414,201	255,680	62	88	0	255,592-	62-
15-17	305,430	371,911	122	25,619	8	346,291-	113-
16-18	436,780	840,212	192	26,284	6	813,927-	186-
17-19	310,435	757,788	244	26,284	8	731,504-	236-
18-20	359,478	573,049	159	663	0	572,386-	159-
19-21	487,524	905,728	186	41-	0	905,769-	186-
FIVE-YEAR AVERAGE							
17-21	423,407	984,605	233	15,746	4	968,859-	229-

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	303,463	136,626	45	75,581	25	61,045-	20-
1991	227,749	147,390	65	155,875	68	8,484	4
1992	313,481	219,476	70	84,048	27	135,428-	43-
1993	240,027	136,014	57	84,089	35	51,925-	22-
1994	611,884	406,780	66	170,730	28	236,049-	39-
1995	596,355	234,379	39	342,025	57	107,646	18
1996	312,145	12,935	4	18,101-	6-	31,036-	10-
1997	80,667	130,365	162	19,621	24	110,744-	137-
1998	138,235	14,622	11	16,660	12	2,038	1
1999	393,713	121,417	31	2,920	1	118,497-	30-
2000	130,205	844	1		0	844-	1-
2001	729,041	196,330	27	45,423	6	150,907-	21-
2002	25,330-	55,995	221-		0	55,995-	221
2003	118,377	362,994	307		0	362,994-	307-
2004	836,373	35,574	4		0	35,574-	4-
2005	813,573	459,814	57	44	0	459,770-	57-
2006	390,352	63,797	16		0	63,797-	16-
2007	973,394	389,352	40		0	389,352-	40-
2008	538,581	224,711	42		0	224,711-	42-
2009	632,125	200,030	32	1,889	0	198,141-	31-
2010	935,685	1,403,092	150		0	1,403,092-	150-
2011	860,354	5,419	1		0	5,419-	1-
2012	1,303,520	352,308	27		0	352,308-	27-
2013	2,705,340		0		0		0
2014	7,116,082	1,161,243	16	7,705	0	1,153,538-	16-
2015	1,436,963-	328,128	23-	110-	0	328,238-	23
2016	3,273,645	989,485	30		0	989,485-	30-
2017	1,314,887	1,074,671	82	112,011	9	962,660-	73-
2018	724,734	1,690,786	233	1,989	0	1,688,797-	233-
2019	2,613,458	32,091	1		0	32,091-	1-
2020	2,763,999	484,622	18		0	484,622-	18-
2021	1,413,688	3,901,868	276	358-	0	3,902,226-	276-
TOTAL	31,942,842	14,973,158	47	1,102,041	3	13,871,117-	43-

THREE-YEAR MOVING AVERAGES

90-92	281,564	167,831	60	105,168	37	62,663-	22-
91-93	260,419	167,627	64	108,004	41	59,623-	23-
92-94	388,464	254,090	65	112,956	29	141,134-	36-
93-95	482,755	259,057	54	198,948	41	60,109-	12-
94-96	506,795	218,031	43	164,885	33	53,146-	10-
95-97	329,723	125,893	38	114,515	35	11,378-	3-

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	177,016	52,641	30	6,060	3	46,581-	26-
97-99	204,205	88,801	43	13,067	6	75,734-	37-
98-00	220,718	45,628	21	6,527	3	39,101-	18-
99-01	417,653	106,197	25	16,114	4	90,083-	22-
00-02	277,972	84,390	30	15,141	5	69,249-	25-
01-03	274,029	205,106	75	15,141	6	189,966-	69-
02-04	309,807	151,521	49		0	151,521-	49-
03-05	589,441	286,127	49	15	0	286,113-	49-
04-06	680,099	186,395	27	15	0	186,380-	27-
05-07	725,773	304,321	42	15	0	304,307-	42-
06-08	634,109	225,954	36		0	225,954-	36-
07-09	714,700	271,365	38	630	0	270,735-	38-
08-10	702,131	609,278	87	630	0	608,648-	87-
09-11	809,388	536,180	66	630	0	535,551-	66-
10-12	1,033,186	586,940	57		0	586,940-	57-
11-13	1,623,071	119,242	7		0	119,242-	7-
12-14	3,708,314	504,517	14	2,568	0	501,948-	14-
13-15	2,794,820	496,457	18	2,531	0	493,925-	18-
14-16	2,984,255	826,285	28	2,531	0	823,754-	28-
15-17	1,050,523	797,428	76	37,300	4	760,128-	72-
16-18	1,771,089	1,251,647	71	38,000	2	1,213,647-	69-
17-19	1,551,026	932,516	60	38,000	2	894,516-	58-
18-20	2,034,064	735,833	36	663	0	735,170-	36-
19-21	2,263,715	1,472,860	65	119-	0	1,472,980-	65-
FIVE-YEAR AVERAGE							
17-21	1,766,153	1,436,807	81	22,728	1	1,414,079-	80-

DUKE ENERGY KENTUCKY
ACCOUNT 3660 UNDERGROUND CONDUIT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	2,240	6,496	290	9,926	443	3,431	153
1991	3,988	2,036	51	3,033-	76-	5,069-	127-
1992	8,711	3,249	37	2,761	32	489-	6-
1993	2,058	1,169	57		0	1,169-	57-
1994	2,013	894	44		0	894-	44-
1995	1,881	1,411	75		0	1,411-	75-
1996							
1997	1,360	217-	16-		0	217	16
1998							
1999	1,518	505	33		0	505-	33-
2000							
2001							
2002	4,609		0		0		0
2003	6,541	1,563	24		0	1,563-	24-
2004	3,222		0		0		0
2005	22,393	5,165	23		0	5,165-	23-
2006	11,712		0		0		0
2007	4,158	45	1		0	45-	1-
2008	5,640	1,135	20		0	1,135-	20-
2009	961	38	4		0	38-	4-
2010	991	74,897			0	74,897-	
2011	375	1	0		0	1-	0
2012	437	11,184			0	11,184-	
2013	44,240		0		0		0
2014	17,399	10,597	61	42	0	10,556-	61-
2015	8,309	149,206		99-	1-	149,305-	
2016	25,192	37	0		0	37-	0
2017		28,474-		6,494		34,967	
2018	41,871	1,623	4		0	1,623-	4-
2019	1,872		0		0		0
2020	1		0		0		0
2021	18,722	8,719	47		0	8,719-	47-
TOTAL	242,413	251,280	104	16,091	7	235,189-	97-

THREE-YEAR MOVING AVERAGES

90-92	4,980	3,927	79	3,218	65	709-	14-
91-93	4,919	2,152	44	90-	2-	2,242-	46-
92-94	4,261	1,771	42	920	22	850-	20-
93-95	1,984	1,158	58		0	1,158-	58-
94-96	1,298	768	59		0	768-	59-
95-97	1,080	398	37		0	398-	37-

DUKE ENERGY KENTUCKY

ACCOUNT 3660 UNDERGROUND CONDUIT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	453	72-	16-		0	72	16
97-99	959	96	10		0	96-	10-
98-00	506	168	33		0	168-	33-
99-01	506	168	33		0	168-	33-
00-02	1,536		0		0		0
01-03	3,717	521	14		0	521-	14-
02-04	4,790	521	11		0	521-	11-
03-05	10,718	2,242	21		0	2,242-	21-
04-06	12,442	1,722	14		0	1,722-	14-
05-07	12,754	1,737	14		0	1,737-	14-
06-08	7,170	393	5		0	393-	5-
07-09	3,586	406	11		0	406-	11-
08-10	2,531	25,357			0	25,357-	
09-11	776	24,979			0	24,979-	
10-12	601	28,694			0	28,694-	
11-13	15,017	3,729	25		0	3,729-	25-
12-14	20,692	7,260	35	14	0	7,247-	35-
13-15	23,316	53,268	228	19-	0	53,287-	229-
14-16	16,967	53,280	314	19-	0	53,299-	314-
15-17	11,167	40,256	360	2,131	19	38,125-	341-
16-18	22,354	8,938-	40-	2,165	10	11,103	50
17-19	14,581	8,950-	61-	2,165	15	11,115	76
18-20	14,581	541	4		0	541-	4-
19-21	6,865	2,906	42		0	2,906-	42-
FIVE-YEAR AVERAGE							
17-21	12,493	3,626-	29-	1,299	10	4,925	39

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	87,401	30,394	35	23,927	27	6,467-	7-
1991	31,879	17,356	54	36,234	114	18,877	59
1992	42,260	14,850	35	9,879	23	4,971-	12-
1993	69,647	24,244	35	15,918	23	8,326-	12-
1994	97,300	39,946	41	35,687	37	4,259-	4-
1995	75,590	44,001	58	261,764-	346-	305,765-	405-
1996	34,498	3,291	10	1,099	3	2,192-	6-
1997	3,146	11,711-	372-	6,457	205	18,168	577
1998	1,662	5,918	356	2,565	154	3,353-	202-
1999	27,742	5,107	18		0	5,107-	18-
2000							
2001	8,202		0		0		0
2002	29,273		0		0		0
2003	50,583	20,187	40		0	20,187-	40-
2004	221,372	75-	0		0	75	0
2005	199,633	100,118	50	7	0	100,111-	50-
2006	91,793	1,805	2		0	1,805-	2-
2007	186,161	16,972	9		0	16,972-	9-
2008	165,461	57,868	35		0	57,868-	35-
2009	221,383	80,193	36	152-	0	80,345-	36-
2010	94,652	797,328	842		0	797,328-	842-
2011	172,050	167-	0		0	167	0
2012	191,577	55,921	29		0	55,921-	29-
2013	527,957		0		0		0
2014	441,377	68,658	16	481	0	68,177-	15-
2015	23,839-	56,707	238-	16-	0	56,723-	238
2016	236,215	34,154	14		0	34,154-	14-
2017	177,846	61,315	34	3,688-	2-	65,003-	37-
2018	243,960	123,284	51		0	123,284-	51-
2019	815,636	61,384	8		0	61,384-	8-
2020	227,739	71,586	31		0	71,586-	31-
2021	471,639	265,699	56	24-	0	265,724-	56-
TOTAL	5,221,795	2,046,334	39	133,391-	3-	2,179,725-	42-

THREE-YEAR MOVING AVERAGES

90-92	53,847	20,867	39	23,347	43	2,480	5
91-93	47,929	18,817	39	20,677	43	1,860	4
92-94	69,736	26,346	38	20,495	29	5,852-	8-
93-95	80,846	36,064	45	70,053-	87-	106,117-	131-
94-96	69,129	29,079	42	74,993-	108-	104,072-	151-
95-97	37,745	11,860	31	84,736-	224-	96,596-	256-

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	13,102	834-	6-	3,374	26	4,208	32
97-99	10,850	229-	2-	3,008	28	3,236	30
98-00	9,802	3,675	37	855	9	2,820-	29-
99-01	11,982	1,702	14		0	1,702-	14-
00-02	12,492		0		0		0
01-03	29,353	6,729	23		0	6,729-	23-
02-04	100,409	6,704	7		0	6,704-	7-
03-05	157,196	40,077	25	2	0	40,075-	25-
04-06	170,932	33,949	20	2	0	33,947-	20-
05-07	159,196	39,632	25	2	0	39,629-	25-
06-08	147,805	25,548	17		0	25,548-	17-
07-09	191,002	51,678	27	51-	0	51,728-	27-
08-10	160,499	311,797	194	51-	0	311,847-	194-
09-11	162,695	292,451	180	51-	0	292,502-	180-
10-12	152,759	284,361	186		0	284,361-	186-
11-13	297,194	18,585	6		0	18,585-	6-
12-14	386,970	41,526	11	160	0	41,366-	11-
13-15	315,165	41,788	13	155	0	41,633-	13-
14-16	217,918	53,173	24	155	0	53,018-	24-
15-17	130,074	50,725	39	1,235-	1-	51,960-	40-
16-18	219,340	72,918	33	1,229-	1-	74,147-	34-
17-19	412,481	81,994	20	1,229-	0	83,224-	20-
18-20	429,112	85,418	20		0	85,418-	20-
19-21	505,005	132,890	26	8-	0	132,898-	26-
FIVE-YEAR AVERAGE							
17-21	387,364	116,654	30	743-	0	117,396-	30-

DUKE ENERGY KENTUCKY

ACCOUNTS 3680 AND 3682 LINE TRANSFORMERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	362,018	281,670	78	218,313	60	63,357-	18-
1991	266,727	70,694	27	165,931	62	95,237	36
1992	375,952	101,792	27	115,679	31	13,887	4
1993	487,171	39,446	8	170,173	35	130,728	27
1994	574,496	167,718	29	241,011	42	73,293	13
1995	482,193	63,494	13	336,495	70	273,001	57
1996	446,033	16,438	4	148,036	33	131,599	30
1997	265,872	15,936	6	177,691	67	161,755	61
1998	215,514	3,437	2	110,476	51	107,039	50
1999	264,966	21,062	8	110,002	42	88,941	34
2000	13,975	6,880-	49-		0	6,880	49
2001	551,332	14,567	3	1,066	0	13,501-	2-
2002	334,527	2,260	1		0	2,260-	1-
2003	310,036	41,328	13		0	41,328-	13-
2004	376,438	860	0		0	860-	0
2005	563,912	73,053	13		0	73,053-	13-
2006	208,781	3,202	2		0	3,202-	2-
2007	528,209	11,499	2		0	11,499-	2-
2008	197,196	2,225	1		0	2,225-	1-
2009	965,741	31,994	3	77-	0	32,071-	3-
2010	53,216	577,525			0	577,525-	
2011	134,367	737	1		0	737-	1-
2012	180,054	39,145	22		0	39,145-	22-
2013	131,425		0		0		0
2014	477,978	89,621	19	362	0	89,259-	19-
2015	672,040	340,393	51	65,764	10	274,629-	41-
2016	1,829,330	12,300	1		0	12,300-	1-
2017	710,145	442,465	62	26,532	4	415,933-	59-
2018	715,201	1,192,946	167	140	0	1,192,806-	167-
2019	900,734	46,489	5		0	46,489-	5-
2020	1,182,994	38,789	3		0	38,789-	3-
2021	1,218,878	1,569,101	129	35-	0	1,569,135-	129-
TOTAL	15,997,452	5,305,303	33	1,887,560	12	3,417,743-	21-

THREE-YEAR MOVING AVERAGES

90-92	334,899	151,385	45	166,641	50	15,256	5
91-93	376,616	70,644	19	150,595	40	79,950	21
92-94	479,206	102,985	21	175,621	37	72,636	15
93-95	514,620	90,219	18	249,227	48	159,007	31
94-96	500,908	82,550	16	241,848	48	159,298	32
95-97	398,033	31,956	8	220,741	55	188,785	47

DUKE ENERGY KENTUCKY

ACCOUNTS 3680 AND 3682 LINE TRANSFORMERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	309,140	11,937	4	145,401	47	133,465	43
97-99	248,784	13,478	5	132,723	53	119,245	48
98-00	164,818	5,873	4	73,493	45	67,620	41
99-01	276,758	9,583	3	37,023	13	27,440	10
00-02	299,945	3,315	1	355	0	2,960-	1-
01-03	398,632	19,385	5	355	0	19,030-	5-
02-04	340,334	14,816	4		0	14,816-	4-
03-05	416,795	38,414	9		0	38,414-	9-
04-06	383,044	25,705	7		0	25,705-	7-
05-07	433,634	29,251	7		0	29,251-	7-
06-08	311,395	5,642	2		0	5,642-	2-
07-09	563,715	15,239	3	26-	0	15,265-	3-
08-10	405,384	203,915	50	26-	0	203,940-	50-
09-11	384,441	203,419	53	26-	0	203,444-	53-
10-12	122,546	205,802	168		0	205,802-	168-
11-13	148,616	13,294	9		0	13,294-	9-
12-14	263,153	42,922	16	121	0	42,801-	16-
13-15	427,148	143,338	34	22,042	5	121,296-	28-
14-16	993,116	147,438	15	22,042	2	125,396-	13-
15-17	1,070,505	265,053	25	30,765	3	234,287-	22-
16-18	1,084,892	549,237	51	8,891	1	540,346-	50-
17-19	775,360	560,633	72	8,891	1	551,743-	71-
18-20	932,976	426,075	46	47	0	426,028-	46-
19-21	1,100,869	551,460	50	12-	0	551,471-	50-
FIVE-YEAR AVERAGE							
17-21	945,590	657,958	70	5,327	1	652,631-	69-

DUKE ENERGY KENTUCKY
ACCOUNTS 3691 AND 3692 SERVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	53,521	55,416	104	12,566	23	42,850-	80-
1991	67,772	63,859	94	39	0	63,820-	94-
1992	52,070	46,374	89	8,328	16	38,046-	73-
1993	57,132	54,546	95	8,066	14	46,480-	81-
1994	62,665	37,281	59	11,630	19	25,651-	41-
1995	68,188	31,387	46	34,873	51	3,486	5
1996	56,475	33,400	59	2,906	5	30,493-	54-
1997	49,435	5,919	12	6,259	13	340	1
1998	72,403	41,964	58	7,514	10	34,451-	48-
1999	68,815	19,196	28		0	19,196-	28-
2000	2,737	3,885-	142-		0	3,885	142
2001	77,480	13,283	17	308	0	12,975-	17-
2002	10,930		0		0		0
2003	47,881	3,299	7		0	3,299-	7-
2004	262,044		0		0		0
2005	146,322	115,968	79		0	115,968-	79-
2006	189,787	16	0		0	16-	0
2007	433,399	339	0		0	339-	0
2008	238,365	8,308	3		0	8,308-	3-
2009	152,224	34,526	23	57-	0	34,583-	23-
2010	10,643	254,394			0	254,394-	
2011	29,666		0		0		0
2012	12,427	11,184	90		0	11,184-	90-
2013	10,233		0		0		0
2014	126,074	4,963	4	24	0	4,939-	4-
2015	4,862-	5,045	104-		0	5,045-	104
2016	26,336	62,677	238	54-	0	62,730-	238-
2017	22,550	194,759	864	3,307	15	191,451-	849-
2018	10,932	133,018		22-	0	133,040-	
2019	11,628	112,620	969	23-	0	112,643-	969-
2020	8,213	78,090	951	16-	0	78,106-	951-
2021	8,368	141,408		62-	1-	141,470-	
TOTAL	2,441,854	1,559,354	64	95,586	4	1,463,768-	60-

THREE-YEAR MOVING AVERAGES

90-92	57,787	55,216	96	6,978	12	48,239-	83-
91-93	58,991	54,926	93	5,478	9	49,449-	84-
92-94	57,289	46,067	80	9,341	16	36,726-	64-
93-95	62,662	41,071	66	18,190	29	22,882-	37-
94-96	62,443	34,023	54	16,470	26	17,553-	28-
95-97	58,033	23,568	41	14,679	25	8,889-	15-

DUKE ENERGY KENTUCKY
ACCOUNTS 3691 AND 3692 SERVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	59,438	27,094	46	5,560	9	21,535-	36-
97-99	63,551	22,360	35	4,591	7	17,769-	28-
98-00	47,985	19,092	40	2,505	5	16,587-	35-
99-01	49,678	9,531	19	103	0	9,429-	19-
00-02	30,383	3,133	10	103	0	3,030-	10-
01-03	45,430	5,527	12	103	0	5,425-	12-
02-04	106,952	1,100	1		0	1,100-	1-
03-05	152,083	39,756	26		0	39,756-	26-
04-06	199,385	38,662	19		0	38,661-	19-
05-07	256,503	38,775	15		0	38,774-	15-
06-08	287,184	2,888	1		0	2,888-	1-
07-09	274,663	14,391	5	19-	0	14,410-	5-
08-10	133,744	99,076	74	19-	0	99,095-	74-
09-11	64,178	96,307	150	19-	0	96,326-	150-
10-12	17,579	88,526	504		0	88,526-	504-
11-13	17,442	3,728	21		0	3,728-	21-
12-14	49,578	5,382	11	8	0	5,374-	11-
13-15	43,815	3,336	8	8	0	3,328-	8-
14-16	49,182	24,228	49	10-	0	24,238-	49-
15-17	14,675	87,494	596	1,085	7	86,409-	589-
16-18	19,939	130,151	653	1,077	5	129,074-	647-
17-19	15,037	146,799	976	1,087	7	145,711-	969-
18-20	10,257	107,909		20-	0	107,930-	
19-21	9,403	110,706		34-	0	110,740-	
FIVE-YEAR AVERAGE							
17-21	12,338	131,979		637	5	131,342-	

DUKE ENERGY KENTUCKY

ACCOUNT 3700 METERS AND METERING EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	93,976	11,420	12	81,341	87	69,921	74
1991	90,291	7,855	9	89,564	99	81,709	90
1992	255,062	9,174	4	84,464	33	75,290	30
1993	329,246	8,920	3	89,303	27	80,383	24
1994	283,205	15,510	5	59,032	21	43,523	15
1995	155,278	13,244	9	49,500	32	36,257	23
1996	240,095	10,670	4	64,189	27	53,520	22
1997	239,605	19,453	8	75,142	31	55,690	23
1998	329,257	19,083	6	61,248	19	42,165	13
1999	670,128	2,766	0	11,691	2	8,925	1
2000							
2001	447,957		0		0		0
2002							
2003	387,642	104,633	27	25,649	7	78,984-	20-
2004	297,843	17	0		0	17-	0
2005	576,514		0		0		0
2006	653,849		0		0		0
2007	590,455		0		0		0
2008	1,366,259		0		0		0
2009	276,416		0		0		0
2010		645-				645	
2011	811,880	76,497	9		0	76,497-	9-
2012	600,159	60,900	10		0	60,900-	10-
2013	65,697		0		0		0
2014	320,832	24,788	8		0	24,788-	8-
2015							
2016	3,055,318		0		0		0
2017	622,807		0		0		0
2018	112,286	193,192	172		0	193,192-	172-
2019	436,108	301,426	69		0	301,426-	69-
2020	571,278		0		0		0
2021		818				818-	
TOTAL	13,879,442	879,719	6	691,123	5	188,596-	1-

THREE-YEAR MOVING AVERAGES

90-92	146,443	9,483	6	85,123	58	75,640	52
91-93	224,866	8,649	4	87,777	39	79,128	35
92-94	289,171	11,201	4	77,600	27	66,399	23
93-95	255,909	12,558	5	65,945	26	53,387	21
94-96	226,193	13,141	6	57,574	25	44,433	20
95-97	211,659	14,455	7	62,944	30	48,489	23

DUKE ENERGY KENTUCKY

ACCOUNT 3700 METERS AND METERING EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	269,653	16,402	6	66,860	25	50,458	19
97-99	412,997	13,767	3	49,360	12	35,593	9
98-00	333,128	7,283	2	24,313	7	17,030	5
99-01	372,695	922	0	3,897	1	2,975	1
00-02	149,319		0		0		0
01-03	278,533	34,878	13	8,550	3	26,328-	9-
02-04	228,495	34,883	15	8,550	4	26,334-	12-
03-05	420,666	34,883	8	8,550	2	26,334-	6-
04-06	509,402	6	0		0	6-	0
05-07	606,939		0		0		0
06-08	870,188		0		0		0
07-09	744,377		0		0		0
08-10	547,558	215-	0		0	215	0
09-11	362,765	25,284	7		0	25,284-	7-
10-12	470,680	45,584	10		0	45,584-	10-
11-13	492,578	45,799	9		0	45,799-	9-
12-14	328,896	28,563	9		0	28,563-	9-
13-15	128,843	8,263	6		0	8,263-	6-
14-16	1,125,383	8,263	1		0	8,263-	1-
15-17	1,226,042		0		0		0
16-18	1,263,470	64,397	5		0	64,397-	5-
17-19	390,401	164,873	42		0	164,873-	42-
18-20	373,224	164,873	44		0	164,873-	44-
19-21	335,795	100,748	30		0	100,748-	30-
FIVE-YEAR AVERAGE							
17-21	348,496	99,087	28		0	99,087-	28-

DUKE ENERGY KENTUCKY

ACCOUNT 3712 COMPANY-OWNED OUTDOOR LIGHTING

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2011	1,579-		0		0		0
2012	389-	5,592			0	5,592-	
2013							
2014							
2015							
2016							
2017	102,165	4,769-	5-	675	1	5,444	5
2018	44,527	52,597	118		0	52,597-	118-
2019	3,422		0		0		0
2020	18,916		0		0		0
2021	18,043	685	4		0	685-	4-
TOTAL	185,105	54,106	29	675	0	53,431-	29-

THREE-YEAR MOVING AVERAGES

11-13	656-	1,864	284-		0	1,864-	284
12-14	130-	1,864			0	1,864-	
13-15							
14-16							
15-17	34,055	1,590-	5-	225	1	1,814	5
16-18	48,897	15,943	33	225	0	15,718-	32-
17-19	50,038	15,943	32	225	0	15,718-	31-
18-20	22,288	17,532	79		0	17,532-	79-
19-21	13,461	228	2		0	228-	2-

FIVE-YEAR AVERAGE

17-21	37,415	9,703	26	135	0	9,568-	26-
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DUKE ENERGY KENTUCKY

ACCOUNT 3731 STREET LIGHTING - OVERHEAD

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	20,216	7,522	37	4,336	21	3,187-	16-
1991	9,619	6,948	72	3,286	34	3,662-	38-
1992	9,688	4,726	49	1,156	12	3,570-	37-
1993	16,190	4,106	25	1,333	8	2,773-	17-
1994	28,579	5,619	20	13,033	46	7,413	26
1995	29,964	6,883	23	46,611	156	39,728	133
1996	18,284	4,333	24	7	0	4,326-	24-
1997	5,424	1,902-	35-	108	2	2,010	37
1998	13,430	2,834	21	8	0	2,826-	21-
1999	29,130	5,860	20		0	5,860-	20-
2000	5,110	1,868-	37-		0	1,868	37
2001	512,299	6,338	1	234	0	6,104-	1-
2002	10,538	461	4		0	461-	4-
2003	14,022	105	1		0	105-	1-
2004	77,153	288	0		0	288-	0
2005	121,631	29,975	25	14	0	29,961-	25-
2006	43,772	119	0		0	119-	0
2007	39,262	2,090	5		0	2,090-	5-
2008	40,843	401	1		0	401-	1-
2009	55,463	6,831	12	1-	0	6,832-	12-
2010	4,469	16,355	366		0	16,355-	366-
2011	4,784	7-	0		0	7	0
2012	7,687	11,581	151		0	11,581-	151-
2013	47,445		0		0		0
2014	78,900	5,364	7	55	0	5,308-	7-
2015	78,784-	699	1-		0	699-	1
2016	122,126	744	1		0	744-	1-
2017	190,772	137,937	72	220	0	137,717-	72-
2018		32,303				32,303-	
2019							
2020		1,096				1,096-	
2021		43				43-	
TOTAL	1,478,014	297,785	20	70,399	5	227,386-	15-

THREE-YEAR MOVING AVERAGES

90-92	13,174	6,399	49	2,926	22	3,473-	26-
91-93	11,832	5,260	44	1,925	16	3,335-	28-
92-94	18,152	4,817	27	5,174	29	357	2
93-95	24,911	5,536	22	20,326	82	14,790	59
94-96	25,609	5,612	22	19,883	78	14,272	56
95-97	17,891	3,104	17	15,575	87	12,471	70

DUKE ENERGY KENTUCKY

ACCOUNT 3731 STREET LIGHTING - OVERHEAD

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	12,379	1,755	14	41	0	1,714-	14-
97-99	15,994	2,264	14	39	0	2,225-	14-
98-00	15,890	2,275	14	3	0	2,273-	14-
99-01	182,179	3,443	2	78	0	3,365-	2-
00-02	175,982	1,644	1	78	0	1,566-	1-
01-03	178,953	2,302	1	78	0	2,224-	1-
02-04	33,904	285	1		0	285-	1-
03-05	70,935	10,123	14	5	0	10,118-	14-
04-06	80,852	10,127	13	5	0	10,123-	13-
05-07	68,222	10,728	16	5	0	10,723-	16-
06-08	41,292	870	2		0	870-	2-
07-09	45,189	3,107	7		0	3,108-	7-
08-10	33,591	7,862	23		0	7,863-	23-
09-11	21,572	7,726	36		0	7,727-	36-
10-12	5,646	9,310	165		0	9,310-	165-
11-13	19,972	3,858	19		0	3,858-	19-
12-14	44,677	5,648	13	18	0	5,630-	13-
13-15	15,853	2,021	13	18	0	2,002-	13-
14-16	40,747	2,269	6	18	0	2,251-	6-
15-17	78,038	46,460	60	73	0	46,387-	59-
16-18	104,299	56,995	55	73	0	56,922-	55-
17-19	63,591	56,747	89	73	0	56,674-	89-
18-20		11,133				11,133-	
19-21		380				380-	
FIVE-YEAR AVERAGE							
17-21	38,154	34,276	90	44	0	34,232-	90-

DUKE ENERGY KENTUCKY

ACCOUNT 3732 STREET LIGHTING - BOULEVARD

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	3,523	2,720	77	6,087	173	3,367	96
1991	15,833	5,713	36	4,585	29	1,129-	7-
1992	18,138	7,473	41	11,314	62	3,842	21
1993	9,699	2,227	23	9,587	99	7,360	76
1994	6,263	3,760	60	6,179	99	2,419	39
1995	11,168	1,070	10	1,952	17	882	8
1996	15,106	4,906	32		0	4,906-	32-
1997	9,535	761-	8-		0	761	8
1998	29,706	703	2		0	703-	2-
1999	24,055	3,273	14		0	3,273-	14-
2000							
2001	10,627		0		0		0
2002	22,424		0		0		0
2003	3,503	1,182	34		0	1,182-	34-
2004	20,786		0		0		0
2005	30,122	3,362	11		0	3,362-	11-
2006	25,595		0		0		0
2007	48,101		0		0		0
2008	18,175	491	3		0	491-	3-
2009	27,543	2,369	9		0	2,369-	9-
2010	14,568	88,454	607		0	88,454-	607-
2011	27,464	6	0		0	6-	0
2012	13,982	40	0		0	40-	0
2013	23,915		0		0		0
2014	2,248	204	9		0	204-	9-
2015	11,573-		0		0		0
2016	15,664	27	0		0	27-	0
2017	12,829		0		0		0
2018		13,393				13,393-	
2019							
2020		1,052-				1,052	
2021							
TOTAL	448,997	139,562	31	39,704	9	99,858-	22-

THREE-YEAR MOVING AVERAGES

90-92	12,498	5,302	42	7,329	59	2,027	16
91-93	14,557	5,138	35	8,495	58	3,358	23
92-94	11,367	4,486	39	9,027	79	4,540	40
93-95	9,043	2,352	26	5,906	65	3,554	39
94-96	10,845	3,245	30	2,710	25	535-	5-
95-97	11,936	1,738	15	651	5	1,088-	9-

DUKE ENERGY KENTUCKY

ACCOUNT 3732 STREET LIGHTING - BOULEVARD

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	18,116	1,616	9		0	1,616-	9-
97-99	21,098	1,072	5		0	1,072-	5-
98-00	17,920	1,326	7		0	1,326-	7-
99-01	11,561	1,091	9		0	1,091-	9-
00-02	11,017		0		0		0
01-03	12,185	394	3		0	394-	3-
02-04	15,571	394	3		0	394-	3-
03-05	18,137	1,515	8		0	1,515-	8-
04-06	25,501	1,121	4		0	1,121-	4-
05-07	34,606	1,121	3		0	1,121-	3-
06-08	30,624	164	1		0	164-	1-
07-09	31,273	953	3		0	953-	3-
08-10	20,095	30,438	151		0	30,438-	151-
09-11	23,192	30,277	131		0	30,277-	131-
10-12	18,671	29,500	158		0	29,500-	158-
11-13	21,787	16	0		0	16-	0
12-14	13,382	82	1		0	82-	1-
13-15	4,863	68	1		0	68-	1-
14-16	2,113	77	4		0	77-	4-
15-17	5,640	9	0		0	9-	0
16-18	9,498	4,473	47		0	4,473-	47-
17-19	4,276	4,464	104		0	4,464-	104-
18-20		4,114				4,114-	
19-21		351-				351	
FIVE-YEAR AVERAGE							
17-21	2,566	2,468	96		0	2,468-	96-

DUKE ENERGY KENTUCKY

ACCOUNT 3733 STREET LIGHTING - CUSTOMER POLES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	50,637	8,814	17	3,300	7	5,514-	11-
1991	27,156	15,496	57	11,821	44	3,675-	14-
1992	23,087	13,123	57	5,159	22	7,964-	34-
1993	23,870	9,722	41	2,151	9	7,572-	32-
1994	28,547	10,620	37	2,667	9	7,954-	28-
1995	30,221	14,882	49	2,433	8	12,449-	41-
1996	26,883	7,686	29	37	0	7,649-	28-
1997	32,974	300-	1-	5-	0	296	1
1998	38,832	7,785	20	421	1	7,364-	19-
1999	29,017	10,110	35		0	10,110-	35-
2000	359	53-	15-		0	53	15
2001	177,694	8,915	5		0	8,915-	5-
2002	6,178		0		0		0
2003	10,245	122	1		0	122-	1-
2004	49,285	13-	0		0	13	0
2005	89,573	39,459	44	162	0	39,297-	44-
2006	52,577		0		0		0
2007	37,824	125	0		0	125-	0
2008	23,212	188	1		0	188-	1-
2009	38,423	2,354	6		0	2,354-	6-
2010	10,419	56,752	545		0	56,752-	545-
2011	44,849	245	1		0	245-	1-
2012	1,917	54	3		0	54-	3-
2013	3,978		0		0		0
2014	1,029		0		0		0
2015	1,776-	6	0		0	6-	0
2016	21,779	197	1		0	197-	1-
2017	24,850	459	2		0	459-	2-
2018	64,022	85,984	134	3,539	6	82,445-	129-
2019	871,135		0		0		0
2020	119,629	167	0		0	167-	0
2021	277,219	322	0		0	322-	0
TOTAL	2,235,645	293,220	13	31,683	1	261,537-	12-

THREE-YEAR MOVING AVERAGES

90-92	33,627	12,478	37	6,760	20	5,718-	17-
91-93	24,704	12,781	52	6,377	26	6,404-	26-
92-94	25,168	11,155	44	3,325	13	7,830-	31-
93-95	27,546	11,742	43	2,417	9	9,325-	34-
94-96	28,550	11,063	39	1,712	6	9,351-	33-
95-97	30,026	7,422	25	822	3	6,601-	22-

DUKE ENERGY KENTUCKY

ACCOUNT 3733 STREET LIGHTING - CUSTOMER POLES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	32,897	5,057	15	151	0	4,906-	15-
97-99	33,608	5,865	17	139	0	5,726-	17-
98-00	22,736	5,947	26	140	1	5,807-	26-
99-01	69,023	6,324	9		0	6,324-	9-
00-02	61,410	2,954	5		0	2,954-	5-
01-03	64,706	3,012	5		0	3,012-	5-
02-04	21,902	36	0		0	36-	0
03-05	49,701	13,189	27	54	0	13,135-	26-
04-06	63,812	13,149	21	54	0	13,095-	21-
05-07	59,992	13,195	22	54	0	13,141-	22-
06-08	37,871	104	0		0	104-	0
07-09	33,153	889	3		0	889-	3-
08-10	24,018	19,764	82		0	19,764-	82-
09-11	31,230	19,784	63		0	19,784-	63-
10-12	19,062	19,017	100		0	19,017-	100-
11-13	16,915	100	1		0	100-	1-
12-14	2,308	18	1		0	18-	1-
13-15	1,077	2	0		0	2-	0
14-16	7,010	68	1		0	68-	1-
15-17	14,951	221	1		0	221-	1-
16-18	36,884	28,880	78	1,180	3	27,700-	75-
17-19	320,002	28,814	9	1,180	0	27,635-	9-
18-20	351,596	28,717	8	1,180	0	27,537-	8-
19-21	422,661	163	0		0	163-	0
FIVE-YEAR AVERAGE							
17-21	271,371	17,386	6	708	0	16,679-	6-

DUKE ENERGY KENTUCKY

ACCOUNT 3921 TRANSPORTATION EQUIPMENT - TRAILERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	605		0		0		0
1991	5,340	40	1	735	14	695	13
1992	8,212		0	3,910	48	3,910	48
1993							
1994							
1995	10,407	309	3	323	3	14	0
1996							
1997	44,002		0		0		0
1998	18,745		0		0		0
1999	23,244		0		0		0
2000							
2001	8,635		0	160	2	160	2
2002	10,236		0		0		0
2003	20,304		0		0		0
2004	1,820		0	20-	1-	20-	1-
2005							
2006							
2007							
2008							
2009							
2010							
2011	9,374		0	990	11	990	11
2012							
2013							
2014							
2015							
2016	32,610		0		0		0
2017		5,433-		1,907		7,340	
2018							
2019							
2020							
2021							
TOTAL	193,534	5,084-	3-	8,005	4	13,089	7

THREE-YEAR MOVING AVERAGES

90-92	4,719	13	0	1,548	33	1,535	33
91-93	4,517	13	0	1,548	34	1,535	34
92-94	2,737		0	1,303	48	1,303	48
93-95	3,469	103	3	108	3	5	0
94-96	3,469	103	3	108	3	5	0
95-97	18,136	103	1	108	1	5	0

DUKE ENERGY KENTUCKY

ACCOUNT 3921 TRANSPORTATION EQUIPMENT - TRAILERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
96-98	20,916		0		0		0
97-99	28,664		0		0		0
98-00	13,996		0		0		0
99-01	10,626		0	53	1	53	1
00-02	6,290		0	53	1	53	1
01-03	13,058		0	53	0	53	0
02-04	10,787		0	7-	0	7-	0
03-05	7,375		0	7-	0	7-	0
04-06	607		0	7-	1-	7-	1-
05-07							
06-08							
07-09							
08-10							
09-11	3,125		0	330	11	330	11
10-12	3,125		0	330	11	330	11
11-13	3,125		0	330	11	330	11
12-14							
13-15							
14-16	10,870		0		0		0
15-17	10,870	1,811-	17-	636	6	2,447	23
16-18	10,870	1,811-	17-	636	6	2,447	23
17-19		1,811-		636		2,447	
18-20							
19-21							
FIVE-YEAR AVERAGE							
17-21		1,087-		381		1,468	

DUKE ENERGY KENTUCKY

ACCOUNT 3960 POWER OPERATED EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1991	26,356	132	1	10,350	39	10,218	39
1992	13,984		0	3,405	24	3,405	24
1993	72,991		0	21,640	30	21,640	30
1994	8,093	101	1	852	11	751	9
1995							
1996							
1997							
1998	16,943		0	1,030	6	1,030	6
1999							
2000							
2001	33,087		0	4,880	15	4,880	15
2002							
2003							
2004	33,349		0		0		0
2005	35,306		0	17,765	50	17,765	50
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
2016							
2017							
2018							
2019							
2020							
2021							
TOTAL	240,110	233	0	59,922	25	59,689	25

THREE-YEAR MOVING AVERAGES

91-93	37,777	44	0	11,798	31	11,754	31
92-94	31,689	34	0	8,632	27	8,599	27
93-95	27,028	34	0	7,497	28	7,464	28
94-96	2,698	34	1	284	11	250	9
95-97							
96-98	5,648		0	343	6	343	6
97-99	5,648		0	343	6	343	6

DUKE ENERGY KENTUCKY

ACCOUNT 3960 POWER OPERATED EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
98-00	5,648		0	343	6	343	6
99-01	11,029		0	1,627	15	1,627	15
00-02	11,029		0	1,627	15	1,627	15
01-03	11,029		0	1,627	15	1,627	15
02-04	11,116		0		0		0
03-05	22,885		0	5,922	26	5,922	26
04-06	22,885		0	5,922	26	5,922	26
05-07	11,769		0	5,922	50	5,922	50
06-08							
07-09							
08-10							
09-11							
10-12							
11-13							
12-14							
13-15							
14-16							
15-17							
16-18							
17-19							
18-20							
19-21							

FIVE-YEAR AVERAGE

17-21

**PART IX. DETAILED DEPRECIATION
CALCULATIONS**

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ERLANGER OPERATIONS CENTER						
INTERIM SURVIVOR CURVE.. IOWA 75-R0.5						
PROBABLE RETIREMENT YEAR.. 6-2065						
NET SALVAGE PERCENT.. -10						
2005	1,142,528.49	316,721	73,848	1,182,934	37.19	31,808
2009	5,185.77	1,167	272	5,432	37.49	145
2018	1,368,577.40	102,776	23,964	1,481,472	38.08	38,904
2019	1,657,802.89	90,869	21,187	1,802,396	38.14	47,257
2020	147,175.21	4,970	1,159	160,734	38.20	4,208
2021	207,298.87	2,360	550	227,478	38.26	5,946
	4,528,568.63	518,863	120,980	4,860,445		128,268

KENTUCKY SERVICE BUILDING - 19TH AND AUGUSTINE
INTERIM SURVIVOR CURVE.. IOWA 75-R0.5
PROBABLE RETIREMENT YEAR.. 6-2042
NET SALVAGE PERCENT.. -10

1947	215,206.60	176,326	41,113	195,615	17.08	11,453
1949	7,874.04	6,411	1,495	7,167	17.21	416
1950	2,833.13	2,299	536	2,580	17.27	149
1951	610.66	494	115	557	17.33	32
1953	4,989.45	4,009	935	4,554	17.44	261
1955	121.96	97	23	112	17.55	6
1956	313.02	249	58	286	17.61	16
1957	1,480.66	1,173	274	1,355	17.66	77
1958	91.02	72	17	83	17.71	5
1959	1,905.03	1,497	349	1,746	17.76	98
1961	3,761.02	2,931	683	3,454	17.86	193
1964	1,660.34	1,277	298	1,529	18.00	85
1965	2,410.30	1,845	430	2,221	18.05	123
1966	478.18	364	85	441	18.09	24
1967	8,188.75	6,208	1,447	7,560	18.13	417
1969	4,337.05	3,254	759	4,012	18.22	220
1970	1,925.44	1,437	335	1,783	18.26	98
1972	4,634.39	3,419	797	4,301	18.33	235
1973	8,585.30	6,296	1,468	7,976	18.37	434
1974	6,637.72	4,837	1,128	6,174	18.41	335
1975	6,319.85	4,576	1,067	5,885	18.44	319
1976	337.18	242	56	314	18.48	17
1977	975.57	697	163	911	18.51	49
1978	23,626.36	16,752	3,906	22,083	18.55	1,190
1979	39,938.23	28,107	6,554	37,379	18.58	2,012
1980	11,560.66	8,074	1,883	10,834	18.61	582

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
KENTUCKY SERVICE BUILDING - 19TH AND AUGUSTINE						
INTERIM SURVIVOR CURVE.. IOWA 75-R0.5						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -10						
1981	33,194.05	22,996	5,362	31,152	18.64	1,671
1982	12,516.21	8,598	2,005	11,763	18.67	630
1983	14,035.96	9,557	2,228	13,211	18.70	706
1984	42,353.87	28,575	6,663	39,927	18.73	2,132
1985	24,798.14	16,574	3,864	23,414	18.75	1,249
1986	443.45	293	68	419	18.78	22
1987	12,451.85	8,152	1,901	11,796	18.81	627
1988	593.39	384	90	563	18.83	30
1989	35,301.47	22,593	5,268	33,564	18.86	1,780
1990	3,340.07	2,112	492	3,182	18.88	169
1991	38,025.34	23,746	5,537	36,291	18.90	1,920
1992	58,847.35	36,248	8,452	56,280	18.93	2,973
1993	59,866.03	36,359	8,478	57,375	18.95	3,028
1994	201,782.73	120,720	28,147	193,814	18.97	10,217
1995	12,489.98	7,355	1,715	12,024	18.99	633
1996	5,130.73	2,971	693	4,951	19.01	260
1998	26,943.53	15,034	3,505	26,133	19.05	1,372
1999	18,009.05	9,845	2,295	17,514	19.07	918
2000	208,595.64	111,579	26,016	203,439	19.09	10,657
2001	104,267.18	54,495	12,706	101,988	19.10	5,340
2002	11,191.29	5,702	1,329	10,981	19.12	574
2003	57,780.29	28,651	6,680	56,878	19.14	2,972
2004	11,087.97	5,341	1,245	10,951	19.15	572
2005	32,681.20	15,242	3,554	32,395	19.17	1,690
2006	10,536.72	4,746	1,107	10,484	19.18	547
2008	83,669.17	34,781	8,110	83,926	19.21	4,369
2009	208,294.55	82,549	19,247	209,877	19.23	10,914
2010	5,918.47	2,227	519	5,991	19.24	311
2011	327,253.40	116,025	27,053	332,926	19.26	17,286
2012	1,914,828.55	635,179	148,100	1,958,211	19.27	101,620
2014	479,129.50	134,454	31,350	495,693	19.30	25,684
2016	16,488.00	3,657	853	17,284	19.32	895
2017	25,126.74	4,737	1,104	26,535	19.34	1,372
2018	3,382,601.14	516,642	120,462	3,600,400	19.35	186,067
2019	1,153,356.68	131,563	30,676	1,238,017	19.36	63,947
2020	58,932.88	4,192	977	63,849	19.38	3,295
2021	99,319.68	2,478	578	108,674	19.39	5,605
	9,151,984.16	2,549,295	594,401	9,472,782		492,900

DUKE ENERGY KENTUCKY

ACCOUNT 1900 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
MINOR STRUCTURES						
SURVIVOR CURVE.. IOWA 45-R1.5						
NET SALVAGE PERCENT.. -10						
2018	123,818.00	8,657	2,018	134,182	42.14	3,184
	123,818.00	8,657	2,018	134,182		3,184
	13,804,370.79	3,076,815	717,399	14,467,409		624,352
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.2 4.52

DUKE ENERGY KENTUCKY

ACCOUNT 1910 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	3,006.42	1,729	1,729	1,277	8.50	150
2013	20,895.34	8,881	8,881	12,014	11.50	1,045
2014	43,997.73	16,499	16,499	27,499	12.50	2,200
2017	687,664.25	154,724	154,724	532,940	15.50	34,383
2018	2,517.92	441	441	2,077	16.50	126
2019	17,766.54	2,221	2,221	15,546	17.50	888
2020	13,020.59	977	977	12,044	18.50	651
	788,868.79	185,472	185,472	603,397		39,443
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.3 5.00

DUKE ENERGY KENTUCKY

ACCOUNT 1911 ELECTRONIC DATA PROCESSING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2017	5,177.15	4,659	4,659	518	0.50	518
	5,177.15	4,659	4,659	518		518
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						1.0 10.01

DUKE ENERGY KENTUCKY

ACCOUNT 1940 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1999	5,371.46	4,834	4,834	537	2.50	215
2004	37,038.55	25,927	25,927	11,112	7.50	1,482
2005	2,964.11	1,956	1,956	1,008	8.50	119
2006	2,287.17	1,418	1,418	869	9.50	91
2007	17,796.89	10,322	10,322	7,475	10.50	712
2010	1,150.51	529	529	622	13.50	46
2014	10,220.00	3,066	3,066	7,154	17.50	409
2015	37,021.21	9,626	9,626	27,395	18.50	1,481
	113,849.90	57,678	57,678	56,172		4,555
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.3 4.00

DUKE ENERGY KENTUCKY

ACCOUNT 1970 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2007	2,110,692.69	2,040,343	1,992,588	118,105	0.50	118,105
2008	1,077,675.41	969,908	947,207	130,468	1.50	86,979
2009	145,687.05	121,405	118,563	27,124	2.50	10,850
2010	203,089.96	155,703	152,059	51,031	3.50	14,580
2011	708,177.65	495,724	484,121	224,057	4.50	49,790
2012	525,145.64	332,590	324,806	200,340	5.50	36,425
2013	1,417.96	804	785	633	6.50	97
2014	141,883.83	70,942	69,282	72,602	7.50	9,680
2015	485,705.76	210,471	205,545	280,161	8.50	32,960
2016	603,244.17	221,192	216,014	387,230	9.50	40,761
2017	411,282.85	123,385	120,497	290,786	10.50	27,694
	6,414,002.97	4,742,467	4,631,467	1,782,536		427,921
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.2						6.67

DUKE ENERGY KENTUCKY

ACCOUNT 1980 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	24,647.40	18,896	18,896	5,751	3.50	1,643
2011	3,561.95	2,493	2,493	1,069	4.50	238
2012	13,294.66	8,420	8,420	4,875	5.50	886
2020	53,796.79	5,380	5,380	48,417	13.50	3,586
	95,300.80	35,189	35,189	60,112		6,353
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						9.5 6.67

DUKE ENERGY KENTUCKY

ACCOUNT 3110 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 85-S1						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -10						
1980	79,670.00	65,952	52,907	34,730	12.80	2,713
1981	21,732,263.31	17,888,000	14,349,964	9,555,526	12.82	745,361
1982	208,863.68	170,890	137,090	92,660	12.84	7,217
1983	72,230.43	58,728	47,112	32,341	12.86	2,515
1985	313,838.14	251,743	201,951	143,271	12.90	11,106
1986	56,946.12	45,334	36,367	26,273	12.93	2,032
1987	25,699.44	20,302	16,287	11,983	12.95	925
1988	7,679.70	6,018	4,828	3,620	12.97	279
1990	248,748.12	191,522	153,641	119,982	13.01	9,222
1991	7,244.23	5,525	4,432	3,536	13.03	271
1992	214,519.73	161,964	129,929	106,042	13.05	8,126
1993	106,959.72	79,892	64,090	53,565	13.07	4,098
1994	208,985.68	154,314	123,793	106,092	13.09	8,105
1999	70,010.31	48,225	38,687	38,325	13.18	2,908
2001	236,199.12	156,949	125,906	133,913	13.22	10,130
2002	231,816.95	150,987	121,124	133,875	13.24	10,111
2003	103,526.01	65,993	52,940	60,938	13.25	4,599
2004	228,372.86	142,162	114,044	137,166	13.27	10,337
2005	151,399.00	91,791	73,636	92,903	13.29	6,990
2006	3,098,291.42	1,826,548	1,465,278	1,942,842	13.30	146,078
2007	236,076.01	134,810	108,146	151,537	13.32	11,377
2008	168,425.07	92,912	74,535	110,732	13.33	8,307
2009	514,042.96	272,523	218,621	346,826	13.35	25,979
2010	450,707.51	228,698	183,464	312,314	13.36	23,377
2011	484,241.10	233,808	187,564	345,102	13.37	25,812
2012	637,062.52	290,118	232,736	468,033	13.39	34,954
2013	499,911.96	213,126	170,972	378,931	13.40	28,278
2014	545,564.35	215,065	172,528	427,593	13.41	31,886
2015	19,442,261.71	6,971,353	5,592,501	15,793,986	13.42	1,176,899
2016	11,449,783.49	3,659,282	2,935,519	9,659,243	13.43	719,229
2017	42,192,344.22	11,641,880	9,339,253	37,072,325	13.44	2,758,358
2018	13,530,388.88	3,073,279	2,465,421	12,418,007	13.45	923,272
2019	43,769,919.98	7,541,732	6,050,066	42,096,846	13.46	3,127,552
2020	20,787,949.84	2,291,248	1,838,066	21,028,679	13.47	1,561,149
2021	1,605,694.85	63,179	50,683	1,715,581	13.48	127,269
	183,717,638.42	58,505,852	46,934,083	155,155,319		11,576,821
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.4 6.30

DUKE ENERGY KENTUCKY

ACCOUNT 3120 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 45-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -10						
1981	128,171,579.83	103,853,714	121,415,517	19,573,221	10.72	1,825,860
1982	87,297.08	70,324	82,216	13,811	10.80	1,279
1983	758,041.65	606,923	709,554	124,291	10.88	11,424
1984	1,069,838.90	851,114	995,039	181,784	10.96	16,586
1985	992,190.52	783,959	916,528	174,882	11.04	15,841
1986	508,078.99	398,587	465,989	92,898	11.12	8,354
1987	715,736.33	557,526	651,804	135,506	11.19	12,110
1988	146,366.40	113,101	132,227	28,777	11.27	2,553
1989	274,137.86	210,142	245,677	55,874	11.34	4,927
1990	12,821.13	9,745	11,393	2,710	11.41	238
1991	518,417.01	390,456	456,483	113,776	11.48	9,911
1992	1,887,920.78	1,408,198	1,646,326	430,387	11.55	37,263
1993	339,323.82	250,526	292,890	80,366	11.62	6,916
1994	4,592,825.99	3,353,539	3,920,627	1,131,482	11.69	96,791
1995	344,651.91	248,826	290,903	88,214	11.75	7,508
1996	113,773.05	81,124	94,842	30,308	11.82	2,564
1998	1,465,153.04	1,016,318	1,188,179	423,490	11.95	35,438
1999	4,677,932.46	3,196,216	3,736,700	1,409,025	12.01	117,321
2000	1,103,675.58	741,805	867,245	346,798	12.07	28,732
2001	178,769.21	118,053	138,016	58,630	12.13	4,833
2002	47,311,352.79	30,646,260	35,828,584	16,213,904	12.19	1,330,099
2003	638,881.69	405,294	473,830	228,940	12.25	18,689
2004	2,183,148.69	1,353,537	1,582,422	819,042	12.31	66,535
2005	740,682.81	447,730	523,442	291,309	12.37	23,550
2006	548,548.71	322,495	377,029	226,374	12.43	18,212
2007	2,986,021.64	1,701,862	1,989,649	1,294,975	12.49	103,681
2008	1,677,511.36	924,458	1,080,785	764,477	12.54	60,963
2009	2,146,386.41	1,138,297	1,330,785	1,030,240	12.60	81,765
2010	2,140,681.99	1,087,730	1,271,667	1,083,084	12.65	85,619
2011	441,816.54	213,640	249,767	236,231	12.71	18,586
2012	9,958,601.99	4,551,360	5,321,001	5,633,461	12.76	441,494
2013	1,265,275.73	540,924	632,395	759,408	12.82	59,236
2014	37,273,311.03	14,761,051	17,257,165	23,743,478	12.87	1,844,870
2015	135,390,775.72	48,816,227	57,071,117	91,858,737	12.92	7,109,809
2016	12,319,615.69	3,955,299	4,624,145	8,927,432	12.98	687,784
2017	2,692,510.63	747,667	874,098	2,087,663	13.03	160,220
2018	95,396,755.81	21,850,913	25,545,932	79,390,500	13.08	6,069,610

DUKE ENERGY KENTUCKY

ACCOUNT 3120 BOILER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 45-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -10						
2019	2,462,549.86	428,885	501,410	2,207,395	13.13	168,118
2020	25,936,993.34	2,897,862	3,387,894	25,142,798	13.18	1,907,648
2021	13,898,202.27	556,790	650,944	14,637,079	13.23	1,106,355
	545,368,156.24	255,608,477	298,832,215	301,072,757		23,609,292
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.8 4.33

DUKE ENERGY KENTUCKY

ACCOUNT 3123 BOILER PLANT EQUIPMENT - SCR CATALYST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 10-S2.5						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. 0						
2002	2,230,486.31	2,210,412	2,230,486			
2013	536,263.68	380,211	445,673	90,591	2.91	31,131
2015	2,653,930.47	1,571,127	1,841,632	812,299	4.08	199,093
2019	2,563,477.12	638,947	748,956	1,814,521	7.50	241,936
	7,984,157.58	4,800,697	5,266,747	2,717,411		472,160
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.8 5.91

DUKE ENERGY KENTUCKY

ACCOUNT 3140 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 40-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -10						
1981	17,084,725.27	13,893,999	14,857,458	3,935,740	9.88	398,354
1982	58,061.01	46,908	50,161	13,706	10.00	1,371
1983	15,183.01	12,187	13,032	3,669	10.11	363
1984	10,207.91	8,137	8,701	2,527	10.22	247
1985	20,496,632.97	16,222,511	17,347,437	5,198,859	10.33	503,278
1986	463,905.17	364,514	389,791	120,505	10.43	11,554
1987	636,364.46	496,273	530,686	169,315	10.53	16,079
1989	54,725.97	41,978	44,889	15,310	10.73	1,427
1990	158,093.76	120,235	128,573	45,331	10.82	4,190
1991	198,456.18	149,567	159,939	58,363	10.91	5,349
1992	640,896.37	478,164	511,322	193,664	11.01	17,590
1993	66,699.95	49,254	52,669	20,700	11.10	1,865
1994	88,755.33	64,852	69,349	28,282	11.18	2,530
1996	96,612.68	68,930	73,710	32,564	11.35	2,869
1997	96,476.91	67,910	72,619	33,505	11.44	2,929
1999	2,355.17	1,610	1,722	869	11.60	75
2000	341,306.00	229,557	245,475	129,961	11.68	11,127
2001	206,777.67	136,628	146,102	81,353	11.76	6,918
2002	27,909.66	18,092	19,347	11,354	11.84	959
2003	409,131.79	259,676	277,683	172,362	11.92	14,460
2004	89,271.54	55,400	59,242	38,957	11.99	3,249
2005	6,942,324.58	4,201,099	4,492,418	3,144,139	12.07	260,492
2006	77,714.53	45,754	48,927	36,559	12.14	3,011
2007	749,845.57	428,326	458,028	366,802	12.21	30,041
2008	12,485.43	6,889	7,367	6,367	12.29	518
2009	374,534.63	198,928	212,722	199,266	12.36	16,122
2010	549,806.26	279,774	299,175	305,612	12.43	24,587
2011	276,330.25	133,887	143,171	160,792	12.50	12,863
2012	943,595.69	431,955	461,908	576,047	12.57	45,827
2013	1,071,747.49	459,391	491,247	687,675	12.64	54,405
2014	2,360,288.53	936,388	1,001,320	1,594,997	12.71	125,492
2015	29,836,335.05	10,796,129	11,544,771	21,275,198	12.77	1,666,030
2016	724,353.79	233,419	249,605	547,184	12.84	42,616
2017	613,243.94	170,983	182,840	491,729	12.90	38,119
2018	13,674,081.60	3,145,928	3,364,078	11,677,412	12.97	900,340

DUKE ENERGY KENTUCKY

ACCOUNT 3140 TURBOGENERATOR UNITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 40-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -10						
2019	3,511,135.54	613,364	655,897	3,206,352	13.03	246,075
2020	4,951,409.59	552,879	591,218	4,855,333	13.10	370,636
2021	1,374,010.80	55,318	59,154	1,452,258	13.16	110,354
	109,285,792.05	55,476,793	59,323,750	60,890,621		4,954,311
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.3 4.53

DUKE ENERGY KENTUCKY

ACCOUNT 3150 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 65-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -10						
1980	510,760.54	422,720	511,511	50,326	12.44	4,045
1981	21,281,346.26	17,500,460	21,176,373	2,233,108	12.50	178,649
1982	258,626.65	211,313	255,699	28,791	12.55	2,294
1983	48,933.57	39,712	48,053	5,774	12.60	458
1984	276,234.86	222,640	269,405	34,454	12.64	2,726
1985	24,050.59	19,245	23,287	3,168	12.68	250
1986	25,758.88	20,449	24,744	3,591	12.73	282
1987	32,911.68	25,926	31,372	4,831	12.76	379
1989	61,628.68	47,708	57,729	10,063	12.84	784
1990	146,081.85	112,052	135,588	25,102	12.87	1,950
1992	284,827.83	214,116	259,090	54,220	12.93	4,193
1995	1,290.00	936	1,133	286	13.02	22
2001	112,022.85	74,003	89,547	33,678	13.15	2,561
2002	129,665.97	83,949	101,582	41,050	13.17	3,117
2004	87,558.37	54,143	65,516	30,799	13.21	2,331
2005	423,653.63	255,322	308,952	157,067	13.22	11,881
2006	50,031.42	29,296	35,450	19,585	13.24	1,479
2009	106,920.20	56,337	68,170	49,442	13.28	3,723
2010	308,549.41	155,597	188,280	151,125	13.29	11,371
2011	195,647.63	93,824	113,531	101,681	13.30	7,645
2012	4,489,838.35	2,031,831	2,458,610	2,480,212	13.32	186,202
2013	380,227.18	160,968	194,779	223,471	13.33	16,765
2014	133,522.10	52,223	63,192	83,682	13.34	6,273
2015	12,011,588.32	4,277,098	5,175,488	8,037,259	13.35	602,042
2016	1,399,850.72	443,827	537,051	1,002,784	13.36	75,059
2017	4,283,467.29	1,175,315	1,422,186	3,289,628	13.36	246,230
2018	957,559.98	216,046	261,426	791,890	13.37	59,229
2019	146,819.56	25,168	30,454	131,047	13.38	9,794
2021	3,975.53	157	190	4,183	13.39	312
	48,173,349.90	28,022,381	33,908,388	19,082,297		1,442,046

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.2 2.99

DUKE ENERGY KENTUCKY

ACCOUNT 3160 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 55-S0						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -10						
1981	2,155,519.87	1,726,045	1,761,663	609,409	11.85	51,427
1982	235,379.13	187,391	191,258	67,659	11.89	5,690
1983	113,761.60	90,019	91,877	33,261	11.93	2,788
1984	157,554.25	123,922	126,479	46,830	11.96	3,916
1985	101,065.69	78,956	80,585	30,587	12.00	2,549
1986	113,063.57	87,736	89,546	34,823	12.03	2,895
1987	121,651.98	93,699	95,633	38,185	12.07	3,164
1988	81,696.88	62,449	63,738	26,129	12.10	2,159
1989	160,311.26	121,579	124,088	52,255	12.13	4,308
1990	108,479.70	81,549	83,232	36,096	12.17	2,966
1991	420,109.15	313,008	319,467	142,653	12.20	11,693
1992	141,502.92	104,425	106,580	49,073	12.23	4,013
1993	49,356.38	36,061	36,805	17,487	12.26	1,426
1994	217,002.50	156,782	160,017	78,685	12.30	6,397
1995	20,672.44	14,765	15,070	7,670	12.33	622
1996	6,611.10	4,665	4,761	2,511	12.36	203
1997	108,562.36	75,592	77,152	42,267	12.39	3,411
1999	643,219.54	434,989	443,965	263,576	12.45	21,171
2000	90,906.69	60,479	61,727	38,270	12.48	3,067
2001	250,932.55	164,023	167,408	108,618	12.51	8,682
2002	280,411.23	179,818	183,529	124,924	12.54	9,962
2003	41,468.35	26,046	26,583	19,032	12.57	1,514
2004	251,997.55	154,690	157,882	119,315	12.60	9,469
2005	546,553.86	327,064	333,813	267,396	12.64	21,155
2006	377,319.96	219,633	224,165	190,887	12.67	15,066
2007	84,074.08	47,481	48,461	44,021	12.70	3,466
2008	598,969.43	326,956	333,703	325,163	12.73	25,543
2009	808,886.13	425,232	434,007	455,768	12.76	35,718
2010	429,177.62	216,135	220,595	251,500	12.79	19,664
2011	1,604,054.06	768,951	784,819	979,641	12.83	76,355
2012	931,965.12	422,346	431,061	594,100	12.86	46,198
2013	185,105.83	78,635	80,258	123,359	12.89	9,570
2014	638,770.79	251,098	256,280	446,368	12.93	34,522
2015	5,516,288.45	1,976,321	2,017,104	4,050,814	12.96	312,563
2016	2,427,229.97	775,328	791,327	1,878,626	13.00	144,510
2017	1,873,812.52	518,267	528,962	1,532,232	13.04	117,502
2018	826,013.53	188,329	192,215	716,400	13.08	54,771

DUKE ENERGY KENTUCKY

ACCOUNT 3160 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EAST BEND						
INTERIM SURVIVOR CURVE.. IOWA 55-S0						
PROBABLE RETIREMENT YEAR.. 6-2035						
NET SALVAGE PERCENT.. -10						
2019	1,144,524.87	198,100	202,188	1,056,789	13.12	80,548
2020	53,633.44	5,964	6,087	52,910	13.16	4,021
2021	79,489.40	3,128	3,193	84,246	13.21	6,377
	23,997,105.75	11,127,656	11,357,282	15,039,534		1,171,041
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.8 4.88

DUKE ENERGY KENTUCKY

ACCOUNT 3410 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WOODSDALE						
INTERIM SURVIVOR CURVE.. IOWA 60-R4						
PROBABLE RETIREMENT YEAR.. 6-2040						
NET SALVAGE PERCENT.. -8						
1991	6,686.52	4,572	5,440	1,781	17.39	102
1992	33,179,302.65	22,368,079	26,616,472	9,217,175	17.50	526,696
1994	32,271.08	21,120	25,131	9,721	17.68	550
1995	28,624.96	18,427	21,927	8,988	17.77	506
2006	13,755.09	6,803	8,095	6,760	18.31	369
2007	77,734.54	37,025	44,057	39,896	18.34	2,175
2008	28,902.54	13,215	15,725	15,490	18.36	844
2011	1,013,820.32	397,436	472,921	622,005	18.41	33,786
2012	201,932.54	74,154	88,238	129,849	18.42	7,049
2013	216,117.23	73,584	87,560	145,847	18.44	7,909
2014	1,026,692.75	320,163	380,972	727,856	18.45	39,450
2015	78,301.70	22,031	26,215	58,350	18.45	3,163
2016	153,786.34	38,126	45,367	120,722	18.46	6,540
2017	357.46	76	90	296	18.47	16
2018	32,395.47	5,574	6,633	28,354	18.47	1,535
2019	219,192.43	28,208	33,566	203,162	18.48	10,994
2020	69,386.61	5,626	6,695	68,243	18.48	3,693
	36,379,260.23	23,434,219	27,885,105	11,404,496		645,377
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.7 1.77

DUKE ENERGY KENTUCKY

ACCOUNT 3420 FUEL HOLDERS, PRODUCERS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WOODSDALE						
INTERIM SURVIVOR CURVE.. IOWA 45-S1.5						
PROBABLE RETIREMENT YEAR.. 6-2040						
NET SALVAGE PERCENT.. -8						
1992	6,519,957.67	4,514,481	2,554,262	4,487,293	14.33	313,140
1995	65,305.28	43,262	24,477	46,052	14.90	3,091
1996	83,697.19	54,549	30,863	59,530	15.08	3,948
1999	58,466.30	36,010	20,374	42,769	15.62	2,738
2001	55,587.31	32,752	18,531	41,503	15.96	2,600
2012	407,682.47	153,316	86,745	353,552	17.52	20,180
2014	144,852.48	46,198	26,139	130,302	17.73	7,349
2017	168,146.39	36,271	20,522	161,076	17.99	8,954
2018	25,088.88	4,386	2,482	24,614	18.07	1,362
2019	53,546,233.66	6,980,073	3,949,276	53,880,656	18.14	2,970,268
2020	235,872.28	19,396	10,974	243,768	18.20	13,394
	61,310,889.91	11,920,694	6,744,645	59,471,116		3,347,024
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.8 5.46

DUKE ENERGY KENTUCKY

ACCOUNT 3430 PRIME MOVERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WOODSDALE						
INTERIM SURVIVOR CURVE.. IOWA 25-S0						
PROBABLE RETIREMENT YEAR.. 6-2040						
NET SALVAGE PERCENT.. -8						
1992	22,344.55	16,436	12,557	11,576	7.97	1,452
2016	786,578.39	206,718	157,925	691,579	14.77	46,823
2017	6,599,425.54	1,487,840	1,136,658	5,990,721	15.01	399,115
2018	4,084.23	757	578	3,833	15.25	251
2019	1,722,272.93	241,249	184,306	1,675,749	15.50	108,113
2020	22,495.12	2,008	1,534	22,761	15.76	1,444
2021	1,183,508.94	37,886	28,944	1,249,246	16.04	77,883
	10,340,709.70	1,992,894	1,522,502	9,645,464		635,081
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.2 6.14

DUKE ENERGY KENTUCKY

ACCOUNT 3440 GENERATORS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WOODSDALE						
INTERIM SURVIVOR CURVE.. IOWA 40-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2040						
NET SALVAGE PERCENT.. -8						
1992	119,469,338.87	79,884,416	92,118,865	36,908,021	13.78	2,678,376
1995	44,071.41	28,265	32,594	15,003	14.24	1,054
1996	75,066.53	47,403	54,663	26,409	14.39	1,835
1999	289,576.93	173,463	200,029	112,714	14.83	7,600
2000	2,176,842.29	1,278,327	1,474,105	876,884	14.97	58,576
2001	12,551,711.26	7,214,422	8,319,324	5,236,524	15.11	346,560
2003	421,505.59	230,822	266,173	189,053	15.39	12,284
2004	13,649.50	7,277	8,391	6,350	15.52	409
2005	10,461,096.18	5,412,186	6,241,072	5,056,911	15.66	322,919
2006	10,833,651.11	5,427,087	6,258,256	5,442,088	15.79	344,654
2007	170,201.58	82,314	94,921	88,897	15.92	5,584
2008	301,113.37	139,866	161,287	163,916	16.06	10,206
2009	15,814,499.03	7,028,109	8,104,477	8,975,182	16.19	554,366
2010	7,960,271.15	3,367,739	3,883,515	4,713,578	16.32	288,822
2011	8,356,990.93	3,344,869	3,857,142	5,168,408	16.44	314,380
2012	8,423,077.89	3,162,455	3,646,791	5,450,133	16.57	328,916
2013	2,798,083.81	975,449	1,124,841	1,897,090	16.70	113,598
2014	175,950.78	56,292	64,913	125,114	16.82	7,438
2015	254,485.19	73,554	84,819	190,025	16.94	11,218
2016	112,718.61	28,718	33,116	88,620	17.07	5,192
2017	834.01	182	210	691	17.19	40
2018	1,518,631.87	269,259	310,497	1,329,626	17.31	76,813
2019	6,531,850.71	869,384	1,002,532	6,051,867	17.43	347,210
2021	2,493,206.44	72,648	83,774	2,608,889	17.67	147,645
	211,248,425.04	119,174,506	137,426,306	90,721,993		5,985,695
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.2 2.83

DUKE ENERGY KENTUCKY

ACCOUNT 3446 GENERATORS - SOLAR

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRITTENDEN						
INTERIM SURVIVOR CURVE.. IOWA 25-S2.5						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. -20						
2017	4,143,038.53	929,350	787,881	4,183,765	19.53	214,222
	4,143,038.53	929,350	787,881	4,183,765		214,222
WALTON						
INTERIM SURVIVOR CURVE.. IOWA 25-S2.5						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. -20						
2017	5,670,767.07	1,272,044	1,078,410	5,726,510	19.53	293,216
	5,670,767.07	1,272,044	1,078,410	5,726,510		293,216
	9,813,805.60	2,201,394	1,866,291	9,910,275		507,438
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					19.5	5.17

DUKE ENERGY KENTUCKY

ACCOUNT 3450 ACCESSORY ELECTRIC EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WOODSDALE						
INTERIM SURVIVOR CURVE.. IOWA 35-S1						
PROBABLE RETIREMENT YEAR.. 6-2040						
NET SALVAGE PERCENT.. -8						
1992	12,128,216.59	8,534,573	9,446,878	3,651,596	11.77	310,246
1996	13,528.24	8,949	9,906	4,705	12.73	370
1999	2,218.96	1,389	1,537	859	13.42	64
2000	23,116.79	14,168	15,682	9,284	13.65	680
2001	6,287.18	3,769	4,172	2,618	13.87	189
2002	42,708.77	25,004	27,677	18,449	14.09	1,309
2006	8,616.82	4,484	4,963	4,343	14.96	290
2007	8,047.88	4,038	4,470	4,222	15.17	278
2008	5,782.47	2,786	3,084	3,161	15.38	206
2009	7,263.33	3,343	3,700	4,144	15.59	266
2011	3,017,940.84	1,247,428	1,380,772	1,878,604	16.00	117,413
2012	2,183,025.81	845,035	935,365	1,422,303	16.20	87,796
2013	28,395.09	10,201	11,291	19,375	16.39	1,182
2014	273,443.75	89,895	99,504	195,815	16.59	11,803
2015	374,312.15	110,855	122,705	281,552	16.78	16,779
2016	114,608.56	29,892	33,087	90,690	16.96	5,347
2017	261,347.40	58,074	64,282	217,973	17.14	12,717
2018	227,115.00	40,960	45,338	199,946	17.31	11,551
2019	528,311.90	71,179	78,788	491,789	17.47	28,150
2021	604,614.16	17,520	19,393	633,590	17.77	35,655
	19,858,901.69	11,123,542	12,312,595	9,135,019		642,291
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						14.2 3.23

DUKE ENERGY KENTUCKY

ACCOUNT 3456 ACCESSORY ELECTRIC EQUIPMENT - SOLAR

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
CRITTENDEN						
INTERIM SURVIVOR CURVE.. IOWA 25-S2.5						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. -20						
2017	637,652.33	143,036	85,328	679,855	19.53	34,811
	637,652.33	143,036	85,328	679,855		34,811
WALTON						
INTERIM SURVIVOR CURVE.. IOWA 25-S2.5						
PROBABLE RETIREMENT YEAR.. 6-2047						
NET SALVAGE PERCENT.. -20						
2017	979,306.42	219,674	131,046	1,044,122	19.53	53,462
	979,306.42	219,674	131,046	1,044,122		53,462
	1,616,958.75	362,710	216,374	1,723,977		88,273
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					19.5	5.46

DUKE ENERGY KENTUCKY

ACCOUNT 3460 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
WOODSDALE						
INTERIM SURVIVOR CURVE.. IOWA 45-R1.5						
PROBABLE RETIREMENT YEAR.. 6-2040						
NET SALVAGE PERCENT.. -8						
1990	3,122.67	2,112	2,673	700	14.83	47
1991	7,518.94	5,016	6,348	1,773	15.00	118
1992	2,181,939.64	1,435,294	1,816,356	540,139	15.16	35,629
1993	34,393.68	22,287	28,204	8,941	15.32	584
1994	100,409.10	64,078	81,090	27,351	15.46	1,769
1995	4,756.58	2,987	3,780	1,357	15.60	87
1996	2,435.08	1,503	1,902	728	15.74	46
1997	2,276.78	1,380	1,746	713	15.87	45
1998	10,992.46	6,537	8,273	3,599	15.99	225
1999	442,879.67	258,024	326,528	151,782	16.11	9,422
2000	120,769.72	68,860	87,142	43,289	16.22	2,669
2001	339,993.67	189,369	239,645	127,548	16.33	7,811
2002	6,611.57	3,593	4,547	2,594	16.43	158
2003	8,649.09	4,578	5,793	3,548	16.52	215
2006	83,904.90	40,417	51,147	39,470	16.78	2,352
2007	86,247.12	40,019	50,644	42,503	16.86	2,521
2008	93,734.75	41,765	52,853	48,380	16.93	2,858
2009	44,263.05	18,842	23,844	23,960	17.00	1,409
2010	40,517.21	16,388	20,739	23,020	17.07	1,349
2011	305,238.51	116,643	147,611	182,047	17.13	10,627
2012	10,349.94	3,704	4,687	6,491	17.19	378
2013	106,572.43	35,362	44,750	70,348	17.25	4,078
2014	226,097.98	68,826	87,099	157,087	17.30	9,080
2015	110,886.68	30,428	38,506	81,251	17.35	4,683
2016	165,030.22	39,908	50,503	127,729	17.40	7,341
2017	453,044.95	93,459	118,272	371,017	17.45	21,262
2018	63,398.81	10,646	13,472	54,998	17.49	3,145
2019	50,902.30	6,401	8,100	46,874	17.53	2,674
2020	18,115.36	1,434	1,815	17,750	17.57	1,010
2021	27,056.92	760	962	28,260	17.61	1,605
	5,152,109.78	2,630,620	3,329,034	2,235,245		135,197

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 16.5 2.62

DUKE ENERGY KENTUCKY

ACCOUNT 3501 RIGHTS OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R4						
NET SALVAGE PERCENT.. 0						
1950	1,695.10	1,407	1,695			
1956	2,703.51	2,114	2,665	39	16.34	2
1957	363.17	281	354	9	17.00	1
1958	79,809.09	61,006	76,919	2,890	17.67	164
1959	1,962.52	1,482	1,869	94	18.35	5
1960	2,355.33	1,758	2,217	138	19.03	7
1961	50,047.85	36,882	46,502	3,546	19.73	180
1962	235.12	171	216	19	20.44	1
1963	22,089.15	15,860	19,997	2,092	21.15	99
1965	75,275.56	52,582	66,297	8,979	22.61	397
1966	3,845.27	2,648	3,339	506	23.36	22
1967	86,314.17	58,567	73,843	12,471	24.11	517
1968	4,755.68	3,178	4,007	749	24.88	30
1969	1,091.55	718	905	187	25.65	7
1970	46.30	30	38	8	26.44	
1971	8,895.38	5,666	7,144	1,751	27.23	64
1972	25,173.18	15,762	19,873	5,300	28.04	189
1973	34,776.92	21,399	26,981	7,796	28.85	270
1974	26,321.38	15,905	20,054	6,267	29.68	211
1975	1,578.60	936	1,180	399	30.51	13
1976	14,597.75	8,496	10,712	3,886	31.35	124
1977	275.20	157	198	77	32.21	2
1981	85,664.62	44,888	56,596	29,069	35.70	814
1983	346,750.92	173,421	218,656	128,095	37.49	3,417
1988	18,297.90	8,027	10,121	8,177	42.10	194
1989	7,057.21	3,007	3,791	3,266	43.04	76
1992	3,991.58	1,550	1,954	2,038	45.88	44
2006	124,268.34	25,583	32,257	92,011	59.56	1,545
2011	0.14					
2019	605.10	20	25	580	72.50	8
2020	302,688.73	6,054	7,633	295,056	73.50	4,014
	1,333,532.32	569,555	718,038	615,494		12,417

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 49.6 0.93

DUKE ENERGY KENTUCKY

ACCOUNT 3520 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R2.5						
NET SALVAGE PERCENT.. -15						
1955	48,873.53	41,423	33,169	23,036	18.41	1,251
1958	49,503.38	40,688	32,580	24,349	19.97	1,219
1960	71,981.46	57,862	46,332	36,447	21.07	1,730
1965	1,230.56	930	745	670	24.02	28
1967	2,611.13	1,919	1,537	1,466	25.27	58
1968	1,911.98	1,385	1,109	1,090	25.91	42
1971	2,028.33	1,404	1,124	1,209	27.88	43
1976	146,306.73	92,899	74,388	93,865	31.35	2,994
1993	21,996.24	9,219	7,382	17,914	44.49	403
2006	124,869.08	29,336	23,490	120,109	55.70	2,156
2007	419,838.40	92,425	74,008	408,806	56.60	7,223
2012	351,875.96	51,217	41,011	363,646	61.14	5,948
2013	222,849.40	29,069	23,277	233,000	62.06	3,754
2016	14,537.12	1,232	987	15,731	64.84	243
2020	4,505,126.98	105,120	84,173	5,096,723	68.58	74,318
	5,985,540.28	556,128	445,312	6,438,059		101,410
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						63.5 1.69

DUKE ENERGY KENTUCKY

ACCOUNT 3530 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R1						
NET SALVAGE PERCENT.. -10						
1943	3,307.21	3,132	2,361	1,277	6.95	184
1951	9,867.28	8,746	6,594	4,260	9.71	439
1955	2,021.43	1,725	1,301	923	11.21	82
1956	1,858.83	1,571	1,184	861	11.59	74
1958	265,351.59	219,557	165,529	126,358	12.39	10,198
1960	65,960.69	53,402	40,261	32,296	13.20	2,447
1961	2,479.97	1,985	1,497	1,231	13.62	90
1965	196,895.08	150,136	113,191	103,394	15.34	6,740
1966	1,394.05	1,049	791	742	15.79	47
1967	329.35	245	185	177	16.24	11
1968	3,984.66	2,919	2,201	2,182	16.70	131
1971	48,032.41	33,688	25,398	27,438	18.12	1,514
1973	36,610.30	24,888	18,764	21,507	19.10	1,126
1974	407.00	272	205	243	19.60	12
1975	2,654.12	1,745	1,316	1,604	20.11	80
1976	338,411.94	218,736	164,910	207,343	20.62	10,055
1978	1,810.00	1,128	850	1,141	21.67	53
1979	4,385.57	2,682	2,022	2,802	22.20	126
1982	42,063.83	24,199	18,244	28,026	23.85	1,175
1983	299,131.92	168,405	126,964	202,081	24.41	8,279
1985	68,625.24	36,914	27,830	47,658	25.55	1,865
1986	16,638.72	8,734	6,585	11,718	26.14	448
1991	144,506.44	66,285	49,974	108,983	29.15	3,739
1992	821,677.01	365,696	275,706	628,139	29.77	21,100
1995	509,123.85	205,309	154,787	405,249	31.67	12,796
1998	103,784.59	37,423	28,214	85,949	33.61	2,557
2000	718,534.36	238,223	179,602	610,786	34.93	17,486
2002	501,628.47	151,632	114,319	437,472	36.26	12,065
2003	1,043,452.03	299,805	226,030	921,767	36.94	24,953
2005	56,620.11	14,586	10,997	51,285	38.29	1,339
2006	385,318.09	93,417	70,429	353,421	38.98	9,067
2007	2,604,668.54	592,510	446,707	2,418,428	39.66	60,979
2009	11,727.24	2,312	1,743	11,157	41.04	272
2012	542,603.36	82,009	61,828	535,036	43.13	12,405
2013	174,696.16	23,675	17,849	174,317	43.84	3,976
2014	1,304,582.80	156,419	117,928	1,317,113	44.55	29,565
2015	1,884,870.30	196,554	148,187	1,925,170	45.26	42,536
2016	51,448.64	4,550	3,430	53,164	45.98	1,156
2017	1,003,219.98	72,834	54,911	1,048,631	46.70	22,455
2018	134,921.02	7,628	5,751	142,662	47.43	3,008

DUKE ENERGY KENTUCKY

ACCOUNT 3530 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R1						
NET SALVAGE PERCENT.. -10						
2019	4,077,562.18	165,060	124,442	4,360,876	48.16	90,550
2020	10,328,744.54	252,228	190,161	11,171,458	48.89	228,502
2021	2,125,126.35	17,299	13,042	2,324,597	49.63	46,839
	29,941,037.25	4,011,312	3,024,220	29,910,921		692,521
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						43.2 2.31

DUKE ENERGY KENTUCKY

ACCOUNT 3531 STATION EQUIPMENT - STEP UP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
1992	8,405,252.90	4,944,642	4,295,881	4,949,897	23.26	212,807
1996	968,381.08	501,079	435,335	629,884	26.48	23,787
	9,373,633.98	5,445,721	4,731,216	5,579,781		236,594
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.6 2.52

DUKE ENERGY KENTUCKY

ACCOUNT 3532 STATION EQUIPMENT - MAJOR

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2.5						
NET SALVAGE PERCENT.. -10						
1950	10,834.19	9,935	10,637	1,281	9.98	128
1954	222,862.54	198,980	213,045	32,104	11.30	2,841
1958	261,300.93	226,016	241,992	45,439	12.82	3,544
1965	65,041.15	52,431	56,137	15,408	16.03	961
1971	4,093.09	3,051	3,267	1,235	19.34	64
1973	11,683.92	8,453	9,050	3,802	20.54	185
1976	40,615.59	27,968	29,945	14,732	22.44	657
1978	26,247.29	17,439	18,672	10,200	23.76	429
1983	111,783.06	67,158	71,905	51,056	27.23	1,875
1985	122,679.77	70,443	75,422	59,526	28.68	2,076
1992	34,444.03	16,399	17,558	20,330	34.03	597
2000	264,762.57	94,216	100,876	190,363	40.59	4,690
2001	125,472.82	42,694	45,712	92,308	41.44	2,228
2002	780,656.67	253,323	271,229	587,493	42.30	13,889
2003	994,850.91	307,147	328,857	765,479	43.16	17,736
2005	130,205.14	36,046	38,594	104,632	44.90	2,330
2006	134,369.73	35,030	37,506	110,301	45.78	2,409
2007	1,788,006.76	436,966	467,852	1,498,955	46.67	32,118
2011	82,257.49	14,688	15,726	74,757	50.26	1,487
2014	61,020.46	7,831	8,385	58,738	53.00	1,108
2015	561,727.06	62,612	67,037	550,863	53.92	10,216
2019	1,036,803.25	44,855	48,025	1,092,459	57.64	18,953
2020	4,576,560.39	119,160	127,583	4,906,633	58.58	83,760
2021	511.68	4	4	559	59.53	9
	11,448,790.49	2,152,845	2,305,016	10,288,654		204,290

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 50.4 1.78

DUKE ENERGY KENTUCKY

ACCOUNT 3534 STATION EQUIPMENT - STEP UP EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-R2.5						
NET SALVAGE PERCENT.. -10						
1992	1,218,688.02	821,091	746,413	594,144	15.50	38,332
2012	5,838,602.22	1,403,308	1,275,678	5,146,784	31.26	164,644
2021	614,723.26	7,945	7,222	668,974	39.53	16,923
	7,672,013.50	2,232,344	2,029,313	6,409,902		219,899
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						29.1 2.87

DUKE ENERGY KENTUCKY

ACCOUNT 3550 POLES AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1						
NET SALVAGE PERCENT.. -30						
1946	12.22	13	9	7	11.44	1
1949	134.11	134	89	85	12.58	7
1961	35,492.48	31,359	20,753	25,387	17.62	1,441
1962	631.47	551	365	456	18.07	25
1963	8,837.48	7,618	5,042	6,447	18.53	348
1964	146,896.29	124,996	82,721	108,244	19.00	5,697
1965	37,031.40	31,090	20,575	27,566	19.48	1,415
1966	12,789.40	10,592	7,010	9,616	19.96	482
1967	6,512.34	5,320	3,521	4,945	20.44	242
1968	176.81	142	94	136	20.93	6
1969	20,833.58	16,531	10,940	16,144	21.43	753
1970	5,511.98	4,307	2,850	4,316	21.94	197
1971	108,384.56	83,387	55,185	85,715	22.45	3,818
1972	24,492.44	18,542	12,271	19,569	22.97	852
1973	142,786.57	106,345	70,378	115,245	23.49	4,906
1974	216,251.27	158,350	104,795	176,332	24.02	7,341
1975	33,014.91	23,754	15,720	27,199	24.56	1,107
1976	85,350.55	60,320	39,919	71,037	25.10	2,830
1977	9,560.14	6,632	4,389	8,039	25.65	313
1978	3,298.60	2,245	1,486	2,802	26.20	107
1979	24,488.04	16,340	10,814	21,020	26.77	785
1980	24,042.59	15,724	10,406	20,849	27.33	763
1981	195,827.99	125,392	82,983	171,593	27.91	6,148
1982	9,765.49	6,119	4,050	8,645	28.49	303
1983	448,030.90	274,591	181,722	400,718	29.07	13,785
1984	14,001.85	8,383	5,548	12,654	29.67	426
1985	58,706.85	34,316	22,710	53,609	30.27	1,771
1986	9,513.26	5,426	3,591	8,776	30.87	284
1987	36,501.96	20,293	13,430	34,023	31.48	1,081
1988	357,207.86	193,345	127,954	336,416	32.10	10,480
1989	30,535.45	16,080	10,642	29,054	32.72	888
1990	65,711.96	33,642	22,264	63,162	33.34	1,894
1991	80,641.24	40,084	26,527	78,307	33.97	2,305
1992	227,242.94	109,520	72,479	222,937	34.61	6,441
1993	105,858.64	49,417	32,704	104,912	35.25	2,976
1994	81,572.49	36,826	24,371	81,673	35.90	2,275
1995	256,713.69	111,949	74,087	259,641	36.55	7,104
1996	62,303.84	26,213	17,348	63,647	37.20	1,711
1997	165,115.13	66,893	44,269	170,381	37.86	4,500
1998	47,716.49	18,587	12,301	49,730	38.52	1,291
1999	95,041.86	35,516	23,504	100,050	39.19	2,553
2000	38,921.09	13,928	9,217	41,380	39.86	1,038
2001	12,367.27	4,230	2,799	13,278	40.53	328

DUKE ENERGY KENTUCKY

ACCOUNT 3550 POLES AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1						
NET SALVAGE PERCENT.. -30						
2002	51,605.02	16,821	11,132	55,955	41.21	1,358
2003	198,945.69	61,696	40,830	217,799	41.88	5,201
2004	643,444.27	189,044	125,108	711,370	42.57	16,711
2005	186,009.95	51,661	34,189	207,624	43.25	4,801
2006	64,751.67	16,927	11,202	72,975	43.94	1,661
2007	693,790.52	170,058	112,543	789,385	44.63	17,687
2008	160,930.49	36,821	24,368	184,842	45.32	4,079
2009	129,318.90	27,478	18,185	149,930	46.01	3,259
2010	395,932.55	77,583	51,344	463,368	46.71	9,920
2011	117,427.32	21,066	13,941	138,715	47.41	2,926
2012	299,332.26	48,677	32,214	356,918	48.12	7,417
2013	126,990.66	18,520	12,256	152,832	48.83	3,130
2014	263,307.26	33,980	22,488	319,811	49.54	6,456
2015	377,583.84	42,391	28,054	462,805	50.25	9,210
2016	41,841.83	3,985	2,637	51,757	50.97	1,015
2017	670,056.45	52,264	34,588	836,485	51.70	16,180
2018	299,995.77	18,295	12,107	377,888	52.42	7,209
2019	1,522,229.35	66,570	44,055	1,934,843	53.15	36,403
2020	2,112,136.23	55,410	36,670	2,709,107	53.89	50,271
2021	3,564,040.97	31,182	20,636	4,612,618	54.63	84,434
	15,265,498.48	2,995,471	1,982,379	17,862,769		392,346
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						45.5 2.57

DUKE ENERGY KENTUCKY

ACCOUNT 3560 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1						
NET SALVAGE PERCENT.. -25						
1959	7,165.47	6,234	7,757	1,200	16.72	72
1960	16,450.18	14,143	17,597	2,966	17.17	173
1961	77,095.33	65,496	81,493	14,876	17.62	844
1962	817.90	686	854	168	18.07	9
1963	10,933.06	9,062	11,275	2,391	18.53	129
1964	85,862.23	70,251	87,409	19,919	19.00	1,048
1965	65,848.52	53,158	66,141	16,170	19.48	830
1966	19,341.46	15,403	19,165	5,012	19.96	251
1967	7,042.91	5,532	6,883	1,921	20.44	94
1968	88.90	69	86	25	20.93	1
1969	28,458.93	21,713	27,016	8,558	21.43	399
1970	1,062.53	798	993	335	21.94	15
1971	76,096.79	56,295	70,045	25,076	22.45	1,117
1972	9,179.14	6,682	8,314	3,160	22.97	138
1973	129,826.88	92,974	115,682	46,602	23.49	1,984
1974	163,961.68	115,443	143,639	61,313	24.02	2,553
1975	20,793.12	14,385	17,898	8,093	24.56	330
1976	100,008.44	67,961	84,560	40,451	25.10	1,612
1977	22,191.36	14,803	18,419	9,320	25.65	363
1979	6,562.75	4,211	5,239	2,964	26.77	111
1980	10,745.50	6,757	8,407	5,025	27.33	184
1981	226,839.31	139,662	173,773	109,776	27.91	3,933
1983	584,779.09	344,618	428,788	302,186	29.07	10,395
1985	36,252.24	20,376	25,353	19,962	30.27	659
1986	3,374.82	1,851	2,303	1,916	30.87	62
1987	589.83	315	392	345	31.48	11
1988	402,244.06	209,348	260,479	242,326	32.10	7,549
1990	65,181.33	32,087	39,924	41,553	33.34	1,246
1991	59,115.74	28,254	35,155	38,740	33.97	1,140
1992	325,214.39	150,708	187,517	219,001	34.61	6,328
1993	51,461.41	23,099	28,741	35,586	35.25	1,010
1994	6,433.51	2,793	3,475	4,567	35.90	127
1995	223,621.98	93,767	116,669	162,858	36.55	4,456
1996	70,288.86	28,435	35,380	52,481	37.20	1,411
1997	105,960.51	41,277	51,359	81,092	37.86	2,142
1998	2,335.76	875	1,089	1,831	38.52	48
1999	114,303.96	41,071	51,102	91,778	39.19	2,342
2000	71,328.85	24,543	30,537	58,624	39.86	1,471
2001	34,546.06	11,361	14,136	29,047	40.53	717
2002	38,971.82	12,214	15,197	33,518	41.21	813
2003	192,430.55	57,380	71,395	169,143	41.88	4,039
2004	299,768.03	84,684	105,367	269,343	42.57	6,327
2005	48,322.52	12,905	16,057	44,346	43.25	1,025

DUKE ENERGY KENTUCKY

ACCOUNT 3560 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1						
NET SALVAGE PERCENT.. -25						
2006	67,584.33	16,988	21,137	63,343	43.94	1,442
2007	804,846.09	189,692	236,023	770,035	44.63	17,254
2008	29,497.89	6,490	8,075	28,797	45.32	635
2009	14,558.83	2,975	3,702	14,497	46.01	315
2010	224,131.54	42,229	52,543	227,621	46.71	4,873
2011	116,641.60	20,121	25,035	120,767	47.41	2,547
2012	156,105.21	24,409	30,371	164,761	48.12	3,424
2013	70,493.87	9,885	12,299	75,818	48.83	1,553
2014	35,934.50	4,459	5,548	39,370	49.54	795
2015	30,546.45	3,297	4,102	34,081	50.25	678
2016	54,475.49	4,989	6,208	61,886	50.97	1,214
2017	88,915.25	6,669	8,298	102,846	51.70	1,989
2018	31,503.52	1,847	2,298	37,081	52.42	707
2019	1,449,758.42	60,962	75,851	1,736,347	53.15	32,669
2020	2,435,942.92	61,447	76,455	2,968,474	53.89	55,084
2021	1,614,513.86	13,582	16,899	2,001,243	54.63	36,633
	11,048,347.48	2,473,720	3,077,904	10,732,530		231,320
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						46.4 2.09

DUKE ENERGY KENTUCKY

ACCOUNT 3561 OVERHEAD CONDUCTORS AND DEVICES - CLEARING AND RIGHT OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R3						
NET SALVAGE PERCENT.. 0						
2007	4,273.99	921	903	3,371	50.99	66
2008	678.77	136	133	546	51.93	11
2009	6,650.00	1,240	1,216	5,434	52.88	103
2010	8,002.00	1,375	1,349	6,653	53.83	124
2011	17,292.00	2,719	2,667	14,625	54.78	267
2012	44,728.00	6,372	6,249	38,479	55.74	690
2013	18,513.00	2,361	2,316	16,197	56.71	286
2014	35,273.00	3,978	3,901	31,372	57.67	544
2015	36,833.00	3,604	3,535	33,298	58.64	568
2016	40,997.56	3,400	3,335	37,663	59.61	632
2017	321,299.63	21,800	21,380	299,920	60.59	4,950
2018	313,956.90	16,615	16,295	297,662	61.56	4,835
2019	199,142.71	7,538	7,393	191,750	62.54	3,066
2020	623,062.09	14,187	13,914	609,148	63.52	9,590
2021	171,149.94	1,290	1,265	169,885	64.51	2,633
	1,841,852.59	87,536	85,851	1,756,002		28,365
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						61.9 1.54

DUKE ENERGY KENTUCKY

ACCOUNT 3601 RIGHTS OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R4						
NET SALVAGE PERCENT.. 0						
1937	21,090.83	19,021	21,091			
1938	4,555.53	4,089	4,556			
1939	566.88	506	567			
1940	3,030.65	2,693	3,031			
1941	1,573.96	1,391	1,574			
1942	5,164.10	4,539	5,164			
1943	4,897.52	4,279	4,898			
1944	462.34	401	462			
1945	330.67	285	331			
1946	781.58	670	782			
1947	1,799.58	1,531	1,800			
1948	3,349.38	2,827	3,349			
1949	8,676.40	7,264	8,676			
1950	1,737.77	1,443	1,738			
1951	8,346.55	6,868	8,347			
1952	12,726.87	10,375	12,727			
1953	2,603.56	2,102	2,604			
1954	9,502.50	7,593	9,502			
1955	4,760.79	3,764	4,761			
1956	14,044.62	10,985	14,045			
1957	13,905.05	10,753	13,905			
1958	14,105.17	10,782	14,105			
1959	11,597.81	8,760	11,598			
1960	17,228.28	12,857	17,228			
1961	35,962.20	26,502	35,962			
1962	30,065.96	21,872	30,066			
1963	23,589.95	16,938	23,590			
1964	21,297.85	15,085	21,298			
1965	47,056.95	32,871	47,057			
1966	28,568.21	19,670	28,568			
1967	37,661.09	25,554	37,500	161	24.11	7
1968	34,610.71	23,129	33,941	670	24.88	27
1969	31,018.91	20,410	29,951	1,068	25.65	42
1970	47,115.95	30,506	44,767	2,349	26.44	89
1971	45,736.43	29,131	42,749	2,987	27.23	110
1972	67,572.03	42,309	62,088	5,484	28.04	196
1973	78,177.44	48,105	70,593	7,584	28.85	263
1974	140,806.04	85,085	124,861	15,945	29.68	537
1975	61,888.66	36,712	53,874	8,015	30.51	263
1976	75,551.33	43,971	64,527	11,024	31.35	352
1977	52,602.82	30,011	44,041	8,562	32.21	266
1978	62,310.29	34,836	51,121	11,189	33.07	338
1979	71,128.25	38,941	57,145	13,983	33.94	412

DUKE ENERGY KENTUCKY

ACCOUNT 3601 RIGHTS OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R4						
NET SALVAGE PERCENT.. 0						
1980	120,456.92	64,549	94,725	25,732	34.81	739
1981	123,971.39	64,961	95,329	28,642	35.70	802
1982	114,830.29	58,808	86,300	28,530	36.59	780
1983	238,309.31	119,186	174,904	63,405	37.49	1,691
1984	140,617.91	68,622	100,702	39,916	38.40	1,039
1985	222,229.32	105,721	155,144	67,085	39.32	1,706
1986	226,881.50	105,153	154,311	72,570	40.24	1,803
1987	374,182.90	168,831	247,757	126,426	41.16	3,072
1988	162,262.39	71,180	104,456	57,806	42.10	1,373
1989	273,358.16	116,486	170,942	102,416	43.04	2,380
1990	238,355.78	98,584	144,671	93,685	43.98	2,130
1991	284,100.23	113,904	167,153	116,947	44.93	2,603
1992	206,935.37	80,347	117,908	89,027	45.88	1,940
1993	166,625.11	62,563	91,810	74,815	46.84	1,597
1994	142,883.92	51,820	76,045	66,839	47.80	1,398
1995	178,950.56	62,584	91,842	87,109	48.77	1,786
1996	66,778.64	22,500	33,018	33,761	49.73	679
2000	18,278.20	5,206	7,640	10,638	53.64	198
2017	19,994.03	1,197	1,757	18,237	70.51	259
2018	8,487.03	396	581	7,906	71.50	111
2019	9,522.89	317	465	9,058	72.50	125
	4,497,571.31	2,200,331	3,188,000	1,309,571		31,113
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						42.1 0.69

DUKE ENERGY KENTUCKY

ACCOUNT 3610 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R2.5						
NET SALVAGE PERCENT.. -15						
1939	28,191.50	26,895	14,276	18,144	11.93	1,521
1942	1,443.55	1,354	719	941	12.92	73
1946	490.00	448	238	326	14.39	23
1953	87.10	75	40	60	17.43	3
1955	713.14	604	321	499	18.41	27
1964	2,439.86	1,867	991	1,815	23.41	78
1969	2,540.34	1,813	962	1,959	26.56	74
1974	90,080.14	59,285	31,469	72,123	29.94	2,409
1975	92.16	60	32	74	30.64	2
2007	9,905.05	2,181	1,158	10,233	56.60	181
2008	139,224.59	28,591	15,177	144,931	57.50	2,521
2010	17,292.34	3,037	1,612	18,274	59.31	308
2011	6,032.09	968	514	6,423	60.23	107
2013	50,345.99	6,567	3,486	54,412	62.06	877
2014	689,479.20	79,520	42,210	750,691	62.98	11,920
2015	374,914.98	37,510	19,911	411,241	63.91	6,435
2016	1,221.72	104	55	1,350	64.84	21
2018	5,712.25	309	164	6,405	66.71	96
	1,420,206.00	251,188	133,335	1,499,902		26,676
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						56.2 1.88

DUKE ENERGY KENTUCKY

ACCOUNT 3620 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 32-R0.5						
NET SALVAGE PERCENT.. -10						
1952	1,927.84	2,121	2,121			
1960	21,578.01	22,831	6,411	17,325	1.22	14,201
1964	87,818.90	87,364	24,531	72,070	3.06	23,552
1966	753.86	728	204	625	3.91	160
1967	3,036.07	2,888	811	2,529	4.33	584
1969	1,526.85	1,410	396	1,284	5.14	250
1970	2,855.57	2,597	729	2,412	5.54	435
1971	6,722.72	6,025	1,692	5,703	5.93	962
1972	1,708.03	1,507	423	1,456	6.33	230
1974	576.94	493	138	497	7.12	70
1975	28.00	24	7	24	7.52	3
1976	189,747.84	157,064	44,103	164,620	7.92	20,785
1977	6,281.84	5,111	1,435	5,475	8.33	657
1979	4,683.22	3,679	1,033	4,119	9.15	450
1980	6,940.27	5,354	1,503	6,131	9.56	641
1981	6,291.52	4,760	1,337	5,584	9.99	559
1982	428.59	318	89	382	10.41	37
1983	106,504.97	77,433	21,743	95,412	10.85	8,794
1984	168,487.64	120,005	33,697	151,639	11.28	13,443
1985	1,345.65	938	263	1,217	11.73	104
1986	242.34	165	46	221	12.18	18
1987	5,139.10	3,420	960	4,693	12.64	371
1988	320,498.50	208,222	58,468	294,080	13.10	22,449
1991	332,512.48	199,568	56,038	309,726	14.54	21,302
1992	750,980.41	437,822	122,938	703,140	15.04	46,751
1993	647,215.01	366,206	102,829	609,108	15.54	39,196
1994	2,033.12	1,115	313	1,923	16.05	120
1995	661,642.70	351,167	98,606	629,201	16.56	37,995
1996	43,170.48	22,126	6,213	41,275	17.09	2,415
1997	95,877.06	47,394	13,308	92,157	17.62	5,230
1998	434.11	207	58	420	18.15	23
1999	24,210.52	11,069	3,108	23,524	18.70	1,258
2000	7,399.32	3,243	911	7,228	19.25	375
2001	1,285,831.62	539,246	151,418	1,262,997	19.80	63,788
2002	889,686.92	355,986	99,959	878,697	20.36	43,158
2003	928,293.61	353,247	99,190	921,933	20.93	44,048
2004	1,120,686.05	404,491	113,579	1,119,176	21.50	52,055
2005	879,353.55	299,860	84,199	883,090	22.08	39,995
2006	1,438,284.65	461,787	129,668	1,452,445	22.66	64,097
2007	1,025,189.91	308,710	86,684	1,041,025	23.24	44,795
2008	805,420.64	226,195	63,515	822,448	23.83	34,513
2009	200,179.69	52,160	14,646	205,552	24.42	8,417
2010	78,764.92	18,926	5,314	81,327	25.01	3,252

DUKE ENERGY KENTUCKY

ACCOUNT 3620 STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 32-R0.5						
NET SALVAGE PERCENT.. -10						
2011	219,506.28	48,217	13,539	227,918	25.61	8,900
2012	1,733,018.84	344,930	96,855	1,809,466	26.21	69,037
2013	2,924,703.78	521,793	146,517	3,070,657	26.81	114,534
2014	2,871,188.50	453,028	127,208	3,031,099	27.41	110,584
2015	2,033,436.92	278,904	78,315	2,158,466	28.01	77,061
2016	2,898,268.52	336,727	94,552	3,093,543	28.62	108,090
2017	3,372,653.40	321,131	90,172	3,619,747	29.23	123,837
2018	8,308,023.95	616,871	173,215	8,965,611	29.84	300,456
2019	19,341,462.42	1,030,590	289,386	20,986,223	30.45	689,203
2020	13,682,568.48	437,377	122,814	14,928,011	31.07	480,464
2021	4,762,569.20	50,764	14,254	5,224,572	31.69	164,865
	74,309,691.33	9,615,314	2,701,461	79,039,199		2,908,569
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						27.2 3.91

DUKE ENERGY KENTUCKY

ACCOUNT 3622 STATION EQUIPMENT - MAJOR

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2.5						
NET SALVAGE PERCENT.. -10						
1955	6,151.27	5,451	6,330	436	11.66	37
1960	19,160.21	16,278	18,903	2,173	13.66	159
1962	4,096.00	3,412	3,962	544	14.57	37
1963	10,431.35	8,598	9,984	1,490	15.04	99
1964	120,966.56	98,622	114,523	18,540	15.53	1,194
1966	270,347.76	215,356	250,078	47,305	16.55	2,858
1967	15,812.04	12,442	14,448	2,945	17.08	172
1969	98,484.53	75,508	87,682	20,651	18.18	1,136
1970	9,366.59	7,083	8,225	2,078	18.75	111
1971	196,837.41	146,730	170,388	46,133	19.34	2,385
1972	25,581.14	18,792	21,822	6,317	19.93	317
1973	37,552.07	27,167	31,547	9,760	20.54	475
1974	136,571.00	97,247	112,926	37,302	21.16	1,763
1976	604,860.70	416,507	483,661	181,686	22.44	8,097
1977	396,237.94	268,129	311,360	124,502	23.09	5,392
1979	108,739.39	70,910	82,343	37,270	24.43	1,526
1980	111,717.19	71,460	82,982	39,907	25.11	1,589
1981	150,376.13	94,258	109,455	55,959	25.81	2,168
1982	353,461.57	217,021	252,012	136,796	26.51	5,160
1983	682,230.76	409,875	475,960	274,494	27.23	10,081
1984	401,128.70	235,698	273,700	167,542	27.95	5,994
1986	41,970.00	23,530	27,324	18,843	29.42	640
1987	35,726.65	19,538	22,688	16,611	30.17	551
1988	83,800.96	44,677	51,880	40,301	30.92	1,303
1989	101,133.92	52,490	60,953	50,294	31.69	1,587
1990	34,368.83	17,353	20,151	17,655	32.46	544
1991	1,100,145.56	539,731	626,753	583,407	33.24	17,551
1992	377,796.58	179,874	208,875	206,701	34.03	6,074
1993	939,635.95	433,771	503,709	529,891	34.82	15,218
1995	202,678.25	87,544	101,659	121,287	36.44	3,328
2000	1,228,111.88	437,024	507,486	843,437	40.59	20,779
2001	3,292,835.41	1,120,430	1,301,079	2,321,040	41.44	56,010
2002	509,919.85	165,469	192,148	368,764	42.30	8,718
2003	643,994.24	198,825	230,882	477,512	43.16	11,064
2004	948,700.00	277,767	322,552	721,018	44.03	16,376
2005	1,023,536.02	283,353	329,038	796,852	44.90	17,747
2006	1,457,748.51	380,035	441,309	1,162,214	45.78	25,387
2007	1,360,135.34	332,399	385,992	1,110,157	46.67	23,787
2008	1,930,162.77	440,199	511,173	1,612,006	47.56	33,894
2009	904,783.53	191,588	222,478	772,784	48.45	15,950
2010	2,036,293.53	397,586	461,689	1,778,234	49.35	36,033
2014	1,197,690.66	153,708	178,491	1,138,969	53.00	21,490
2015	896,309.89	99,905	116,013	869,928	53.92	16,134

DUKE ENERGY KENTUCKY

ACCOUNT 3622 STATION EQUIPMENT - MAJOR

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R2.5						
NET SALVAGE PERCENT.. -10						
2018	3,842,220.06	231,736	269,099	3,957,343	56.71	69,782
2019	6,655,109.02	287,920	334,341	6,986,279	57.64	121,205
2020	5,116,051.45	133,207	154,684	5,472,973	58.58	93,427
2021	2,964,591.29	25,534	29,651	3,231,399	59.53	54,282
	42,685,560.46	9,071,737	10,534,388	36,419,729		739,611
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						49.2 1.73

DUKE ENERGY KENTUCKY

ACCOUNT 3640 POLES, TOWERS AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R0.5						
NET SALVAGE PERCENT.. -50						
1915	22.22	32	33			
1917	21.06	30	32			
1918	18.91	27	28			
1919	20.33	28	30			
1921	35.85	49	54			
1922	39.78	54	60			
1923	36.37	49	55			
1924	77.90	104	117			
1925	664.20	883	996			
1926	334.01	440	501			
1927	341.57	446	512			
1928	550.44	713	826			
1929	819.48	1,052	1,229			
1930	1,053.50	1,341	1,580			
1931	3,906.73	4,930	5,860			
1932	2,273.65	2,844	3,410			
1933	5,069.59	6,288	7,604			
1934	5,967.92	7,337	8,952			
1935	5,573.33	6,791	8,360			
1936	1,715.49	2,072	2,573			
1937	6,497.15	7,777	9,746			
1938	7,384.10	8,758	11,076			
1939	5,920.98	6,960	8,881			
1940	10,313.32	12,010	15,470			
1941	8,458.16	9,758	12,687			
1942	13,029.64	14,889	19,544			
1943	2,781.72	3,148	4,173			
1944	4,969.90	5,571	7,455			
1945	9,788.61	10,863	14,683			
1946	7,583.03	8,332	11,375			
1947	18,018.35	19,597	27,028			
1948	16,921.77	18,216	25,383			
1949	27,955.15	29,772	41,933			
1950	39,084.58	41,177	58,375	252	16.37	15
1951	45,186.53	47,089	66,757	1,023	16.79	61
1952	63,279.10	65,218	92,458	2,461	17.21	143
1953	61,059.44	62,230	88,222	3,367	17.63	191
1954	64,565.33	65,047	92,215	4,633	18.06	257
1955	84,991.75	84,606	119,943	7,545	18.50	408
1956	72,085.99	70,913	100,531	7,598	18.93	401
1957	84,923.27	82,522	116,989	10,396	19.37	537
1958	89,376.54	85,753	121,569	12,496	19.82	630
1959	100,771.55	95,477	135,355	15,802	20.26	780

DUKE ENERGY KENTUCKY

ACCOUNT 3640 POLES, TOWERS AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R0.5						
NET SALVAGE PERCENT.. -50						
1960	85,109.24	79,569	112,802	14,862	20.72	717
1961	130,251.43	120,175	170,368	25,009	21.17	1,181
1962	94,372.85	85,888	121,761	19,798	21.63	915
1963	92,450.60	82,978	117,635	21,041	22.09	953
1964	160,542.50	142,037	201,361	39,453	22.56	1,749
1965	155,127.83	135,257	191,750	40,942	23.03	1,778
1966	139,683.09	119,963	170,068	39,457	23.51	1,678
1967	146,885.80	124,226	176,111	44,218	23.99	1,843
1968	187,637.69	156,234	221,488	59,969	24.47	2,451
1969	195,761.35	160,381	227,367	66,275	24.96	2,655
1970	234,635.30	189,094	268,073	83,880	25.45	3,296
1971	243,686.98	193,066	273,704	91,826	25.95	3,539
1972	318,253.14	247,803	351,303	126,077	26.45	4,767
1973	409,630.49	313,367	444,251	170,195	26.95	6,315
1974	281,642.82	211,541	299,895	122,569	27.46	4,464
1975	252,601.23	186,143	263,889	115,013	27.98	4,111
1976	268,336.52	194,007	275,038	127,467	28.49	4,474
1977	421,878.15	299,038	423,937	208,880	29.01	7,200
1978	437,382.01	303,703	430,550	225,523	29.54	7,634
1979	575,953.28	391,594	555,151	308,779	30.07	10,269
1980	861,348.87	573,193	812,598	479,425	30.60	15,667
1981	735,925.06	478,889	678,906	424,982	31.14	13,647
1982	655,420.80	416,848	590,952	392,179	31.68	12,379
1983	676,805.35	420,296	595,841	419,367	32.23	13,012
1984	611,118.78	370,338	525,017	391,661	32.78	11,948
1985	706,638.50	417,623	592,051	467,907	33.33	14,039
1986	768,342.17	442,565	627,411	525,102	33.88	15,499
1987	1,089,104.17	610,693	865,760	767,896	34.44	22,297
1988	739,318.55	403,058	571,403	537,575	35.01	15,355
1989	1,699,986.15	900,831	1,277,080	1,272,899	35.57	35,786
1990	997,969.18	513,320	727,718	769,236	36.14	21,285
1991	1,377,696.02	687,229	974,263	1,092,281	36.71	29,754
1992	1,661,321.36	802,418	1,137,563	1,354,419	37.29	36,321
1993	1,768,808.18	826,847	1,172,195	1,481,017	37.86	39,118
1994	1,841,605.56	831,734	1,179,123	1,583,285	38.44	41,188
1995	1,660,257.18	723,108	1,025,128	1,465,258	39.03	37,542
1996	1,402,226.98	588,557	834,379	1,268,961	39.61	32,036
1997	1,183,362.45	477,647	677,145	1,097,899	40.20	27,311
1998	1,476,009.28	572,433	811,520	1,402,494	40.78	34,392
1999	1,313,057.96	488,103	691,968	1,277,619	41.37	30,883
2000	1,015,801.93	361,255	512,140	1,011,563	41.96	24,108
2001	686,732.83	232,988	330,300	699,799	42.56	16,443
2002	111,864.58	36,152	51,252	116,545	43.15	2,701

DUKE ENERGY KENTUCKY

ACCOUNT 3640 POLES, TOWERS AND FIXTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R0.5						
NET SALVAGE PERCENT.. -50						
2003	853,718.80	261,942	371,347	909,231	43.75	20,782
2004	751,789.30	218,568	309,857	817,827	44.34	18,444
2005	1,258,572.52	345,308	489,532	1,398,327	44.94	31,115
2006	1,628,927.62	420,263	595,794	1,847,597	45.54	40,571
2007	1,223,542.04	295,651	419,135	1,416,178	46.14	30,693
2009	1,679,143.05	350,328	496,649	2,022,066	47.35	42,705
2010	1,225,555.20	235,637	334,055	1,504,278	47.95	31,372
2011	729,974.69	128,209	181,758	913,204	48.56	18,806
2012	2,435,327.76	387,875	549,878	3,103,114	49.16	63,123
2013	2,436,688.35	347,557	492,721	3,162,312	49.77	63,539
2014	2,598,945.65	327,467	464,240	3,434,178	50.38	68,166
2015	3,995,574.05	436,976	619,487	5,373,874	50.99	105,391
2016	3,242,723.65	300,698	426,290	4,437,795	51.60	86,004
2017	2,706,104.13	205,190	290,892	3,768,264	52.22	72,161
2018	2,006,594.79	118,740	168,334	2,841,558	52.83	53,787
2019	3,442,077.68	145,497	206,267	4,956,850	53.45	92,738
2020	3,332,395.95	84,526	119,830	4,878,764	54.07	90,231
2021	8,188,348.82	69,273	98,206	12,184,317	54.69	222,789
	74,482,036.53	21,483,087	30,437,147	81,285,908		1,770,540
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						45.9 2.38

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 53-01						
NET SALVAGE PERCENT.. -40						
1901	90.21	126	126			
1925	102,230.71	130,296	143,123			
1926	2.26	3	3			
1927	20.01	25	28			
1932	140.81	166	197			
1938	16,230.02	17,899	22,074	648	11.25	58
1939	8,801.48	9,590	11,827	495	11.75	42
1940	455.46	490	604	34	12.25	3
1941	10,473.82	11,136	13,733	930	12.75	73
1942	9,065.99	9,519	11,739	953	13.25	72
1943	5,276.28	5,470	6,746	641	13.75	47
1944	724.82	742	915	100	14.25	7
1945	3,711.60	3,750	4,625	571	14.75	39
1946	8,599.52	8,575	10,575	1,464	15.25	96
1947	25,824.80	25,411	31,338	4,817	15.75	306
1948	15,260.93	14,815	18,271	3,094	16.25	190
1949	32,384.30	31,009	38,242	7,096	16.75	424
1950	76,036.58	71,805	88,553	17,898	17.25	1,038
1951	51,854.15	48,283	59,545	13,051	17.75	735
1952	101,356.40	93,037	114,737	27,162	18.25	1,488
1953	40,971.26	37,068	45,714	11,646	18.75	621
1954	96,157.02	85,725	105,720	28,900	19.25	1,501
1955	79,155.54	69,523	85,739	25,079	19.75	1,270
1956	82,879.01	71,698	88,421	27,610	20.25	1,363
1957	81,141.50	69,123	85,246	28,352	20.75	1,366
1958	92,883.64	77,900	96,070	33,967	21.25	1,598
1959	73,514.73	60,684	74,838	28,083	21.75	1,291
1960	93,418.84	75,881	93,580	37,206	22.25	1,672
1961	180,315.88	144,081	177,687	74,755	22.75	3,286
1962	176,294.75	138,541	170,855	75,958	23.25	3,267
1963	197,027.40	152,232	187,739	88,099	23.75	3,709
1964	273,059.89	207,370	255,738	126,546	24.25	5,218
1965	264,366.20	197,277	243,291	126,822	24.75	5,124
1966	293,950.84	215,469	265,726	145,805	25.25	5,774
1967	210,315.52	151,387	186,697	107,745	25.75	4,184
1968	240,677.85	170,065	209,732	127,217	26.25	4,846
1969	211,547.49	146,685	180,899	115,267	26.75	4,309
1970	420,253.33	285,852	352,526	235,829	27.25	8,654
1971	419,500.07	279,802	345,065	242,235	27.75	8,729
1972	365,814.70	239,159	294,942	217,199	28.25	7,688
1973	655,414.43	419,839	517,765	399,815	28.75	13,907
1974	555,072.48	348,227	429,449	347,652	29.25	11,886
1975	431,985.57	265,305	327,186	277,594	29.75	9,331

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 53-01						
NET SALVAGE PERCENT.. -40						
1976	354,912.05	213,284	263,032	233,845	30.25	7,730
1977	321,572.49	188,999	233,082	217,119	30.75	7,061
1978	301,073.76	172,977	213,323	208,180	31.25	6,662
1979	658,840.79	369,818	456,076	466,301	31.75	14,687
1980	831,609.34	455,817	562,134	602,119	32.25	18,670
1981	468,480.75	250,596	309,046	346,827	32.75	10,590
1982	603,298.12	314,738	388,149	456,468	33.25	13,728
1983	982,158.49	499,422	615,910	759,112	33.75	22,492
1984	607,194.13	300,730	370,874	479,198	34.25	13,991
1985	885,438.12	426,848	526,408	713,205	34.75	20,524
1986	925,915.97	434,138	535,399	760,883	35.25	21,585
1987	1,242,950.78	566,360	698,461	1,041,670	35.75	29,138
1988	765,260.18	338,594	417,570	653,794	36.25	18,036
1989	2,218,098.23	952,096	1,174,168	1,931,170	36.75	52,549
1990	1,317,061.06	547,947	675,753	1,168,132	37.25	31,359
1991	2,052,098.96	826,659	1,019,473	1,853,466	37.75	49,098
1992	2,062,292.81	803,511	990,926	1,896,284	38.25	49,576
1993	1,964,407.07	739,438	911,909	1,838,261	38.75	47,439
1994	3,323,408.77	1,207,069	1,488,612	3,164,160	39.25	80,616
1995	1,991,706.11	697,097	859,692	1,928,697	39.75	48,521
1996	1,337,570.17	450,491	555,566	1,317,032	40.25	32,721
1997	1,021,106.83	330,412	407,479	1,022,071	40.75	25,081
1998	1,999,307.72	620,545	765,284	2,033,747	41.25	49,303
1999	1,285,178.99	381,909	470,988	1,328,263	41.75	31,815
2000	4,613,576.23	1,310,080	1,615,650	4,843,357	42.25	114,636
2001	2,177,592.68	589,605	727,128	2,321,502	42.75	54,304
2002	426,808.28	109,922	135,561	461,971	43.25	10,681
2003	5,407,071.44	1,321,175	1,629,333	5,940,567	43.75	135,784
2004	5,029,219.08	1,162,383	1,433,504	5,607,403	44.25	126,721
2005	3,058,711.25	666,567	822,041	3,460,155	44.75	77,322
2006	6,217,420.30	1,272,843	1,569,728	7,134,660	45.25	157,672
2007	3,725,864.08	713,525	879,951	4,336,259	45.75	94,782
2008	1,810,346.54	322,792	398,082	2,136,403	46.25	46,192
2009	3,479,497.37	574,423	708,404	4,162,892	46.75	89,046
2010	5,950,463.32	903,792	1,114,597	7,216,052	47.25	152,721
2011	1,186,227.51	164,511	202,882	1,457,837	47.75	30,531
2012	10,142,229.95	1,272,525	1,569,336	12,629,786	48.25	261,757
2013	5,777,720.23	648,642	799,935	7,288,873	48.75	149,515
2014	3,210,416.96	317,992	392,162	4,102,422	49.25	83,298
2015	6,746,373.72	579,163	714,250	8,730,673	49.75	175,491
2016	4,178,512.85	303,552	374,354	5,475,564	50.25	108,966
2017	4,531,284.70	269,294	332,106	6,011,693	50.75	118,457
2018	3,755,836.60	173,625	214,122	5,044,049	51.25	98,420

DUKE ENERGY KENTUCKY

ACCOUNT 3650 OVERHEAD CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 53-01						
NET SALVAGE PERCENT.. -40						
2019	8,641,924.92	285,287	351,829	11,746,866	51.75	226,993
2020	8,807,512.80	174,477	215,173	12,115,345	52.25	231,873
2021	10,490,415.27	69,321	85,490	14,601,091	52.75	276,798
	144,890,225.86	29,686,031	36,592,558	166,253,758		3,640,144
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						45.7 2.51

DUKE ENERGY KENTUCKY

ACCOUNT 3651 OVERHEAD CONDUCTORS AND DEVICES - CLEARING AND RIGHT OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R3						
NET SALVAGE PERCENT.. 0						
2017	4,136,475.58	280,660	428,920	3,707,556	60.59	61,191
2018	319,584.85	16,912	25,846	293,739	61.56	4,772
2019	727,201.20	27,525	42,065	685,136	62.54	10,955
2020	284,408.99	6,476	9,897	274,512	63.52	4,322
2021	1,709,941.30	12,893	19,704	1,690,237	64.51	26,201
	7,177,611.92	344,466	526,432	6,651,180		107,441
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						61.9 1.50

DUKE ENERGY KENTUCKY

ACCOUNT 3660 UNDERGROUND CONDUIT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. -25						
1911	86.72	103	108			
1916	484.20	563	605			
1920	108.08	124	135			
1923	4,597.29	5,207	5,747			
1924	70.00	79	88			
1926	627.04	702	784			
1927	1,655.18	1,845	2,069			
1928	226.28	251	283			
1929	6,901.70	7,629	8,627			
1930	191.38	211	239			
1931	10,483.05	11,486	13,104			
1932	2,755.95	3,005	3,445			
1933	224.03	243	280			
1934	33.01	36	41			
1935	1,453.75	1,562	1,817			
1937	91.31	97	114			
1938	22,677.01	23,966	28,310	36	11.59	3
1939	0.78	1	1			
1940	45,158.13	47,160	55,707	741	12.34	60
1941	9,031.67	9,372	11,071	219	12.74	17
1942	2,013.83	2,076	2,452	65	13.14	5
1943	1,885.59	1,931	2,281	76	13.56	6
1944	264.60	269	318	13	14.00	1
1945	958.82	968	1,143	56	14.44	4
1946	0.54	1	1			
1947	2,244.22	2,230	2,634	171	15.37	11
1948	134.05	132	156	12	15.85	1
1949	12,503.39	12,222	14,437	1,192	16.35	73
1950	18,929.13	18,345	21,670	1,991	16.85	118
1951	5,103.76	4,902	5,790	590	17.37	34
1952	11,395.81	10,843	12,808	1,437	17.91	80
1953	3,209.28	3,025	3,573	439	18.45	24
1954	3,659.33	3,415	4,034	540	19.01	28
1955	23,323.04	21,543	25,447	3,707	19.58	189
1956	8,680.00	7,934	9,372	1,478	20.16	73
1957	6,187.35	5,594	6,608	1,126	20.75	54
1958	9,346.30	8,356	9,870	1,813	21.36	85
1959	3,630.60	3,208	3,789	749	21.98	34
1960	1,112.97	972	1,148	243	22.60	11
1961	18,720.57	16,150	19,077	4,324	23.24	186
1962	11,434.34	9,740	11,505	2,788	23.89	117
1963	79,439.22	66,795	78,901	20,398	24.55	831
1964	5,425.93	4,502	5,318	1,464	25.22	58

DUKE ENERGY KENTUCKY

ACCOUNT 3660 UNDERGROUND CONDUIT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. -25						
1965	13,790.95	11,288	13,334	3,905	25.89	151
1966	998.12	805	951	297	26.58	11
1967	8,392.22	6,675	7,885	2,605	27.28	95
1968	136.17	107	126	44	27.98	2
1969	22,661.30	17,487	20,656	7,671	28.70	267
1970	35,385.16	26,881	31,753	12,478	29.42	424
1971	84,792.81	63,383	74,870	31,121	30.15	1,032
1972	21,618.85	15,893	18,773	8,251	30.89	267
1973	119,674.87	86,485	102,159	47,435	31.64	1,499
1974	76,619.48	54,412	64,274	31,500	32.39	973
1975	206,167.56	143,802	169,864	87,845	33.15	2,650
1976	177,574.99	121,579	143,614	78,355	33.92	2,310
1977	33,297.47	22,365	26,418	15,204	34.70	438
1978	6,263.61	4,125	4,873	2,957	35.49	83
1979	3,638.48	2,348	2,774	1,774	36.28	49
1980	128,507.71	81,217	95,937	64,698	37.08	1,745
1982	39,502.24	23,899	28,230	21,148	38.70	546
1983	17,578.46	10,395	12,279	9,694	39.52	245
1984	100,279.68	57,928	68,427	56,923	40.34	1,411
1985	6,009.67	3,387	4,001	3,511	41.18	85
1986	52,949.29	29,104	34,379	31,808	42.02	757
1987	17,225.08	9,227	10,899	10,632	42.86	248
1988	129,456.88	67,491	79,723	82,098	43.72	1,878
1989	177,640.00	90,092	106,420	115,630	44.57	2,594
1990	166,959.13	82,255	97,163	111,536	45.44	2,455
1991	58,878.65	28,154	33,257	40,341	46.31	871
1992	622,072.87	288,432	340,707	436,884	47.18	9,260
1993	835,433.48	374,974	442,934	601,358	48.07	12,510
1994	1,061,991.05	461,077	544,642	782,847	48.95	15,993
1995	827,150.61	346,711	409,548	624,390	49.85	12,525
1996	779,257.86	315,083	372,188	601,884	50.74	11,862
1997	884,548.85	344,233	406,621	699,065	51.65	13,535
1998	835,632.68	312,527	369,169	675,372	52.56	12,850
1999	1,791,080.74	642,707	759,190	1,479,661	53.47	27,673
2000	402,246.69	138,172	163,214	339,594	54.39	6,244
2001	152,457.51	50,031	59,099	131,473	55.31	2,377
2002	79,431.14	24,835	29,336	69,953	56.24	1,244
2003	3,055,300.98	907,921	1,072,471	2,746,655	57.17	48,044
2004	233,796.54	65,814	77,742	214,504	58.11	3,691
2005	376,812.80	100,171	118,326	352,690	59.05	5,973
2006	508,068.25	127,100	150,135	484,950	59.99	8,084
2007	526,802.09	123,449	145,823	512,680	60.94	8,413
2008	202,563.97	44,260	52,282	200,923	61.89	3,246

DUKE ENERGY KENTUCKY

ACCOUNT 3660 UNDERGROUND CONDUIT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. -25						
2009	313,490.59	63,533	75,048	316,815	62.84	5,042
2010	309,477.95	57,768	68,238	318,609	63.80	4,994
2011	309,274.61	52,782	62,348	324,245	64.76	5,007
2012	437,739.76	67,631	79,888	467,287	65.73	7,109
2013	289,171.09	40,050	47,309	314,155	66.69	4,711
2014	748,320.06	91,548	108,140	827,260	67.66	12,227
2015	584,272.96	62,028	73,270	657,071	68.63	9,574
2016	241,976.47	21,739	25,679	276,792	69.61	3,976
2017	2,622,810.04	193,203	228,219	3,050,294	70.58	43,218
2018	2,871,845.32	164,664	194,507	3,395,300	71.56	47,447
2019	5,956,059.11	244,198	288,456	7,156,618	72.54	98,658
2020	12,188,465.29	300,598	355,078	14,880,504	73.52	202,401
2021	1,282,535.43	10,469	12,366	1,590,803	74.51	21,350
	43,372,544.85	7,417,287	8,759,919	45,455,762		694,427
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						65.5 1.60

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 56-R2						
NET SALVAGE PERCENT.. -35						
1901	24.39	33	33			
1922	0.16					
1923	16.90	22	19	4	1.42	3
1926	10.01	13	11	3	2.23	1
1927	5.82	8	8			
1929	126.10	161	138	32	3.06	10
1931	76.11	96	82	21	3.63	6
1932	20.80	26	22	6	3.92	2
1933	24.56	31	27	6	4.21	1
1935	18.23	23	20	5	4.78	1
1937	41.93	51	44	13	5.36	2
1938	2,587.00	3,139	2,685	807	5.66	143
1939	146.71	177	151	47	5.95	8
1940	14,574.52	17,483	14,953	4,723	6.24	757
1941	205.48	245	210	67	6.53	10
1942	85.47	101	86	29	6.83	4
1943	63.66	75	64	22	7.13	3
1945	171.86	200	171	61	7.73	8
1947	979.77	1,125	962	361	8.35	43
1949	4,061.90	4,603	3,937	1,547	8.99	172
1950	12,101.22	13,621	11,650	4,687	9.31	503
1951	2,368.58	2,647	2,264	934	9.65	97
1952	509.93	566	484	204	9.99	20
1953	1,033.86	1,138	973	423	10.34	41
1954	2,816.56	3,076	2,631	1,171	10.70	109
1955	26,810.78	29,046	24,843	11,352	11.06	1,026
1956	9,853.36	10,585	9,053	4,249	11.44	371
1957	4,813.84	5,127	4,385	2,114	11.82	179
1958	1,438.02	1,518	1,298	643	12.22	53
1959	9,726.41	10,172	8,700	4,431	12.62	351
1960	6,190.34	6,412	5,484	2,873	13.03	220
1961	9,441.90	9,683	8,282	4,465	13.46	332
1962	5,178.77	5,257	4,496	2,495	13.89	180
1963	35,189.77	35,341	30,227	17,279	14.34	1,205
1964	24,883.58	24,721	21,143	12,450	14.79	842
1965	19,378.77	19,037	16,282	9,879	15.25	648
1966	8,812.96	8,556	7,318	4,579	15.73	291
1967	12,211.94	11,711	10,016	6,470	16.22	399
1968	9,986.24	9,459	8,090	5,391	16.71	323
1969	15,920.94	14,884	12,730	8,763	17.22	509
1970	56,777.88	52,368	44,789	31,861	17.74	1,796
1971	73,576.96	66,923	57,238	42,091	18.27	2,304
1972	71,217.24	63,850	54,610	41,533	18.81	2,208

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 56-R2						
NET SALVAGE PERCENT.. -35						
1973	111,358.53	98,362	84,127	66,207	19.36	3,420
1974	175,445.40	152,601	130,517	106,334	19.92	5,338
1975	160,839.12	137,686	117,760	99,373	20.49	4,850
1976	283,855.53	239,024	204,433	178,772	21.07	8,485
1977	385,293.00	318,958	272,799	247,347	21.66	11,420
1978	200,834.67	163,354	139,714	131,413	22.26	5,904
1979	456,585.37	364,663	311,890	304,500	22.87	13,314
1980	410,059.90	321,376	274,867	278,714	23.49	11,865
1981	241,207.98	185,378	158,551	167,080	24.12	6,927
1982	241,710.14	182,035	155,691	170,618	24.76	6,891
1983	397,627.81	293,226	250,791	286,007	25.41	11,256
1984	528,393.79	381,376	326,184	387,148	26.06	14,856
1985	497,158.00	350,804	300,037	371,126	26.73	13,884
1986	583,088.29	401,881	343,722	443,447	27.41	16,178
1987	1,167,848.40	785,759	672,046	904,549	28.09	32,202
1988	923,231.03	605,819	518,147	728,215	28.78	25,303
1989	1,228,601.37	785,469	671,798	986,814	29.48	33,474
1990	1,167,084.80	726,162	621,074	954,490	30.19	31,616
1991	1,009,645.96	610,688	522,311	840,711	30.91	27,199
1992	1,003,750.51	589,696	504,357	850,706	31.63	26,896
1993	1,601,853.40	912,879	780,770	1,381,732	32.36	42,699
1994	1,055,846.25	582,886	498,532	926,860	33.10	28,002
1995	718,585.00	383,709	328,180	641,910	33.85	18,963
1996	663,083.41	341,916	292,435	602,728	34.61	17,415
1997	1,090,031.02	542,101	463,650	1,007,892	35.37	28,496
1998	729,320.98	349,173	298,642	685,941	36.14	18,980
1999	2,245,513.97	1,032,843	883,373	2,148,071	36.92	58,182
2000	2,611,725.54	1,152,206	985,462	2,540,367	37.70	67,384
2001	1,969,354.49	831,300	710,997	1,947,632	38.49	50,601
2002	575,828.21	231,959	198,391	578,977	39.29	14,736
2003	2,478,468.30	950,613	813,043	2,532,889	40.09	63,180
2004	1,732,401.89	630,619	539,357	1,799,386	40.90	43,995
2005	4,007,139.68	1,379,458	1,179,827	4,229,812	41.72	101,386
2006	2,815,043.04	913,442	781,251	3,019,057	42.54	70,970
2007	2,168,126.11	660,149	564,614	2,362,356	43.37	54,470
2008	1,823,918.29	518,829	443,745	2,018,545	44.20	45,668
2009	2,764,384.61	730,374	624,676	3,107,243	45.04	68,989
2010	1,888,906.10	460,381	393,756	2,156,267	45.89	46,988
2011	442,894.59	98,870	84,562	513,346	46.74	10,983
2012	3,032,195.87	614,020	525,161	3,568,303	47.60	74,964
2013	705,049.91	128,153	109,607	842,210	48.46	17,379
2014	1,241,026.69	199,555	170,676	1,504,710	49.33	30,503
2015	1,774,677.14	248,134	212,225	2,183,589	50.20	43,498

DUKE ENERGY KENTUCKY

ACCOUNT 3670 UNDERGROUND CONDUCTORS AND DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 56-R2						
NET SALVAGE PERCENT.. -35						
2016	1,419,765.64	168,400	144,030	1,772,654	51.08	34,703
2017	3,815,277.03	370,639	317,001	4,833,623	51.97	93,008
2018	3,389,708.01	257,406	220,155	4,355,951	52.85	82,421
2019	3,687,788.04	200,037	171,088	4,807,426	53.75	89,440
2020	7,768,769.92	254,750	217,883	10,269,956	54.64	187,957
2021	10,036,797.41	108,939	93,173	13,456,504	55.55	242,241
	81,870,581.37	23,381,367	19,997,687	90,527,598		2,074,660
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						43.6 2.53

DUKE ENERGY KENTUCKY

ACCOUNT 3680 LINE TRANSFORMERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-R0.5						
NET SALVAGE PERCENT.. -15						
1901	31,582.54	36,320	36,320			
1910	932.69	1,073	1,073			
1916	93.05	107	107			
1917	39.05	45	45			
1920	740.05	851	851			
1921	117.96	136	136			
1922	605.03	696	696			
1923	162.79	187	187			
1925	659.74	759	759			
1926	248.00	284	285			
1927	291.97	331	336			
1928	180.65	202	208			
1929	179.48	199	206			
1930	124.12	136	143			
1932	374.42	403	431			
1933	182.90	195	210			
1935	66.95	70	77			
1936	1,464.13	1,512	1,684			
1937	2,257.56	2,307	2,596			
1938	113.55	115	131			
1939	122.80	123	141			
1940	2,320.41	2,302	2,668			
1941	1,192.53	1,171	1,371			
1942	165.20	161	190			
1945	484.42	457	557			
1946	250.89	234	289			
1947	2,257.08	2,087	2,596			
1948	1,863.69	1,706	2,143			
1949	3,376.19	3,058	3,883			
1950	5,269.63	4,723	6,060			
1951	15,277.18	13,550	17,569			
1952	10,017.37	8,789	11,520			
1953	5,159.44	4,477	5,933			
1954	13,634.36	11,698	15,680			
1955	36,066.47	30,598	41,476			
1956	45,862.04	38,457	52,606	135	13.00	10
1957	10,944.80	9,070	12,407	180	13.41	13
1958	31,088.24	25,458	34,825	926	13.82	67
1959	42,607.88	34,463	47,143	1,856	14.24	130
1960	38,507.13	30,758	42,075	2,208	14.66	151
1961	44,738.19	35,285	48,267	3,182	15.08	211
1962	43,195.54	33,624	45,995	3,680	15.51	237
1963	60,452.89	46,434	63,518	6,003	15.94	377

DUKE ENERGY KENTUCKY

ACCOUNT 3680 LINE TRANSFORMERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-R0.5						
NET SALVAGE PERCENT.. -15						
1964	144,131.92	109,189	149,363	16,389	16.38	1,001
1965	103,226.91	77,112	105,484	13,227	16.82	786
1966	175,327.32	129,126	176,635	24,991	17.26	1,448
1967	139,007.46	100,877	137,993	21,866	17.71	1,235
1968	206,662.00	147,747	202,108	35,553	18.16	1,958
1969	291,962.47	205,581	281,220	54,537	18.61	2,931
1970	395,146.20	273,882	374,651	79,767	19.07	4,183
1971	438,911.95	299,276	409,389	95,360	19.54	4,880
1972	486,115.52	325,983	445,922	113,111	20.01	5,653
1973	571,749.46	376,833	515,481	142,031	20.49	6,932
1974	654,633.82	424,091	580,127	172,702	20.96	8,240
1975	391,466.42	249,007	340,624	109,562	21.45	5,108
1976	311,722.74	194,627	266,236	92,245	21.94	4,204
1977	468,845.25	287,222	392,900	146,272	22.43	6,521
1978	621,284.08	373,164	510,462	204,015	22.93	8,897
1979	590,702.86	347,582	475,468	203,840	23.44	8,696
1980	641,491.50	369,780	505,833	231,882	23.94	9,686
1981	811,736.41	457,806	626,247	307,250	24.46	12,561
1982	569,243.91	313,948	429,459	225,171	24.98	9,014
1983	1,038,629.33	559,886	765,885	428,539	25.50	16,805
1984	936,556.67	492,972	674,351	402,689	26.03	15,470
1985	1,025,991.57	527,022	720,929	458,961	26.56	17,280
1986	1,036,637.77	519,317	710,389	481,744	27.09	17,783
1987	1,113,866.13	543,339	743,250	537,696	27.64	19,454
1988	1,938,993.86	920,747	1,259,518	970,325	28.18	34,433
1989	1,933,218.14	892,526	1,220,913	1,002,288	28.73	34,886
1990	1,885,191.47	845,508	1,156,596	1,011,374	29.28	34,541
1991	1,875,602.25	816,036	1,116,280	1,040,663	29.84	34,875
1992	1,404,651.97	592,300	810,225	805,125	30.40	26,484
1993	1,870,888.25	763,338	1,044,193	1,107,328	30.97	35,755
1994	2,382,573.34	939,587	1,285,289	1,454,670	31.54	46,121
1995	1,295,995.96	493,380	674,909	815,486	32.11	25,397
1996	1,162,211.93	426,585	583,539	753,005	32.68	23,042
1997	1,815,491.21	641,126	877,016	1,210,799	33.26	36,404
1998	1,512,006.91	512,948	701,677	1,037,131	33.84	30,648
1999	1,427,510.66	464,452	635,338	1,006,299	34.42	29,236
2000	1,248,012.97	388,398	531,301	903,914	35.01	25,819
2001	448,410.16	133,213	182,226	333,446	35.60	9,366
2002	568,816.30	160,944	220,160	433,979	36.19	11,992
2003	1,033,092.47	277,708	379,885	808,171	36.78	21,973
2004	1,375,038.72	350,193	479,040	1,102,255	37.37	29,496
2005	773,129.59	185,786	254,142	634,957	37.97	16,723
2006	909,888.85	205,570	281,205	765,167	38.57	19,838

DUKE ENERGY KENTUCKY

ACCOUNT 3680 LINE TRANSFORMERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-R0.5						
NET SALVAGE PERCENT.. -15						
2007	1,400,110.98	296,537	405,642	1,204,486	39.16	30,758
2008	780,875.43	154,161	210,882	687,125	39.76	17,282
2009	846,751.83	154,994	212,021	761,744	40.36	18,874
2010	1,204,702.26	203,198	277,961	1,107,447	40.96	27,037
2011	24,528.45	3,779	5,169	23,039	41.57	554
2012	722,279.43	100,887	138,006	692,615	42.17	16,424
2013	401,747.21	50,244	68,730	393,279	42.78	9,193
2014	2,398,769.06	264,934	362,412	2,396,172	43.39	55,224
2015	1,719,352.11	164,765	225,387	1,751,868	44.00	39,815
2016	1,986,965.73	161,367	220,739	2,064,272	44.61	46,274
2017	1,763,896.19	117,490	160,718	1,867,763	45.22	41,304
2018	992,651.43	51,609	70,598	1,070,951	45.83	23,368
2019	1,889,110.25	70,149	95,959	2,076,518	46.45	44,704
2020	3,399,543.44	75,766	103,643	3,805,832	47.07	80,855
2021	13,729,450.19	101,996	139,523	15,649,345	47.69	328,147
	73,741,779.67	20,072,201	27,436,641	57,366,406		1,498,764
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						38.3 2.03

DUKE ENERGY KENTUCKY

ACCOUNT 3682 LINE TRANSFORMERS - CUSTOMER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1.5						
NET SALVAGE PERCENT.. -15						
1937	1.04	1	1			
1938	2.53	3	3			
1940	0.01					
1941	0.95	1	1			
1942	10.94	11	13			
1943	2.50	2	3			
1945	1,765.26	1,677	2,030			
1946	3,329.42	3,142	3,829			
1947	2,300.29	2,156	2,645			
1948	401.17	373	461			
1949	3,857.31	3,563	4,436			
1950	416.26	382	479			
1951	5,955.07	5,418	6,848			
1952	49.28	44	57			
1953	1,452.54	1,301	1,670			
1954	1,558.30	1,384	1,792			
1955	581.76	512	669			
1956	26,953.32	23,523	30,996			
1957	2,433.12	2,104	2,798			
1958	213.84	183	246			
1959	2,698.35	2,290	3,103			
1961	5,229.50	4,348	6,014			
1962	3,983.11	3,276	4,581			
1963	14,251.40	11,592	16,308	81	16.10	5
1964	4,392.70	3,532	4,969	83	16.54	5
1965	5,116.30	4,066	5,720	164	16.99	10
1966	6,770.22	5,316	7,479	307	17.45	18
1967	2,140.86	1,660	2,335	127	17.92	7
1968	26,876.44	20,568	28,936	1,972	18.40	107
1969	25,290.78	19,101	26,873	2,211	18.88	117
1970	4,780.28	3,560	5,008	489	19.38	25
1971	21,630.59	15,879	22,340	2,535	19.89	127
1972	4,522.23	3,271	4,602	599	20.41	29
1973	6,132.94	4,369	6,147	906	20.93	43
1974	2,241.30	1,571	2,210	367	21.47	17
1975	5,212.61	3,595	5,058	937	22.02	43
1976	23,132.60	15,686	22,068	4,534	22.57	201
1977	7,355.35	4,901	6,895	1,564	23.13	68
1978	16,190.89	10,596	14,907	3,713	23.70	157
1984	5,955.63	3,447	4,849	2,000	27.32	73

DUKE ENERGY KENTUCKY

ACCOUNT 3682 LINE TRANSFORMERS - CUSTOMER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1.5						
NET SALVAGE PERCENT.. -15						
1986	6,576.87	3,632	5,110	2,453	28.59	86
1989	1,093.01	559	786	471	30.55	15
1990	20,801.65	10,347	14,557	9,365	31.21	300
	273,660.52	202,942	279,832	34,878		1,453
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.0 0.53

DUKE ENERGY KENTUCKY

ACCOUNT 3691 SERVICES - UNDERGROUND

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R3						
NET SALVAGE PERCENT.. -40						
1937	2,102.97	2,657	2,944			
1938	285.12	359	399			
1940	41.87	52	59			
1941	61.27	76	86			
1942	79.40	98	111			
1943	40.05	49	56			
1944	7.99	10	11			
1945	55.14	67	77			
1946	113.01	136	158			
1947	1.37	2	2			
1948	33.10	39	46			
1949	711.04	842	995			
1950	2,722.18	3,204	3,811			
1951	963.92	1,126	1,349			
1952	161.30	187	226			
1953	2,097.44	2,414	2,936			
1954	2.40	3	3			
1955	5,688.73	6,441	7,964			
1956	5,252.42	5,896	7,353			
1957	1,742.85	1,939	2,440			
1958	4,390.81	4,838	6,147			
1959	2,216.13	2,419	3,103			
1960	1,748.05	1,888	2,447			
1961	4,994.94	5,338	6,993			
1962	4,051.53	4,283	5,672			
1963	9,823.23	10,266	13,635	118	16.48	7
1964	7,489.85	7,735	10,274	212	17.05	12
1965	5,003.84	5,105	6,780	225	17.63	13
1966	10,814.74	10,894	14,469	672	18.23	37
1967	8,596.12	8,546	11,351	684	18.84	36
1968	6,368.32	6,246	8,296	620	19.46	32
1969	16,508.14	15,965	21,204	1,907	20.10	95
1970	11,077.59	10,558	14,023	1,486	20.75	72
1971	3,470.46	3,258	4,327	532	21.41	25
1972	627.60	580	770	109	22.08	5
1973	775.11	705	936	149	22.76	7
1975	482.08	424	563	112	24.16	5
1976	528.32	457	607	133	24.87	5
1977	870.14	739	982	236	25.59	9
1987	2,059.61	1,405	1,866	1,017	33.32	31
1999	1,265.67	583	774	998	43.62	23
2003	312,396.30	119,363	158,537	278,818	47.26	5,900
2004	269.07	97	129	248	48.18	5

DUKE ENERGY KENTUCKY

ACCOUNT 3691 SERVICES - UNDERGROUND

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R3						
NET SALVAGE PERCENT.. -40						
2005	115.00	39	52	109	49.11	2
2006	740.20	238	316	720	50.05	14
2007	309.48	93	124	309	50.99	6
2008	132.00	37	49	136	51.93	3
2009	1,078.83	282	375	1,135	52.88	21
2014	1,979,667.46	312,546	415,118	2,356,416	57.67	40,860
2015	19,759.66	2,707	3,596	24,068	58.64	410
2017	8,211.81	780	1,036	10,461	60.59	173
2018	10,029.29	743	987	13,054	61.56	212
2019	6,970.93	369	490	9,269	62.54	148
2020	113,601.35	3,621	4,809	154,233	63.52	2,428
2021	187,018.87	1,974	2,622	259,204	64.51	4,018
	2,765,626.10	570,718	754,485	3,117,392		54,614
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						57.1 1.97

DUKE ENERGY KENTUCKY

ACCOUNT 3692 SERVICES - OVERHEAD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R1						
NET SALVAGE PERCENT.. -40						
1925	13,266.86	16,218	18,574			
1938	513.57	575	719			
1939	1,164.03	1,292	1,630			
1940	1,218.56	1,342	1,706			
1941	1,418.89	1,550	1,986			
1942	726.10	787	1,017			
1943	1,003.82	1,079	1,405			
1944	969.78	1,033	1,358			
1945	1,051.02	1,110	1,471			
1946	2,258.45	2,363	3,162			
1947	3,292.57	3,415	4,610			
1948	4,679.48	4,808	6,551			
1949	5,650.86	5,751	7,911			
1950	6,791.79	6,845	9,509			
1951	6,216.97	6,204	8,704			
1952	9,190.19	9,079	12,866			
1953	8,696.62	8,502	12,175			
1954	9,867.65	9,546	13,815			
1955	515.77	494	722			
1956	18,913.37	17,895	26,479			
1957	27,733.34	25,949	38,827			
1958	34,671.35	32,061	48,540			
1959	40,773.76	37,257	57,083			
1960	48,228.86	43,539	67,520			
1961	51,108.76	45,567	71,552			
1962	48,679.92	42,845	68,152			
1963	48,309.64	41,967	67,633			
1964	49,675.91	42,574	69,546			
1965	56,384.25	47,665	78,938			
1966	62,254.69	51,887	87,157			
1967	75,184.84	61,769	105,259			
1968	64,765.17	52,408	90,646	25	25.32	1
1969	84,665.62	67,484	116,721	1,811	25.84	70
1970	85,017.34	66,713	115,388	3,636	26.37	138
1971	110,247.86	85,122	147,228	7,119	26.91	265
1972	114,036.26	86,583	149,755	9,896	27.46	360
1973	108,948.51	81,323	140,657	11,871	28.01	424
1974	156,127.63	114,535	198,101	20,478	28.56	717
1975	156,212.61	112,557	194,680	24,018	29.12	825
1976	150,943.31	106,753	184,642	26,679	29.69	899
1977	166,448.14	115,505	199,779	33,248	30.26	1,099
1978	198,792.31	135,258	233,944	44,365	30.84	1,439
1979	199,399.50	132,972	229,990	49,169	31.42	1,565

DUKE ENERGY KENTUCKY

ACCOUNT 3692 SERVICES - OVERHEAD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R1						
NET SALVAGE PERCENT.. -40						
1980	199,907.36	130,559	225,817	54,053	32.01	1,689
1981	242,882.52	155,226	268,481	71,555	32.61	2,194
1982	213,246.88	133,301	230,559	67,987	33.21	2,047
1983	214,750.83	131,234	226,984	73,667	33.81	2,179
1984	303,707.57	181,203	313,412	111,779	34.43	3,247
1985	248,813.79	144,909	250,637	97,702	35.04	2,788
1986	283,065.96	160,764	278,060	118,232	35.66	3,316
1987	292,909.02	162,048	280,281	129,792	36.29	3,577
1988	261,684.25	140,927	243,750	122,608	36.92	3,321
1989	245,296.64	128,496	222,249	121,166	37.55	3,227
1990	239,144.99	121,701	210,496	124,307	38.19	3,255
1991	227,049.89	112,103	193,895	123,975	38.84	3,192
1992	296,928.60	142,099	245,777	169,923	39.49	4,303
1993	300,052.21	139,044	240,493	179,580	40.14	4,474
1994	277,400.36	124,341	215,062	173,299	40.79	4,249
1995	298,990.12	129,414	223,836	194,750	41.45	4,698
1996	413,677.30	172,586	298,507	280,641	42.12	6,663
1997	285,074.97	114,543	198,115	200,990	42.78	4,698
1998	250,174.40	96,608	167,095	183,149	43.45	4,215
1999	206,056.65	76,352	132,060	156,419	44.12	3,545
2000	510,092.27	180,910	312,905	401,224	44.80	8,956
2001	3,268.64	1,107	1,915	2,661	45.48	59
2003	926,311.32	284,435	491,963	804,873	46.84	17,183
2004	186,060.37	54,181	93,712	166,773	47.52	3,510
2005	278,240.97	76,544	132,392	257,145	48.21	5,334
2006	549,948.73	142,437	246,361	523,567	48.90	10,707
2007	457,041.78	110,907	191,826	448,032	49.60	9,033
2008	515,458.48	116,783	201,990	519,652	50.29	10,333
2009	619,903.76	130,327	225,415	642,450	50.99	12,600
2010	303,563.94	58,861	101,807	323,183	51.69	6,252
2011	21,004.37	3,725	6,443	22,963	52.40	438
2012	644,834.08	103,818	179,565	723,203	53.10	13,620
2013	1,228,339.90	177,419	306,867	1,412,809	53.81	26,256
2014	110,390.00	14,090	24,370	130,176	54.53	2,387
2015	1,642,242.18	182,023	314,830	1,984,309	55.25	35,915
2016	474,010.91	44,575	77,097	586,518	55.97	10,479
2017	515,256.22	39,797	68,834	652,525	56.69	11,510
2018	375,400.55	22,599	39,087	486,474	57.42	8,472

DUKE ENERGY KENTUCKY

ACCOUNT 3692 SERVICES - OVERHEAD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R1						
NET SALVAGE PERCENT.. -40						
2019	515,599.66	22,254	38,491	683,349	58.15	11,751
2020	707,289.98	18,319	31,685	958,521	58.89	16,276
2021	1,343,532.17	11,605	20,072	1,860,873	59.63	31,207
	19,464,620.52	6,224,355	10,671,301	16,579,168		330,957
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						50.1 1.70

DUKE ENERGY KENTUCKY

ACCOUNT 3700 METERS AND METERING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 24-L1						
NET SALVAGE PERCENT.. -2						
1920	124.77	127	127			
1921	33.06	34	34			
1922	145.86	149	149			
1923	404.07	412	412			
1924	338.11	345	345			
1925	596.06	608	608			
1926	394.33	402	402			
1927	915.90	934	934			
1928	759.22	774	774			
1929	1,479.22	1,509	1,509			
1930	702.69	717	717			
1931	837.11	854	854			
1933	25.93	26	26			
1934	349.75	357	357			
1935	240.77	246	246			
1936	899.50	917	917			
1937	1,314.85	1,341	1,341			
1938	159.03	162	162			
1939	1,186.84	1,211	1,211			
1940	758.81	774	774			
1941	2,117.78	2,160	2,160			
1942	1,272.97	1,298	1,298			
1943	204.25	208	208			
1944	439.19	448	448			
1945	273.87	279	279			
1946	820.94	836	768	69	0.05	69
1947	4,290.12	4,287	3,939	437	0.49	437
1948	3,011.68	2,990	2,747	325	0.64	325
1949	2,046.72	2,017	1,853	235	0.81	235
1950	3,315.40	3,246	2,982	400	0.96	400
1951	2,016.80	1,961	1,802	255	1.12	228
1952	5,033.04	4,860	4,465	669	1.28	523
1953	6,460.57	6,194	5,690	900	1.44	625
1954	3,232.01	3,077	2,827	470	1.60	294
1955	3,970.37	3,753	3,448	602	1.76	342
1956	5,446.56	5,109	4,694	861	1.93	446
1957	9,946.36	9,258	8,505	1,640	2.10	781
1958	4,304.20	3,977	3,654	736	2.26	326
1959	5,274.94	4,833	4,440	940	2.44	385
1960	7,553.30	6,867	6,309	1,395	2.61	534
1961	7,945.98	7,166	6,583	1,522	2.78	547
1962	4,978.36	4,452	4,090	988	2.96	334
1963	4,792.59	4,249	3,904	984	3.14	313

DUKE ENERGY KENTUCKY

ACCOUNT 3700 METERS AND METERING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 24-L1						
NET SALVAGE PERCENT.. -2						
1964	6,368.92	5,598	5,143	1,353	3.32	408
1965	2,960.09	2,579	2,369	650	3.50	186
1966	10,849.70	9,365	8,604	2,463	3.69	667
1967	7,627.65	6,526	5,996	1,784	3.87	461
1968	13,207.19	11,192	10,282	3,189	4.06	785
1969	10,652.48	8,937	8,211	2,655	4.26	623
1970	8,107.25	6,736	6,188	2,081	4.45	468
1971	7,520.29	6,184	5,681	1,990	4.65	428
1972	13,447.79	10,945	10,055	3,662	4.85	755
1973	13,007.66	10,476	9,624	3,644	5.05	722
1974	20,241.88	16,122	14,811	5,836	5.26	1,110
1975	5,479.59	4,315	3,964	1,625	5.47	297
1976	3,516.48	2,738	2,515	1,072	5.68	189
1977	5,671.65	4,363	4,008	1,777	5.90	301
1978	6,284.81	4,776	4,388	2,023	6.12	331
1979	8,002.48	6,006	5,518	2,645	6.34	417
1980	6,914.48	5,125	4,708	2,345	6.56	357
1981	2,512.39	1,838	1,689	874	6.79	129
1983	1,357.69	966	887	498	7.26	69
1984	7,982.51	5,594	5,139	3,003	7.51	400
1985	11,959.11	8,259	7,588	4,610	7.75	595
1986	22,318.93	15,177	13,943	8,822	8.00	1,103
1987	16,886.92	11,304	10,385	6,840	8.25	829
1988	2,767.31	1,822	1,674	1,149	8.51	135
1989	8,988.57	5,814	5,341	3,827	8.78	436
1990	15,906.04	10,106	9,285	6,939	9.05	767
1991	17,381.47	10,844	9,963	7,766	9.32	833
1992	11,684.95	7,151	6,570	5,349	9.60	557
1993	9,550.43	5,731	5,265	4,476	9.88	453
1994	15,512.16	9,118	8,377	7,445	10.17	732
1995	12,347.01	7,100	6,523	6,071	10.47	580
1996	700.53	394	362	353	10.77	33
1998	36,146.70	19,357	17,784	19,086	11.40	1,674
2004	65,789.10	29,526	27,126	39,979	13.44	2,975
2005	127,116.21	55,050	50,575	79,084	13.81	5,727
2006	186,724.98	77,930	71,595	118,864	14.18	8,383
2007	268,031.07	107,421	98,689	174,703	14.57	11,991
2008	266,529.32	102,401	94,077	177,783	14.96	11,884
2011	118,612.40	38,866	35,707	85,278	16.29	5,235
2012	33,378.99	10,200	9,371	24,676	16.81	1,468
2013	17,558.20	4,955	4,552	13,357	17.36	769
2014	334,304.54	85,674	78,710	262,281	17.97	14,595
2017	8,100.06	1,349	1,239	7,023	20.08	350

DUKE ENERGY KENTUCKY

ACCOUNT 3700 METERS AND METERING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 24-L1						
NET SALVAGE PERCENT.. -2						
2018	2,290.41	303	278	2,058	20.89	99
2019	473,333.12	45,663	41,951	440,849	21.73	20,288
2020	109,087.00	6,445	5,921	105,348	22.61	4,659
2021	165,390.99	3,303	3,035	165,664	23.53	7,041
	2,620,523.38	907,068	834,658	1,838,276		120,438
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.3 4.60

DUKE ENERGY KENTUCKY

ACCOUNT 3702 UoF METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-S2.5						
NET SALVAGE PERCENT.. 0						
2015	195,374.34	82,188	114,968	80,406	8.69	9,253
2016	263,192.08	94,749	132,539	130,653	9.60	13,610
2018	864.13	200	280	584	11.52	51
2019	24,755,545.07	4,126,007	5,771,623	18,983,922	12.50	1,518,714
2020	375,175.73	37,518	52,481	322,695	13.50	23,903
2021	316,689.84	10,555	14,765	301,925	14.50	20,822
	25,906,841.19	4,351,217	6,086,656	19,820,185		1,586,353
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.5 6.12

DUKE ENERGY KENTUCKY

ACCOUNT 3711 INSTALLATIONS ON CUSTOMERS' PREMISES - AREA LIGHTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-S0.5						
NET SALVAGE PERCENT.. 0						
2019	156.58	18	59	98	17.69	6
2021	894.66	22	72	823	19.51	42
	1,051.24	40	131	920		48
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					19.2	4.57

DUKE ENERGY KENTUCKY

ACCOUNT 3712 COMPANY-OWNED OUTDOOR LIGHTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 11-R2						
NET SALVAGE PERCENT.. -5						
2008	542.25	465	290	279	2.02	138
2011	0.01					
2015	95,323.93	48,134	29,973	70,117	5.71	12,280
2016	135,879.91	59,274	36,911	105,763	6.43	16,448
2017	22,065.45	8,025	4,997	18,172	7.19	2,527
2018	43,931.60	12,664	7,886	38,242	7.98	4,792
2019	180,835.07	37,803	23,540	166,337	8.81	18,880
2020	195,342.45	24,800	15,443	189,667	9.67	19,614
2021	187,363.63	8,048	5,012	191,720	10.55	18,173
	861,284.30	199,213	124,052	780,297		92,852
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						8.4 10.78

DUKE ENERGY KENTUCKY

ACCOUNT 3720 LEASED PROPERTY ON CUSTOMERS' PREMISES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-L3						
NET SALVAGE PERCENT.. 0						
1969	9,647.36	8,409	9,647			
	9,647.36	8,409	9,647			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

DUKE ENERGY KENTUCKY

ACCOUNT 3731 STREET LIGHTING - OVERHEAD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 34-L0.5						
NET SALVAGE PERCENT.. -15						
1910	78.85	78	91			
1925	1,885.21	1,752	2,168			
1927	3.09	3	4			
1938	170.68	151	196			
1939	25.99	23	30			
1940	114.48	100	132			
1941	379.29	330	436			
1942	25.06	22	29			
1943	9.58	8	11			
1944	22.00	19	25			
1945	75.74	65	87			
1946	102.29	87	118			
1947	1,289.01	1,090	1,482			
1948	93.66	79	108			
1949	205.66	172	237			
1950	56.23	47	65			
1951	144.66	120	166			
1952	288.06	236	331			
1953	264.52	216	304			
1954	173.29	140	199			
1955	423.29	341	487			
1956	1,335.84	1,067	1,536			
1957	539.30	428	620			
1958	1,178.70	928	1,356			
1959	4,487.08	3,504	5,160			
1960	7,703.32	5,967	8,859			
1961	18,994.14	14,590	21,843			
1962	20,333.15	15,488	23,383			
1963	20,386.22	15,397	23,444			
1964	16,923.20	12,667	19,462			
1965	46,421.89	34,418	53,385			
1966	39,824.91	29,257	45,799			
1967	25,411.34	18,488	29,223			
1968	12,733.09	9,169	14,643			
1969	49,780.30	35,477	57,247			
1970	49,885.13	35,180	57,368			
1971	48,258.11	33,657	55,497			
1972	36,858.44	25,420	42,387			
1973	42,999.87	29,321	49,450			
1974	17,129.17	11,541	19,699			
1975	20,834.43	13,868	23,960			
1976	9,228.13	6,065	10,612			
1977	13,091.56	8,493	15,055			

DUKE ENERGY KENTUCKY

ACCOUNT 3731 STREET LIGHTING - OVERHEAD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 34-L0.5						
NET SALVAGE PERCENT.. -15						
1978	19,156.52	12,265	22,030			
1979	30,724.37	19,402	35,333			
1980	40,750.37	25,375	46,863			
1981	20,459.10	12,553	23,528			
1982	11,778.09	7,119	13,545			
1983	12,607.57	7,501	14,499			
1984	14,244.10	8,340	16,285	96	16.69	6
1985	45,296.09	26,091	50,948	1,143	16.97	67
1986	31,674.18	17,934	35,020	1,405	17.26	81
1987	15,970.30	8,880	17,340	1,026	17.56	58
1988	22,538.99	12,304	24,026	1,894	17.86	106
1989	63,258.56	33,892	66,181	6,566	18.16	362
1990	38,417.50	20,180	39,405	4,775	18.47	259
1991	13,589.62	6,991	13,651	1,977	18.79	105
1992	41,628.25	20,965	40,938	6,934	19.11	363
1993	82,530.99	40,672	79,420	15,491	19.43	797
1994	81,517.91	39,263	76,668	17,078	19.76	864
1995	75,857.11	35,664	69,641	17,595	20.10	875
1996	59,652.50	27,359	53,424	15,176	20.44	742
1997	91,922.73	41,103	80,261	25,450	20.78	1,225
1998	114,903.42	49,980	97,595	34,544	21.14	1,634
1999	145,014.37	61,360	119,817	46,950	21.49	2,185
2000	99,614.52	40,904	79,873	34,684	21.86	1,587
2001	28,286.70	11,261	21,989	10,541	22.23	474
2002	7,009.27	2,700	5,272	2,789	22.61	123
2004	157,564.41	56,545	110,415	70,784	23.39	3,026
2005	54,100.78	18,665	36,447	25,769	23.80	1,083
2006	28,667.94	9,473	18,498	14,470	24.23	597
2007	55,634.27	17,557	34,283	29,696	24.67	1,204
2008	18,290.88	5,481	10,703	10,332	25.14	411
2009	39,669.53	11,244	21,956	23,664	25.62	924
2010	11,636.29	3,097	6,048	7,334	26.13	281
2012	33,725.01	7,723	15,081	23,703	27.23	870
2014	5,366.40	1,011	1,974	4,197	28.43	148
2015	313,351.24	52,251	102,030	258,324	29.07	8,886
2016	32,025.22	4,625	9,031	27,798	29.73	935
2017	33,362.94	4,029	7,868	30,499	30.43	1,002
2018	1,852.41	179	349	1,781	31.15	57

DUKE ENERGY KENTUCKY

ACCOUNT 3731 STREET LIGHTING - OVERHEAD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 34-L0.5						
NET SALVAGE PERCENT.. -15						
2019	2,852.24	202	395	2,885	31.91	90
2020	785.48	34	66	837	32.71	26
2021	3.09			4	33.55	
	2,507,459.22	1,147,643	2,105,390	778,188		31,453
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.7 1.25

DUKE ENERGY KENTUCKY

ACCOUNT 3732 STREET LIGHTING - BOULEVARD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1.5						
NET SALVAGE PERCENT.. -20						
1922	269.37	302	323			
1923	3,481.73	3,886	4,178			
1927	1,995.79	2,187	2,395			
1928	1,451.94	1,584	1,742			
1929	3,724.55	4,044	4,469			
1930	53.15	57	64			
1931	1,776.61	1,911	2,132			
1932	602.71	645	723			
1933	354.16	377	425			
1936	53.64	56	64			
1937	147.76	154	177			
1938	290.84	301	349			
1939	63.35	65	76			
1941	1,449.08	1,474	1,739			
1942	26.87	27	32			
1943	283.50	285	340			
1950	171.43	164	206			
1951	1,257.21	1,193	1,509			
1952	114.34	108	137			
1953	0.10					
1954	171.18	159	205			
1955	361.21	332	433			
1956	565.62	515	679			
1958	509.17	455	611			
1959	293.96	260	353			
1960	21.46	19	26			
1961	28.82	25	35			
1962	273.08	234	328			
1963	253.93	216	305			
1965	4,917.77	4,078	5,901			
1970	400.52	311	481			
1972	1,582.16	1,194	1,899			
1973	13,625.05	10,128	16,350			
1974	18,600.26	13,607	22,320			
1975	4,518.21	3,251	5,422			
1976	7,327.42	5,185	8,793			
1977	7,718.76	5,367	9,263			
1978	14,756.10	10,077	17,707			
1979	13,221.08	8,859	15,865			
1980	16,725.73	10,992	20,071			
1981	12,793.42	8,243	15,352			
1982	10,784.55	6,805	12,941			
1983	2,407.97	1,487	2,890			

DUKE ENERGY KENTUCKY

ACCOUNT 3732 STREET LIGHTING - BOULEVARD

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R1.5						
NET SALVAGE PERCENT.. -20						
1984	12,877.16	7,777	15,205	248	27.32	9
1985	38,093.48	22,482	43,956	1,756	27.95	63
1986	21,062.90	12,137	23,730	1,545	28.59	54
1987	58,166.39	32,705	63,943	5,857	29.23	200
1988	71,225.22	39,021	76,292	9,178	29.89	307
1989	92,132.51	49,149	96,094	14,465	30.55	473
1990	131,972.23	68,502	133,932	24,435	31.21	783
1991	47,327.02	23,863	46,656	10,136	31.89	318
1992	128,990.98	63,126	123,421	31,368	32.57	963
1993	79,243.85	37,587	73,488	21,605	33.26	650
1994	88,032.37	40,431	79,049	26,590	33.95	783
1995	113,773.50	50,515	98,765	37,763	34.65	1,090
1996	99,521.16	42,646	83,379	36,046	35.36	1,019
1997	145,426.69	60,064	117,434	57,078	36.07	1,582
1998	145,025.04	57,620	112,656	61,374	36.79	1,668
1999	628,139.09	239,698	468,647	285,120	37.51	7,601
2000	135,300.71	49,476	96,733	65,628	38.24	1,716
2001	13,200.25	4,614	9,021	6,819	38.98	175
2002	32,074.31	10,700	20,920	17,569	39.71	442
2004	387,664.12	116,639	228,047	237,150	41.21	5,755
2005	364,108.47	103,592	202,539	234,391	41.96	5,586
2006	200,674.41	53,765	105,119	135,690	42.72	3,176
2007	42,779.63	10,752	21,022	30,314	43.48	697
2009	55,789.51	12,160	23,775	43,172	45.01	959
2010	33,453.09	6,722	13,142	27,002	45.79	590
2012	25,121.11	4,193	8,198	21,947	47.35	464
2017	23,600.45	1,890	3,695	24,626	51.33	480
2018	1,486.80	93	182	1,602	52.14	31
2019	2,144.04	96	188	2,385	52.95	45
2020	590.49	16	31	678	53.77	13
	3,368,422.54	1,332,650	2,568,569	1,473,538		37,692

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 39.1 1.12

DUKE ENERGY KENTUCKY

ACCOUNT 3733 STREET LIGHTING - CUSTOMER POLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-L0						
NET SALVAGE PERCENT.. -10						
1962	755.64	609	695	136	6.69	20
1963	2,782.60	2,221	2,536	525	6.86	77
1964	3,748.22	2,964	3,385	738	7.03	105
1965	4,665.23	3,654	4,173	959	7.20	133
1966	5,777.78	4,479	5,115	1,241	7.38	168
1967	3,479.48	2,670	3,049	778	7.56	103
1968	6,702.27	5,090	5,813	1,559	7.74	201
1969	7,039.84	5,287	6,038	1,706	7.93	215
1970	5,509.18	4,094	4,675	1,385	8.11	171
1971	9,268.50	6,810	7,777	2,418	8.30	291
1972	7,421.14	5,388	6,153	2,010	8.50	236
1973	7,731.84	5,549	6,337	2,168	8.69	249
1974	8,908.55	6,315	7,212	2,587	8.89	291
1975	8,885.45	6,220	7,103	2,671	9.09	294
1976	9,620.18	6,646	7,590	2,992	9.30	322
1977	9,884.29	6,741	7,698	3,175	9.50	334
1978	17,299.53	11,631	13,282	5,747	9.72	591
1979	26,010.63	17,247	19,695	8,917	9.93	898
1980	22,740.61	14,859	16,968	8,047	10.15	793
1981	22,233.17	14,312	16,344	8,112	10.37	782
1982	16,008.79	10,143	11,583	6,027	10.60	569
1983	11,307.29	7,050	8,051	4,387	10.83	405
1984	9,332.94	5,724	6,537	3,729	11.06	337
1985	6,882.67	4,149	4,738	2,833	11.30	251
1986	6,740.07	3,992	4,559	2,855	11.54	247
1987	3,167.17	1,842	2,104	1,380	11.78	117
1988	12,023.15	6,856	7,829	5,396	12.04	448
1989	12,810.66	7,164	8,181	5,911	12.29	481
1990	23,089.62	12,648	14,444	10,955	12.55	873
1991	28,187.99	15,119	17,265	13,742	12.81	1,073
1992	27,730.95	14,544	16,609	13,895	13.08	1,062
1993	28,177.85	14,432	16,481	14,515	13.36	1,086
1994	27,014.71	13,503	15,420	14,296	13.64	1,048
1995	34,876.96	17,003	19,417	18,948	13.92	1,361
1996	34,167.86	16,222	18,525	19,060	14.21	1,341
1997	28,963.90	13,369	15,267	16,593	14.51	1,144
1998	31,524.66	14,134	16,141	18,536	14.81	1,252
1999	22,323.39	9,704	11,082	13,474	15.12	891
2000	5,610.07	2,362	2,697	3,474	15.43	225
2001	21,321.77	8,678	9,910	13,544	15.75	860
2002	74.99	29	33	49	16.08	3
2004	203,563.28	73,893	84,383	139,537	16.75	8,331
2005	20,608.87	7,164	8,181	14,489	17.10	847

DUKE ENERGY KENTUCKY

ACCOUNT 3733 STREET LIGHTING - CUSTOMER POLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-L0						
NET SALVAGE PERCENT.. -10						
2006	37,051.67	12,309	14,056	26,701	17.45	1,530
2007	26,995.18	8,540	9,752	19,943	17.81	1,120
2008	34,780.87	10,437	11,919	26,340	18.18	1,449
2009	17,696.04	5,014	5,726	13,740	18.56	740
2010	3,892.91	1,038	1,185	3,097	18.94	164
2011	7,548.80	1,883	2,150	6,154	19.33	318
2012	38,503.81	8,911	10,176	32,178	19.74	1,630
2013	39,542.02	8,421	9,616	33,880	20.16	1,681
2015	88,475.64	15,299	17,471	79,852	21.07	3,790
2016	914,151.78	138,768	158,468	847,099	21.55	39,309
2017	190,026.68	24,582	28,072	180,957	22.06	8,203
2018	282,616.68	29,720	33,939	276,939	22.61	12,249
2019	446,773.93	35,384	40,408	451,043	23.20	19,442
2020	519,660.01	26,295	30,028	541,598	23.85	22,709
2021	404,832.33	7,481	8,543	436,773	24.58	17,769
	3,858,522.09	746,592	852,584	3,391,790		162,629
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.9 4.21

DUKE ENERGY KENTUCKY

ACCOUNT 3900 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-S1						
NET SALVAGE PERCENT.. -10						
1948	10,963.57	11,535	10,244	1,816	1.74	1,044
1951	328.00	338	300	61	2.57	24
1977	3,297.18	2,626	2,332	1,295	11.04	117
2007	40,659.35	14,480	12,860	31,865	27.05	1,178
2008	59,235.18	19,857	17,635	47,524	27.81	1,709
2010	28,802.78	8,404	7,464	24,219	29.39	824
2020	22,055.60	910	808	23,453	38.50	609
	165,341.66	58,150	51,643	130,233		5,505
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.7 3.33

DUKE ENERGY KENTUCKY

ACCOUNT 3910 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2008	3,084.80	2,082	2,082	1,003	6.50	154
2009	9,910.13	6,194	6,194	3,716	7.50	495
2013	1,587.47	675	675	912	11.50	79
2016	734.91	202	202	533	14.50	37
2017	9,344.29	2,102	2,102	7,242	15.50	467
2018	928.23	162	162	766	16.50	46
2019	3,749.32	469	469	3,280	17.50	187
2021	344,689.12	8,617	8,617	336,072	19.50	17,234
	374,028.27	20,503	20,503	353,525		18,699
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.9 5.00

DUKE ENERGY KENTUCKY

ACCOUNT 3911 ELECTRONIC DATA PROCESSING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2017	376,828.69	339,146	326,955	49,874	0.50	49,874
2018	1,167,902.00	817,531	788,145	379,757	1.50	253,171
2019	595,996.15	297,998	287,286	308,710	2.50	123,484
2020	467,784.33	140,335	135,291	332,493	3.50	94,998
2021	185,438.27	18,544	17,877	167,561	4.50	37,236
	2,793,949.44	1,613,554	1,555,554	1,238,395		558,763
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.2						20.00

DUKE ENERGY KENTUCKY

ACCOUNT 3920 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 12-S3						
NET SALVAGE PERCENT.. 0						
2020	971,612.98	121,452	352,132	619,481	10.50	58,998
2021	87,540.67	3,648	10,577	76,964	11.50	6,693
	1,059,153.65	125,100	362,709	696,445		65,691
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.6 6.20

DUKE ENERGY KENTUCKY

ACCOUNT 3921 TRANSPORTATION EQUIPMENT - TRAILERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-R2.5						
NET SALVAGE PERCENT.. +5						
1999	15,736.15	12,131	14,949			
2000	5,838.07	4,398	5,546			
2001	21,763.00	15,971	20,675			
2003	14,278.00	9,820	13,564			
2005	26,234.28	16,648	23,661	1,262	6.64	190
2006	92,022.48	55,687	79,146	8,275	7.26	1,140
2016	96,194.41	22,983	32,665	58,720	14.97	3,923
	272,066.39	137,638	190,206	68,257		5,253
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					13.0	1.93

DUKE ENERGY KENTUCKY

ACCOUNT 3940 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1997	6,942.62	6,804	6,804	139	0.50	139
1998	16,223.30	15,250	15,250	973	1.50	649
2000	109,708.96	94,350	94,350	15,359	3.50	4,388
2001	51,974.41	42,619	42,619	9,355	4.50	2,079
2002	37,932.62	29,587	29,587	8,346	5.50	1,517
2003	4,809.80	3,559	3,559	1,251	6.50	192
2005	25,940.45	17,121	17,121	8,819	8.50	1,038
2008	380,978.53	205,728	205,728	175,251	11.50	15,239
2009	2,959.10	1,480	1,480	1,479	12.50	118
2010	2,978.89	1,370	1,370	1,609	13.50	119
2012	106,042.10	40,296	40,296	65,746	15.50	4,242
2020	2,127,101.95	127,626	127,626	1,999,476	23.50	85,084
2021	288,080.19	5,762	5,762	282,318	24.50	11,523
	3,161,672.92	591,552	591,552	2,570,121		126,327
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.3 4.00

DUKE ENERGY KENTUCKY

ACCOUNT 3960 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2						
NET SALVAGE PERCENT.. 0						
2008	11,770.00	6,905	8,718	3,052	6.20	492
	11,770.00	6,905	8,718	3,052		492
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					6.2	4.18

DUKE ENERGY KENTUCKY

ACCOUNT 3970 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2007	166,461.37	160,913	159,488	6,973	0.50	6,973
2008	598.13	538	533	65	1.50	43
2009	107,358.47	89,465	88,673	18,685	2.50	7,474
2010	1,387,831.33	1,064,009	1,054,588	333,243	3.50	95,212
2011	478,464.22	334,925	331,960	146,504	4.50	32,556
2012	8,837.90	5,597	5,547	3,291	5.50	598
2013	22,988.34	13,027	12,912	10,076	6.50	1,550
2014	330,246.90	165,123	163,661	166,586	7.50	22,211
2015	17,836.10	7,729	7,661	10,175	8.50	1,197
2016	248,081.51	90,964	90,159	157,923	9.50	16,623
2017	9,491.24	2,847	2,822	6,669	10.50	635
2018	102,404.90	23,894	23,682	78,723	11.50	6,845
2019	995,656.13	165,946	164,477	831,179	12.50	66,494
2020	4,188,026.54	418,803	415,094	3,772,933	13.50	279,477
2021	940,040.89	31,332	31,055	908,986	14.50	62,689
	9,004,323.97	2,575,112	2,552,312	6,452,012		600,577
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.7 6.67

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke)
Energy Kentucky, Inc., for: 1) An)
Adjustment of the Electric Rates; 2)) Case No. 2022-00372
Approval of New Tariffs; 3) Approval of)
Accounting Practices to Establish)
Regulatory Assets and Liabilities; and 4))
All Other Required Approvals and Relief.)

DIRECT TESTIMONY OF

LISA D. STEINKUHL

ON BEHALF OF

DUKE ENERGY KENTUCKY, INC.

December 1, 2022

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I. INTRODUCTION AND PURPOSE

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Lisa D. Steinkuhl and my business address is 139 East Fourth Street,
3 Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services LLC (DEBS) as Director Rates
6 & Regulatory Planning. DEBS provides various administrative and other services
7 to Duke Energy Kentucky, Inc., (Duke Energy Kentucky or Company) and other
8 affiliated companies of Duke Energy Corporation (Duke Energy).

9 **Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATION AND**
10 **PROFESSIONAL EXPERIENCE.**

11 A. I received a Bachelor Degree in Mathematics from Western Kentucky University
12 in Bowling Green, Kentucky. After completing my Bachelor Degree, I received a
13 Post Baccalaureate Certificate in Professional Accountancy from the University
14 of Southern Indiana in Evansville, Indiana. I became a Certified Public
15 Accountant (CPA) in the State of Ohio in 1993. After receiving my Post
16 Baccalaureate Certificate in 1988, I was employed by small public accounting
17 firms. I was hired by Cinergy Services, Inc., (Cinergy Services, predecessor to
18 DEBS) in 1996 as a tax accountant. I held various positions with Cinergy Services
19 including responsibilities in Regulated Business Financial Operations,
20 Commercial Business Asset Management, and Budgets and Forecasts. I joined the
21 Rates Department in April 2006 as a Lead Rates Analyst and was promoted to
22 Rates & Regulatory Manager in January 2014 and Utility Strategy Director in

1 May 2018. I have held my current position as Director, Rates & Regulatory
2 Planning since March 2022.

3 **Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS DIRECTOR,**
4 **RATES AND REGULATORY PLANNING.**

5 A. I am responsible for the preparation of financial and accounting data used in retail
6 rate filings, Federal Energy Regulatory Commission (FERC) filings and various
7 other rate recovery mechanisms for Duke Energy Kentucky and Duke Energy Ohio,
8 Inc.

9 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**
10 **PUBLIC SERVICE COMMISSION?**

11 A. Yes.

12 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
13 **PROCEEDING?**

14 A. I support the revenue requirement proposed by Duke Energy Kentucky. To that end,
15 I support various adjustments to the projected data for the forecasted test period
16 provided by Duke Energy Kentucky witness, Mr. Grady S. “Tripp” Carpenter. I also
17 sponsor Filing Requirements (FR) 16(6)(b), 16(6)(c), 16(6)(f) and 16(7)(t). I also
18 sponsor the following schedules: Schedule A in satisfaction of FR 16(8)(a) and
19 Schedule B-1, in response to FR 16(8)(b); Schedules C-1 through C-2.1 in
20 compliance with FR 16(8)(c); Schedules D-1, D-2.17 through D-2.23, and D-2.25
21 through D-2.31, in compliance with FR 16(8)(d); Schedules F-1 through F-7 in
22 compliance with FR 16(8)(f); and Schedules G-1 and H in response to FR 16(8)(g)
23 and FR16((8)(h), respectively.

II. TEST PERIOD AND RATE BASE

1 **Q. WHAT IS THE TEST PERIOD IN THIS PROCEEDING?**

2 A. The Company has elected to use a forecasted test period in this proceeding. The
3 forecasted test period reflects the twelve months ending June 30, 2024, adjusted
4 for known and measurable changes, and a base period of twelve months ending
5 February 28, 2023. The base period consists of six months of actual data, through
6 August 31, 2022, and the remaining six months consist of forecasted data.

7 **Q. HOW WERE THE RATE BASE AND CAPITALIZATION DETERMINED**
8 **IN THIS PROCEEDING?**

9 A. The Company determined rate base and capitalization using a thirteen-month
10 average for the forecasted test period ending June 30, 2024. The base period rate
11 base and capitalization represent end-of-period balances.

12 **Q. DID THE COMPANY FOLLOW THE COMMISSION'S GUIDELINES IN**
13 **DEVELOPING THE BASE AND FORECASTED TEST PERIOD DATA?**

14 A. Yes. Per the Commission's rules, 807 KAR 5:001, Section 16(7)(e)(2), "the forecast
15 contains the same assumptions and methodologies as used in the forecast period for
16 use by management." As described by Mr. Carpenter, the base and forecasted test
17 periods were developed using the same methods applied in the Company's annual
18 budgeting process. The first six months of the base period are actual results and are
19 taken from the Company's books and records.

III. FILING REQUIREMENTS SPONSORED BY WITNESS

1 **Q. PLEASE DESCRIBE FR 16(6)(b).**

2 A. FR 16(6)(b) requires that the forecasted adjustments are limited to the twelve months
3 immediately following the suspension period. The forecasted adjustments in this
4 proceeding are limited to the twelve months immediately following the suspension
5 period.

6 **Q. PLEASE DESCRIBE FR 16(6)(c).**

7 A. FR 16(6)(c) requires that capitalization and net investment rate base are based on
8 a thirteen-month average for the forecasted test period, in this case, the twelve
9 months ending June 30, 2024. In this proceeding, the capitalization and net
10 investment in rate base are based on a thirteen-month average.

11 **Q. PLEASE DESCRIBE FR 16(6)(f)**

12 A. FR 16(6)(f) contains a reconciliation of the capital and rate base used to determine
13 the revenue requirement in this case.

14 **Q. PLEASE DESCRIBE FR 16(7)(t)**

15 A. FR 16(7)(t) contains a list of all commercially available or in-house developed
16 computer software, programs, and models used in the development of the schedules
17 and workpapers associated with the filing of the utility's application.

18 **Q. PLEASE DESCRIBE SCHEDULE A.**

19 A. Schedule A is the overall financial summary for both the base period and the
20 forecasted period at present rates. Based on the filing in this proceeding, as adjusted,
21 the Company's electric operations are projected to earn a return on rate base of 2.738
22 percent for the forecasted test period, which is considerably less than the 7.526

1 percent return requested in this proceeding. In order to achieve the appropriate return
2 on rate base, Duke Energy Kentucky's base electric revenues must increase by
3 \$75,176,777 as shown in Schedule A.

4 **Q. PLEASE DESCRIBE SCHEDULE B-1.**

5 A. Schedule B-1 is the jurisdictional rate base summary for both the base and
6 forecasted periods and is supported by various schedules in Section B of the
7 Company's filing. The plant in service, and reserve for accumulated depreciation
8 and amortization for the base and forecasted periods were summarized from
9 Schedules B-2, B-3, and B-3.2 as supported by Company witnesses Ms. Huyen C.
10 Dang and Mr. Carpenter. The cash working capital from Schedule B-5 is
11 supported by a lead-lag study prepared by Company witness Mr. Paul M.
12 Normand. The other working capital component was summarized from Schedule
13 B-5, as supported by Mr. Carpenter, and other items of rate base were obtained
14 from Schedule B-6, as supported by Mr. John R. Panizza. The jurisdictional
15 electric rate base for the forecast period as contained in Schedule B-1 is
16 \$1,176,674,865.

17 **Q. PLEASE DESCRIBE SCHEDULE C-1.**

18 A. Schedule C-1 is a jurisdictional operating income summary for the forecasted period
19 ended June 30, 2024. This schedule includes the operating income summary at both
20 current and proposed rates. It assumes that the Commission allows the total amount
21 of the requested electric base revenue increase of \$75,176,777. The adjusted
22 operating results at current rates were summarized from Schedule C-2 and the
23 proposed increase was obtained from Schedule M. The revenue at proposed rates

1 was developed by adding the revenue increase to the operating revenues at current
2 rates. The related expenses and taxes on the proposed increase were added to the
3 current adjusted operating results to determine the jurisdictional *pro forma* amounts
4 and the corresponding rate of return. The rate base as shown on this schedule is
5 calculated on Schedule B-1.

6 **Q. PLEASE DESCRIBE SCHEDULE C-2.**

7 A. Schedule C-2 is a jurisdictional operating income statement to be used for
8 ratemaking purposes. In order to develop the forecasted test period that is
9 appropriate for ratemaking, a two-step process was required. First, as required by
10 807 KAR 5:001, Section 16(6)(a), it was necessary to show the adjustments
11 necessary to transform the financial data for the base period into the forecasted
12 period. Second, it was necessary to adjust the forecasted period data to reflect any
13 adjustments required to ensure that the revenues and expenses to be recovered in
14 rates are representative of the expected costs to serve Duke Energy Kentucky
15 electric customers on an ongoing basis.

16 Schedule C-2 starts with the unadjusted base period and shows the
17 adjustments required to extend the Company's income statement from the base
18 period to the forecasted period. The next column on the schedule summarizes the
19 adjustments to the unadjusted forecasted test period. These adjustments are
20 described below. Generally, they relate to costs that were not reflected in the
21 Company's forecasted data or were reflected in the forecasted data but not allocable
22 to Duke Energy Kentucky's electric customers or were made to reflect traditional
23 ratemaking methodology. The unadjusted operating results are summarized from

1 Schedule C-2.1. The adjusted amounts include the effects of the adjustments
2 summarized on Schedule D-1.

3 **Q. PLEASE DESCRIBE SCHEDULE C-2.1.**

4 A. Schedule C-2.1 sets forth the detail of total Company operating results for both the
5 base and forecasted periods. The operating results as shown in this Schedule C-2.1
6 are listed by account and are summarized on Schedule C-2.

7 **Q. PLEASE DESCRIBE SCHEDULE D-1.**

8 A. Schedule D-1 is a summary of the detailed adjustments to test period operating
9 revenues and operating expenses as set forth in Schedules D-2.1 through D-2.31.

10 **Q. WHY ARE ADJUSTMENTS TO THE BASE AND FORECASTED**
11 **PERIOD INFORMATION NECESSARY?**

12 A. The adjustments shown in Schedules D-2.1 through D-2.15 reflect the normal
13 budgetary changes that are expected to occur from the base period through the
14 forecasted period. Schedules D-2.1 through D-2.15, are sponsored by Mr. Carpenter.
15 The remaining adjustments, shown in Schedules D-2.16 through D-2.31, present
16 adjustments to the forecasted period data needed to ensure that the correct level of
17 revenue and expense is included in rates at the proper ongoing level. Some costs,
18 although reflected in the normal forecasting process, are not recoverable from Duke
19 Energy Kentucky's electric customers. Other adjustments were made to reflect
20 traditional ratemaking methodology (*e.g.*, amortizing a regulatory asset to reflect the
21 Commission's prior orders). The reflection of a proper cost level is necessary to
22 ensure that customers are not paying for more than the cost of providing service and
23 to give the Company a reasonable opportunity to earn its authorized return. Ignoring

1 appropriate adjustments to the test period used for setting rates puts customers at risk
2 for overpaying for service and puts the Company at risk for potentially under-
3 recovering its ongoing costs. Schedule D-2.16 is sponsored by Mr. Carpenter.
4 Schedule D-2.24 is sponsored by Ms. Dang. Schedules D-2.17 through D-2.23 and
5 D-2.25 through 2.31 are discussed in my testimony below.

6 **Q. HOW ARE THE INCOME TAX EFFECTS OF THESE ADJUSTMENTS**
7 **SHOWN ON YOUR SCHEDULES?**

8 A. All applicable adjustments to state and federal income taxes resulting from the
9 adjustments, described below, are shown for each individual adjustment on Schedule
10 D-1.

11 **Q. PLEASE DESCRIBE SCHEDULE D-2.17.**

12 A. The adjustment in Schedule D-2.17 is to amortize the projected cost of presenting
13 the rate case. Duke Energy Kentucky proposes to amortize these costs over five
14 years, which increases test period operating expenses by \$227,200.

15 **Q. PLEASE DESCRIBE SCHEDULE D-2.18.**

16 A. Schedule D-2.18 is an adjustment required to eliminate from base rates, both
17 revenue and expenses recovered in the Environmental Surcharge Mechanism
18 (Rider ESM) not being “rolled into base rates” in this proceeding. I will discuss in
19 further detail later in my testimony the costs being “rolled into base rates.” The
20 effect of the adjustment on electric operations is a decrease in electric operating
21 revenue of \$14,528,244 and a decrease in pre-tax operating expenses of
22 \$14,686,904.

1 **Q. PLEASE DESCRIBE SCHEDULE D-2.19.**

2 A. Interest synchronization is used to ensure that the revenue requirement reflects the
3 appropriate income tax effects for interest expense determined in the weighted-
4 average cost of capital. Schedule D-2.19 presents the calculation of the state and
5 federal income taxes on the interest cost included in the cost of capital. The
6 adjustment is calculated by first determining the debt portion of total electric rate
7 base. The total electric rate base is multiplied by the long-term and short-term
8 debt percentage of total capital structure.

9 The result is then multiplied by the average cost of long-term and short-
10 term debt. The sum of these results represents the annualized electric interest cost
11 deductible for income tax purposes. From this annualized total, we subtract the
12 forecasted test period electric book interest to determine the electric interest
13 expense adjustment for income tax purposes. The effect of this adjustment on
14 electric operations is to decrease test period federal income taxes by \$306,380 and
15 to decrease test period state income taxes by \$76,278.

16 **Q. PLEASE DESCRIBE SCHEDULE D-2.20.**

17 A. Revenue and expenses associated with off-system sales are included in the budget
18 and, consequently, in the forecasted test period. Schedule D-2.20 is intended to
19 completely exclude all revenue and costs that will flow through the Company's
20 Profit Sharing Mechanism (Rider PSM) from the calculation of the forecasted test
21 year revenue requirement. Base Revenue is increased by \$1,594,610 and Other
22 Revenue is reduced by \$7,416,505 for the revenue flowing through Rider PSM.
23 Operating expenses are reduced by \$4,963,221 for related expenses flowing

1 through Rider PSM. Related expenses include fuel, purchased power, reactive
2 power expense, allocated emission allowance expenses, and other variable
3 expenses.

4 **Q. PLEASE DESCRIBE SCHEDULE D-2.21.**

5 A. Schedule D-2.21 is reserved for future use.

6 **Q. PLEASE DESCRIBE SCHEDULE D-2.22.**

7 A. The adjustment in Schedule D-2.22 eliminates from the forecasted test year
8 revenue requirement the impact of Demand Side Management (DSM) revenue of
9 \$6,868,699 and pre-tax DSM operating expense of \$5,560,160. Schedule D-2.22
10 is intended to completely exclude all revenue and costs that will flow through the
11 Company's Rider DSM from the calculation of the forecasted test year revenue
12 requirement. The adjustment recognizes that revenue and expenses associated
13 with the Company's energy efficiency programs are addressed in its existing
14 Rider DSM.

15 **Q. PLEASE DESCRIBE SCHEDULE D-2.23.**

16 A. Schedule D-2.23 is an adjustment to eliminate miscellaneous expenses such as
17 community relations, advertising, donations, governmental affairs, club dues and
18 miscellaneous events expenses from the forecasted test period. These adjustments
19 were made to comply with the Commission's orders in prior rate proceedings.
20 The effect of the adjustment on electric operations is a decrease in pre-tax
21 operating expenses of \$1,067,028.

1 **Q. PLEASE DESCRIBE SCHEDULE D-2.25.**

2 A. Schedule D-2.25 is an adjustment to eliminate unbilled revenue from the
3 forecasted test period. The adjustment is needed to be consistent with the revenue
4 and volume computations contained on Schedule M. The revenue and volume
5 amounts on Schedule M are based on test year billing statistics and, consequently,
6 do not reflect estimated unbilled sales. The adjustment increases revenue in the
7 forecasted test period by \$372,067.

8 **Q. PLEASE DESCRIBE SCHEDULE D-2.26.**

9 A. Schedule D-2.26 is reserved for future use.

10 **Q. PLEASE DESCRIBE SCHEDULE D-2.27.**

11 A. Schedule D-2.27 is an adjustment to include in the forecasted test period,
12 amortization of the regulatory asset balances related to the Planned Outage O&M
13 and Forced Outage Purchased Power, for which the Company was granted
14 deferral authority in Case No. 2017-00321. The adjustment increases electric
15 operating expense in the forecasted test period by \$2,025,745. I discuss this
16 adjustment and the deferral mechanisms later in my testimony.

17 **Q. PLEASE DESCRIBE SCHEDULE D-2.28.**

18 A. Schedule D-2.28 is an adjustment to eliminate incentive compensation from the
19 forecasted test period related to the achievement of financial goals and
20 compensation for Restricted Stock Units (RSUs) consistent with what the
21 Commission previously approved in the Company's base rate cases, Case No.
22 2017-00321 and Case No. 2018-00261. Company witness Mr. Jacob J. Stewart
23 discusses why the Company did not eliminate the portion of the short-term

1 incentive payments that “would only be paid out in the event that a predetermined
2 “circuit breaker” EPS value is met in the fiscal year.” The adjustment removes
3 long-term and short-term incentive compensation included in the forecasted test
4 period tied to the achievement of financial goals of the Company. The RSU
5 component of employee compensation is a fixed percentage of the employee’s
6 salary and, therefore, it is not related to the achievement of the Company’s
7 financial goals. Nevertheless, the Company eliminated this expense consistent
8 with Commission precedence in prior cases. The adjustment decreases incentive
9 compensation expense in the forecasted test period by \$2,192,033.

10 The adjustment also removes payroll taxes associated with the short-term
11 incentive compensation being eliminated. This adjustment decreases taxes other
12 than income in the forecasted test period by \$91,600.

13 **Q. PLEASE DESCRIBE SCHEDULE D-2.29.**

14 A. Schedule D-2.29 is an adjustment to eliminate pension expense related to
15 employees who participate in both a defined benefit pension program and a 401K
16 company match program and expenses for the Company’s Supplemental
17 Executive Retirement Plan (SERP). This is made to be consistent with
18 Commission rulings in prior cases. The adjustment decreases operating expense in
19 the forecasted test period by \$1,009,166.

20 **Q. PLEASE DESCRIBE SCHEDULE D-2.30.**

21 A. Schedule D-2.30 is reserved for future use.

1 **Q. PLEASE DESCRIBE SCHEDULE D-2.31.**

2 A. Schedule D-2.31 is an adjustment for uncollectible expenses. The Company sells
3 its accounts receivable to an affiliate, Cinergy Receivables, L.L.C. (Cinergy
4 Receivables) at a discount. The discount is based on a formula that compensates
5 the purchasing company for the time value of money and reflects Duke Energy
6 Kentucky's net bad debt expense.

7 Since the short-term debt component of the Company's weighted-average
8 cost of capital calculation in Schedule J-1 includes the average balance of
9 receivables at the interest rate being paid to Cinergy Receivables, the adjustment
10 shown in Schedule D-2.31 ensures that there is no double recovery of the time
11 value of money in the uncollectible expense. Consequently, the time value of
12 money component of the discount being charged to Uncollectible Expense
13 (Account 904 and 426) is eliminated from the forecasted test period expenses.
14 The adjustment reduces test period expenses by \$1,801,031.

15 **Q. PLEASE DESCRIBE SCHEDULE F-1.**

16 A. Schedule F-1 sets forth the detail, by account, of Social and Service Club Dues for
17 both the base and unadjusted forecasted test periods. All amounts are either charged
18 below the line or have been removed from operating expenses on Schedule D-2.23
19 and, thus, not included in the forecasted test period revenue requirement.

1 **Q. PLEASE DESCRIBE SCHEDULE F-2.1.**

2 A. Schedule F-2.1 sets forth the detail, by account, of Charitable Contributions for both
3 the base period and unadjusted forecasted test periods. All amounts are charged
4 below the line and, thus, not included in the forecasted test period revenue
5 requirement.

6 **Q. PLEASE DESCRIBE SCHEDULE F-2.2.**

7 A. Schedule F-2.2 indicates that the Initiation Fees and Country Club expenses for the
8 base and forecasted test periods are included on Schedule F-1.

9 **Q. PLEASE DESCRIBE SCHEDULE F-2.3.**

10 A. Schedule F-2.3 sets forth the detail, by account of Employee Party, Outing, & Gift
11 Expense for both the base and forecasted test periods.

12 **Q. PLEASE DESCRIBE SCHEDULE F-3.**

13 A. Schedule F-3 sets forth the detail, by account, of Customer Service and
14 Informational Expense, Sales Expense and General Advertising Expense for both
15 the base and unadjusted forecasted test periods. Advertising costs included in
16 Account 913 and 930150 have been removed from operating expenses on Schedule
17 D-2.23 and, thus, not included in the forecasted test period revenue requirement.

18 **Q. PLEASE DESCRIBE SCHEDULE F-4.**

19 A. Schedule F-4 sets forth additional details supporting advertising costs for both the
20 base and unadjusted forecasted test periods. As noted above, these costs are not
21 included in the forecasted test period revenue requirement.

22 **Q. PLEASE DESCRIBE SCHEDULE F-5.**

23 A. Schedule F-5 sets forth the detail of Professional Services Expenses for both the

1 base and forecasted test periods.

2 **Q. PLEASE DESCRIBE SCHEDULE F-6.**

3 A. Schedule F-6, entitled "Rate Case Expense," indicates the estimated expense of
4 presenting this case. The top half of this schedule details the estimated expense of
5 this proceeding. Also included is a comparison to the rate case expense in the
6 Company's last two rate case proceedings. The bottom half of this schedule shows
7 the amortization over a five-year period. This amount is included in expense through
8 the adjustment contained in Schedule D-2.17.

9 **Q. PLEASE DESCRIBE SCHEDULE F-7.**

10 A. Schedule F-7 sets forth Civic, Political and Related Expense for both the base and
11 unadjusted forecasted test periods. All amounts are charged below the line and, thus,
12 not included in the forecasted test period revenue requirement.

13 **Q. PLEASE DESCRIBE SCHEDULE G-1.**

14 A. Schedule G-1 contains a summary of all payroll costs and related benefits and taxes
15 included in electric Operations & Maintenance (O&M) expense for both the base
16 and forecasted test periods.

17 **Q. PLEASE DESCRIBE SCHEDULE H.**

18 A. Schedule H, entitled "Computation of Gross Revenue Conversion Factor," (GRCF)
19 sets forth the calculation of the GRCF. This is the factor, or multiplier, used to gross-
20 up the operating income deficiency to a revenue deficiency amount. It includes an
21 uncollectible accounts factor which represents the portion of the average total
22 discount rate that is related to charge-offs, collection costs, and late payment
23 charges. Also included in the GRCF are the Kentucky Public Service Commission

1 assessment, and state and federal income taxes. The GRCF is included on Schedule
2 A and is used to compute the calculated revenue deficiency.

IV. ENVIRONMENTAL SURCHARGE MECHANISM

3 **Q. CAN YOU BRIEFLY EXPLAIN THE COSTS CURRENTLY INCLUDED**
4 **IN THE ENVIRONMENTAL SURCHARGE MECHANISM (ESM)?**

5 A. The ESM includes the return on eligible environmental compliance rate base
6 including eligible environmental compliance plant investments net of associated
7 accumulated depreciation and accumulated deferred income taxes (ADIT). It also
8 includes the recovery of environmental operating expenses including property taxes
9 and depreciation expense associated with the eligible environmental compliance
10 investments, as well as environmental reagent expenses, amortization of coal ash
11 and landfill closure ARO, and the native portion of emission allowance expenses.
12 The rider also credits back to customers any proceeds from emission allowance
13 sales.

14 **Q. ARE ANY OF THE COSTS ASSOCIATED WITH DUKE ENERGY**
15 **KENTUCKY'S ESM INCLUDED IN THIS PROCEEDING?**

16 A. Yes. The 13-month average of the net rate base associated with the eligible
17 environmental compliance investments in the forecasted test year, including net
18 capital placed in-service and associated ADIT balances has been “rolled into base
19 rates” in this filing, along with the associated depreciation expense and property
20 taxes. The ESM will continue to include the return on the emission allowance
21 inventory; recovery of environmental reagent expenses, amortization of coal ash and

1 landfill closure ARO, and the native portion of emission allowance expenses; and
2 credit back to customers any proceeds from emission allowance sales.

V. DEFERRAL MECHANISM

3 **Q. DOES THE COMPANY HAVE ANY DEFERRAL MECHANISMS**
4 **PREVIOUSLY APPROVED BY THE COMMISSION THAT IT IS**
5 **SEEKING TO AMORTIZE IN THIS PROCEEDING?**

6 A. Yes. Duke Energy Kentucky was authorized to begin deferring annual expenses for
7 planned outage O&M above or below the amount being recovered in base rates and
8 annual expenses for replacement power expense not recovered in the Fuel
9 Adjustment Clause (FAC), above or below the amounts being recovered in base
10 rates. Both of these deferral mechanisms were approved by the Commission in Case
11 No. 2017-00321.

12 In Schedule D-2.27, the Company is requesting authority to amortize the
13 December 31, 2021 Planned Outage O&M regulatory asset balance and the June
14 30, 2022 Forced Outage Purchased Power regulatory asset balance over five
15 years.

16 **Q. PLEASE EXPLAIN WHY THE COMPANY IS REQUESTING TO**
17 **AMORTIZE THE DECEMBER 31, 2021 BALANCE FOR THE PLANNED**
18 **OUTAGE O&M REGULATORY ASSET?**

19 A. This deferral is based on the annual amount of planned outage O&M incurred
20 compared to the annual amount included in base rates. Because the actual
21 expenses incurred year to date as of June 30, 2022 were not over the annual
22 amount included in base rates, no deferrals were booked as of June 30, 2022.

1 Therefore, the December 31, 2021 balance of \$8,309,265 is being proposed. Since
2 the Company expects the actual expenses going forward to be approximately
3 equal, on average, to the amount collected in base rates, the Company is
4 requesting amortization of the December 31, 2021 balance in this proceeding.

5 **Q. PLEASE EXPLAIN WHY THE COMPANY IS REQUESTING TO**
6 **AMORTIZE THE JUNE 30, 2022 BALANCE FOR THE FORCED**
7 **OUTAGE PURCHASED POWER REGULATORY ASSET?**

8 A. This deferral is based on the annual amount of expenses incurred for forced
9 outage replacement power not recovered in the FAC compared to the annual
10 amount included in base rates. Because the actual expenses incurred year to date
11 as of June 30, 2022 were over the annual amount included in base rates, there
12 were deferrals booked as of June 30, 2022. Therefore, the June 30, 2022 balance
13 of \$1,819,460 is being proposed. Since the Company expects the actual expenses
14 going forward to be approximately equal, on average, to the amount collected in
15 base rates, the Company is requesting amortization of the June 30, 2022 balance
16 in this proceeding.

17 **Q. WHAT IS INCLUDED IN BASE RATES RELATED TO THESE**
18 **DEFERRALS?**

19 A. Currently, \$7,177,425 in included in base rates for O&M expense related to planned
20 generation maintenance outages (excluding fuel, emission allowances, and
21 environmental reagent costs) and \$1,609,964 is included in base rates for cost of
22 replacement power expense related to forced outages.

1 **Q. IS THIS THE SAME AMOUNT INCLUDED IN THE REVENUE**
2 **REQUIREMENT BEING REQUESTED IN THIS PROCEEDING?**

3 A. Yes.

4 **Q. IS THE COMPANY INCLUDING AMORTIZATION EXPENSE FOR ANY**
5 **OTHER NEW DEFERRALS IN ITS FORECASTED TEST PERIOD**
6 **REVENUE REQUIREMENT?**

7 A. Yes. The Company is seeking to create a regulatory asset for the cost associated
8 with developing, presenting, and litigating this base rate case. Following
9 precedent established in prior cases, the Company is seeking a five-year
10 amortization period for this deferral. Schedule D-2.17 reflects the impact of this
11 adjustment.

VI. CONCLUSION

12 **Q. WERE FR 16(6)(b), FR 16(6)(c), FR 16(6)(f), AND FR 16(7)(t),**
13 **SCHEDULES A, B-1, C-1 THROUGH C-2.1, D-1, D-2.17 THROUGH D-**
14 **2.23 AND D-2.25 THROUGH D-2.31, F-1 THROUGH F-7, G-1, AND H**
15 **PREPARED BY YOU OR UNDER YOUR DIRECTION AND**
16 **SUPERVISION?**

17 A. Yes.

18 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

19 A. Yes.

VERIFICATION

STATE OF OHIO)
)
COUNTY OF HAMILTON) SS:

The undersigned, Lisa Steinkuhl, Director Rates & Regulatory Planning, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing testimony and that it is true and correct to the best of her knowledge, information and belief.

Lisa D Steinkuhl
Lisa D. Steinkuhl Affiant

Subscribed and sworn to before me by Lisa Steinkuhl on this 30th day of November, 2022.

Emilie Sunderman
NOTARY PUBLIC

My Commission Expires: July 8, 2027



EMILIE SUNDERMAN
Notary Public
State of Ohio
My Comm. Expires
July 8, 2027

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke)
Energy Kentucky, Inc. for: 1) An)
Adjustment of the Electric Rates; 2)) Case No. 2022-00372
Approval of New Tariffs; 3) Approval of)
Accounting Practices to Establish)
Regulatory Assets and Liabilities; and 4))
All Other Required Approvals and Relief.)

DIRECT TESTIMONY OF
JACOB J. STEWART
ON BEHALF OF
DUKE ENERGY KENTUCKY, INC.

December 1, 2022

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ATTACHMENTS:

Attachment JJS-1	Duke Energy 2022 Compensation Survey E-Library
Attachment JJS-2	Union Contracts
	(a) Agreement and Sidebar Letters Between Utility Workers Union of America Local 600 and Duke Energy Ohio, Inc., and Duke Energy Kentucky, Inc.
	(b) Summary of Tentative Agreement between Duke Energy Ohio, Inc. Duke Energy Kentucky, Inc. and IBEW Local 1347
Attachment JJS-3	Duke Energy Incentive Plans
	(a) CONFIDENTIAL Duke Energy 2022 Short-Term Incentive Plan and Union Employee Incentive Plan
	(b) CONFIDENTIAL Duke Energy 2022 Short-Term Incentive Scorecard
	(c) CONFIDENTIAL Duke Energy 2022 Executive Long-Term Incentive Plan Brochure
	(d) Duke Energy 2022 Restricted Stock Award Summary

I. INTRODUCTION AND PURPOSE

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Jacob J. Stewart and my business address is 4720 Piedmont Row
3 Drive, Charlotte North Carolina 28210.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services LLC (DEBS), as Director,
6 Health and Wellness. DEBS provides various administrative and other services to
7 Duke Energy Kentucky, Inc., (Duke Energy Kentucky or Company) and other
8 affiliated companies of Duke Energy Corporation (Duke Energy).

9 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL**
10 **EXPERIENCE.**

11 A. I graduated from the University of Illinois with a Bachelor of Science degree in
12 Recreation, Sport and Tourism Management and a Master's Degree in Human
13 Resources and Industrial Relations. I have also held various certifications
14 including a Certified Compensation Professional (CCP) certification.

15 I have 17 years of human resources experience, primarily working with
16 compensation and benefits programs. I joined Duke Energy in 2013 and have held
17 various positions in compensation and benefits, including Director Compensation.
18 While Director Compensation, I was responsible for all broad-based
19 compensation including compensation design and strategy, management of key
20 vendor relationships, and compensation administration and compliance. In
21 addition, I have served in key roles on several projects, including the redesign of
22 Duke Energy's pay-for-performance strategy, the implementation of the Workday

1 HRMS system, and the integration of Progress Energy and Piedmont Natural Gas
2 employees into the Duke Energy compensation and benefits programs. In August
3 2021 I was named to my current position as Director, Health and Wellness.

4 **Q. PLEASE DESCRIBE YOUR DUTIES AS DIRECTOR, HEALTH AND**
5 **WELLNESS.**

6 A. I am responsible for the strategy, design, implementation, compliance and
7 communication of all health and wellness programs for Duke Energy, including
8 all of Duke Energy's affiliated regulated and non-regulated companies, including
9 Duke Energy Kentucky (collectively the Companies). Areas of responsibility
10 include benefit plan design and strategy, management of key vendor relationships,
11 administration, and compliance.

12 **Q. HAVE YOU EVER TESTIFIED BEFORE THE KENTUCKY PUBLIC**
13 **SERVICE COMMISSION?**

14 A. Yes.

15 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
16 **PROCEEDING?**

17 A. I am an expert in compensation and benefit programs, and the purpose of my
18 testimony is to demonstrate that the compensation and benefits programs provided
19 to Duke Energy employees are necessary to attract, engage and retain the skilled
20 and experienced workforce the Company needs to efficiently and effectively
21 provide electric service to its customers. I show further how these programs are
22 market competitive and comparable to programs offered by other utilities, as well
23 as other companies outside of the utility industry. As I explain in my testimony,

1 being market competitive is critical because Duke Energy competes with these
2 other utilities and companies in the labor market for talent.

3 I also outline the design and function of our incentive pay programs and
4 explain how the performance metrics directly benefit Duke Energy Kentucky
5 customers through safe and reliable service, customer service quality, and low
6 energy costs. As described in greater detail in my testimony, incentive pay is a
7 key component of Duke Energy's compensation program. In the competitive
8 market for talent, employees consider the total rewards package, including base
9 pay, incentive pay and benefits, as a key determinant in deciding whether to work
10 for a particular employer. Accordingly, whether it is through base pay or a
11 combination of base pay and incentives, Duke Energy must keep its overall
12 compensation package competitive to attract and retain a competent workforce.
13 Incentive pay is therefore similar to other costs necessary to provide customers
14 safe and reliable service. As such, in my opinion, the program expenditures by the
15 Company in connection with these programs are reasonable and prudently
16 incurred costs of service to our customers.

17 The factors that underpin the importance of full cost recovery have not
18 diminished since our last electric rate case in 2019 – to the contrary, many
19 employers and industries have experienced greater workforce turnover as a result
20 of the “Great Resignation,” and the electric utility industry is no exception.
21 Employee turnover is expensive, particularly in industries – such as ours – which
22 require highly skilled labor, requiring lengthy and intensive periods of
23 apprenticeship and training. Accordingly, as my testimony demonstrates, the

1 Company's allocated compensation expense, including incentive compensation, is
2 reasonable and prudent, and Duke Energy Kentucky should be allowed to recover
3 these costs.

4 I also sponsor Schedules G-2 and G-3 in satisfaction of Filing
5 Requirement (FR) 16(8)(g).

II. WORKFORCE OVERVIEW

6 **Q. PLEASE DESCRIBE THE GENERAL COMPOSITION OF THE**
7 **EMPLOYEE POPULATIONS.**

8 A. As of August 30, 2022, Duke Energy has a total of 27,685 employees. Duke
9 Energy Kentucky has 158 employees, comprising 7 exempt employees and 151
10 non-exempt employees, of whom 151 are union employees. DEBS has 7,471
11 employees, comprising 5,727 exempt employees and 1,744 non-exempt
12 employees, of whom 819 are union employees.

13 **Q. WHERE DO THESE EMPLOYEES WORK WHEN PERFORMING**
14 **SERVICES FOR DUKE ENERGY KENTUCKY CUSTOMERS?**

15 A. Duke Energy Kentucky's customers receive services from employees of Duke
16 Energy Kentucky and affiliated companies. The electric employees work at the
17 East Bend Generating Station (East Bend), the Woodsdale Generating Station
18 (Woodsdale) (collectively, the Plants) the Erlanger, Kentucky, Construction and
19 Maintenance Center; the Little Miami Operations Center; and the Queensgate
20 Operations Center. They also work in our Cincinnati, Ohio, headquarters and in
21 the Duke Energy headquarters in Charlotte, North Carolina.

1 **Q. WHAT TYPE OF SPECIAL SKILLS OR KNOWLEDGE IS REQUIRED**
2 **IN ORDER TO OPERATE AN ELECTRIC UTILITY SUCH AS DUKE**
3 **ENERGY KENTUCKY?**

4 A. Generation, transmission, and distribution of electric power are complex
5 undertakings requiring a highly skilled workforce. A few examples serve to
6 illustrate this point:

- 7 • Engineering professionals help to design, build, operate, and maintain our
8 generation plants and the transmission and distribution systems that
9 provide power to our customers.
- 10 • Plant operators are responsible for generating the electricity that powers
11 our customers' homes and businesses.
- 12 • Line workers must work quickly and efficiently, especially under adverse
13 weather conditions, to maintain, improve, and if necessary, restore our
14 transmission and delivery infrastructure to keep electricity flowing to our
15 customers.
- 16 • Field service and call center employees must understand the services
17 provided by the Company, including the metering, billing, and collection
18 processes plus various other customer service matters.
- 19 • At the corporate level, highly skilled managers, engineers, accountants,
20 cyber security analysts, and other professionals are needed to support the
21 employees who are directly responsible for generating, procuring, and
22 delivering electricity to the Company's customers.

1 **Q. HOW IMPORTANT IS THE RECRUITMENT AND RETENTION OF**
2 **SUCH EMPLOYEES TO DUKE ENERGY KENTUCKY'S SUCCESS?**

3 A. The ability to attract and retain employees with the required technical skills is
4 critical to the success of the Company, and very important to our ability to
5 provide safe, reliable, and high-quality electric utility service to our customers. A
6 fundamental factor with respect to the ability of any employer to attract and
7 recruit skilled and qualified employees is the employer's compensation and
8 benefits programs – potential employees will simply look elsewhere if the
9 employer's total rewards package fails to achieve market competitiveness. This is
10 true in any labor market, but particularly important in a tight labor market with
11 high inflation, such as the one the U.S. economy is experiencing right now. Duke
12 Energy Kentucky does not present an exception to this rule.

13 Compensation and benefits – especially in a time of high employee
14 mobility and tight labor – are highly important to the Company's ability to attract,
15 engage, and retain a diverse, qualified workforce. One of the keys to providing a
16 desirable workplace where employees want to continue working is to ensure that
17 employees have the opportunity to earn competitive pay and participate in
18 comprehensive benefits programs.

19 **Q. IN RECENT YEARS HAS THE COMPANY EXPERIENCED**
20 **CHALLENGES ATTRACTING AND RETAINING A HIGHLY TRAINED**
21 **AND SKILLED WORKFORCE?**

22 A. Duke Energy has indeed experienced challenges both in attracting and retaining
23 its workforce across the entire enterprise. For example, our job offer acceptance

1 rate in 2022 as of October 31 was 84.1% and in 2021 was 87.8% compared to
2 90.7% in 2020 and 91.0% in 2019. In addition, regarding retention, as of October
3 31, 2022, our enterprise voluntary turnover was 6.9% and in 2021 our enterprise
4 voluntary turnover was 7.06% compared to 4.26% in 2020 and 5.18% in 2019.
5 These statistics show that Duke Energy has not been immune from the challenges
6 that many employers have experienced attracting and retaining employees in the
7 current tight labor market conditions, marked by high employee mobility and high
8 inflation.

9 **Q. WHAT ARE THE IMPLICATIONS OF THE CHALLENGES THAT**
10 **DUKE ENERGY HAS EXPERIENCED IN ATTRACTING AND**
11 **RETAINING EMPLOYEES?**

12 A. Our employees deliver critical services to our customers every day and the energy
13 industry is a knowledge and experience-intensive industry where the tenure of
14 employees matters. It would be imprudent for Duke Energy to not take measures
15 to prevent potential employee turnover. Maintaining a competitive compensation
16 and benefits package is instrumental in meeting Duke Energy's and Duke Energy
17 Kentucky's shared goals of providing safe, adequate, reliable, and reasonably
18 priced utility service to customers.

III. COMPENSATION OVERVIEW: PHILOSOPHY, COMPONENTS, AND
CUSTOMER BENEFIT

19 **Q. WHAT IS DUKE ENERGY'S COMPENSATION PHILOSOPHY?**

20 A. Duke Energy's overall compensation philosophy is to target total compensation of
21 base pay and incentives, including both short- and long-term, at the median of the
22 market when compared to peer companies, with the opportunity to earn more or

1 less relative to the market median based on actual performance. We have an
2 obligation to be responsive to the market for talent and assure the competitiveness
3 of the total compensation package, consisting of base salary, cash-based
4 incentives, and, for some employees, long-term incentive compensation. Duke
5 Energy's compensation philosophy has three major parts:

6 First, Duke Energy wants our compensation to be market-based, meaning
7 we are competitive with the external labor market, allowing it to remain attractive
8 against competition in order to attract and retain qualified and diverse employees.
9 Duke Energy employs a compensation strategy that combines base pay and
10 variable incentive opportunities for all levels of positions. This approach fosters
11 efficiency, safety and a focus on the customer by aligning our employees' pay to
12 quality service for customers.

13 Second, Duke Energy is performance oriented. Linking compensation to
14 performance is one way to engage employees, set high expectations for
15 employees, and reward results that benefit customers. Duke Energy's
16 compensation program is designed to provide total compensation that is consistent
17 with performance.

18 Finally, Duke Energy is fair and flexible. Its well-managed policies and
19 pay administration guidelines ensure that employees are compensated consistently
20 and fairly across departments. Duke Energy must also be flexible to align its
21 policies with business needs as they grow and change.

1 **Q. IS DUKE ENERGY'S COMPENSATION PHILOSOPHY FOR**
2 **EXECUTIVES SIMILAR TO THE PHILOSOPHY APPLICABLE TO**
3 **NON-EXECUTIVE EMPLOYEES?**

4 A. Yes. The compensation philosophy is similar for both executive and non-
5 executive employees. The compensation package for executives consists of a
6 combination of fixed and variable pay using base salary, short-term incentives and
7 long-term incentives. These components, in the aggregate, are targeted to deliver
8 total compensation that is competitive with Duke Energy's peers and consistent
9 with performance. Duke Energy adopted this executive compensation strategy in
10 order to attract and retain the executive talent required to deliver superior
11 performance. The strategy emphasizes performance-based compensation that
12 balances rewards for both short-term and long-term results and that aligns the
13 executives' interests with the long-term success of Duke Energy, including Duke
14 Energy Kentucky and its customers.

15 **Q. PLEASE PROVIDE AN OVERVIEW OF THE COMPENSATION**
16 **PROGRAMS PROVIDED BY DUKE ENERGY.**

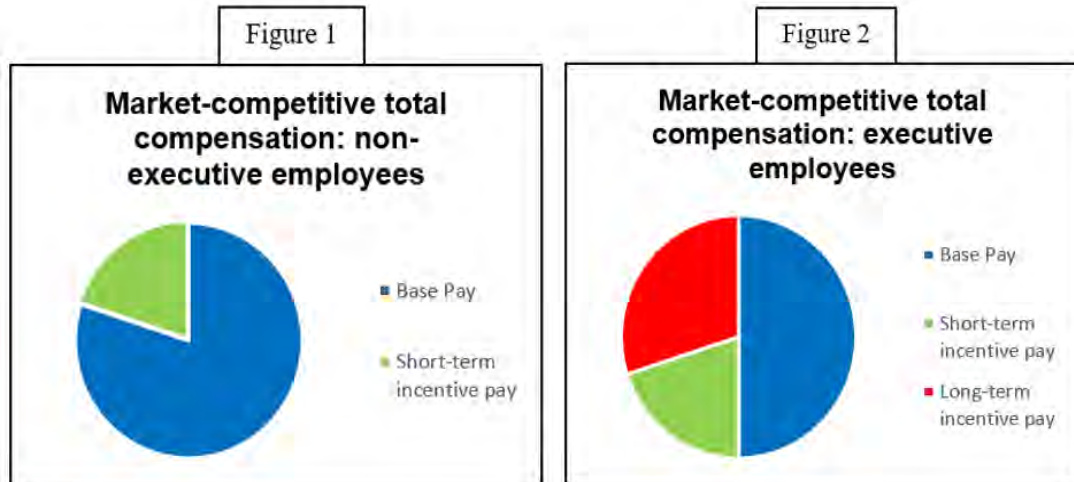
17 A. Duke Energy's compensation programs consist of a base pay component and
18 incentive pay components that together provide a market-competitive, total
19 compensation package for all employees. The base pay component is a set
20 amount, reviewed by management at least annually, and established at a level
21 that: (1) provides compensation based on the nature and responsibilities of the
22 employee's position; (2) is fair relative to the pay for other similarly situated

1 positions in the organization; and (3) when combined with the incentive pay
2 opportunities, is market competitive.

3 The short-term incentive (STI) pay component is variable based on
4 performance and is “at risk” pay. All employees are eligible for the STI as a
5 component of their total pay – that is, employees are “at risk” of not receiving this
6 component of their compensation package. Carving out a portion of employees’
7 total compensation and delivering it through variable incentive pay serves
8 multiple purposes: (1) to encourage employees to accomplish specific objectives
9 intended to ensure safe, reliable, and economical utility service for our customers;
10 (2) to foster their business unit’s and Duke Energy’s overall success; and (3) to
11 incorporate a pay-at-risk component that is similar to competitors in our market.

12 The long-term incentive (LTI) plans round out a competitive total
13 compensation package for certain employees in leadership positions. Including
14 LTI programs as a portion of total compensation for leadership is market
15 competitive and necessary to attract and retain the high-caliber leaders needed to
16 ensure safe, reliable, and economical utility service for our customers. Simply put,
17 competent management is beneficial to customers.

18 For illustrative purposes, the total compensation concept is depicted below
19 in Figures 1 and 2.



1 As Figures 1 and 2 make clear, base pay alone does *not* equate to market-
 2 competitive total compensation – rather, base pay *in combination with* incentive
 3 pay equates to market-competitive total compensation.

4 **Q. HOW DOES DUKE ENERGY KNOW ITS COMPENSATION IS**
 5 **MARKET COMPETITIVE?**

6 A. The Company’s pay levels are competitive with the market median for base salary
 7 and total compensation (base pay plus incentives) when compared to numerous
 8 published surveys. As just one example, the salary range for a Senior Engineering
 9 Technologist is \$83,900 to \$125,900, with a midpoint of \$104,900 and total cash
 10 compensation of \$115,390. The market median from the WTW Energy Services
 11 Mid-Management & Professional 2022 survey is \$103,511 for base pay and
 12 \$117,939 for total cash compensation. Further, we routinely benchmark total
 13 compensation (base pay plus incentives) against other similarly sized companies,
 14 both within and outside of the utility industry, and participate in a variety of third-
 15 party salary surveys on an annual basis. These surveys contain aggregated
 16 compensation data, including base pay and incentive targets, from multiple

1 employers for various job functions and career levels. This data is analyzed to
2 determine overall competitiveness of pay for jobs throughout Duke Energy. A
3 complete list of the salary surveys Duke Energy is currently participating in is
4 reflected in Attachment JJS-1.

5 **Q. DOES A COMPETITIVE TOTAL COMPENSATION PACKAGE FOR**
6 **EMPLOYEES BENEFIT THE COMPANY'S RETAIL CUSTOMERS?**

7 A. Yes. Our employees deliver critical services to our customers every day. We need
8 to attract, develop, and retain—over the long term—the employees that design,
9 build, and operate our plants and the employees that maintain and improve the
10 infrastructure necessary to keep the lights on. Many craft positions require lengthy
11 apprenticeships to learn the skills needed to perform work independently and
12 safely. The competencies needed for employees in highly skilled positions – such
13 as Line Technicians – take many years to develop. If we were to lose such
14 employees, we would incur additional costs to train replacements for these
15 positions, while experiencing additional risk with regard to reliability issues. The
16 expense incurred to hire and train new employees and the loss of productivity
17 realized through high turnover rates would negatively affect the ability of the
18 Company to provide safe and reliable service at a reasonable cost.

19 This is also true for leadership positions. Duke Energy invests in
20 developing highly effective leaders who develop and carry out the organization's
21 strategy and inspire employees to work together to achieve results the right way.
22 Long-term incentive pay as a component of overall compensation for our
23 executives is market competitive and provides Duke Energy with an effective

1 retention tool. Offering less than competitive levels of compensation would put
2 Duke Energy at risk of losing these valuable leaders to other companies and
3 potentially having to pay more to attract the same level of leadership talent
4 externally. In addition, the inclusion of long-term incentive pay ensures that our
5 leadership is focused on the long term, and not overly focused on the short term.
6 Finally, incenting a focus on long-term sustainable company performance
7 provides a benefit to customers, as a financially strong company will have greater
8 access to capital at a lower cost, which in turn benefits customers through a lower
9 cost structure.

IV. DETAILED REVIEW OF COMPENSATION COMPONENTS

10 **Q. PLEASE DESCRIBE DUKE ENERGY'S BASE PAY PROGRAMS.**

11 A. Duke Energy utilizes base salary ranges consisting of a minimum and maximum
12 base salary for each job grade for most non-union positions. We perform an
13 annual review of market data for both general industry positions and energy
14 services positions and compare that data to our total compensation package (base
15 pay plus incentives). Using this market data, salary ranges are reviewed annually
16 to remain competitive. Market data is also reviewed and used to determine annual
17 wage increase recommendations.

18 To determine the compensation for executive officers on an annual basis,
19 the Compensation and People Development Committee of the Board of Directors
20 of Duke Energy (the Committee) reviews data from nationally recognized,
21 independent executive compensation consulting firms (Frederick W. Cook and
22 WTW). The peer group of companies used for these analyses consists of

1 companies that represent the talent markets from which Duke Energy competes to
2 attract and retain executive employees.

3 Hourly represented employees, such as line technicians and meter readers,
4 are provided general wage increases negotiated with the labor unions that
5 represent the employees. Wage increases are just one component of union
6 negotiations and must be negotiated on in the larger context of work-related
7 topics, such as benefits, work rules and overtime. These general increases are
8 expressed as percentages of current base pay rates and are consistent with market
9 trends. Duke Energy bases its positions in these negotiations on survey
10 projections for market increases and also utilize survey market data to ensure pay
11 is competitive to the market. The current contracts in place with employees of
12 Duke Energy Kentucky can be found in Attachments JJS-2(a) and JJS-2(b).

13 **Q. PLEASE DESCRIBE THE STI COMPONENT OF INCENTIVE PAY.**

14 A. All employees are eligible for the STI component of incentive pay, however,
15 some represented employees, including those in Duke Energy Kentucky,
16 participate in the UEIP sub-plan per their union agreement. As I testified
17 previously, the STI component is the “at risk” portion of each employee’s
18 compensation. The STI program is designed to promote a workforce culture that
19 responds to pre-determined performance goals set both at the corporate level and
20 at a “team” (for non-leadership employees) or individual (for leadership
21 employees) level. How much of the STI component is actually paid out to an
22 individual employee depends on the degree to which the performance goals are

1 met. The STI and UEIP plan descriptions can be found in Confidential
2 Attachment JJS-3(a).

3 The process begins with the setting of goals at the commencement of each
4 year. The Committee approves the corporate level performance goals for the
5 upcoming year, as well as individual goals for leadership employees. Executive
6 leadership for each business unit sets the team goals for non-leadership
7 employees.

8 The corporate goals are reflected in a “scorecard,” and Confidential
9 Attachment JJS-3(b) is the 2022 STI Scorecard reflecting the corporate goals
10 approved by the Committee. As can be readily seen in the Scorecard, each goal
11 reflects the specific metrics required to meet the goal at three different levels – the
12 Minimum, Target, and Maximum level. The payout associated with achievement
13 of the goal is based upon where along the Minimum to Maximum continuum the
14 corporate performance falls. A thorough review is performed at the end of the
15 year to determine the achievement level for each performance goal.

16 The scorecard reproduced in Confidential Attachment JJS-3(b) is a generic
17 scorecard for non-leadership employees – it indicates that “team” goals are to be
18 set and performance measured against achievement. For leadership employees,
19 individual goals would replace the “team” component, with performance also
20 measured against achievement. The Exhibit also details the weight given to
21 achievement of each goal. A recap of the STI metrics, weights, and payout
22 opportunities is set forth in the table below:

TABLE 1: SUMMARY 2022 STI PLAN

	Senior Management Committee (SMC) Weight	Leadership (Other than SMC) Weight	Non-Leadership Weight	Payout range
EPS	50%	50%	50%	0-200%
O&M Expense	12.5%	10%	5%	0-175%
Operational Excellence	12.5%	10%	10%	0-175%
CSAT	12.5%	10%	10%	0-175%
Climate	12.5%	N/A	N/A	0-175%
Team	N/A	N/A	25%	0-175%
Individual	N/A	20%	N/A	0-175%

1 Members of the Senior Management Committee (SMC) will also be subject to an
2 Individual Performance Modifier pursuant to which the Compensation and People
3 Development Committee of the Board of Directors of Duke Energy may exercise
4 discretion to increase or decrease the aggregate incentive payment of each SMC
5 member calculated based on the goals and weightings set forth above by up to 25
6 percent, based on the SMC member's achievement of their performance
7 objectives during the year.

8 **Q. PLEASE PROVIDE ADDITIONAL DETAIL REGARDING THE**
9 **CORPORATE METRICS INCLUDED IN THE STI PROGRAM FOR 2022,**
10 **AND, IN PARTICULAR, DESCRIBE HOW THESE METRICS BENEFIT**
11 **CUSTOMERS.**

12 A. As the Scorecard in Confidential Attachment JJS-3(b) reflects, corporate STI
13 metrics are grouped into the categories of Financial Performance & Growth,
14 Operational Excellence, and Customer Satisfaction. A detailed description of
15 these categories follows:

1 Financial Performance & Growth: The Financial Performance &
2 Growth measure consists of Earnings per Share and Operations and
3 Maintenance expense measures, each of which motivates employees to
4 focus on financial discipline, efficient operations, and prudent use of
5 resources, which are vital to the health and stability of the organization.

6 Earnings per Share (EPS): EPS is an important metric to evaluate
7 the success of our performance and it is a very common practice, both
8 within and outside of the utility industry, to use EPS as a primary goal in
9 incentive programs. A consistently growing EPS benefits customers by
10 allowing the company to access the capital markets on reasonable terms
11 which ultimately lowers the company's financing costs as Duke Energy
12 Kentucky continues to invest in the critical infrastructure needed to ensure
13 the continued reliability and resiliency of the electric grid, achieve the
14 ongoing energy transition, and transform the customer experience by
15 providing customers with more billing options, additional energy usage
16 information, and new tools to help manage and reduce energy costs.

17 O&M Expense Control (O&M): O&M expenses include those
18 costs necessary to support daily operations, as well as operate and
19 maintain the operating efficiency and productive life of assets. Cost
20 control is an integral part of any company's success. The intent of this
21 goal is for employees to focus on cost control on a day-to-day basis, which
22 will allow Duke Energy to incorporate these savings into programs that
23 will benefit customers.

1 Operational Excellence: This metric is broken into two equally
2 weighted measures, Reliability and Safety/Environmental. This objective
3 emphasizes service reliability and the mitigation of environmental risks
4 associated with our operations and motivates employees to provide
5 reliable and safe products and services to customers.

6 Reliability: The intent of this metric is to ensure that cost focus
7 does not sacrifice Duke Energy Kentucky's ability to provide reliable
8 service, which is expected by all customers. By including reliability in its
9 annual incentive metrics, employees are provided extra motivation to
10 ensure that the Company provides reliable service to its customers.

11 Safety/Environmental: This metric incorporates safety and
12 environmental stewardship into day-to-day activities, thus making the
13 safety of employees, customers, and communities a priority. The safety
14 and environmental goal payout will be determined by averaging the year-
15 end accomplishment of two goals: (i) Total Incident Case Rate (TICR),
16 which measures the number of occupational injuries and illnesses per 100
17 employees, including staff-augmented contractors; and (ii) Reportable
18 Environmental Events, which are environmental events resulting from
19 operations that have an impact on the environment, require notification
20 (verbal/written/electronic) to a regulatory agency, or result in a regulatory
21 citation or other enforcement action by a regulatory agency.

22 Customer Satisfaction: The incentive program also includes a
23 Customer Satisfaction goal, or CSAT, which measures the degree to which

1 customers have a favorable perception of an interaction, product, service,
2 or of Duke Energy overall. Achievement is based on Duke Energy’s Net
3 Promoter Score (NPS), which is captured through its proprietary survey.
4 Duke Energy fosters a customer-centric culture, and the customer
5 satisfaction goal is intended to keep customers central to all that Duke
6 Energy does across the company, regardless of where its employees work.

7 Climate: In 2022, the SMC comprised of Duke Energy Chair,
8 President and CEO Lynn Good and her direct reports, also have a climate
9 metric. This quantitative climate goal focuses on the growth of our non-
10 emitting generation and storage capacity measured over a one-year period
11 in comparison to pre-established objective performance criteria. This goal
12 is not dependent on any retirements of existing coal plants.

13 Team/Individual: In addition to these corporate metrics, the
14 performance of non-leadership employees is assessed against pre-
15 determined “team” goals set by their business units. The team goals
16 directly benefit customers by tying employee compensation to reliability,
17 outage frequency, time required to restore service, lost-time accidents,
18 customer satisfaction scores, O&M expense levels, and capital
19 expenditures. These goals are typically tactical and operational goals that
20 align the work of each team to Duke Energy’s overall priorities. Team
21 goal results establish a pool of dollars allocated at the discretion of
22 managers among employees based on their individual performance and
23 contributions to the team.

1 Finally, leadership employees below the SMC are assigned individual
2 goals. The individual goals are intended to motivate the executive leadership
3 members to advance strategic and operational objectives and are generally aligned
4 to the business in which they operate. Superior performance relating to these team
5 and individual goals directly benefits Duke Energy Kentucky customers through
6 safe and reliable service, customer service quality, and low energy costs.

7 **Q. PLEASE DESCRIBE THE UEIP.**

8 A. The UEIP is available to union employees of Duke Energy Kentucky and its
9 affiliated companies. Employees participating in the UEIP may not also
10 participate in the STI program offered to the general employee population
11 described in the previous question. The purpose of the UEIP is to attract, retain
12 and motivate employees, enhance teamwork and high levels of achievement, and
13 to facilitate the accomplishment of specific corporate and business unit goals.
14 These goals benefit the customer similar to the annual STI – by motivating
15 employees to excel at such goals as customer satisfaction, safety, reliability, and
16 financial stewardship, high performance becomes part of the culture and
17 employees are motivated to exhibit the behaviors require to meet the goals and
18 deliver the highest value to customers at a reasonable cost. In addition, the UEIP
19 is a necessary component of the total compensation package for union employees
20 that attracts and retains the critical skills necessary to provide safe, efficient, and
21 reliable service to customers. Union employees include many of the back-office
22 personnel, including administrative and clerical employees, as well as customer
23 care associates, meter readers, and employees who construct and maintain the

1 Company's electric distribution system. All are functions that are critical to
2 reliable customer service.

3 The UEIP is a short-term incentive opportunity that allows union
4 employees to receive cash payments if the Duke Energy attains certain corporate
5 performance goals and/or if their group attains certain operational performance
6 goals during a calendar year. The UEIP award levels consist of a percentage of
7 the employee's base and overtime earnings and is based upon the achievement of
8 corporate and business unit goals, such as financial results, safety, and customer
9 satisfaction. The award levels for employees participating in the UEIP may also
10 vary based upon the employee's participation in the various retirement programs.
11 All union employees who participate in a cash balance feature under a Duke
12 Energy sponsored pension plan or who do not participate in a Duke Energy
13 sponsored pension plan are eligible for up to a five (5) percent maximum annual
14 incentive payment. Employees who participate in a final average pay feature
15 under a Duke Energy sponsored pension plan are eligible for up to a two (2)
16 percent maximum annual incentive payment. Additionally, regardless of which
17 retirement program they participate in, represented employees are eligible for a
18 safety adder equal to five (5) percent of their incentive payouts if there is no
19 significant operational event.

20 **Q. PLEASE DESCRIBE THE LTI COMPONENT OF INCENTIVE PAY.**

21 A. At a high level, Duke Energy's LTI programs provide equity-based compensation
22 (i.e., stock awards) to executive and leadership-level employees. Compensation
23 including stock awards aligns these employees' interests with the long-term

1 interests of Duke Energy, including its customers. The goal of the LTI programs
2 is to attract and retain high-caliber leaders by providing a competitive
3 compensation package and to encourage leaders to make sound business decisions
4 from a long-term perspective. Stock awards are an important component of a
5 compensation package that is reviewed annually to ensure ongoing
6 competitiveness. Duke Energy's LTI opportunities generally vest over a period of
7 three years, focusing executives on long-term performance and enhancing
8 retention.

9 **Q. WHAT SPECIFIC LTI PROGRAMS ARE OFFERED BY DUKE**
10 **ENERGY?**

11 A. Duke Energy has two LTI programs. One program is an Executive LTI program,
12 called the Executive LTI Plan, which is reserved for the most senior executives,
13 including the SMC which includes the CEO and her direct reports, and members
14 of the Enterprise Leadership Team ELT, which includes approximately 100 of the
15 top leaders within Duke Energy below the level of the SMC. The second LTI
16 program, the Restricted Stock Unit (RSU) Program, is available to other strategic
17 leaders below the ELT level who are responsible for the most critical
18 roles/responsibilities in each business group (population generally ranges between
19 2-3 percent of the total Duke Energy employee population). The Executive LTI
20 Plan brochure and the Restricted Stock Award Summary are included as
21 Confidential Attachment JJS-3(c) and Attachment JJS-3(d), respectively.

22

1 **Q. PLEASE DESCRIBE THE EXECUTIVE LTI PLAN.**

2 A. The Executive LTI Plan is designed to drive an ownership mindset for
3 participants and ensure accountability for making short- and long-term strategic
4 decisions. For 2022, participants in this program have 70 percent of their target
5 LTI opportunity awarded as performance shares and 30 percent of their target LTI
6 opportunity awarded as restricted stock units (RSUs).

7 Performance Shares: The performance shares granted in 2022 incorporate
8 three performance goals: (1) cumulative adjusted EPS, (2) Total Shareholder
9 Return (TSR) compared to companies in the Philadelphia Utility Index, and (3)
10 Total Incident Case Rate (TICR), which (as indicated above in my discussion of
11 STI metrics) is a measure of operational safety – a factor of great importance to
12 Duke Energy and its customers. Similar to the payout associated with meeting
13 STI goals, payout of performance shares occurs only if pre-defined performance
14 metrics related to the goals are met, but in the case of the performance share
15 awards the goals must be met over a three-year vesting period. The multi-year
16 vesting period ties the number of performance shares participants ultimately earn
17 to Duke Energy’s long-term performance, and this correlates to long-term value.
18 Executive LTI Plan participants must generally continue their employment with
19 Duke Energy for a three-year period to earn a payout.

20 RSUs: The other 30 percent of Executive LTI Plan participants’ target LTI
21 opportunity is awarded as RSUs. Vesting of RSUs is solely tied to the
22 participants’ continued employment through vesting dates over a three-year
23 vesting period and is not dependent upon Duke Energy’s financial performance.

1 Participants who remain employed with Duke Energy through a vesting date
2 receive a share of Duke Energy common stock for each vesting RSU.

3 **Q. PLEASE DESCRIBE THE LTI PROGRAM AVAILABLE TO LEADERS**
4 **BELOW THE ELT LEVEL.**

5 A. Leaders below the ELT level participate in the RSU program and receive their
6 LTI value in the form of RSUs that vest equally over three years, thereby
7 encouraging retention of high-quality employees. The reward of these RSUs is
8 purely aimed at continued employment and is in no way tied to actual company
9 performance. Participation in the RSU plan is reserved for positions that meet at
10 least one of the following criteria:

- 11 • Position has significant responsibility for a broad area or function or
12 geographic region;
- 13 • The employee leads major projects or groups with substantial
14 enterprise or business unit strategic or financial impact;
- 15 • The employee is in a role that has decision-making authority that
16 impacts Company performance; and
- 17 • Position requires specialized expertise that is critical to business
18 operations or strategy development.

19 The RSU plan is an equally important component within the total
20 compensation package for eligible leadership positions (below executive level)
21 and is critical to maintaining market competitiveness and retaining key leadership
22 talent. These employees' base salary is set at such a level that, when factoring in

1 the retention-driven RSUs, the total package results in market-competitive
2 compensation.

3 **Q. HOW DO GOALS BASED ON MEETING EPS OR TSR BENEFIT**
4 **CUSTOMERS?**

5 A. In order to achieve earnings per share goals, Duke Energy must have strong cost
6 management, prudent investments, and operational excellence, all of which
7 benefit customers. Achieving EPS growth and consistent TSR benefits customers
8 by allowing the company to access capital markets on reasonable terms which
9 ultimately lowers the company's financing costs as Duke Energy continues to
10 conduct necessary maintenance of the system, invest in modernization of the
11 electric grid, and transforms the customer experience by providing customers with
12 more billing options, additional energy usage information, and new tools to help
13 manage and reduce energy costs.

14 **Q. WHY IS IT IMPORTANT TO PROVIDE INCENTIVE OPPORTUNITIES**
15 **AS PART OF EMPLOYEES' TOTAL COMPENSATION?**

16 A. Short-term incentive opportunities are components of market-competitive total
17 compensation that is necessary to attract and retain qualified employees. I believe
18 it is important to stress the fact that if Duke Energy did not provide incentive
19 opportunities to employees, the same target value of incentive compensation
20 would need to be added to base pay – which is paid regardless of Duke Energy's
21 performance – in order to maintain market-competitive compensation.

22 Similarly, Duke Energy's LTI programs are necessary components of
23 Duke Energy's compensation package for leaders. They allow Duke Energy to

1 attract and retain high-performing leaders who carry out its vision of leading the
2 way to cleaner, smarter energy solutions that are valued by customers. If the
3 Companies did not incorporate LTI as a part of the total compensation for these
4 leadership positions, it would require higher base salaries in order to provide the
5 same level of market-based total compensation. If an increase to base pay was not
6 made in place of the LTI component and the overall level of total compensation
7 was reduced, the Companies would not be able to effectively attract or retain the
8 experienced leaders necessary to direct the efforts of its employees and make the
9 best strategic decisions on behalf of the Duke Energy.

10 Put another way, whether it is through base pay or a combination of base
11 pay and incentives, Duke Energy must keep its overall compensation package
12 competitive in order to attract and retain a competent workforce. Incentive pay is
13 similar to the other costs related to providing electric service – it is a necessary
14 cost to provide customers safe and reliable service. In the competitive market for
15 talent, employees consider the total rewards package, including base pay,
16 incentive pay and benefits, as a key determinant in deciding whether to work for a
17 particular employer.

V. COST RECOVERY OF INCENTIVE PAY EXPENSE

18 **Q. WHAT INCENTIVE PAY EXPENSE DOES DUKE ENERGY KENTUCKY**
19 **PROPOSE TO RECOVER IN THIS PROCEEDING?**

20 A. Duke Energy Kentucky proposes to share its incentive plan expense between
21 shareholders and customers in a manner similar to what the Commission
22 previously approved in the Company’s most recent base rate cases, Case No.

1 2017-00321 and Case No. 2018-00261. In those cases, the Commission approved
2 recovery of incentive pay expense related to performance objectives such as
3 reliability, customer satisfaction and individual performance objectives. The
4 Commission disallowed recovery of incentive pay expense for earnings related
5 and stock based corporate performance objectives.

6 In Case No. 2019-00271 and Case No. 2021-00190, the Commission also
7 disallowed the portion of short-term incentive (STI) payments that “would only
8 be paid out in the event that a predetermined “circuit breaker” EPS value is met in
9 the fiscal year. However, in this rate case we seek recovery of all STI measures
10 except those that are earnings related and stock based. Even though we believe all
11 incentive expenses are prudent, benefit customers and are a component of market-
12 competitive pay, because of consistent Commission precedence to exclude
13 financial related and stock-based compensation from base rates, we have not
14 included these costs in this proceeding. We will describe further why we believe
15 that excluding additional costs subject to the “circuit breaker” is not appropriate.

16 **Q. DOES THE CIRCUIT BREAKER RESULT IN ALL STI PAYMENTS**
17 **BEING CONTINGENT UPON DUKE ENERGY CORPORATION**
18 **MEETING FINANCIAL METRICS?**

19 A. No. If actual EPS is greater than the EPS circuit breaker, all measures will be paid
20 out based on the scorecard. The circuit breaker, which is set between minimum
21 and target EPS, is designed to keep payouts affordable during years of extreme
22 financial hardship. Only if actual EPS is less than the EPS circuit breaker will
23 payouts for all measures, including the team component, be reduced and capped at

1 the EPS achievement. But again, this ensures the short-term incentive payout is
2 appropriate and affordable in the rare circumstances of extreme financial hardship
3 of the Company when the obligation to fund incentives is imprudent.

4 **Q. WHY IS THIS REASONABLE AND IN CUSTOMERS' BEST INTEREST?**

5 A. The circuit breaker is designed to keep payouts affordable during years of extreme
6 financial hardship. Based on our analysis and lessons learned from 2020, the
7 circuit breaker strikes a balance between rewarding strong operational
8 performance with providing a mechanism to keep incentive payouts affordable
9 during challenging years. It provides assurance that the Company will not make
10 incentive payouts when it is not financially prudent to do so. Importantly,
11 consistent EPS results allows the company to access the capital markets on
12 reasonable terms and ultimately lowers the company's financing costs, which
13 benefits our customers.

14 **Q. PLEASE FURTHER EXPLAIN DUKE ENERGY KENTUCKY'S**
15 **PROPOSAL FOR RECOVERY OF INCENTIVE PLAN EXPENSE.**

16 A. As shown above in Table 1: Summary 2022 STI plan, the STI continues to
17 include a weighting factor for achieving corporate EPS. In 2009, Duke Energy
18 added a weighting for achieving other goals such as O&M savings and reliability
19 targets that continue today. Adding reliability targets provides a balance between
20 the need to prudently manage costs and providing cost-effective, reliable and safe
21 service to our customers. In 2015, Duke Energy added customer satisfaction,
22 safety and environmental targets. Safety and environmental targets were added to
23 encourage positive behavior of employees in our day-to-day operations, and

1 customer satisfaction targets were added to keep customers central in all that we
2 do. In 2022, Duke Energy added the climate goal for SMC members to focus on
3 the growth of our non-emitting generation and storage capacity that is not
4 dependent on the retirement of existing coal plants. As previously explained,
5 these various performance measures included in the Companies' incentive plans
6 are designed to benefit customers. Accordingly, Duke Energy Kentucky proposes
7 to recover the following amount of incentive compensation costs, based upon
8 achieving target goal levels, in its revenue requirement calculation.

TABLE 2: SUMMARY OF INCENTIVE PLAN COMPONENTS

Incentive Plan	Incentive Plan Components	Weighting	Proposed Percentage Recoverable
STI – Non-Leadership	EPS	50%	0%
	O&M	5%	5%
	Reliability	5%	5%
	Safety/Environmental	5%	5%
	Customer Satisfaction	10%	10%
	Team	25%	25%
STI – Leadership (other than SMC)	EPS	50%	0%
	O&M	10%	10%
	Reliability	5%	5%
	Safety/Environmental	5%	5%
	Customer Satisfaction	10%	10%
	Individual Goals	20%	20%
STI – Senior Management Committee (SMC)	EPS	50%	0%
	O&M	12.5%	12.5%
	Reliability	12.5%	12.5%
	Safety/Environmental	12.5%	12.5%
	Customer Satisfaction	12.5%	12.5%
Non-Executive LTI	Restricted stock units	100%	0%
Executive LTI	Restricted stock units	30%	0%
	Performance shares (70%)		
	<ul style="list-style-type: none"> • Total Shareholder Return (TSR) relative to that of the companies in the Philadelphia Utility Index 	17.5%	0%
	<ul style="list-style-type: none"> • Cumulative adjusted Earnings Per Share (EPS) 	35%	0%
	<ul style="list-style-type: none"> • Total Incident Case Rate (TICR) 	17.5%	17.5%
UEIP	Various by union - based on EPS, safety, customer satisfaction, etc.	100%	100%

1 **Q. WHY DOES THE COMPANY’S PROPOSAL FOR INCENTIVE**
2 **COMPENSATION ASSUME REACHING 100 PERCENT OF TARGET**
3 **ACHIEVEMENT LEVELS?**

4 A. These are the accrued and budgeted achievement levels for the performance goals
5 for the STI, UEIP and the LTI. The 100 percent target achievement level is used
6 for the accruals and budget because this is what the Company expects to achieve
7 on average over time.

VI. BENEFIT PLAN DESIGN

8 **Q. WHAT IS DUKE ENERGY’S BENEFITS PHILOSOPHY AND HOW**
9 **DOES IT TIE INTO THE OVERALL TOTAL REWARDS PHILOSOPHY?**

10 A. At Duke Energy, we place a priority on attracting and retaining a diverse, high-
11 performing workforce. An important way we do this is by providing a
12 comprehensive, competitive total rewards package of pay and benefits that
13 includes base pay, incentive pay opportunities and benefits. Benefits are the non-
14 pay portion of an employee’s total rewards. Our benefit programs are designed so
15 that Duke Energy is able to maintain a highly trained, experienced workforce that
16 is capable of rendering excellent utility service. Retaining employees is important
17 for Duke Energy because the business involves complex processes such that
18 employees must receive long-term training to perform their jobs safely and
19 effectively. Generally, benefits are provided through one of two vehicles: health
20 and welfare benefit plans and retirement plans. Health and welfare benefit plans
21 include medical, dental, vision, life insurance, and disability plans. Retirement
22 plans include pension (limited to a grandfathered population) and 401(k) plans.

1 Duke Energy's retirement plans are designed to enable employees, through shared
2 responsibility, to accumulate sufficient resources to be able to transition into
3 retirement at the appropriate time. Employees' ability to retire at the right time
4 increases opportunities for the workforce as a whole, and also helps the utility
5 manage costs.

6 **Q. PLEASE DESCRIBE DUKE ENERGY'S EMPLOYEE BENEFIT**
7 **PROGRAMS.**

8 A. The benefit programs in which all eligible employees may participate include
9 medical, health savings account, dental, vision, flexible spending accounts,
10 employee assistance program, wellness, sick pay, short-term disability, long-term
11 disability (LTD), life insurance, accidental death and dismemberment and
12 business travel accident insurance. Retirement benefits include company
13 contributions and company matching contributions to employees' 401(k) plans to
14 promote the shared responsibility between the company and employees for
15 accumulating retirement resources.

16 **Q. PLEASE DESCRIBE DUKE ENERGY'S POST EMPLOYMENT**
17 **HEALTHCARE BENEFITS PROVIDED TO EMPLOYEES.**

18 A. Duke Energy is the result of a series of several acquisitions and mergers and has
19 worked hard at integration to minimize differences among legacy company
20 employee groups. This includes the post-employment benefits available to
21 employees when they retire. Newly hired employees will be eligible to enroll in
22 company sponsored pre-65 retiree medical, dental and vision benefits at
23 retirement on an unsubsidized basis by paying the full cost of coverage.

1 Additionally, Duke Energy provides retirees access to a retiree exchange program
2 for assistance with exploring options for coverage available on the individual
3 market as an alternative to Duke Energy-sponsored retiree coverage. They will
4 also have the option to convert or port their active life insurance to an individual
5 policy at retirement by paying the required premiums. Active employees who
6 were part of a closed group and eligible for a retiree healthcare subsidy towards
7 the cost of Duke Energy-sponsored retiree health care coverage were generally
8 transitioned to a common approach in the form of a pre-65 Health Reimbursement
9 Account (HRA) benefit. As Duke Energy periodically reviews healthcare trends,
10 we see that only 46 percent of employers provide access to pre-65 coverage to
11 current employees who will retire in the future and only 36 percent provide their
12 new hires a potential future retiree benefit. The figures are even lower for
13 companies that provide financial support for post-65 coverage for future retirees.
14 As Duke Energy's financial support of retiree healthcare has lessened over the
15 years, we have recognized that this is an area of concern for many employees. To
16 address this, we encourage employees who are enrolled in a High Deductible
17 Health Plan (HDHP) to contribute to a Health Savings Account (HSA) and
18 receive company matching contributions to save for their future retiree healthcare
19 costs.

20 **Q. HOW DOES DUKE ENERGY DETERMINE THAT THE EMPLOYEE**
21 **BENEFIT PROGRAMS THAT IT OFFERS ARE REASONABLE AND**
22 **NECESSARY?**

23 A. Duke Energy routinely examines its benefits to confirm how we compare with

1 national trends among comparable employers, and we consider the most effective
2 ways to serve our diverse workforce who reside in over 25 states. Because Duke
3 Energy is a company with a history of mergers and acquisitions, it tries to ensure
4 consistency and fairness among legacy company employee groups as well as
5 overall cost-effectiveness. Duke Energy benchmarks its programs against other
6 large employers from both the utility industry and general industry so that it is
7 positioned to attract and retain qualified employees needed to support customers.
8 Duke Energy leverages its consultants, vendor partners and nationally recognized
9 surveys to evaluate the competitiveness of its benefits and costs. Examples of
10 surveys include Willis Towers Watson's Financial Benchmarks Survey, Best
11 Practices in Health Care Survey, Emerging Trends in Healthcare Survey, and
12 Benefits Data Source. These surveys indicate that Duke Energy's benefit plans
13 and employee contributions are in line with its utility industry and general
14 industry peers, making them reasonable and necessary in order to compete with
15 other employers for qualified talent. Based on Duke Energy's reviews of the
16 competitiveness and reasonableness of its benefit programs and employee costs, it
17 routinely determines if any changes should be made.

18 **Q. WHAT PORTION OF THE HEALTH AND INSURANCE COSTS OF**
19 **BENEFITS DO EMPLOYEES PAY?**

20 A. For company-sponsored Vision, Supplemental and Dependent Life, Supplemental
21 and Dependent Accidental Death & Dismemberment (AD&D), and Optional LTD
22 insurance, the employee is required to pay 100 percent of the cost of group
23 coverage. The company pays 100 percent of the cost of Basic Life/AD&D, Basic

1 LTD and Business Travel Accident Insurance.

2 When designing medical plan options and determining employee cost
3 share, Duke Energy focuses on the total cost of coverage – not just the premium
4 (or contributions since medical and dental coverage is self-insured) that is
5 deducted from employees’ paychecks. Total cost of coverage includes the
6 additional out-of-pocket costs such as copays, deductibles and co-insurance.
7 Looking at only the premium does not provide the total picture of employees’ cost
8 share.

9 Duke Energy’s plans and cost share are designed to encourage good
10 consumer health care choices by providing opportunities for lower employee
11 premiums and higher out-of-pocket costs at the point of service so that the utilizers
12 of health care services are paying for it. For example, premiums for the high
13 deductible health plan (HDHP) options have higher costs at the point of service,
14 but lower premiums. Alternatively, the preferred provider organization (PPO)
15 option has lower costs at the point of service and higher premiums. 85.2 percent of
16 our covered employee population is enrolled in our HDHP options. For those
17 enrolling in a HDHP option, employees can make payroll contributions to an HSA
18 and Duke Energy matches employee contributions to their HSA each pay period
19 up to \$600 per year for individual coverage and \$1,200 per year for family
20 coverage for most employees.

21 Duke Energy employees’ total cost of medical coverage (premiums and
22 out-of-pocket costs) for 2022 is projected to be 28.9 percent, which falls between
23 that of employers in general industry (32 percent) and utility industry (28 percent).

1 For PPO dental coverage, the employee pays on average 37.2 percent of the
2 premium and 59.8 percent of the total cost of coverage (premium plus out-of-
3 pocket costs). When an employee enrolls in medical and dental coverage, he/she
4 may also cover his/her eligible dependents. Duke Energy subsidizes more for the
5 cost of employee coverage than for dependent coverage.

VII. BENEFIT COST MANAGEMENT CONTROLS

6 **Q. HAS DUKE ENERGY TAKEN STEPS TO CONTROL THE COST OF**
7 **EMPLOYEE BENEFITS?**

8 A. Yes. On an ongoing basis, Duke Energy reviews its employee benefits and costs in
9 an effort to keep costs reasonable, while continuing to provide benefits that are
10 sufficient to attract and retain employees. Employees pay a portion or all of the
11 cost for many of their benefits, so we strive to manage costs not just for the
12 Companies, but for employees as well. Periodically, benefit plan changes are
13 made, and other steps are taken to control costs. The following are some examples
14 of steps taken in recent years to control costs.

15 **Q. WHAT RETIREMENT PLAN EXPENSE DOES DUKE ENERGY**
16 **KENTUCKY PROPOSE TO RECOVER IN THIS PROCEEDING?**

17 A. The 401(k) plan is now our standard retirement plan that applies to all union and
18 non-union new hires. Duke Energy has taken significant steps to both control costs
19 and reduce the risk associated with its retirement plans by eliminating the pension
20 benefit for all new hires, including union new hires, and moving all non-union
21 pension eligible employees and the majority of union pension eligible employees
22 to a cash balance design.

1 We believe all retirement plan costs should be recoverable since our
2 retirement benefits are in line with industry benchmarks and are essential for the
3 retention of the critical job skills that are needed to provide safe, reliable and high-
4 quality service to our customers. However, to address the Commission’s previous
5 orders around the expense for employees receiving both a pension benefit and a
6 401(k)-retirement benefit, we are making a proforma adjustment to remove the
7 pension cost for employees who also receive 401(k) match. In addition, we are
8 making a proforma adjustment to remove supplemental executive retirement plan
9 (SERP) cost. We will not seek to recover these costs as part of the rate case.

**VIII. SCHEDULES AND FILING REQUIREMENTS SPONSORED
BY WITNESS**

10 **Q. PLEASE DESCRIBE SCHEDULES G-2 AND G-3.**

11 A. Schedules G-2 and G-3 consist of certain compensation and fringe benefit costs as
12 required as part of FR 16(8)(g). I provided this information to Duke Energy
13 Kentucky witness Mr. Grady “Tripp” S. Carpenter for his use in preparing the
14 forecasted financial data.

15 **Q. HOW DID YOU ESTIMATE THESE LABOR AND BENEFIT COST
16 CHANGES FOR THE FORECASTED PERIOD?**

17 A. I made reasonable estimates based on recent trends, current conditions, the market
18 studies by independent consultants that I discussed previously in my testimony,
19 and my previous experience with compensation and benefits matters. Based on
20 these considerations, I provided Mr. Carpenter with the following estimates for
21 the forecasted test period consisting of the twelve months ending June 30, 2024:

1 the union and non-union labor rate increases, the fringe benefit loading rates,
2 payroll tax, and indirect labor loading rates for union and non-union labor.

IX. CONCLUSION

3 **Q. WERE SCHEDULES G-2 AND G-3 AND ATTACHMENTS JJS-1**
4 **THROUGH JJS-3 PREPARED BY YOU OR AT YOUR DIRECTION?**

5 A. Yes.

6 **Q. ARE SCHEDULES G-2 AND G-3 AND ATTACHMENTS JJS-1**
7 **THROUGH JJS-3 TRUE AND ACCURATE COPIES OF THE**
8 **DOCUMENTS THEY PURPORT TO REPRESENT?**

9 A. Yes.

10 **Q. IS THE INFORMATION YOU PROVIDED TO MR. CARPENTER**
11 **ACCURATE TO THE BEST OF YOUR KNOWLEDGE AND BELIEF?**

12 A. Yes.

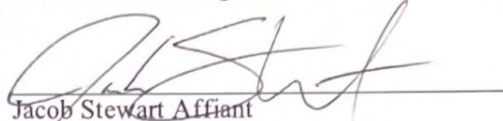
13 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

14 A. Yes.

VERIFICATION

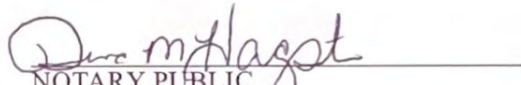
STATE OF North Carolina)
) SS:
COUNTY OF mecklenburg)

The undersigned, Jake Stewart, Director Health & Wellness, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony and that it is true and correct to the best of his knowledge, information and belief.


Jacob Stewart Affiant

Subscribed and sworn to before me by Jake Stewart on this 22 day of November 2022.




NOTARY PUBLIC

My Commission Expires: Aug 19, 2024

2022 Surveys

SURVEY CODE	SURVEY NAME
AON-EMT22	Aon Energy Marketing and Trading
AON-IEHRA22	Aon IEHRA Energy Industry
EMPS-WORKS22	Empsight The Works
FOU-ENV22	Foushee Environmental, Health & Safety
FOU-SEC22	Foushee Security & Compliance
GBS-AVI22	Gallagher Aviation
MER-HRM22	Mercer Benchmark Corporate Services and Human Resources
MER-ENG22	Mercer Benchmark Engineering & Design
MER-EXE22	Mercer Benchmark Executive
MER-FAL22	Mercer Benchmark Finance, Accounting & Legal
MER-ITS22	Mercer Benchmark Information Technology
MER-LSC22	Mercer Benchmark Logistics & Supply Chain
MER-SMC22	Mercer Benchmark Sales, Mktg & Comm
MER-CON22	Mercer Contact Center & Customer Service
PM-CYB22	Pearl Meyer Cyber Security, AI, Data Science – All Firms Only
RAD-GCD-JUL- DUKE22	Radford Global Compensation Database - July (Duke Energy)
TW-EMT22	WTW Energy Marketing and Trading
TW-EXE-ES-DUKE22	WTW Energy Services Executive (Duke Energy)
TW-MMPS-ES-DUKE22	WTW Energy Services Mid-Mgmt & Prof (Duke Energy)
TW-EXE-DUKE22	WTW General Industry Executive (Duke Energy)
TW-MMPS-DUKE22	WTW General Industry Mid-Mgmt, Prof & Support (Duke Energy)
WMG-UTIL22	Western Management Group Utilities

Agreement
between
Duke Energy Ohio, Inc
and
Duke Energy Kentucky, Inc

and

Utility Workers Union of America,
AFL-CIO, Local 600

2019-2023

AGREEMENT

Between the

Utility Workers Union of America, AFL-CIO, Local 600

and

Duke Energy Ohio, Inc.
Duke Energy Kentucky, Inc.

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AGREEMENT

Between the

Utility Workers Union of America, AFL-CIO, Local 600

and

Duke Energy Ohio, Inc.
Duke Energy Kentucky, Inc.

THIS AGREEMENT is entered into between the Utility Workers Union of America, AFL-CIO, Local 600, formerly the Independent Utilities Union, hereinafter referred to as the "Union," and Duke Energy Ohio, Inc., Duke Energy Kentucky, Inc., hereinafter referred to as the "Company," through and by their duly authorized representatives.

WITNESSETH: Whereas, the parties to the Agreement as are mentioned above are desirous of maintaining collective bargaining between the Employer and its Employees, as are represented by the Union as bargaining agent, and are desirous of stabilizing employment, eliminating strikes, lockouts, curtailment of employment, and the peaceful settlement of all employer and employee disputes, and of making an honest effort to improve the conditions of both the employer and the employees.

WHEREAS, it is deemed desirable and necessary that definite operations and practices between the Company and the employees of the Company represented by the Union be formally set forth and described, with a desire that uniformity of working conditions exist between the aforementioned Companies and such employees.

WHEREAS, the Company and the Union recognize that in order for the parties to meet the challenge of competition, the need for long term prosperity and growth, and establish employment security, each must be committed to a cooperative labor management relationship that extends from the bargaining unit members to the executive employees. The Company and the Union agree that employees at all levels of the Company must be involved in the decision making process and provide their input, commitment, and cooperation to improving productivity and helping the Company become the lowest cost producer and highest quality provider of energy service.

NOW, THEREFORE, the Company and the Union do hereby agree to the following terms and conditions, to-wit:

ARTICLE I

Section 1. (a) The Company hereby recognizes the Union during the term of this Agreement as the sole and exclusive representative of all regular full-time and part-time employees of the occupational classifications in the units defined as "The Office, Clerical and Technical Unit" and "The Residual Unit," as described in the Order issued by the National Labor Relations Board dated August 12, 1944 and amended by the National Labor Relations Board Order dated February 24, 1967. The units so defined shall retain jurisdiction over such work as was normally performed by them prior to this Agreement but such jurisdiction shall not be expanded except by mutual agreement of the parties hereto or through due processes under the National Labor Relations Act. A-14

(b) The Company recognizes the Union as the sole bargaining agent of the units contained in the preceding paragraph for the purpose of collective bargaining with respect to rates of pay, wages, hours of employment, or other conditions of employment, and the Company agrees to attempt to adjust any and all disputes, and any other matters, arising out of or pursuant to this Agreement, with the Union.

(c) This Agreement shall be final and binding upon the successors, assignees or transferees of the Union and the corporate entity of the Company.

Section 2. (a) The Company agrees not to interfere, restrain, coerce, or discriminate against any of the members of the Union, because of their membership in the Union, or because of their activity as a member or officer of the Union. Should reasonable proof of any such interference, restraining, coercion or discrimination by any person in a supervisory capacity against a member of the Union be shown to the Company by the Union, the Company agrees to take immediate corrective action in connection with such complaint. It is further agreed that no member shall be discharged because of his or her service, or lawful activity as a member of the Union, nor will the Company at any time attempt to discourage membership in the Union.

(b) There shall be no discrimination, interference, restraint or coercion by the Company or the Union or their agents against any employee because of race, color, religion, sex, disability, national origin or ancestry or for any other reason. References to the masculine gender are intended to be construed to also include the feminine gender wherever they appear throughout the Agreement.

(c) The Union recognizes that the management of the Company, the direction of the working forces, the determination of the number of people it will employ or retain in each classification, and the right to hire, suspend, discharge, discipline, promote, demote or transfer, and to release employees because of lack of work or for other proper and legitimate reasons are vested in and reserved to the Company. A-9

(d) The above rights of Management are not all-inclusive, but indicate the type of matters or rights which belong to and are inherent to Management. Any of the rights, powers, and authority the Company had prior to entering this Agreement are retained by the Company, except as expressly and specifically abridged, delegated, granted or modified by this Agreement.

(e) The foregoing two paragraphs do not alter the employee's right of adjusting grievances as provided for in Article VII, Section 1 of this Agreement.

Section 3. Respecting the subject of "Union Security," the parties mutually agree as follows:

(a) All regular employees in the bargaining unit represented by the Union shall be required as a condition of their continued employment to maintain their membership in the Union in good standing on and after the thirty-first (31st) day following the employee's date of hire. The Union shall notify the Company's Labor Relations Department of any members who are not in good standing as determined by the Union. For the purposes of this provision, "membership in good standing" shall mean being a full member or a core fee payer of the Union.

(b) The Union agrees that neither it nor any of its officers or members will intimidate or coerce any of the employees of the Company to join or become members of the Union, nor will said Union or any of its officers or members unfairly deprive any employee within the bargaining unit represented by the Union of union membership or of any opportunity to obtain union membership if said employee so desires. In this connection the Company agrees that it will not discriminate against any employee on account of activities or decisions in connection with the Union, except as the same may become necessary on the part of the Company to carry out its obligations to the Union under this Agreement.

(c) If a dispute arises as to the actual union status of any employee, at any time, as to whether or not the employee has been unfairly deprived of or denied union membership, the dispute shall be subject to arbitration, in accordance with the arbitration provisions of Article VII of this Agreement.

(d) The Company shall provide the Union with time to discuss with new employees the Union and the existence of the collective bargaining agreement. The Company will provide new employees with electronic and/or paper access to the collective bargaining agreement, along with the Union's "Membership Application" and the "Payroll Deduction Authorization" cards for Union dues or core fees, so that enrollment will be effective 31 days after being hired.

(e) Except for those employees mentioned in subsection (d) of this section and subject to all state and federal laws, all employees who are not members of the Union shall be required, as a condition of their continued employment, to pay to the Union the applicable core fees representing the percentage of the Union's expenses that are for representational and other legally chargeable activities.

(f) The Union agrees that any present or future employee who is now or may become a member of the Union may withdraw from membership in the Union by giving notice in writing to the Labor Relations Department of the Company and to the Union. However, the Union will not impose restrictions, which are prohibited by law, on employees who wish to withdraw from Union membership. After such withdrawal, an employee shall not be required to rejoin the Union as a condition of continued employment. Any such employee will remain obliged to pay the applicable core fees.

(g) The Company agrees to dismiss any employee represented by the Union, at the written request of the Union, for nonpayment of union dues or core fees or to discipline employees represented by the Union in the manner herein provided for violation of this Agreement, if requested to do so, in writing, by the Union. Nothing in this clause, however, shall be construed so as to require the Company to dismiss or discipline any employee in violation of any state or federal law.

(h) The Company agrees, after receiving proper individual authorizations by means of written individual assignments in a form mutually agreeable to both parties, to deduct Union dues or core fees and initiation fees from employees' pay. This deduction shall be made a mutually agreed upon number of times each year and shall be forwarded to the Treasurer of the Union.

(i) The Union agrees that in the event of any strike, work stoppage, slowdown, picketing or any other interference to the work or the operations of the Company by any individual employee or group of employees in the bargaining unit represented by the Union this section of the Agreement is then and there and by reason thereof automatically canceled and of no further force and effect; provided, however, that the Company shall upon the presentation of proof satisfactory to the Company, within ten days thereafter, that the Union did not directly or indirectly authorize, permit, endorse, aid or abet said strike, work stoppage, slowdown, picketing or interference referred to, reinstate this section of the Agreement, which section, if reinstated will, from and after the date of reinstatement, be of the same validity, force and effect as if it had not been canceled. In this connection, it is the expressed intention of the parties that for the purpose of making this cancellation provision effective without affecting the other sections of the Agreement, this Agreement is to be considered a severable agreement. Should the automatic cancellation of this section occur, it is the intention and agreement of the parties that all other sections and provisions of the Agreement remain in full force and effect as therein provided. The Company agrees that it will not deliberately arrange or incite such interference to the work or operations of the Company as are referred to in this section.

(j) The provisions of this Article I, Section 3(a) regarding Union Security, shall not be applied to bargaining unit members in any state in which such union-security provisions are prohibited by law. The parties agree that, if the current law changes to make such union security provisions applicable, or not applicable, to any employees covered by this Agreement, the Parties will deem the Agreement amended to comply with the then current law.

Section 4. The Company agrees that it will not attempt to hold the Union financially responsible or institute legal proceedings against the Union because of a strike, slowdown or work stoppage not authorized, abetted or condoned by the Union. The Union agrees that, in the event of an unauthorized work stoppage, it will in good faith and without delay exert itself to bring the work stoppage to a quick termination and insist that the employee(s) involved cease their unauthorized activities. To that end, the Union will promptly take whatever affirmative action is necessary. Furthermore, the Union agrees that any employee or employees who agitate, encourage, abet, lead or engage in such a strike, work stoppage, slowdown or other interference with the operations of the Company shall be subject to such disciplinary action as the Company may deem suitable, including discharge, without recourse to any other provision or provisions of the Agreement now in effect.

ARTICLE II

Section 1. The Company agrees to designate and authorize a representative or representatives to meet with The General Board of the Union. It is agreed that these meetings shall be held quarterly, at a time mutually agreed upon, and at any other time upon the written request of either party to this Agreement. These meetings will be held within seven days after such request is made.

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Section 2. The Company agrees to meet and confer with any special committee of the Union, duly appointed by the President to administer any activity relating to the welfare of the members of the Union.

ARTICLE III

Section 1. (a) This Agreement and the provisions thereof, shall become effective April 1, 2019 and shall continue in full force and effect until April 1, 2023, and from year-to-year thereafter unless changed by the parties.

(b) Either of the parties hereto desiring to change any section or sections of this Agreement and/or to terminate this Agreement shall notify the other party in writing of the desired changes at least 60 days prior to April 1, 2023 or any subsequent anniversary date. During this 60-day period, conferences shall be held by and between the parties hereto, with a view to arriving at a further Agreement, and in all events this Agreement shall remain in full force and effect during the period of negotiations.

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(c) In the event agreement is reached on or before April 1, the 2019 – 2023 Agreement will be extended for a mutually agreed number of calendar days. The Union shall have one-half of the mutually agreed number of calendar days immediately following the date an agreement is reached in which to submit the Agreement to its membership for ratification and in case of failure to ratify, in order that the Company shall have the remaining one-half of the mutually agreed number of calendar days as notice before a strike or work stoppage commences. Providing the mutually satisfactory Agreement is ratified by the

membership within the first one-half of the mutually agreed number of days following the date an agreement is reached, such Agreement will be made retroactive to the 1st day of April and any agreed upon wage adjustments will be made retroactive to the 1st day of April.

Section 2. It is agreed that this Agreement may be amended or added to at any time by the written consent of both parties hereto.

ARTICLE IV

Section 1. The Company agrees to do nothing to encourage an employee to bargain individually.

Section 2. The Company agrees that if a matter rightfully termed a Union activity is referred by an employee to his or her representative or delegate, and this is taken up with the supervisor or any one qualified or authorized to act for the Company, such Company representative shall not initiate, negotiate, or discuss this question with the employee without affording the representative or delegate of the division an opportunity to be present.

Section 3. Departmental supervisory personnel will notify the departmental union delegate when a significant change or condition affecting that department or a work group within that department is contemplated by the management of the particular department. Upon written request by the departmental union delegate or the President of the Union, a meeting shall be arranged between the Company and the Union to discuss such changes. When major organizational changes affecting personnel in various departments are contemplated, the Company agrees to notify the Union President, in writing, at least 14 calendar days in advance of the change, and, upon written request by the President of the Union, a meeting shall be arranged between the Company and the Union to discuss such changes.

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Section 4. Copies of bulletins issued by the Company concerning working conditions for any division or department represented by the Union, shall be forwarded to the General Board of the Union.

ARTICLE V

Section 1. The principle of seniority is recognized by the Company. There shall be two types of seniority defined as follows:

1. System service shall be based upon the length of time an employee has been continuously employed by the Company, and shall be the governing factor in establishing vacation dates.
2. Classified seniority shall be the length of time worked by an employee on a specific classified job.

3. Bargaining unit seniority shall be the length of time an employee has been (continuously) employed in a job position within the bargaining unit represented by the Union, and shall be the governing factor in the selection of vacation. The bargaining unit seniority list will be maintained by the Union based on information provided to the Union by the Company. The bargaining unit seniority list will be provided to the Company and used for the purpose of vacation selection beginning January 1, 2020.

It shall be considered a break in system service and seniority when an employee has been off the Company payroll, except when an employee has:

- (1) Been laid off because of lack of work and has not, at any time during the period of layoff or during a period not to exceed three years from the date of layoff, refused to return to work for the Company in a capacity formerly held or comparable to the capacity formerly held, by the employee. However, actual time away will be deducted from the employee's system service.
- (2) Been granted a leave of absence for good cause by consent of the Company, without loss of system service and seniority rights, providing the employees are available whenever necessary for the Company's medical examinations during the leave of absence. However, the employees will receive vacation in accordance with the second paragraph of Article IX, Section 5. Requests for leave of absence and consent hereto shall be in writing.
- (3) Entered the military service of the United States or has been conscripted by the United States Government. No deductions for time away shall be made from the employee's system service and seniority record.
- (4) Resigned voluntarily and subsequently been re-hired. Actual time away will be deducted from the employee's system service and seniority record, and, while previous system service shall be maintained, no classified seniority shall be retained.

Existing system service and seniority records shall not be rearranged to meet the above requirements in exceptions (1), (2) and (3), but they shall be met in all cases beginning March 21, 1983.

Section 2. (a) Job available postings for job classifications covered by this Agreement shall be provided by the Company and posted for a period of seven calendar days on the appropriate bulletin boards and/or on the Duke Energy Job Opportunities Portal page.

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(b) If after the initial posting the job opening has not been filled by a qualified applicant from the department or division, the job available notice will then be reposted for a period of seven calendar days on all bulletin boards throughout the Company where there are employees covered by this Agreement. In certain cases where it is known that

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there are no qualified applicants within a division or a department, the initial posting may be waived and the job posting will then be initially posted throughout the Company where there are employees covered by this Agreement. However, if applications are received from employees within the department requesting the job opening, these applications will be given consideration before those received from employees in other departments. Furthermore, anytime employees are accepted for a job opening on a lateral or cross bid, they shall not be eligible to laterally or cross bid again for a period of six months from the date of acceptance. The only exception to this six month waiting period is that employees may cross bid to another headquarters within the same bidding area at any time.

(c) It is agreed that classified seniority will be considered within a department, district or departmental section concerning available advancements, although other qualifications for the particular position will of necessity be considered. All other factors being sufficient, the employee oldest in the point of classified seniority shall be given a reasonable opportunity to qualify for the position.

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(d) Should the classified seniority of any two or more employees be equal, the respective seniority position of such employees shall be determined by the Union randomly drawing the names of the affected employees. The Company will be notified of the results, in writing.

In the event no fully qualified individual has bid on a Union wide job opening, the previous experience requirement only will be waived, with the exception of positions within the General Clerical sequence, and an employee will not be disqualified for promotion on the basis of not having passed through a lower job in the promotional sequence if otherwise qualified. Employees who have at least one half of the required previous experience and are in the direct promotional sequence of a job opening, posted Union wide, where previous experience has been waived, will be considered for the job before all other non-qualified employees. Any claim of discrimination in this connection may be taken up by the Union as a grievance.

(e) An employee may waive his right to promotion, providing such waiver is presented to the Company in writing and does not prevent other employees from acquiring experience in the job held by the employee. When an employee waives his right to promotion, the employee next in seniority, other qualifications being sufficient, shall be entitled to such promotion. When it is necessary to fill an open position, and no employees are willing to promote, the Company may assign the junior qualified employee to promote to the job classification.

(f) If no qualified regular full-time employee has been accepted following the posting procedure and consideration of requests for demotion, second consideration for non-technical job openings shall be given to part-time employees within the bargaining unit based on qualifications as determined by the Company. For technical job openings, the Company will give second consideration to part-time employees with a technical degree and/or technical expertise based on qualifications as determined by the Company. As a result of these determinations, if the top two or more part-time applicants have equal assessments, then the non-technical or technical job opening will be offered to the

applicant with the greatest system seniority.

(g) Should the job opening not be filled after the posting procedure above, at the discretion of management, consideration may be given to requests for transfer which have been received from employees outside the bargaining unit or may be filled from outside the Company.

(h) If the particular job opening is not filled within 60 days from the expiration date of the bargaining unit-wide posting, the job opening will be reposted in accordance with the job posting procedure outlined above.

(i) The job posting procedure outlined above does not restrict the Company's right to cancel a job posting at any time.

(j) An employee shall not have seniority rights to bid on a demotion but may, in writing by letter or by submitting a bid for a posted job opening, request consideration for a demotion. However, if an employee's request for demotion is granted by the Company, any accumulated classified seniority will be forfeited in job classifications above the job to which he demotes.

(k) The Company and the Union agree that the job posting procedure will be waived for the employment of Co-ops, as probationary employees in job classifications represented by the bargaining unit, providing that the next opening in the same job classification and bidding area is posted and made available to employees within the bargaining unit. If such opening is not filled by a bargaining unit employee, openings in the same job classification and bidding areas will continue to be posted and made available to employees within the bargaining unit until such time that a bargaining unit employee fills one of the openings.

Section 3. (a) In the event of any layoffs or curtailments of employment, the Company will attempt to place the employee in a temporary assignment. Prior to making an assignment, the Company will discuss such assignment with the Union. If a temporary assignment is not available, rollbacks and layoffs shall be made in accordance with system seniority rights. When the Company reduces the number of employees in a job classification, the Company will use the following process to determine rollbacks and layoffs. Employees with the least amount of System Service seniority within the job classification that is targeted for a reduction will be assigned to vacant positions and/or replace full-time employees in the bidding area with the least amount of System Service seniority. Displaced employees must be qualified for the job classification to which they are assigned and the job classification must be within the same bidding area and below their former job classification. Displaced employees will be reclassified into the next lower job classification within their bidding area for which they are qualified, if there are employees in that job classification and they have less system seniority than the displaced employees. Displaced employees will have their wage rates red-circled for a period of 18 months. At the end of 18 months, their wage rates will be reduced to the maximum wage rate of the job classification to which they were reclassified. Displaced employees who are assigned to perform work in lower level job classifications, if qualified, will be

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reassigned to higher job classifications as they become available within the bidding area, until the displaced employees return to assignments within their former job classification; obtain a job within the bidding area at the same or higher wage level as their former job classification; or, obtain a job in another bidding area. Displaced employees will not be assigned to or be required to perform the duties of job classifications at levels higher than their former job classification. Any employees unable to be assigned to vacant positions and/or replace full-time employees in the bidding area will be subject to layoff.

Part-time Meter Readers will be laid off before any full-time Meter Readers are rolled back or laid off. The same holds true for part-time and full-time call-takers in the Call Center.

Where multiple part-time employees in a job classification at the same location are scheduled to work a total of 40 or more hours per week, a qualified displaced full-time employee in the same bidding area may replace the part-time employees by accepting a full-time job at that location, if the department can still schedule straight-time coverage for the required hours.

For those full-time displaced employees with at least 15 years of service and subject to layoff, including employees who have been placed in a temporary position in accordance with this subsection, an effort will be made by the Company to find another job at the same or lower wage level for which the employee is qualified. The Company will discuss the employee's reclassification with the Union prior to it going into effect. If there are multiple displaced employees, vacant positions will be offered by system seniority; an employee has the right to turn down one offered position. An employee who turns down a position and who is not currently in a temporary assignment, could be subject to immediate rollback or layoff in accordance with this Section or to rollback or layoff at the end of the temporary assignment if no job is available. If the Company identifies such a vacant position for which the employee is qualified, the Company may reassign and reclassify the employee without posting the position. If no positions are identified by the Company the displaced employee, if qualified, will be allowed to displace the employee with the least amount of system seniority outside of the displaced employee's bidding area.

An employee unable to be reassigned and subject to being rolled back to the Call Center or Meter Reading Departments, will have the option of accepting the assignment in the Call Center or Meter Reading, being laid off, or being offered a severance as outlined in Sidebar Letter A-70. A-70

Displaced employees unable to displace full-time employees and subject to layoff, if qualified, will be allowed to replace employees in part-time positions within their bidding area, by accepting the wage rate, benefits, work hours and other terms and conditions of employment of the part-time employee. The two exceptions are Meter Reading and Call Center, where these employees may retain their full-time status and accept the wage rate applicable to new full-time employees in these departments. Full-time employees within the Customer Relations bidding area, but outside the Call Center and Meter Reading Departments, may displace a maximum of four part-time employees in each department (i.e., Call Center and Meter Reading) within a 12-month period.

Employees who were rolled back prior to April 1, 2012 and whose wage rates are red-circled will continue to have their wage rates red-circled.

An employee will not have the right to recede to a position within his bidding area that he did not pass through before reaching his present position. For purposes of this section, if an employee is unable to exercise system seniority rights in lower job classifications within his department because he did not pass through those job classifications before reaching his present position, he will be credited with system seniority in all job classifications lower than his initial job within the bidding area which are in the same direct promotional sequence. Under no circumstances may an employee exercise seniority rights outside his own bidding area or in the selection of a specific job within a classification.

(b) In a department where there have been layoffs and a subsequent increase in employment exists within three years, the Company agrees to recall those employees in the department who have suffered a layoff because of lack of employment, in the reverse order of the dates of their layoffs. It is further agreed that the Company will notify the employee or employees, in writing by registered or certified mail, to report back to work. The Company agrees to send a copy of these letters to the Union at the time of the mailing of the original. If they do not report back to work within a 15-day period, the Company shall have the right to recall the next employee in line.

(c) It shall be the duty of all employees, including those on layoff status, to have their proper post office address and telephone number on file with their individual departments and the Human Resources Department of the Company.

(d) The Union may designate a witness to tests given in a departmental section, and shall have the right to review the results of these departmental tests upon request. This does not apply to standard tests given by the Staffing Services Division or by outside consultants.

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(e) The Company will make an effort to find another job classification for which an employee is qualified if his job is abolished. An employee who, because of this job abolishment, is assigned to a classification having a lower rate of pay, will maintain his existing level of pay until the maximum wage rate of the job classification to which he is assigned is equal to his existing wage rate. This provision does not affect the right of an employee to bid on a future posted job opening for which he may be qualified.

Section 4. (a) Temporary transfers from one department, district, or departmental section to another will not affect an employee's system service or seniority rank(s) and his record will remain posted in the department, district, or departmental section from which he was transferred.

(b) Permanent transfers from one department, district, or departmental section to another will not affect an employee's system service or classified seniority, which will be used to determine his system service and seniority rank in his new department, district,

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or departmental section.

(c) When an employee has successfully bid on a posted job and his move to the posted job is delayed, consideration shall be given to the proper adjustment of the employee's seniority rank so that the employee will not be penalized with respect to future promotions. The employee will receive a seniority date and the wage rate of the job on which he has been accepted no later than the beginning of the third week after the employee is notified that he has been accepted for the new job.

Section 5. All new employees shall be classed as probationary for a period of one year and shall have no system service or seniority rights. After one year's service as a probationary employee, they shall be reclassified and their system service and seniority record shall include their previous employment as a probationary employee.

The probationary period of any employee on an approved leave of absence lasting more than thirty days, will be extended by the duration of the leave of absence.

Section 6. Temporary employees shall be those hired for a specific job of a limited duration, not to exceed six months unless agreed upon by both parties, and shall not acquire system service or classified seniority rights. The Union shall be notified of the hiring of such employees.

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Section 7. (a) Part-time employees shall be those hired to perform a continuing specific work requirement that is temporary in nature or less than 40 hours per week. Part-time employees will only be used for part-time applications in order to supplement the regular full-time workforce, unless otherwise agreed. While the intention is for part-time employees, who are non-temporary in nature, to be regularly scheduled to work less than 32 hours per week, the actual hours worked may be greater due to temporary operational needs or trading of hours with other employees. The departments utilizing part-time employees will develop schedules to be worked by such personnel. However, schedules for part-time employees may at times vary according to work needs. These employees will work in bargaining unit positions and will be paid the minimum wage rate for the job classification or at a specially negotiated rate. They shall not acquire classified seniority rights. Part-time employees may be laid off for any reason without recall rights. Such layoffs shall not be subject to the grievance procedure. Benefits for part-time employees shall be on a prorated basis as agreed to by the parties.

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(b) Part-time employees may request consideration for other part-time openings and may submit applications for openings in regular full-time positions. When part-time employees become full-time employees, they shall be credited with system service for the length of time they were employed by the Company as a part-time employee on or after January 1, 1996. For part-time employees who become full-time employees after April 1, 2008 and who have been employed as part-time for at least 12 consecutive months prior to becoming full-time, the probationary period shall be reduced from one year to nine months.

(c) The overtime provisions of this Agreement, including meal compensation, will only apply to part-time employees when they work in excess of their regular scheduled hours per day or eight hours per day, whichever is greater. Part-time employees will not be called out for overtime assignments unless all full-time available employees have been called. The total number of part-time employees, excluding those in the Call Center and Meter Reading work groups and those hired to perform a continuing specific work requirement that is temporary in nature, will not exceed 5% of the total number of full-time employees performing work represented by the Union.

Section 8. Employees promoted to a job outside the bargaining unit and who return to the bargaining unit within six months, shall retain all classified and bargaining unit seniority accumulated up to the date of their promotion. If employees who were in a job outside the bargaining unit for more than six months return to the bargaining unit they will be placed in a starting job classification and receive a classified seniority date behind all employees but shall retain all bargaining unit seniority accumulated up to the date of their promotion out of the bargaining unit. No employee may return to a bargaining unit job classification if management does not approve, a position is not available or if as a result, an employee represented by the Union would be laid off.

ARTICLE VI

Section 1. The parties hereto recognizing the importance of safety projects and regulations for the protection of the health, life and limb of all employees, agree to make all reasonable efforts to maintain such rules and regulations conducive to the health and safety of all concerned. The Company will notify the Union leadership of any work related accident resulting in the hospital admission or death of any employee in the bargaining unit.

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ARTICLE VII

Section 1. Any dispute or disagreement arising between an employee and the Company or the Union and the Company involving wages, hours or work, conditions of employment, or otherwise of any nature arising out of this Agreement may become the subject of a grievance. However, with respect to any claim or dispute involving the application or interpretation of an employee welfare or pension (includes defined benefit and 401(k) plans) plan, the claim or dispute shall not be resolved under the grievance procedure outlined herein, but instead, shall be resolved in accordance with the terms and procedures set forth in the relevant plan document. Additionally, should the content of any communication relating to employee benefits conflict with the terms of the relevant plan document, the terms of the plan document shall govern. Recognizing the importance of resolving disputes or disagreements in a peaceful and timely manner and at the earliest stage possible, grievances shall be processed in accordance with the following procedure:

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1st Step

An employee must take up any grievance initially with the supervisor involved, within 20 days of its occurrence or 20 days from the time the employee or the Union became aware of the occurrence. The initial meeting shall be held between the supervisor(s), the employee involved and the elected union representative or delegate. Grievances in this step shall be answered verbally at the meeting or within 5 days of the conclusion of the meeting. The supervisor will also inform the Union of the appropriate management person to notify in the event that the Union wishes to pursue the grievance to the second step.

2nd Step

If the parties are unable to resolve the grievance following the first step, within 10 workdays of the first step response, the Union may submit a written grievance to the management of the department designated in the first step. Department management will schedule a meeting with a small committee representing the Union within 20 workdays after receipt of the written grievance. A written decision will be sent by email and/or US Mail to the President of the Local Union within 20 workdays of the Step 2 meeting.

3rd Step

If the parties are unable to resolve the grievance following the second step, within 20 workdays of the second step response, the Union may notify the Labor Relations Department in writing of its desire to advance the grievance to the third step of the grievance procedure. The Labor Relations Department will schedule a meeting with the appropriate management representatives and a small committee representing the Union within 20 workdays after receipt of the written request. The Labor Relations Department will render a written decision within 20 workdays of the date of the third-step meeting. The written response will be sent by email or US Mail to the President of the Local Union.

In the case of a discharge, the Union may bypass the first step of the grievance procedure and submit a written grievance requesting a second step grievance meeting, within 10 days following the date of discharge.

Arbitration

Section 2. (a) If the parties are unable to resolve the grievance following the third-step, the Union, within 30 workdays of receipt of the third step response, may notify the General Manager, Labor Relations in writing of its desire to advance the grievance to arbitration.

(b) Upon receipt of the Union's notification, the parties within ten workdays will petition the Federal Mediation and Conciliation Service (FMCS) for a panel of seven arbitrators and will cooperate to select promptly an arbitrator from that list. In the event that no acceptable arbitrator appears on the panel of arbitrators submitted by FMCS, either party may request an additional panel from FMCS.

(c) The arbitrator so selected shall hold a hearing as promptly as possible on a date satisfactory to the parties. If a stenographic record of the hearing is requested by either party, the initial copy of this record shall be made available for the sole use of the arbitrator. The cost of this initial copy and its own copy shall be borne by the requesting party, unless both parties desire a copy. If both parties desire a copy, they shall equally share the cost of the arbitrator's copy, and shall each bear the cost of any copies of the record they desire.

(d) After completion of the hearing and the submission of the post-hearing briefs, the arbitrator shall render a decision and submit to the parties written findings that will be binding on both parties to the Agreement.

(e) The arbitrators' and other joint expenses mutually agreed upon shall be borne equally by both parties.

(f) Any grievance that is not taken to the next step within the time limits specified will be deemed to have been withdrawn. If at any step in the grievance procedure, the Company does not answer within the designated time frame, the Union may notify the Company of its desire to advance the grievance to the next step of the grievance procedure. Any time limits may be extended by written agreement between the parties.

(g) The arbitrator shall have no authority to add to, detract from, alter, amend, or modify any provision of this Agreement. It is also mutually agreed that there shall be no work stoppage or lockouts pending the decision of the arbitrator or subsequent thereto.

ARTICLE VIII

Section 1. (a) The parties hereto agree that the wage rate schedules in effect immediately prior to the execution of this Agreement shall be amended as follows:

MAXIMUM HOURLY WAGE RATES

		Clerical				
		As Of	Effective	Effective	Effective	Effective
		April 1,	April 1,	April 1,	April 1,	April 1,
		2018	2019	2020	2021	2022
	Base Increase	NA	2.50%	2.50%	2.50%	2.50%
Wage level	1	\$ 14.86	\$15.23	\$15.61	\$16.00	\$16.40
	2	\$ 16.43	\$16.84	\$17.26	\$17.69	\$18.14
	3	\$ 18.37	\$18.83	\$19.30	\$19.78	\$20.28
	4	\$ 18.37	\$18.83	\$19.30	\$19.78	\$20.28
	5	\$ 19.71	\$20.20	\$20.71	\$21.23	\$21.76
	6	\$ 21.52	\$22.06	\$22.61	\$23.17	\$23.75
	7	\$ 21.52	\$22.06	\$22.61	\$23.17	\$23.75
	8	\$ 23.88	\$24.48	\$25.09	\$25.72	\$26.36
	9	\$ 25.53	\$26.17	\$26.82	\$27.49	\$28.18
	10	\$ 27.45	\$28.14	\$28.84	\$29.56	\$30.30

Year	2018	2019	2020	2021	2022
Base Increase	NA	2.50%	2.50%	2.50%	2.50%
11	\$ 27.45	\$28.14	\$28.84	\$29.56	\$30.30
12	\$ 28.61	\$29.33	\$30.06	\$30.81	\$31.58
13	\$ 29.88	\$30.63	\$31.39	\$32.18	\$32.98
14	\$ 30.97	\$31.74	\$32.54	\$33.35	\$34.19
15*	\$ 31.66	\$32.45	\$33.26	\$34.09	\$34.95
16*	\$ 32.33	\$33.14	\$33.97	\$34.82	\$35.69
17*	\$ 33.96	\$34.81	\$35.68	\$36.57	\$37.49

* Specially negotiated rates not subject to the Wage Evaluation Committee.

		Meter Reading				
		As Of	Effective	Effective	Effective	Effective
		April 1,	April 1,	April 1,	April 1,	April 1,
		2018	2019	2020	2021	2022
	Base Increase	NA	2.50%	2.50%	2.50%	2.50%
Wage level	MR1	\$ 18.32	\$18.78	\$19.25	\$19.73	\$20.22
	MR2	\$ 18.52	\$18.98	\$19.46	\$19.94	\$20.44
	MR3	\$ 21.75	\$22.29	\$22.85	\$23.42	\$24.01
	MR4	\$ 25.79	\$26.43	\$27.10	\$27.77	\$28.47
	MR5	\$ 27.72	\$28.41	\$29.12	\$29.85	\$30.60
	MR6	\$ 19.81	\$20.31	\$20.81	\$21.33	\$21.87

		Call Center and Revenue Services				
		As Of	Effective	Effective	Effective	Effective
		April 1,	April 1,	April 1,	April 1,	April 1,
		2018	2019	2020	2021	2022
	Base Increase	NA	Max Rate	Max Rate	Max Rate	Max Rate
Level	C2*	\$ 16.00	\$16.00	\$16.40	\$16.81	\$17.23
	C3**	\$ 15.08	\$15.08	\$15.08	\$15.08	\$15.08
	C4**	\$ 13.00	\$13.00	\$13.00	\$13.00	\$13.00
	C5**	\$ 18.50	\$19.00	\$19.00	\$19.00	\$19.00
	C7*	\$ 19.00	\$19.50	\$19.50	\$19.75	\$19.75

*Eligible for the annual wage increase.

** Not eligible for the annual wage increase.

Employees at the maximum rate of pay will receive the annual wage increase applicable to Clerical employees in the form of a lump sum.

		Manual				
		As Of	Effective	Effective	Effective	Effective
		April 1,	April 1,	April 1,	April 1,	April 1,
		2018	2019	2020	2021	2022
	Base Increase	NA	2.50%	2.50%	2.50%	2.50%
Wage Level	7	\$ 29.36	\$30.09	\$30.84	\$31.61	\$32.40
	10	\$ 27.80	\$28.50	\$29.21	\$29.94	\$30.69
	12	\$ 31.69	\$32.48	\$33.29	\$34.12	\$34.98
	16	\$ 31.69	\$32.48	\$33.29	\$34.12	\$34.98

		Technical				
		As Of	Effective	Effective	Effective	Effective
		April 1,	April 1,	April 1,	April 1,	April 1,
		2018	2019	2020	2021	2022
	Base Increase	NA	2.50%	2.50%	2.50%	2.50%
Wage Level	1	\$ 23.42	\$24.01	\$24.61	\$25.22	\$25.85
	2	\$ 25.58	\$26.22	\$26.88	\$27.55	\$28.24
	3	\$ 28.38	\$29.09	\$29.82	\$30.56	\$31.33
	4	\$ 30.39	\$31.15	\$31.93	\$32.73	\$33.55
	5	\$ 32.66	\$33.48	\$34.32	\$35.17	\$36.05
	6	\$ 34.09	\$34.94	\$35.81	\$36.71	\$37.63
	7	\$ 35.50	\$36.39	\$37.30	\$38.23	\$39.19
	8	\$ 36.83	\$37.75	\$38.69	\$39.66	\$40.65
	9	\$ 37.89	\$38.84	\$39.81	\$40.81	\$41.83
	10*	\$ 39.68	\$40.67	\$41.69	\$42.73	\$43.80
	11*	\$ 40.75	\$41.77	\$42.81	\$43.88	\$44.98
	12*	\$ 41.81	\$42.86	\$43.93	\$45.02	\$46.15

* Specially negotiated rates not subject to the Wage Evaluation Committee.

		CPC				
		As Of	Effective	Effective	Effective	Effective
		April 1,	April 1,	April 1,	April 1,	April 1,
		2018	2019	2020	2021	2022
	Base Increase	NA	2.50%	2.50%	2.50%	2.50%
Level	CP1	\$ 29.09	\$29.82	\$30.56	\$31.33	\$32.11
	CP2	\$ 34.30	\$35.16	\$36.04	\$36.94	\$37.86
	CP3	\$ 41.81	\$42.86	\$43.93	\$45.02	\$46.15

		IT				
		As Of	Effective	Effective	Effective	Effective
		April 1,	April 1,	April 1,	April 1,	April 1,
		2018	2019	2020	2021	2022
	Base Increase	NA	2.50%	2.50%	2.50%	2.50%
Level	IT1	\$ 39.68	\$40.67	\$41.69	\$42.73	\$43.80
	IT2	\$ 34.12	\$34.97	\$35.85	\$36.74	\$37.66
	IT3	\$ 28.85	\$29.57	\$30.31	\$31.07	\$31.85

(b) These wage rate increases shall not apply to the minimum wage rates of starting job classifications. Any changes to wage rates, including merit or general wage increases, will be applied beginning the first day of the pay period that includes the effective date of the increase.

(c) The wage increases mentioned above shall not apply to any employee whose present wage rate is on or above the new maximum wage rate of his job classification, except employees who are on physical retrogressions, who shall receive the increase applicable to their individual wage rate as of the indicated dates of increase.

(d) Manual employees shall be provided the higher of a \$10.00 promotional increase above the maximum wage rate of the job classification from which they promote, or the minimum wage rate of the job classification to which they promote. Clerical and Technical employees shall be provided the higher of a \$10.00 promotional increase or the minimum wage rate of the job classification to which they promote. This provision will not apply when the maximum wage rate of a job classification is not at least \$10.00 above the maximum wage rate of the job classification from which it promotes.

(e) Whenever the difference between the minimum and maximum wage rates of a job classification is not divisible by \$0.25, the intermediate wage rates will be by \$0.25 steps, with the exception of the last step to the maximum wage rate of the job. In such case the increase to the maximum wage rate will include the \$0.25 increment plus the odd amount necessary to equal the maximum wage rate, provided, however, that the total amount of this increase is less than \$0.50.

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(f) Any employee in the Union who was on or below the maximum wage rate of his job classification as of the indicated dates of increase shall receive the increase applicable to the maximum wage rate of his job classification.

(g) The shift differentials and Sunday premium paid to employees on scheduled shifts on classified jobs will be as follows:

Name of Shift	Definition of Shift	Shift Differential Cents Per Hour
		May 6, 2019 – March 31, 2023
Day Shift	Where the majority of the scheduled hours worked are between 8:00 a.m. and 4:00 p.m.	\$0.00
Afternoon Shift	Where the majority of the scheduled hours worked are between 4:00 p.m. and 12:00 Midnight	\$1.80

Night Shift	Where the majority of the scheduled hours worked are between 12:00 Midnight and 8:00 a.m.	\$1.85
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When the majority of the hours in a shift are on a Sunday, a Sunday premium will be paid to an employee for all scheduled straight time hours worked on that shift.

	As of May 6, 2019
Sunday Premium	\$2.05

(h) The nature of the work involved under each payroll classification shall be defined, as nearly as possible, by the Company and occupational classifications and job descriptions shall be prepared by the Company and be subject to review by the Union.

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(i) The Job Evaluation Committee of the Company will be responsible for evaluating all new or revised job classifications. The evaluation established by this Committee will be used to determine the maximum wage rate for each new or revised job classification. Results of the evaluation will be communicated to the Union at least two weeks before the effective date of the new or revised job classification.

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(j) The Union shall appoint a Classification Committee consisting of not more than five members who may review the evaluation and wage rate of any new or revised classification. The Union's Committee may, by request, meet with the Company's Committee as soon as possible at a mutually agreeable time, but within 30 days after the Union has been notified by the Company of the proposed new or revised classification, for the purpose of presenting any information relative to the evaluation of a new or revised classification. The Union will be notified after the Company's Committee has reviewed the information presented by the Union. All wage rates so established shall be final and binding and not subject to the grievance and arbitration procedure. However, if any revised wage rates are reduced as a result of the evaluation(s), they will not be placed into effect until the Company and the Union have had an opportunity to negotiate them during full contract negotiations, even though the revised job classification will be in effect. Employees, presently in, or promoting to, such job classifications will continue to receive wage adjustments in accordance with the other provisions of the Agreement just as if the wage rate had remained at the same level until a new Agreement is reached.

(k) When the Union believes that a new or revised job description does not adequately describe the principal duties and minimum qualifications necessary to provide a sufficient basis for evaluating that job description, a letter outlining the Union's suggested changes may be sent to the management of the appropriate department for consideration. However, there will be no recourse to the grievance and arbitration procedure because of the language of a job description or the evaluation of a job classification.

(l) Where the Union deems an employee to be improperly classified, it will be considered as a grievance and shall be handled under the grievance procedure described elsewhere in this Agreement.

Section 2. (a) With the exception of shift differential premium, and a holiday occurring during an employee's vacation, it is agreed that under no circumstances shall any section of this Agreement be interpreted to provide the pyramiding of a benefit or premium payment to employees covered by this Agreement. For example, no employee may claim sick pay while receiving vacation pay or holiday pay while receiving sick pay.

(b) It is further agreed that there shall be no interruption in the payment of one benefit in order that employees may receive payment for another benefit. For example, employees may not interrupt vacation to begin sick leave or interrupt sick leave to include a holiday. The only exceptions to this provision are that an employee's sick pay may be interrupted to include vacation pay and that vacation pay may be interrupted to include death in family pay as set forth in the Agreement.

Section 3. Pay Checks will be directly deposited into one or more bank accounts employees shall designate and authorize. Direct Deposit advices will be mailed to the employee's home address if he/she has elected to receive a printed copy. For any employee who specifically declines to authorize direct deposit, a paper check will be mailed to the employee's home address.

ARTICLE IX

Section 1. ABSENCE DUE TO SICKNESS, FAMILY CARE AND PARENTAL LEAVE. (a) Effective January 1, 2020, employees will be eligible for paid time off due to qualifying sick or family care reasons and, effective upon ratification of this Agreement for paid parental leave, on the same basis as the Company's general, non-represented employee population.

(b) After a part-time employee with 12 months of service or a full-time employee has been continuously disabled, subject to medical determination, and unable to return to work for more than seven consecutive calendar days, the employee will receive Short-Term Disability pay consisting of up to 26 weeks of pay per incident with payment based on the schedule below or until the employee is able to return to work, whichever occurs first.

Years of Service	Maximum Weeks at 100% Pay	Weeks at 66 2/3% Pay
0-1	None	All
1-5	10	Balance
6-10	15	Balance
11-14	20	Balance
15-20	26	Balance
21 or more	ALL	N/A

(c) After an employee has been continuously disabled, subject to medical determination, and is unable to return to work for more than 27 consecutive weeks, and has exhausted Short-Term Disability benefits, the employee will receive Long-Term Disability benefits as described in the Company's Long-Term Disability Plan Description.

Section 2. Compensation will not be provided for illnesses resulting from such causes as: illegal use of drugs or alcohol, willful intention to injure oneself, the commission of a crime, elective or cosmetic procedures not covered by the medical plan, the employee's refusal to adopt such remedial measures as may be commensurate with the employee's disability or permit reasonable examinations by the Company.

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Section 3. It is also mutually understood and agreed that the Company shall have the right to investigate and determine for its own satisfaction the bona fide nature of any illness for which pay is requested as well as the duration thereof. In order to facilitate the scheduling of the work forces, employees who will be absent from work are expected to notify the Company as soon as possible, but not later than one hour after their regular starting times and in the case of shift workers, one hour before the start of their shifts. Unless an employee submits a legitimate excuse for not reporting the cause of absence before the end of the first hour of such absence, the employee's claim for sick leave pay shall not begin until such notice is received.

Section 4. When employees have received all of the disability pay to which they are entitled under this Agreement they shall be granted, upon written request on a form provided by the Company, a "leave of absence" and shall not be eligible for further disability pay benefits until they have returned to steady employment.

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Section 5. (a) An employee accrues entitlement of 1/12 of their current year's vacation for each full month the employee is employed during the current calendar year or is on STD, or leave of absence. Any employee leaving the Company's service during any calendar year shall receive payment for any unused portion of accrued vacation for that current year. However, in the event of an employee's death, the estate of the employee will be paid the unused portion of the employee's total vacation allotment for the current year.

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Employees returning from military service will receive vacations with pay in the calendar year in which they return as follows:

Month in which Employee Returns to Company's Employment	Amount of Vacation Based on System Service of Employee
Up to and including June	Full
July, August and September	One-Half
After September	None

(b) In order for an employee to qualify for a vacation, the employee must have been ready, willing and able to work as a full-time regular or probationary employee during the calendar year the vacation is taken.

(c) The anniversary of employment shall determine the employee's vacation status. Every effort will be made to grant vacations at a time suitable to the employee, but should the vacation of an employee handicap the operations of the Company in any way, the Company reserves the right to require the vacation be taken at another time. Normally, preference shall be granted in the selection of vacation dates on the basis of system service.

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(d) Employees with less than one year of service with the Company shall be entitled to one day of vacation for each month worked, with a maximum of 10 total days.

(e) Employees with one year of service with the Company shall be entitled to a vacation of two weeks.

(f) Employees with seven or more years of service with the Company shall be entitled to a vacation of three weeks. Should the amount of work or other working conditions be such that the operations of the Company would be handicapped by granting of the third week of an employee's vacation, the Company reserves the right to require an employee to take his third week of vacation at such time that does not interfere with the operations of the Company.

(g) Employees with 15 or more years of service with the Company shall be entitled to a fourth week of vacation or payment of one week's wages (40 hours) at straight time in lieu thereof. The Company may also require such employees to take the fourth week of their vacation at such time as does not interfere with the operations of the Company.

(h) Employees with 21 or more years of service with the Company shall be entitled to a fifth week of vacation or payment of one week's wages (40 hours) at straight time in lieu thereof. The Company may also require such employees to take the fifth week of their vacation at such time as does not interfere with the operations of the Company.

(i) Employees with 32 or more years of service with the Company shall be entitled to a sixth week of vacation or, if required to work by the Company, payment of one week's wages (40 hours) at straight time in lieu thereof. The Company may also require such employees to take the sixth week of their vacation at such time as does not interfere with the operations of the Company.

ARTICLE X

Section 1. Regular employees entering the armed services of the United States or employees who are conscripted by the United States Government during a period of national emergency shall continue to accumulate full system service and full seniority and may return to their former position or one of equal pay and rank, provided they report for work with a certificate of satisfactory completion of military or governmental service within 90 days after their release from active service.

Section 2. (a) All Company sponsored life and AD&D insurance coverage for employees starting an approved military leave of absence will be continued for a period of at least 90 days after the employee's leave of absence begins with the same cost sharing as before the leave began.

(b) Company Group Life Insurance of employees returning to Company service within 90 days after their release from active service will be reinstated without physical examination or waiting period.

Section 3. None of the foregoing provisions in this Article shall apply to those employees who are not eligible for statutory re-employment rights.

ARTICLE XI

Section 1. (a) The following days are observed as regular holidays which will be recognized on the indicated dates. The Company may change the date for recognizing a holiday if the date indicated is changed by a legislative enactment or if the prevailing community practice is not consistent with the indicated date.

HOLIDAY	DATE RECOGNIZED
New Year's Day	January 1
Memorial Day	Last Monday – May
Independence Day	July 4
Labor Day	First Monday – September
Thanksgiving Day	Fourth Thursday – November
Day after Thanksgiving	Friday after Thanksgiving
Christmas Eve	December 24
Christmas Day	December 25

(b) If the recognized date of a holiday occurs on a Saturday or Sunday, the Company will have the option of either celebrating that holiday on another date which is consistent with community practice or paying eight hours of regular straight time holiday pay in lieu thereof for the holiday.

(c) Regular employees whose duties do not require them to work on holidays will be paid straight time. Regular employees who are scheduled to work on a recognized holiday will be paid at time and one-half for the first eight hours worked in addition to their straight time holiday pay. However, those employees who work less than the eight hours scheduled will have their straight time holiday pay correspondingly reduced.

(d) Regular employees who are called out to work on a recognized holiday for a period of four hours or less not contiguous with hours worked into or out of the holiday will be paid for four hours at time and one-half in addition to their straight time holiday pay. Employees who are called out to work on a recognized holiday for more than four hours not contiguous with hours worked into or out of the holiday but less than eight hours will be

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paid for eight hours at time and one-half in addition to their regular straight time holiday pay. Employees who are required to work more than eight hours on a recognized holiday will be paid at the rate of double time for all such work in excess of eight hours. An employee must work either his full scheduled day before, or his full scheduled day after a holiday to be entitled to receive holiday pay. An employee will not be compensated for travel time on a call-out which occurs on a regular holiday.

(e) When a holiday falls within an employee's vacation, the employee shall, at the discretion of the Company, either be allowed an additional vacation day at such time in the same year as shall be mutually agreed upon between the employee and his supervisor or shall receive eight hours additional pay to compensate for the loss of such holiday pay.

(f) An employee beginning a leave of absence will not receive holiday pay for holidays occurring after the last day worked except when the employee works the full calendar day immediately before a recognized holiday which is in the same pay period.

Section 2. (a) An employee who has completed six months of service with the Company shall be entitled to four compensated Personal days off and one compensated Diversity day off each calendar year. Requests for Personal/Diversity days should be made at least five calendar days prior to the date requested and must be approved by management. However, because of extenuating circumstances, a day off with less than a five calendar-day notification may be approved by an employee's supervisor; such approval will not be unreasonably denied. The Company reserves the right to limit the number of employees who can be off on a specific day. Individual departments will attempt to accommodate as many requests as possible to take a Personal/Diversity day or vacation day on Martin Luther King, Jr. Day, Presidents' Day, and/or Good Friday.

(b) If a Personal/Diversity day is not used during a year, it shall be lost and no additional compensation shall be granted. Any employee who resigns, retires or is discharged from the Company for any reason shall not receive compensation for any remaining Personal/Diversity days.

(c) Personal/Diversity days must be taken in full day increments. Paid Personal/Diversity days will not be considered as absences for purposes of an individual's attendance record.

ARTICLE XII

Section 1. (a) It is agreed that the present establishment of 40 hours per week of the Company will remain in effect, except in those divisions where longer or shorter hours are now being worked, and the Company guarantees employment of not less than 40 hours per week for 52 weeks of each year to all employees represented by the Union as bargaining agent, who are available and ready to work, and who are regular full-time employees of the Company, except those on a less than 40 hour basis now. No such employees shall be required to work more than 40 hours in any one week, consisting of seven days, nor more than eight hours in any one day except as hereinafter provided.

(b) Nothing in this section will affect in any manner the right of the Company to make temporary or permanent reductions in forces when considered necessary by the Company.

(c) Nothing in this Agreement shall be deemed to require the Company or the Union to commit an unfair labor practice or other act which is forbidden by, or is an offense under, existing or future laws affecting the relations of the Company with the employees bargained for by the Union.

Section 2. (a) The work week of an employee for payroll purposes and for determining off-days shall consist of seven consecutive days with a minimum of two scheduled off days and be from midnight Sunday to midnight the following Sunday. Employees working on a shift beginning two hours or less before midnight will be considered as having worked their hours following midnight.

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(b) Regular scheduled hours of work per day will be at straight time for regular scheduled work days, time and one-half for the employee's first scheduled off-day in the work week, double time for the employee's second scheduled off-day in the work week and time and one-half for any additional scheduled off-days in the work week. Any time in excess of the employee's regular scheduled hours per day will be paid at the rate of time and one-half except the employee's second scheduled off-day worked which will be paid at double time.

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(c) Employees required to work more than 16 consecutive hours will be paid double time for all time worked in excess of, and contiguous with, the 16 consecutive hours.

(d) Schedules for all employees will be based on the time prevailing in the City of Cincinnati.

(e) In no case will an employee be forced to take time off in lieu of overtime pay. The Company shall be the sole judge as to the necessity for overtime work, and the employee shall be obligated to work overtime when requested to do so. When overtime occurs in a group or department, where more employees are qualified and available to work than are necessary at the moment, the Company agrees to establish a system of selecting the employees who are to work, in a sincere effort to equalize overtime work. The employees will be notified in advance, whenever possible, when they are required to work overtime.

Section 3. (a) The Union recognizes the need for shift work and weekend work in order to provide for continuous operation, and overtime rates will apply as set forth in Article XII, Section 2.

(b) An employee who is transferred from his regular shift to another shift shall be notified of said transfer at least 24 hours prior thereto.

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Section 4. (a) Employees called out for other than planned overtime shall be paid a minimum of four hours at the appropriate overtime rate. Travel time of one-half hour each way will be allowed on a call-out when such call-out exceeds four hours of continuous work that is not contiguous with a regular scheduled shift. Employees will not be compensated for any travel time for planned overtime; or on a call-out when the employee is not released from work before his regularly scheduled shift; nor will travel time be allowed when overtime is worked continuously at the end of a regularly scheduled shift.

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(b) Planned overtime shall be defined as time worked upon notice to an employee given before leaving his headquarters or place of reporting, or in case of an off-day, during or before what would have been his scheduled hours on that day, that he is to report outside of his regular schedule on any succeeding day. Such time worked shall be paid for at the appropriate overtime rate but not for less than four hours unless such planned overtime extends into or directly follows the employee's regularly scheduled work day, when it shall be paid for at the appropriate overtime rate for the actual hours worked.

Section 5. (a) Employees working two hours or more in excess of their normal work day, shall receive a meal, or compensation in lieu thereof, and an additional meal, or compensation in lieu thereof, after each additional five hours of continuous overtime work over and above the original two hours mentioned above.

(b) Employees called out on either their scheduled off day, or four or more hours before his regularly scheduled starting time, shall be furnished a meal, or compensation in lieu thereof, for each contiguous five hour interval worked even though he works into his regularly scheduled work day.

(c) The meal compensation allowance referred to above shall be as follows:

Effective May 6, 2019 – March 31, 2023
\$11.50

Section 6. It is further agreed by the Company that any manual employee temporarily advanced to a higher classification shall receive the minimum rate of pay applicable to that classification if such work is for four hours or more. If such work is for more than four hours the employee shall receive the minimum rate of pay applicable to that classification for the remainder of the normal day worked. In the administration of this section of the Agreement, a temporary assignment shall be construed to mean any job assignment which is not expected to continue for more than 90 consecutive days.

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Section 7. (a) Employees in this bargaining unit temporarily assigned to a supervisory position outside the bargaining unit for four hours or more, shall receive \$1.50 per hour above the maximum rate of pay of either their job classification, or the highest rated job classification they supervise, whichever is greater. It is expressly understood that employees temporarily assigned to a supervisory position shall direct the flow of work and oversee the assignment and completion of work in accordance with applicable policies and procedures in the department. However, they shall not have any responsibility for making hiring decisions, issuing evaluations or discipline, or moving work currently performed by

other bargaining unit members into or out of any department.

(b) Employees promoted to a job outside the bargaining unit and who return to the bargaining unit within six months, shall retain all classified seniority accumulated up to the date of their promotion. If employees who were in a job outside the bargaining unit for more than six months, return to the bargaining unit, they will be placed in a starting job classification and receive a classified seniority date behind all employees. No employee may return to a bargaining unit job classification if, as a result, an employee represented by the Union would be laid off.

ARTICLE XIII

Section 1. (a) The Company agrees that upon his or her return to work from illness or disability, consideration will be given to the employee's physical condition, and, if possible, a less vigorous type of work will be granted at no reduction in the employee's regular pay for a temporary period to be determined by the employee's and the Company's physicians.

(b) If an employee with 15 or more years of service becomes physically unable to satisfactorily and safely perform the regular duties of his classification, an effort will be made by the Company to find work of a less strenuous nature for which he is qualified and to which the employee will be retrogressed. The employee's wage rate will be reduced by an amount equal to the semi-annual merit increase for the employee's job classification at the time of the assignment to a job of a lower classification and at six months' periods will be reduced by an amount equal to the semi-annual merit increase for the employee's job classification until the employee's wage rate is equal to the maximum wage rate of the job classification to which he has been retrogressed.

(c) If an employee with 10 to 14 years of service becomes physically unable to satisfactorily and safely perform the regular duties of his job classification, he may request a demotion to a lower classification requiring work of a less strenuous nature for which he is qualified to perform. If such a demotion is granted by the Company, the employee will be assigned to a lower classification and will have his wage rate red-circled until it is equal to the maximum wage rate of the job classification to which he has been demoted. Employees whose wages have been red-circled and who subsequently achieve 15 years of service will become retrogressed in accordance with paragraph (b) above.

(d) If an employee with less than 10 years of service becomes physically unable to satisfactorily and safely perform the regular duties of his job classification, he may request a demotion to a lower classification requiring work of a less strenuous nature for which he is qualified to perform. If such a demotion is granted by the Company, the employee will be assigned to a lower classification and will have his wage rate established at the maximum wage rate of the job classification to which he has been demoted.

Section 2. Injured employees who are unable to work because of an industrial accident will be paid a supplement in an amount equal to one half of the difference between what he/she would have received at regular work and the amount received as compensation for such injury, for a period not to exceed 26 weeks. This supplemental industrial accident compensation will begin after the initial seven calendar day waiting period and will continue for not more than 26 weeks of continuous disability. If, however, an industrial accident disability continues for two or more weeks, the employee will receive this supplemental industrial accident compensation for the initial seven day waiting period.

Section 3. Upon the death of the designated relatives of an employee, the employee, upon request, may be entitled to the stipulated maximum number of calendar days off for which the employee is entitled to receive regular pay for not more than the indicated number of consecutive working days, including the day of the funeral. No pay will be granted for regular scheduled off days.

Relationship	Maximum Consecutive Calendar Days Off	Maximum Consecutive Working Days Off With Pay
Spouse or Domestic Partner	7	5
Child/Step/Foster	7	5
Mother/Step/Foster	7	5
Father/Step/Foster	7	5
Brother/Step/Foster	7	5
Sister/Step/Foster	7	5
In-Laws (father, mother, brother, sister, son or daughter)	5	3
Grandchild/Step	5	3
Grandparent/Spouse's Grandparent	5	3
Any relative who resides in the employee's household.	7	5
Aunt/Uncle	5	3
Nephew/Niece	5	3

If an employee has reported to work and is notified of a death in the family and leaves the job, the day will not be charged as one of the consecutive working days for which the employee is entitled to receive regular pay.

ARTICLE XIV

Section 1. The Company agrees to erect bulletin boards at locations to be selected by the Union and the Company. The use of these boards is restricted to the following: notices of Union meetings, notices of Union elections, notices of changes within the Union affecting its membership, and any other notices issued on the letterhead of the Union. There shall be no other general distribution or posting by the members of the Union of pamphlets, or political literature of any kind, except as herein provided.

ARTICLE XV

Section 1. Any member or members not to exceed three members elected or employed by the Union whose duties for the Union require their full time shall be granted a leave of absence by the Company for six months and additional six months' periods thereafter, provided that each member is from a different promotional sequence or that the Company has granted permission for two members to be from the same promotional sequence. On return to the employ of the Company, such employees shall be employed at their previous classification or other higher classification within this unit for which they may be qualified.

ARTICLE XVI

Section 1. (a) The Company agrees to notify the Union of the contemplated hiring of any outside contractors to do work normally performed by regular employees covered by this Agreement. Such notification will be given if it is contemplated that the work will be in excess of 2,000 man-hours.

(b) It is the sense of this provision that the Company will not contract/outsouce any work which is ordinarily done by its regular employees if as a result thereof, it would become necessary to lay off any such employees.

Section 2. (a) Each employee shall have a specific headquarters for reporting for work. However, the right of the Company to effect transfers and reassignments to properly run its business is recognized.

(b) When it is necessary to temporarily assign employees to a headquarters other than their own or to a job site reporting location that is further from their home than their regular headquarters, these employees will be paid mileage at the prevailing rate based on the additional round-trip mileage employees are required to drive. No mileage compensation will be paid for the temporary assignment if the other reporting location is closer to the employee's home. Employees reassigned (non-temporary assignment) to a different headquarters will be paid mileage compensation during the first fourteen calendar days of the reassignment. A-15

(c) When an entire work group is assigned to a new headquarters, paragraph (b) of this Article shall not apply.

(d) Job site reporting and other temporary assignments will be offered on a voluntary basis. If there is an insufficient number of volunteers, assignments will be made on a junior qualified basis. When assigning the junior qualified, unusual or extenuating circumstances will be taken into consideration.

(e) Employees may be assigned to drive Company vehicles from and to the job site from home or sites close to home. If Company vehicles are used in such a manner, the mileage provisions for job site reporting are not applicable. An option to the mileage provision is that employees may, during a job site reporting assignment, pick up and return a Company vehicle to their regular headquarters, provided travel is on their own time.

ARTICLE XVII

Section 1. Witness Fees. Regular pay and reasonable or required expenses will be allowed employees who may be summoned or requested to testify for the Company.

Section 2. (a) Employees required to serve on a jury shall be compensated on the basis of their regular salary. Employees must report to work during the working hours when they do not need to be present for jury duty.

(b) An employee working on either a night or afternoon shift at a time when he is scheduled for jury duty, who is unable to postpone the jury duty until a time when he will be working on a day shift, may request the Company to assign him to a day shift schedule. Such a request must be made at least seven working days before the jury duty service is scheduled to begin. When the term of jury duty for such an employee has ended, he shall return to his normal working schedule.

ARTICLE XVIII

Section 1. RETIREMENT INCOME PLAN: (a) Eligible Union employees hired or rehired before January 1, 2016 will participate, or continue to participate, in the existing Cinergy Corp. Union Employees' Retirement Income Plan (the "Retirement Income Plan"); provided, however, that effective January 1, 2009, the cash balance feature provided under the Retirement Income Plan shall be amended to provide that all future pay and interest credits provided thereunder to eligible Union employees will mirror the pay and interest credits provided as of the date of this Agreement under the Duke Energy Retirement Cash Balance Plan (i.e., 4% - 7% depending on age and years of service), and as further amended under the terms set forth in the April 15, 2015 Letter Agreement titled "Amendment to A58 Retirement Plan Agreement. Employees hired or rehired on or after January 1, 2016 will not be eligible to participate in the Retirement Income Plan.

(b) It is agreed that the Company will not reduce the benefits and the Union will not request any change in the Retirement Income Plan until the expiration of the Agreement on April 1, 2019.

ARTICLE XIX

Section 1. Any insurance benefit plans under the Duke Energy Health & Welfare Benefit Plans not specifically referenced elsewhere in this Contract (i.e. life insurance, supplemental, accidental death and dismemberment and dependent life insurance) that the Company maintains and/or implements for the general non-unionized employee population shall also be provided to the bargaining unit employees at the same benefit levels, costs and plan design structure as for the non-unionized employees. The Company has the right to add, eliminate, and alter or to make any other changes to these insurance benefit plans or the employee costs for the plans, consistent with any changes it makes for the general, non-unionized employee populations.

ARTICLE XX

Section 1. HOSPITAL AND MEDICAL PLANS: (a) Health care coverage shall consist of the specially negotiated EPO Plan and shall remain in effect for the term of the 2008 – 2012 Contract. All terms of the specially negotiated EPO Plan, regarding plan design, covered services, premiums and other employee costs, shall be in accordance with the 2008 negotiations letter of agreement entitled “Health Care Benefits.” A-42
A42b

(b) Any other health care plans (medical or dental) that the Company unilaterally implements at its sole discretion for the general non-represented employee population shall also be provided to the bargaining unit employees at the same costs and plan design structure as for the non-represented employees. It is expressly understood that the right to add, eliminate, and alter or to make any other changes to these health care plans or to employee costs for the plans, is reserved to the Company.

(c) The Company's part of the premium will continue to be paid while an employee is receiving illness or accident compensation provided the employee was covered by such a contract immediately prior to their sickness or industrial accident.

ARTICLE XXI

Section 1. The level of benefit coverage within the medical, dental, flexible spending accounts, basic and additional life, long-term disability, and pension plans will remain substantially equivalent to the coverages mutually agreed upon during negotiations.

ARTICLE XXII

Section 1. (a) Eligible Union employees will participate or continue to participate in the existing Duke Energy Retirement Savings Plan (the “RSP”); provided, however, that (i) for eligible Union employees in the Cinergy Traditional Formula under the Cinergy Corp. Union Employees’ Retirement Income Plan (Retirement Income Plan), the matching contribution formula (rate and definition of eligible compensation) under the RSP will continue to be the formula in effect prior to January 1, 2009 (i.e. 100% match on pre-tax and Roth 401(k) contributions up to 3% of the participant’s eligible pay, 50% match on the A-58
A-58a

pre-tax and Roth 401(k) on next 2% of the participant's eligible pay, and an incentive match based on the attainment of corporate goals established by Duke Energy), (ii) for all other eligible Union employees, the matching contribution formula rate (rate and definition of eligible compensation) under the RSP will mirror the matching contribution formula provided under the RSP for all eligible union employees other than "Cinergy Traditional Employees" as of the date of this Agreement (i.e. 100% match on pre-tax and Roth 401(k) contributions up to 6% of the participants eligible compensation, with no incentive matching contribution opportunity), and (iii) for eligible Union employees who are not eligible for the Retirement Income Plan on or after January 1, 2016, the RSP shall provide the employer retirement contribution formula (rate and definition of total pay under the RSP that mirrors the employer retirement contribution formula provided for all participants who are not eligible to participate in a defined benefit pension plan (i.e.4% of total pay) as of the date of this Agreement.

(b) The RSP is contained in the existing Duke Energy Retirement Savings Plan as amended and restated effective January 1, 2014 and as amended by an amendment dated December 19, 2014.

(c) The Company hopes and expects to continue the RSP indefinitely, but must reserve the right to alter it or discontinue Company contributions to it for a time. However, under no circumstances shall any part of the corpus or income held by the Trustee of the RSP be recoverable by the Company or be used for or diverted to any purposes other than for the exclusive benefit of the employee participants or their beneficiaries as provided in the RSP.

IN WITNESS WHEREOF, the Utility Workers Union of America, AFL-CIO, Local 600, formerly the Independent Utilities Union, Cincinnati, Ohio and Duke Energy Ohio, Inc., Duke Energy Kentucky, Inc., do hereby, by their duly authorized agents, execute and sign this Agreement in duplicate on this 29 day of March, 2019.

DUKE ENERGY OHIO, INC.
DUKE ENERGY KENTUCKY, INC.

Amy Spiller
Amy Spiller
State President-Ohio/Kentucky

Stan Sherrill
Stan Sherrill
Vice President – Strategic HR Business
Solutions, Employee & Labor Relations

Jay R. Alvaro
Jay R. Alvaro
Director, Labor Relations

Lisa A. Gregory
Lisa A. Gregory
Manager, Labor Relations

Michael A. Ciccarella
Michael A. Ciccarella
Sr. Human Resources Consultant

Terri Barnes
Terri Barnes
Sr. Human Resources Consultant

UTILITY WORKERS UNION OF AMERICA,
AFL-CIO, LOCAL 600

Steve Kowolonek
Steve Kowolonek
President

Mike Hoffman
Mike Hoffman
Vice President

D.L. Wallace
D.L. Wallace
Secretary

Jueisha Boykin
Jueisha Boykin
Treasurer

Ilyana Long
Ilyana Long
Delegate

Camille Waller
Camille Waller
Delegate

Kelly Cooper
Kelly Cooper
Sr. National Representative
UWUA Region III



HISTORICAL SIDEBAR LETTERS 2019 – 2023

Between

Duke Energy Ohio, Inc.
Duke Energy Kentucky, Inc.

and

Utility Workers Union of America,
AFL-CIO, Local 600

Appendix A

Historical Documents Preserved And Made A Part Of This Agreement For Interpretation And Application

The index and marginal references in the Labor Agreement to documents in Appendix A are intended only for convenience in administering the Labor Agreement. The index and marginal references and Appendix A are not intended to list every document that could be applicable to any factual situation arising under a given Article or Section of the Labor Agreement. It is also not intended that each document referenced in an Article or Section will be applicable to any or all factual situations covered by the referenced Article or Section. No inferences, presumptions, or conclusions shall be drawn by the Company, the Union, or any arbitrator from the indexing of, a marginal reference to, or failure to reference any document listed in Appendix A.

Document Number	Document Date	Article	Subject
A-1	12/22/71	IX, 5(c)	Vacation Selection
A-2	07/16/74	V, 4(b)	Inter-Department Transfers
A-3	03/28/77	V, 2(c)	Multiple Posting System in Property Department
A-4	03/28/77	V, 3(d)	Testing Procedures When Employees Promote
A-5	04/13/12	IX, 4	Leaves of Absence
A-6	04/18/89	V, 6	Hiring Co-ops – Union Notification
A-8	04/13/12	IX, 5(c)	Partial Day Vacation Administration
A-9	04/18/89	I, 2(c)	Falsification and Tampering with Company Records
A-11	04/16/92	XI, 1(d)	Holiday Call-Out
A-12	04/16/92	XII, 2(a)	Flextime
A-13	04/16/92	XII, 3(b)	24 Hour Notice – Change of Shift
A-14	04/16/92	I, 1(a)	Reorganization of Distribution Operations Division
A-15	04/16/92	XVI, 2(b)	Out-of-Town Work or Training
A-17	04/13/12	XII, 2(a)	Four 10-Hour Day Guidelines
A-18	04/16/92	VII, 1(a)	Personal Attorneys
A-20	07/19/94	V, 2(e)	Gas Operations Trainer
A-32	04/14/15	II, 1 III, 1(b) VII, 1(a)	Time Off for Union Duties/Business
A-38	09/02/98	VIII, 1(i)	BOGAR Job Evaluation System
A-40	12/29/00	VIII, 1(e) VIII, 1(h) VIII, 1(i)	Manual, Clerical and Technical Job Classifications
A-41	05/14/03	VIII, 1(i)	Disconnect Non-Pay, Succession and Special Reads
A-42	06/10/04	XX, 1	Post-Retirement Medical
A-42a	04/13/12	XX, 1	Amendment to Sidebar Letter A-42 Post- Retirement Medical Benefits
A42-b	04/01/19	XX, 1	Amendment to Sidebar Letter A-42 and A42a Post-Retirement Medical Benefits
A-46	04/01/19	XII, 6	Temporary Upgrading in Clerical and Technical Jobs
A-48	04/01/19	V, 7(a) VIII, 1(a)	East Meter Reading
A-49	04/21/05	V, 3(a)	Interplant Seniority Rights
A-50	04/21/05	IX, 2	Treatment for Substance Abuse
A-51	04/21/05	XI, 2(a)	Personal/Diversity Day Requests
A-52	04/01/19	IX, 5(a)	Vacation Carryover
A-55	04/21/05	V, 3(a)	Job Elimination Situations
A-58	06/02/08	XXII, 1	Retirement Plan Agreement
A-58a	04/14/15	XXII, 1	Amendment to Retirement Plan Agreement

Document Number	Document Date	Article	Subject
A-59	06/02/08	Misc.	Sabbatical Vacation Bank and Vacation Credit Programs
A-60	06/02/08	Misc.	Union Employee Annual Incentive Program (UEIP)
A-60a	04/14/15	Misc.	Amendment to Union Employee Annual Incentive Plan (UEIP)
A-60b	04/01/19	Misc.	Amendment to Union Employee Annual Incentive Plan (UEIP)
A-61	04/01/19	V, 7(a) VIII, 1(a)	Cincinnati Call Center
A-62	06/02/08	Misc.	Part-Time Employee Benefits
A-64	04/01/19	VIII, 1(a)	Revenue Services Representatives
A-65	04/01/19	V, 2	Competency Based Selection
A-70	04/01/19	V, 3(a)	UWUA Severance Program
A-71	04/13/12	XII, 2(b)	Overtime Provisions
A-72	04/13/12		Outsourcing Affecting Job Elimination
A-73	11/16/09	Misc.	LIT Job Progression
A-74	03/31/11	XII, 4(a)	On Call Rotation – Local IT Support
A-76	12/20/12	XII, 2(b)	Foreign Utility Assistance
A-77	05/08/14	Misc.	Senior Work Management Support Specialist
A-79	04/14/15	Misc.	Separation of Delivery Operations and Gas Operations
A-80	04/14/15	Misc.	Global Positioning Systems (GPS)
A-81	04/14/15	Misc.	Engineering Specialist Progression
A-82	04/14/15	V, 2	Customer Relations Representative/Clerk C Positions
A-83	04/01/19	VI	Inclement Weather
A-84	04/01/19	XII, 2(a)	Alternate Work Schedule
A-85	04/01/19	Misc.	Gas Marketing Progression
A-86	04/01/19	Misc.	Lighting Specialist

THE CINCINNATI GAS & ELECTRIC COMPANY



December 22, 1971

Mr. Charles J. Neuhaus
Chairman
Independent Utilities Union
P.O. Box 1757
Cincinnati, Ohio 45201

Dear Mr. Neuhaus:

Reference is made to our discussion at a meeting on November 30, 1971 and to your letter of December 1, 1971, concerning a uniform vacation selection procedure for employees represented by the Independent Utilities Union.

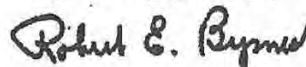
In accordance with our conversation, the Company will adopt the following vacation selection procedure's effective January 1, 1972:

Preference for the first two weeks of vacation to which an employee is entitled will be considered within a job classification at each particular work location on a system service basis. Employees entitled to more than a two week vacation may select that additional vacation on a system service basis after all eligible employees within the job classification at each particular work location have had an opportunity to select the dates for at least two weeks of their vacation.

It is emphasized that this procedure will in no way affect the Company's right to determine the number of employees who may take a vacation at any one time.

Please confirm that the procedure stated in this letter is satisfactory to the Union so that the various affected Company departments may be notified prior to January 1, 1972.

Very truly yours,



Robert E. Byrnes
Manager
Industrial Relations

A-1

(Due to the deteriorating condition of the original, this letter has been retyped.)

July 16, 1974

Mr. Charles J. Neuhaus
Chairman
Independent Utilities Union
P.O. Box 1757
Cincinnati, Ohio 45202

Dear Mr. Neuhaus:

During the 1974-1977 negotiation meetings, the committees of the Company and the Independent Utilities Union discussed interdepartment transfers to different job classification and lateral bids and their effect on classified seniority. The following procedure has been implemented as a result of the negotiations and subsequent discussions with representatives of the Union.

Individuals who laterally bid or transfer from one bidding area to another will receive classified seniority dates based on the dates they enter the new job classifications in the new bidding area. However, when an employee's move is delayed, consideration will be given to the proper adjustment of the employee's classified seniority rank so that the employee will not be penalized with respect to future opening within the new department. When such employees bid on future openings in the new department, they will be ranked on the basis of their classified seniority date in that bidding area. Should these employees bid on an opening posted outside their immediate bidding area, their wage level seniority will be used in determining their ranking for consideration on the posting. In accordance with past practice, departmental personnel will be given first consideration on an initial I.U.U. wide posting.

The only exceptions to the above procedures are for the following employees in the Customer Services Division of the Customer and Public Relations Department: Douglas Ray Deaton, Patricia L. Lindsay, and Ronald Eugene May. These employees, as was agreed during the negotiations, will be ranked according to wage level date on all promotional bids after they acquire the minimum work experience required for a promotion.

The procedure described in this letter applies only to transfers and lateral bids across bidding areas. Wage level seniority will continue to govern on lateral bids within a bidding area where specific procedures have previously been established.

The Company believes that the described procedures will conform with the agreement reached during the discussions at the 1974 negotiation meetings and will eliminate the potential for employees who transfer or laterally bid into another bidding area from subsequently acquiring more seniority than incumbent employees within the same classification. If the Union concurs with these arrangements, please initial and return the attached copy of this letter.

Very truly yours,

Robert L. Byrnes
Manager
Industrial Relations

cc: L. M. Dagenbach
R. G. Graham

A-2

(Due to the deteriorating condition of the original, this letter has been retyped.)

March 28, 1977

Mr. E. Edward Divine
Chairman
Independent Utilities Union
P.O. Box 1757
Cincinnati, Ohio 45201

Dear Mr. Devine:

During the 1977 negotiation meetings, the Company and the Union agreed to the introduction of a multiple posting system into the Property Department. This system is designed to speed up the process of filling job openings in the clerical and manual groups of the Department. For the purpose of posing job openings, accepting bids and selecting qualified applicants for job classifications bargained for by the Independent Utilities Union the existing northern, southern, eastern and western divisions of the Department will remain unchanged. Through multiple posting any known original job openings that the Company decides to fill will be listed on the posting. Any equal or lower level job that opens as a result of the original postings may be filled as a resultant available opening. In addition, any original job opening that becomes available during the posting period may also be filled as a resultant available opening. However, the Company must maintain the right to discontinue the filling of openings at any level of the procedure.

To clarify the procedures, the meaning of certain terms used herein are defined as follows:

A "posting" is the announcement of a job opening on the proper forms which are displayed on the bulletin boards of headquarters within the four divisions of the Property Department.

A "bid" is a written request of an employee on the proper form for consideration for an opening.

A "cross-bid" is a bid for an opening in the same job classification in another Division.

A "lateral bid" is a bid for an opening in a different job classification having the same maximum rate of pay.

A "promotional bid" is a bid for an opening in a job classification having a higher maximum rate of pay.

Any Property Department employee may submit a bid at any time. It is not necessary that a job opening be posted before a bid can be submitted. Only one promotional bid, one cross-bid or one lateral bid can be made on a single bid sheet. The bidder may also indicate on the bid sheet his preference for geographical division in numerical sequence. The bid sheet on file with the latest date as of the closing date of a particular posting will be used in processing that posting. It is imperative that the employee be continually aware of the bids he has on file, as well as his promotional opportunities. An employee accepted on a valid bid must accept the new job classification or new location.

Mr. E. Edward Divine
March 28, 1977
Page 2

To be valid, a bid must be made out in duplicate and signed by the bidder's supervisor on or prior to the closing date of a posting. One copy of the bid will be returned to the bidder and the other copy will be forwarded to the general office of the Property Department. All bids submitted in the beginning of a calendar year will be retained and used for processing all postings for the calendar year unless changed by the employee.

The acceptance of a bidder on a posting will invalidate all bids of that employee and the employee must submit new bids for consideration on future openings. Any individual bid can be invalidated (withdrawn) by submission of a similar bid with a later date or by the bidder submitting a bid sheet requesting cancellation of all previous bids. In addition, all bids become invalid on December 31 of any year. This will require new bids to be submitted on the first working day of each year or as soon thereafter as practical.

After a job posting has closed the ranking of applicants will be determined on the basis of qualifications, promotional sequences, and classified seniority. Bids will be considered in the following order:

1. Cross-bids
2. Lateral bids
3. Promotional bids

The successful applicant on lateral and promotional bids may be required to qualify by means of an examination if specified by the applicable job descriptions.

Requests for specific job assignments, locations, or shifts within a division may be made in writing to the supervisor in charge of that division. The supervisor will forward a copy of such request to the general office of the Property Department for filing. These requests will be considered by the division supervisor when an opening occurs and prior to the posting of such an opening. However, employees may not exercise their seniority to assure a particular job assignment, location or shift within a division. Requests for assignments will be retained in file until December 31 of any particular year and will be given consideration when job openings occur in the division in which the applicant presently works.

A "results of job opening" will be posted after all bids have been processed. This form will indicate the successful applicants, the headquarters, shift schedule, type of change and effective date. Any applicable payroll changes will be effective on the date which is designated on the multiple posting results sheet.

If, as the result of a job posting, an original opening or any resultant opening cannot be filled by an employee within the Property Department, that job may be posted Company wide.

In addition to permitting more than one cross-bid per posted opening, it is believed that this procedure will materially reduce the time required for the filling of job openings thereby expediting the promotion of employees. It is contemplated that this change in procedure in the Property Department will become effective on or about May 1, 1977.

Very truly yours,

Arthur R. Ehrnschwender

(Due to the deteriorating condition of the original, this letter has been retyped.)

March 28, 1977

Mr. E. Edward Divine
Chairman
Independent Utilities Union
P.O. Box 1757
Cincinnati, Ohio 45201

Dear Mr. Divine:

During the 1977 negotiations, the committees for the Company and the Union discussed the testing procedures which are utilized in many promotional sequences when employees promote.

In certain areas of the Company, an employee is tested on the basis of the job from which he promotes. In other instances, testing is based on the job into which an employee will progress and is given within a certain time interval before or after the employee is accepted. Further, the re-testing time interval for employees who do not successfully complete a promotional test varies in different departments. In certain areas of the Company, employees may be pre-tested for future promotional openings. The Union has requested that such advance testing be made available to employees for the next job in their promotional sequence even though an opening may not exist.

The Company is not opposed to advance testing in those situations where a supervisor agrees that such advance testing is in the best interest of all concerned. It must be realized, however, that in some areas of the Company, methods or technology often change so that advance testing is not practical, in such instances the material upon which an employee is tested may be altered substantially at the time an employee may ultimately be promoted. An employee who wishes to be considered for this advance testing should consult with his supervisor. The supervisor will appraise the employee if such testing is permissible and, if not, the supervisor will explain to the employee why his request may not be granted.

It is thought that this letter will clarify any misunderstanding that may have existed concerning advance testing.

Very truly yours,

Arthur R. Ehrmschwender

A-4



April 13, 2012

Mr. James Anderson
President
Utility Workers Union of America
IUU Local 600
810 Brighton Street
Newport, Kentucky 41071

Re: Leaves of Absence

Dear Mr. Anderson:

During 2012 contract negotiations, the parties discussed Sidebar Letter A-5 dated April 10, 1986 regarding good cause for granting leaves of absence. The parties recognized that there have been significant legal developments since 1986, including but not limited to passage of the Family Medical Leave Act (FMLA) and the Uniformed Service Employment and Reemployment Rights Act (USERRA). Given these and other similar developments, the parties agreed to replace the April 10, 1986 Sidebar Letter as set forth herein.

The Company understands that employees may need to be away from the workplace at times for legitimate reasons. The Company further recognizes that time away from work is important to maintaining a healthy work-life balance. At the same time, the Company depends on a responsible and dependable workforce to serve its customers and meet its business goals.

To balance these interests, the Company provides leaves of absence for qualifying reasons, such as for new parents, medical issues (experienced by the employee or eligible family members), military service, caregivers, education, and other personal reasons deemed by the Company or its third party administrators to justify a leave of absence. Leaves of absence may be granted for up to a maximum of six (6) months, or as otherwise set forth in the applicable summary plan description.

All leaves of absence are provided in a manner consistent with applicable laws. To the extent that a leave of absence provided by the Company is over and above the employee's legal entitlement, it is recognized to be a privilege and not a right of the employee. Such leaves are granted at the discretion of the Company. While never desirable, an employee's absence in most situations can be tolerated more so during certain times of the year than other times.

It is difficult to enumerate the variable circumstances under which employees may be granted personal leaves of absence. The Company evaluates each request on an individual basis in light of the surrounding circumstances specific to such request. For

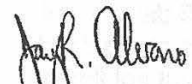
A-5

example, leaves of absence will not be granted for individuals who are absent due to incarceration or for individuals who want to try full-time employment elsewhere.

Employees are expected to cooperate with providing supporting documentation in a timely and truthful manner as needed by the Company and/or its third party administrators to manage the leave process consistently. Employees also are expected to keep their management apprised of their return-to-work status and any work-related restrictions prior to returning to work. Advance notice of the employee's return-to-work date and of any work-related restrictions is necessary for business planning and to ensure compliance with applicable laws.

It is believed that this letter accurately describes the parties' agreement.

Very truly yours,



Jay R. Alvaro
Vice President, Labor Relations

CG&E The Energy Service Company

The Cincinnati Gas & Electric Company
P.O. Box 960 Cincinnati, Ohio 45201-0960

Robert E. Byrnes
Senior Vice President

April 18, 1989

Mr. Patrick G. Bradford
Chairman
Independent Utilities Union
P. O. Box 1757
Cincinnati, Ohio 45201

Dear Mr. Bradford:

During the 1989 negotiations, the parties discussed the possibility of the Company notifying the Union of the initial employment of co-ops in two year Associate Degree programs.

As agreed during these negotiations, Department Managers will attempt to inform the Union delegates whenever a two year co-op is hired within their areas of responsibility.

It is thought that by proceeding in this manner, the concerns expressed by the Union during the negotiating meetings will be alleviated.

Very truly yours,

Robert E. Byrnes
Robert E. Byrnes

A-6



April 13, 2012

Mr. James Anderson
President
Utility Workers Union of America
IUU Local 600
810 Brighton Street
Newport, Kentucky 41071

Re: Partial Day Vacation Administration

Dear Mr. Anderson:

During 2012 contract negotiations, the parties discussed the granting of vacations in less than one day increments.

As was agreed, department managers will review their individual work groups and where it will not disrupt normal operations, at their discretion, permit requests for partial day vacations in increments of one-half the employee's scheduled work day but not less than four hours. It was further agreed that requests for these partial days must be made at least seven calendar days prior to the date requested and must be approved by supervision. However, because of extenuating circumstances, a partial day off with less than a seven (7) calendar day notification may be approved by an employee's supervisor.

Currently there are some departments that allow, business needs permitting, employees to take partial vacation days in less than half day increments. It is agreed that individual departments will have the ability to grant vacation requests for less than half day increments at their discretion.

It is believed that this letter accurately describes the parties' agreement.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Jay B. Alvaro'.

Jay B. Alvaro
Vice President, Labor Relations

CG&E The Energy Service Company

The Cincinnati Gas & Electric Company
P.O. Box 980 Cincinnati, Ohio 45201-0980

Robert E. Byrnes
Senior Vice President

April 18, 1989

Mr. Patrick G. Bradford
Chairman
Independent Utilities Union
P. O. Box 1757
Cincinnati, Ohio 45201

Dear Mr. Bradford:

During the 1989 negotiation meetings, the committees for the Company and the Union discussed the degree of discipline to be administered to employees who falsify or tamper with Company records.

Many employees represented by the Union are in positions of trust concerning Company records and accounts. The management depends upon the integrity of each employee in the performance of his or her various job duties and responsibilities. The importance of this reliance upon complete employee veracity cannot be overemphasized.

In many disciplinary situations, the Company adheres to a policy of progressive and constructive discipline in order to impress upon employees the nature of Company expectations. However, as mutually agreed upon during the negotiations, employees whose dishonest acts adversely affect the Company will be summarily discharged. For example, it has been a long established Company policy that all meter reading personnel will be terminated who curb readings, falsify records, or are guilty of defalcation; immediate discharge for these activities will continue.

Employees in various departments have access to Company and other accounting and business records and are confronted with situations where circumstances could allow indiscretions for their personal gain or the benefit of others without proper remuneration to the Company. Many positions of trustworthiness could be misdirected to a manipulation or falsification of Company records in a fraudulent, larcenous, or otherwise dishonest manner. As agreed, such activities will result in immediate termination of employment.

If the types of activities occur as described above, the Company will react in good faith upon a full, fair, and impartial investigation. The Company will take every precaution to evaluate particular incidents in full light of all circumstances in order to make certain that any summary termination is not undertaken in an arbitrary, capricious, or disparate manner.

Very truly yours,

Robert E. Byrnes

Robert E. Byrnes

A-9

CG&E The Energy Service Company

The Cincinnati Gas & Electric Company
P.O. Box 960 Cincinnati, Ohio 45201-0960

April 16, 1992

Mr. Patrick G. Bradford
Chairman
Independent Utilities Union
P. O. Box 1757
Cincinnati, Ohio 45201

Dear Mr. Bradford:

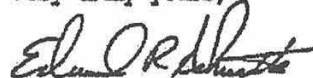
During the 1992 negotiation meetings, representatives of the Company and the Union discussed the negotiated intent and the current administration of holiday call out provisions contained in Article XI, Section 1 (d) of the Agreement.

There was no dispute between the parties as to how an employee is compensated for any call out assignment where all the hours worked by the individual were entirely within the holiday (midnight to midnight). When such call out assignments are for four hours or less the employee receives four hours pay at the appropriate overtime rate and no travel pay. When such call outs are more than four hours but less than eight, the employee receives eight hours of pay at the appropriate overtime rate and no travel pay. When an employee works entirely within the holiday for more than eight hours, all hours worked after eight hours are compensated at the double time rate of pay with no travel pay. The area of dispute between the parties concerns those call out assignments which are worked contiguous to hours on the day before or the day after a holiday.

In order to completely resolve this matter, the Company is willing to compensate the employee for one hour of travel time at the appropriate rate of pay for call outs of four hours or more contiguous with hours worked into or out of a Company recognized holiday. However, the guarantee of eight hours pay for a call out that is more than four hours but less than eight that is contained in Article XI, Section 1 (d) will not apply to call outs that are contiguous with hours into or out of the holiday.

By proceeding in this manner, it is thought that a consistent and equitable manner of administering the holiday pay provisions of the Agreement can be attained.

Very truly yours,


Edward R. Schuette

A-11

CG&E The Energy Service Company

The Cincinnati Gas & Electric Company
P.O. Box 960 Cincinnati, Ohio 45201-0960

April 16, 1992

Mr. Patrick G. Bradford
Chairman
Independent Utilities Union
P. O. Box 1757
Cincinnati, Ohio 45201

Dear Mr. Bradford:

During the 1992 negotiation meetings between the Company and the Union, the committees discussed the use of flextime.

As was discussed during these meetings, it is the policy of the Company to use flextime programs in those work groups where such scheduling is deemed appropriate by the Department Manager. Although the Company reserves the right to discontinue the use of flextime where appropriate, it will meet with the Union before proceeding.

It is thought that this will adequately describe the discussion concerning this matter.

Very truly yours,


Edward R. Schuetts

A-12

CG&E The Energy Service Company

The Cincinnati Gas & Electric Company
P.O. Box 960 Cincinnati, Ohio 45201-0960

April 16, 1992

Mr. Patrick G. Bradford
Chairman
Independent Utilities Union
P. O. Box 1757
Cincinnati, Ohio 45201

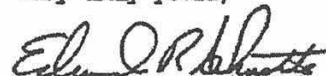
Dear Mr. Bradford:

During the 1992 negotiation meetings, the committees for the Company and the Union discussed the change of schedule provision in Article XII, Section 3 (b).

Although the language in the current Agreement states that an employee will receive at least a 24-hour notice of a change in shift, the Company will attempt to give at least a five calendar day notice of such changes.

It is thought that this is a fair and equitable policy which will satisfy the interests of all concerned.

Very truly yours,


Edward R. Schuetta

A-13

CG&E The Energy Service Company

The Cincinnati Gas & Electric Company
P.O. Box 960 Cincinnati, Ohio 45201-0960

April 16, 1992

Mr. Patrick G. Bradford
Chairman
Independent Utilities Union
P. O. Box 1757
Cincinnati, Ohio 45201

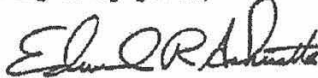
Dear Mr. Bradford:

During the 1992 negotiations, the committees for the Company and the Union discussed the reorganization of the Distribution Operations Division of the Electric Systems Operations Department.

As was agreed during these negotiations, the supervisory positions within this section will have the flexibility to perform bargaining unit work when an Operations Technician is unavailable to readily respond to a customer inquiry that needs immediate attention. On those occasions supervision will be able to investigate, resolve and recommend solutions to customers about their inquiries. They may also be setting test equipment and or preparing written recommendations for customers. It is anticipated that the performance of this bargaining unit work will be minimal. As stated during the negotiations, it is thought that supervisory employees will only perform these types of operations on an average of one per week. In the event that the Operations Technician, assigned to a specific area, is on vacation, that average may increase to approximately two to three per week. This agreement does not restrict supervisory employees from doing work they previously performed.

It is thought that this agreement will enable us to better serve our customers.

Very truly yours,


Edward R. Schuette

A-14

CG&E The Energy Service Company

The Cincinnati Gas & Electric Company
P.O. Box 960 Cincinnati, Ohio 45201-0960

April 16, 1992

Mr. Patrick G. Bradford
Chairman
Independent Utilities Union
P. O. Box 1757
Cincinnati, Ohio 45201

Dear Mr. Bradford:

During the 1992 negotiation meetings, representatives for the Company and the Union discussed the policies and procedures to be utilized when employees are required to work or train at out-of-town locations.

The mode of transportation to be utilized for all out-of-town trips will be determined by the Company. Commercial airlines will be used whenever possible. The Company will normally furnish roundtrip airline tickets (tourist or coach class) between the Greater Cincinnati Airport and the point of destination. If prior arrangements are made and the Company agrees, employees may drive to and from their destination and be reimbursed at the appropriate mileage rate but not exceeding the cost of the roundtrip airline ticket. Each individual request will be evaluated by the Company before determining if alternate transportation will be permitted. Employees utilizing the personal car option will not be granted additional time off from their regular scheduled work week in order to meet travel schedules not arranged by the Company. Nor will any other expenses such as personal auto repairs and insurance, extra meals or lodging be reimbursed by the Company.

Normally the Company will arrange for, and pay any living accommodation expenses. Occasionally, there will be times when employees will be responsible for direct payment prior to leaving the hotel/motel. In this case, the employees will receive advance payment for the applicable room rates and must reconcile their accounts personally. During most other out-of-town trips, prior arrangements may permit invoicing of applicable hotel/motel room costs directly to the Company. In this situation, involved employees will not receive any direct payments for room costs. Other types of accommodations will be handled on a case-by-case basis with methods of payment appropriate to the situation.

For extended trips, employees will be informed prior to leaving for the out-of-town assignment as to the number of return trips to Cincinnati they will be allotted. For these return trips, the Company will normally furnish transportation. In the event that visits home are granted and taken, the Company will reimburse each employee for roundtrip transportation costs only.

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The Company may establish and pay an applicable per diem rate in advance for each out-of-town day and each travel day. This rate, which may vary between individual out-of-town locations, will include all other expenses, such as meals, laundry, telephone calls, tips, etc. Transportation and lodging will not be included in the daily per diem amount that each employee will receive. Any expenses incurred over and above the stipulated per diem amount for any given trip will be the responsibility of the employee. Alternately, the Company may elect to reimburse employees for the direct reasonable expenses for such items as meals, laundry, telephone calls, tips, etc. The Company will determine on a case-by-case basis whether a per diem arrangement or reimbursement for reasonable expenses is used for out-of-town assignments.

It is thought that this letter will clarify the Union's concerns about the policies and procedures to be utilized when employees are required to work or train at out-of-town locations.

Very truly yours,


Edward R. Schuetz



April 13, 2012

Mr. James Anderson
President
Utility Workers Union of America
IUU Local 600
810 Brighton Street
Newport, Kentucky 41071

Re: Four 10-Hour Day Guidelines

Dear Mr. Anderson:

During the 2012 negotiations, the parties discussed Side bar Letters A-17 and A-47 regarding four 10-hour day workweeks. As a result of those discussions, the parties agreed to the following revised Guidelines for employees who are assigned to work four 10-hour days.

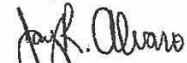
1. **Off Days.** Management will attempt to provide employees working a four 10-hour day workweek with three consecutive off days. However, employees in a particular work group may request or may be required to have two consecutive off days and another off day within the scheduled workweek. Supervision will give due consideration to such requests.
2. **Overtime.** Time and one-half will be paid for all overtime hours worked in any single workweek, with the exception of Sunday. All overtime hours worked on a Sunday will be paid at double time.
3. **Vacation.** One day vacations are for 10 hours. Weekly vacations are for 40 hours. Employees who are transitioning to or from a four 10-hour day workweek shall be entitled to all accrued vacation (i.e., if an employee returns to an five 8-hour day schedule with 10 hours remaining vacation, the employee will have one day and two hours of vacation to take in accordance with the contract).
4. **Personal Days.** Personal days must be taken in full days regardless of the employee's schedule, and cannot be taken in smaller increments. For employees on 10-hour shifts, personal days are paid for 10 hours. For employees on 8-hour shifts, personal days are paid for 8 hours.
5. **Holidays.** Employees working four 10-hour shifts convert to a five 8-hour day schedule during all workweeks that contain a holiday recognized by the Company in an effort to maintain consistency throughout the bargaining unit for employees to receive 40 hours of pay.

A-17

For any other alternate work hour schedule that may be developed, it is agreed that at least two off days will be consecutive. The two consecutive off day agreement does not apply to any currently established workweek or when changing from one schedule to another. Furthermore, the two consecutive off day requirement can be waived, but both supervision and the employee must mutually agree to such a schedule.

It is thought that this letter accurately describes the parties' agreement.

Very truly yours,



Jay R. Alvaro
Vice President, Labor Relations

CG&E The Energy Service Company

The Cincinnati Gas & Electric Company
P.O. Box 960 Cincinnati, Ohio 45201-0960

April 16, 1992

Mr. Patrick G. Bradford
Chairman
Independent Utilities Union
P. O. Box 1757
Cincinnati, Ohio 45201

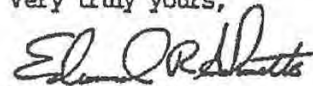
Dear Mr. Bradford:

During the 1992 negotiation meetings the committees of the Company and the Union discussed the representation of employees by personal attorneys or outside agencies during the grievance and arbitration procedures.

As a result of these discussions, the parties agreed that the Union is the sole bargaining representative for its members and therefore no outside representation will be permitted during such meetings. This in no way restricts the Union's ability to have an attorney represent its own interests during the grievance and arbitration procedures.

It is believed that by proceeding in this manner the concerns expressed during these meetings have been alleviated.

Very truly yours,



Edward R. Schuette

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OCT-13-99 WED 9:15 AM IUU

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CG&E ■ The Energy Service Company

The Cincinnati Gas & Electric Company
PO Box 960 - Cincinnati, Ohio 45201-0960

July 19, 1994

Mr. Patrick G. Bradford
Chairman
Independent Utilities Union
P. O. Box 1757
Cincinnati, Ohio 45201

This letter cancels and supercedes my previous letter to you, dated July 13, 1994.

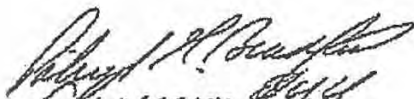
Reference is made to our meeting on Tuesday, June 28, 1994 regarding the new job classification, Gas Operations Trainer, Job Code #827. In addition to you and I, Messrs. E. Schuette and D. Zanitsch representing the Company and Mr. D. Rosing representing the IUU were also in attendance.


As agreed, the new job classification of Gas Operations Trainer, Job Code #827 will be established at wage level 12. This new job classification was evaluated by the Company's Non-Manual Job Evaluation Committee as a wage level 11.

In return for the Company's willingness to establish this new job classification at wage level 12, the Union agreed that the Management of Gas Operations will select the individual they deem to be most qualified for this position in lieu of accepting the most senior qualified individual. The Union further agreed not to process any grievances related to the selection process for this position.

If future re-evaluations of this job classification increase the total number of points sufficient to increase the wage level to 12, this job classification will remain a wage level 12 and the selection process will revert to being conducted in accordance with the Union contract in effect at that time.

If you concur with this agreement, please sign and date a copy of this letter and return it to my office.


E.R. Schuette
7/21/94

Very truly yours,

Patrick P. Gibson

cc: E.R. Schuette
D.E. Zanitsch

\\jobeval\trainer

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Duke Energy
139 East Fourth St
Cincinnati, OH 45201

April 15, 2015

Mr. James Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Time Off For Union Duties/Business

Dear Mr. Anderson:

During the 2015 - 2019 negotiations, the representatives of the Company and the Union clarified the administration of time off work and compensation for performing Union duties/business. Subject to legitimate business needs, the Company will grant compensated or non-compensated time off work in accordance with the following guidelines.

NEGOTIATIONS

Members of the Union negotiating committee and any other employee required to attend or prepare for negotiating meetings will be able to attend during working hours. These employees will not be compensated by the Company for time spent in and preparing for negotiations, unless previously agreed to by the parties.

GRIEVANCES & ARBITRATIONS

A reasonable number of employees will be able to prepare for and attend grievance and arbitration meetings. Union employees will not lose their straight-time wages while attending grievance meetings. The time spent by Union members in preparing for and attending all arbitration meetings is not compensable by the Company.

JOINT MEETINGS

A reasonable number of employees will be able to attend joint meetings between Union members and Company representatives. These employees will not lose their straight-time wages while attending or preparing for joint meetings.

UNION DUTIES/MEETINGS

A reasonable number of employees may be excused but not compensated by the Company for attending, preparing for or performing union duties/meetings. This includes items such as counting votes, regular Union meetings, General Board meetings, working on Union accounting records, or other union duties or meetings.

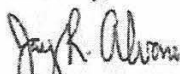
**MILEAGE
EXPENSES**

The Company will agree to reimburse the Union mileage expenses for up to two union representatives to attend Company scheduled meetings. This does not include grievance meetings, arbitrations, negotiations or meetings held at the request of the Union. The Company will agree to reimburse the Union mileage expense for one union representative to attend fact finding meetings. The Union will provide an itemized statement each month for this expense and the Company will reimburse the Union.

There may be occasions when exceptions to these guidelines may be granted. The parties will make every effort to accommodate each other in these matters. The Union agreed to give as much advance notice as possible to supervisors of employees who need to be off work for Union business.

The advancing of wages for non-compensable union business will continue, absent abuse of this process. If problems arise, management will meet with the Union in an attempt to correct the abuse. However, management must maintain the right to discontinue this arrangement, if a satisfactory resolution cannot be reached.

Sincerely,



Jay R. Alvaro
Director, Labor Relations
Duke Energy

Cinergy Corp.
139 East Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

September 2, 1998

Mr. Patrick G. Bradford
Chairman
Independent Utilities Union
P O Box 1757
Cincinnati, Ohio 45202



Dear Mr. Bradford,

As you are aware, a new job evaluation system, the BOGAR Job Evaluation System is being implemented for all job classifications represented by the IBEW, Local 1347, IUU and the USWA, Locals #12049 and #5541-06. The new system was designed by the ERT Sub-Committee II (Joint Union/Management Team) and approved for implementation by the ERT at its June 29, 1998 meeting. The BOGAR Job Evaluation System completely replaces the McIntyre system.

The McIntyre Evaluation break points for each grade level have been mathematically converted to new break points under the BOGAR System, therefore it is not necessary for job classifications to be reevaluated at this time. Only new job classifications or revised job classifications with significant changes since their last evaluation will be evaluated using the new system. Job classifications will retain their current wage rates/grade levels, but will be subject to change if they are revised and reevaluated as was the practice in the past.

Under the current agreement, a company job evaluation committee is responsible for evaluating all new or revised job classifications. (Article VIII, Section 1(l)). A key component of the new job evaluation system is the establishment of a new joint Union/Management job evaluation committee. The committee will consist of two management representatives from each business unit, two representatives from the IUU, IBEW and each USWA local and two representatives from the Corporate Center. Accordingly, there will be 16 total members with a maximum of 10 active during an evaluation. Operating guidelines for the committee are as follows:

- Unions will appoint their representatives and they will only participate in the evaluation of job classifications represented by their Union.
- Unaffected union representatives may be present, but will not participate at this time.
- No more than two of the four USWA representatives will participate in the evaluation of USWA job classifications.

A-38

- The participating union must have at least one representative available during the evaluation process.
- Consensus should be reached on each factor during the evaluation; absent consensus, majority rules.
- The participating Business Unit must have at least one representative available during the evaluation process.
- All job evaluation members should be informed it is a long term commitment.
- A quorum to have a meeting is six members.

A job evaluation coordinator from the Human Resources Department will also facilitate in the evaluation process and will not be a voting member. The ERT Sub-Committee II also established the pre-evaluation process, presentation guidelines, post evaluation process, training, a credibility check and employee communication and these will be implemented as presented to the ERT at the June 29 meeting.

This letter and accord modifies the terms of the 1996-2001 contract with respect to the job evaluation system and it is believed that this letter accurately describes the agreement the Company and Union have reached.

Sincerely,

Kenneth E. Williams

Kenneth E. Williams
Manager
Employee Relations and Safety

INTERNAL CORRESPONDENCE

To: Officers, General Managers and Managers
From: Patrick Gibson
Subject: **MANUAL, CLERICAL AND TECHNICAL JOB CLASSIFICATIONS**
Date: December 29, 2000
Reply By: **CINERGY.**

The purpose of this letter is to amend and update the Walter C. Beckjord letter of October 1, 1945, which has served as a preamble to the Cincinnati Gas & Electric Company's job classification and evaluation system for Union represented job classifications.

In October 1945, after a careful and comprehensive study of the various kinds of work necessary to conduct the business of the Company in a safe, efficient and otherwise satisfactory manner, and the requirements of each job involved, the Company by agreement with the Unions representing the employees and with the approval of the National War Labor Board (Region V), placed into effect a schedule of job titles and descriptions for all manual, clerical and technical employees. Wage rate schedules were established and made effective in accordance with the Union agreements and the approval of the War Labor Board.

The job descriptions and wage rate schedules were designed to provide a fair and equitable means by which all the jobs, within the scope of the plan, being filled by manual, clerical and technical employees could be designated with uniformity and understanding throughout the Company system. The Company and the duly certified exclusive bargaining representatives of the bargaining units agreed to the basis used for defining jobs. It became the duty and responsibility of the supervisory force as the representatives of management to see that it was applied and maintained in a fair and consistent manner. It was also essential that employees clearly understood the duties and requirements of the jobs to which they were assigned. While the job descriptions were not intended to be all-inclusive, they were intended to cover such typical tasks necessary to provide a fair basis for evaluation.

The job classification and evaluation plan provided:

1. A set of job descriptions which prescribe typical duties and qualifications;

INTERNAL CORRESPONDENCE

2. A set of promotional charts indicating the line of normal promotions in the respective departments;
3. A set of wage schedules containing maximum wage rates for all jobs and steps of progression to arrive at the maximum wage rates;

In September 1998, a new evaluation system (BOGAR) was implemented to evaluate all manual, clerical and technical job classifications represented by the International Brotherhood of Electrical Workers, Local 1347; the United Steelworkers of America, Locals 12049 and 5541-06; and the Independent Utilities Union. A joint union/management committee designed the BOGAR Job Evaluation System. In addition to the items listed above, the BOGAR system requires a Job Evaluation Questionnaire to be completed and approved for each new or revised job classification.

JOB DESCRIPTIONS

Each job description consists of a statement of the nature of work involved in the job classification, in sufficient detail to identify the title and content to those familiar with the organization; also a statement of the minimum qualifications required to enter the job. Each job description is subdivided into two parts, "Duties" and "Qualifications" as follows:

DUTIES

This section is devoted to a description of the essential duties required in the classification itself, considered entirely apart from the individual who may occupy the position. A sufficient number of duties are listed to:

1. Indicate the character and grade of the work;
2. Indicate the variety of duties;
3. Distinguish each job classification from another.

The duties for each job description are those principal duties that are required to properly identify and evaluate each of the specific job classifications. These duties are not to be considered all-inclusive. Employees may be temporarily assigned, within their capabilities, duties of other classifications. When the temporarily assigned duties are those of a higher or lower rated job classification the employees should be paid the appropriate rate of pay in accordance with the Union agreement.

This section also indicates, as a general guide, the degree of supervision under which the employees are expected to be able to perform their work; that is under "Close," "Directive," or "General Directive" supervision. These terms are defined as follows:

The Cincinnati Gas & Electric Company

PSI Energy, Inc.

INTERNAL CORRESPONDENCE

1. The term "under close supervision" means that the employees perform only those tasks which they have been instructed to do and are observed and supervised most of the time while performing them.

For example: A helper assisting a mechanic in performing assignments would ordinarily be under the "close" supervision of the mechanic.

2. The term "under directive supervision" means that the employees perform primarily those tasks and duties which they have been directed to do and then carry out such instructions under observation or checking from time to time.

For example: A mechanic, working under the direction of a supervisor, assigned to a section of the work but observed or contacted periodically during the day, by the supervisor, would be considered as working under "directive" supervision.

3. The term "under general directive supervision" means that the employees under general instructions perform duties independently, but within the limitations of standard practices or procedure.

For example: A Senior Lineperson operating in the field on scheduled assignments, in accordance with standard practices and procedures but without any supervision while in the field, whose production or performance would be the check on activities and quality of work, would be considered as working under "general directive" supervision.

QUALIFICATIONS

In this section of the job descriptions are listed those minimum qualifications which the individual is expected to bring to the job. Specifically included are such items as basic education, degree of skill, extent of experience, special knowledge, and other required qualifications.

Company Requirements as to General Qualifications

In addition to the duties and qualifications for each job classification as set forth in the job descriptions, each employee must meet the Company's requirements as to general qualifications, which include:

1. The physical and mental abilities to perform the essential functions of the job classification, with or without reasonable accommodations;

The Cincinnati Gas & Electric Company

PSI Energy, Inc.

INTERNAL CORRESPONDENCE

2. The willingness to follow instructions and cooperate with other employees;
3. The willingness to respond to calls outside of regular hours, when the need arises and in emergencies, to help in any department or phase of the Company's operations in which they are qualified to help;
4. The willingness to work a shift schedule and irregular hours where the nature of the work requires it;
5. The willingness to direct and instruct or train employees, of a lower Job rating, assisting on the same work;
6. If required by assignment to drive automobile or trucks, must hold a valid State Bureau of Motor Vehicles Operators' license;
7. Compliance with the general rules and practices of the Company, with specific rules of the department in which they are employed, and with those of other departments with which their work must be coordinated;
8. Thorough familiarity with and strict observance of the Company's safety rules applicable to their job;
9. Have the characteristics of dependability, trustworthiness, and carefulness, and have a satisfactory previous record in these respects;
10. The willingness to submit to physical examinations by a licensed physician designated by the Company;
11. The willingness to supply the necessary employment records including, but not limited to, birth certificate, social security number, selective service record, military record, character and past employment records.

JOB EVALUATION QUESTIONNAIRE

Each questionnaire consists of questions related to the six factors used to evaluate a job classification under the BOGAR system. One or more employees in a job classification represented by the applicable Union must complete and sign one questionnaire. A departmental management representative must approve the completed questionnaire. The six factors and related sections of the questionnaire are as follows:

The Cincinnati Gas & Electric Company

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Knowledge

Questions related to the amount of formal and informal education, training and experience.

Responsibility

Questions related to the amount of responsibility for such things as: Company funds; confidential information; safety, training and/or work direction of others; materials and equipment; etc.

Customer Contact

Questions related to the amount, importance and difficulty of contacts with internal and external customers.

Decision Making and Complexity of Duties

Questions related to the complexity of the work; the freedom employees have to make decisions; and, the impact their decisions may have on the Company.

Physical/Adverse Characteristics

Questions related to the amount, duration and frequency of: physical work (e.g., lifting, climbing and walking); and, work in adverse conditions (e.g., heat, cold, dust and noise).

Hazards

Questions related to the inherent dangers in the job which directly expose the employee to the possibility of accidents which may result in lost time accidents or death.

WAGE SCHEDULE

Starting Rates

When employees are first assigned to a job classification, they receive the starting/minimum rate indicated in the wage schedule for that job, except in cases where an employee is already receiving a rate equal to or in excess of the starting/minimum rate indicated. In such event when the employee is promoting into the job classification, the employee receives an increase as described in the applicable Union Agreement, but in no event in excess of the maximum wage rate for the job to which the employee is assigned.

The Cincinnati Gas & Electric Company

PSI Energy, Inc.

INTERNAL CORRESPONDENCE

Progression Steps within a Wage Range

The wage range provides for progression steps leading up to the maximum evaluated rate of the job. Job progression steps are designed for the purpose of advancing an employee within the wage range. These progression steps are to be used as follows:

At intervals of six months, the supervisor shall make a review of the employee's development and progress on the assigned job. If progress, measured by demonstrated ability and performance, has been satisfactory, the scheduled progression step will be made effective on the first Monday following the expiration of that particular interval, until the employee's wage rate equals the maximum rate specified for the particular job classification.

When the performance review indicates that the employee has not made satisfactory progress in the job and an increase in pay is not warranted the employee is to be personally notified by the immediate supervisor that the progression step increase is being withheld. The notification must take place at least one month in advance of the date for the scheduled progression step. In addition, serious consideration should be given as to whether or not the employee should be demoted, transferred or released. The Union may request a review of such a decision. Such review is to be made by a representative or representatives of the Union and a representative or representatives of the Company.

For new employees the six-month interval will start from the hiring date, and for promoted employees, a new series of six-month intervals will start on the date of promotion.

CONCLUSION

Although this plan is set forth as clearly and explicitly as possible, questions may arise as to the intent or interpretation of some provisions. In such event, the matter should be discussed with a representative in the Labor Relations department.

Very Truly Yours,



Patrick P. Gibson

The Cincinnati Gas & Electric Company

PSI Energy, Inc.

May 14, 2003

Cinergy Corp.
139 East Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

Ms. Mary Harthun
President
Local Union 600, IUU
Utility Workers Union of America
810 Brighton Street
Newport, Kentucky 41071



Re: Disconnect Non-pay, Succession
And Special Meter Reads Agreement

Dear Ms. Harthun:

This letter documents our discussions and agreements related to disconnect non-pay (DNP), field credit activity and succession and special meter reading work.

In August 2002, the Company met with the leadership of each of the CG&E affiliated local unions to discuss the need to significantly increase the number of completed DNP's and to complete all succession/special meter reads at a competitive cost. As a result of those discussions, a team was formed, which included the leadership from each union and management representatives, to evaluate the business case for implementing necessary flexibilities and cost control measures to perform the identified work at a competitive cost. The team was charged with reaching a consensus on a plan to achieve the desired results.

It was recognized that residual union jurisdictional issues around the DNP work and the succession and special meter reading work had resulted in restrictive work practices across the multiple unions connected with these job functions. Since August of 2002, the joint union and management team has worked together on a regular basis to achieve compromise for the implementation of the following competitive alternatives to outsourcing these job functions. Pending agreement with the leadership of the four local unions involved in the discussions, the Company will implement the changes described below.

The Company will form a new centrally managed work group for the specific purpose of performing the DNP fieldwork. The Company will initially staff the new work group with 10 existing employees (Senior Representatives) represented by the UWUA currently performing DNP work. Additionally, 8 employees will be added in each of two entry-level job classifications, one represented by the USWA and the other by the IBEW, Local 1347. It is understood that if any of the aforementioned 10 employees represented by the UWUA vacate their position and the Company decides to backfill the position(s), it will be filled as an entry-level DNP worker represented by the USWA or IBEW. The Company assured the Union that the two clerical positions that provide support to the DNP work process would not be eliminated as a result of this reorganization.

The 16 new entry-level DNP worker job openings will be made available to other employees represented by their respective unions (i.e., USWA and IBEW). If all 16 openings are not filled by employees in their respective unions or by displaced employees in redeployment represented by the IBEW, the remaining openings will be made available to full-time meter readers and then part-time meter readers, in that order. If any full-time or part-time meter

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readers vacate their positions as a result of accepting any of the initial 16 DNP worker job openings represented by the IBEW and USWA, the Company will backfill those vacancies accordingly (i.e., part-time with part-time and full-time with full-time). These agreements only apply to the initial 16 DNP worker job openings.

If any of the 10 Senior Representatives in Revenue Collections are bumped by Senior Representatives with more seniority as a result of Company initiatives, it will not impact the number of positions being eliminated through attrition.

The succession and special meter reading duties will be primarily, but not exclusively, assigned to UWUA represented employees. As a result, 10 new full-time meter reader job openings will be filled. Management intends to assign work other than succession/special reads to DNP workers represented by the USWA and IBEW, whenever there is other productive work available for them to perform within their job classifications. However, this does not restrict management's right to assign those employees to perform such meter reads. The Company agreed to backfill part-time meter reader positions that are vacated as a result of part-time meter readers accepting any of the initial 10 new full-time meter reader positions.

This agreement is made between the parties without prejudice to the position of either party regarding the jurisdiction, assignment and contracting of work. However, the Union agrees that no grievances will be filed or pursued relating to the assignment of work as described above, for the duration of this agreement. To the extent that the Company has retained its rights with regard to making future changes to this, or any other work processes in the future, the Union retains its right to grieve in the event that management implements changes to the above-described terms for achieving the DNP, succession and special meter reading work. In this context, however, it is also understood that slight modifications to this overall business plan may be made, as long as the plan's basic design remains in effect.

The team of management and union leaders is commended for their commitment to meeting the present day business needs in a competitive manner. It is expected that all parties will benefit by this plan for achieving this work with company employees. Please sign where indicated below to indicate the Union's agreement to the above terms.

For the Company:

Todd Arnold 5/14/03
Todd Arnold Date
V.P., Customer
Contact Services

Patricia K. Walker 5/14/03
Patricia K. Walker Date
V.P., Billing &
Metering Services

For the Union:

Mary Hathun 5-15-03
Mary Hathun Date
President
Local Union 600, IUU
Utility Workers Union
Of America

Cc: J. O'Conner
J. Polley

Cinergy Corp.
139 East Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

June 10, 2004

Ms. Mary Harthun
President
Local Union 600, IUU
Utility Workers Union of America
810 Brighton Street
Newport, Kentucky 41071



Re: Post-Retirement Medical Benefits

Dear Ms. Harthun:

On April 27, 2004, the Company met with union representatives from UWUA Local 600, USWA 5541-06 and 12049 and IBEW 1347 to continue the negotiations for providing a post-retirement health reimbursement account ("HRA") option (the "HRA Option") to our active employees. Prior to that meeting, in a letter dated March 2, 2004, the Company provided the unions (I) a written overview of the Company's proposed design for the HRA Option, and (II) written responses to certain related questions. This letter updates the Company's proposed design for the HRA Option.

I. OVERVIEW OF HRA OPTION

All current, full-time employees represented by UWUA, Local 600 will be able to make a one-time choice between continuing in the current traditional post-retirement medical option (the "Traditional Option") or electing to participate in the new HRA Option described below. Employees will be required to make this election by a specified election date in 2004. (Notwithstanding the foregoing, employees currently receiving long-term disability benefits or on a military leave of absence, will make this election when they return to active, full-time status. If they do not return to active, full-time status, they will default to the Traditional Option.) All employees hired or rehired on or after January 1, 2005 will participate in the HRA Option. Each employee who elects to participate in the HRA Option, and each employee hired on or after January 1, 2005, will be referred to as a "HRA Participant" herein.

Under the Traditional Option, eligible retirees (those who retire after attaining age 50 with five (5) years of Service, as defined in the applicable Pension Plan) are provided access to group medical coverage and a premium subsidy that varies based upon the retirees' service and classification (see detail regarding the various classifications and subsidy levels attached hereto).

Subject to any collective bargaining obligation, the Company reserves the right to amend, modify or terminate the Traditional Option and/or the HRA Option at any time. However, amounts already credited to a HRA Participant's account will not be reduced by amendment, except to the extent necessary or appropriate to comply with changes in the law.

Ms. Mary Harthun
June 10, 2004
Page 2

The benefit under the HRA Option is based on a bookkeeping account that can grow like a savings account with service and interest credits as described below. An employee who elects the HRA Option will start with an opening balance that is equal to 1/12th of \$1,000 for each prior calendar month in which the HRA Participant worked at least one day for the Company. In the future, the Company will credit eligible HRA Participants with an additional 1/12th of \$1,000 for each calendar month in which the HRA Participant works at least one day for the Company. The Company will also credit each eligible HRA Participant's bookkeeping account with an annual interest credit. Interest will be credited at the same interest rate as the cash balance updates as determined in August of each year, except that for the term of the current labor agreement, the interest rate will not be less than 3.5%; for 2004, the rate is 5.31%. Except as discussed below, only HRA Participants who are active, full-time employees and work at least one day in the month are eligible for the monthly service credit. Like retirees in the Traditional Option, HRA Participants will have access to group medical coverage only if they retire after attaining age 50 with five (5) years of Service (as defined in the applicable Pension Plan), however, there will be no subsidy. Please note the following regarding the HRA Option:

- a. If a HRA Participant retires after attaining age 50 with five (5) years of Service (as defined in the applicable Pension Plan), the amounts credited to the HRAs generally can be used for the qualified medical expenses, as defined in Section 213(d) of the Internal Revenue Code, of the retiree and the retiree's spouse and eligible dependents (see IRS publication 502 for examples of qualified medical expenses). To the extent permitted by applicable law and as is otherwise practicable, the HRA option is intended to provide a tax-free benefit. Due to future law changes, however, there can be no assurance of favorable tax treatment.
- b. Except as provided below, if the employment of a HRA Participant terminates prior to attaining age 50 with five (5) years of Service (as defined under the applicable Pension Plan), the HRA Participant forfeits all amounts credited to the HRA Account.
- c. If a HRA Participant dies while actively employed prior to attaining age 50 with five (5) years of service (as defined in the applicable Pension Plan), the HRA Participant forfeits all amounts credited to the HRA Account.
- d. If a HRA Participant dies while actively employed after attaining age 50 with five (5) years of Service, his/her spouse and eligible dependents will be entitled to use amounts credited to the HRA to pay qualified medical expenses immediately.
- e. In the event of disability or leave, the Company will continue monthly service credits for the first 12 months. The Company will continue interest credits while the HRA Participant is disabled or on leave (and prior to recovery or retirement). For HRA Participants on a military leave, service credits and interest credits will continue for the full qualified leave period.

Ms. Mary Harthun
June 10, 2004
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- f. If the employment of a HRA Participant is involuntarily terminated in connection with an involuntary reduction in force and such termination is in no way related to performance deficiencies, the HRA Participant will be eligible to maintain his/her HRA balance as of termination. The HRA Participant will be able to use amounts held in his/her HRA Account immediately following the termination.
- g. For the term of the current Collective Bargaining Agreement, the Company will agree not to amend, modify or terminate retiree health care benefits for any active employees covered by the CBA. Amounts credited to a HRA Participant's account will not be reduced by amendment, except to the extent necessary or appropriate to comply with changes in the law.

II. QUESTIONS

Set forth below are responses to some of the questions regarding the HRA Option raised in previous meetings.

1. Will the Company offer choice to all employees?

A: Yes. Presently, the Company plans to allow all current, full-time employees to elect to stay in the Traditional Option or switch to the HRA Option. After January 1, 2005, new hires and rehires will automatically participate in the HRA Option.

2. Will an employee be able to elect the HRA Option upon retirement?

A: No. A one-time election will take place in 2004.

3. Can a HRA Participant withdraw amounts credited to his/her HRA account in cash upon retirement? Can the Company pay the amount out in a lump sum?

A: Money may be withdrawn from the HRA account only for paying qualified medical expenses. The account will not be paid out in cash. Favorable tax treatment is available for a HRA only if the HRA reimburses medical expenses as defined in Section 213(d) of the Internal Revenue Code. As stated below from IRS Notice 2002-45, any right to receive cash will disqualify the HRA from receiving favorable tax treatment.

"An HRA does not qualify for the exclusion under § 105(b) if any person has the right to receive cash or any other taxable or non-taxable benefit under the arrangement other than the reimbursement of medical care expenses. If any person has such a right under an arrangement currently or for any future year, all distributions to all

Ms. Mary Harthun
June 10, 2004
Page 4

persons made from the arrangement in the current tax year are included in gross income, even amounts paid to reimburse medical care expenses. For example, if an arrangement pays a death benefit without regard to medical care expenses, no amounts paid under the arrangement to any person are reimbursements for medical care expenses excluded under § 105(b)... Arrangements formally outside the HRA that provide for the adjustment of an employee's compensation or an employee's receipt of any other benefit will be considered in determining whether the arrangement is an HRA and whether the benefits are eligible for the exclusions under §§ 106 and 105(b). If, for example, in the year an employee retires, the employee receives a bonus and the amount of the bonus is related to that employee's maximum reimbursement amount remaining in an HRA at the time of retirement, no amounts paid under the arrangement are reimbursements for medical care expenses for purposes of § 105(b)..."

4. **What happens to the HRA balance upon disability or extended leave from the Company?**

A: See Section I(e).

5. **What happens to the HRA balance in the event of a termination of employment?**

A: See Section I.

6. **What happens to the HRA balance if I die while actively employed?**

A: See Sections I(c) and I(d). Currently, the spouse and eligible dependents of an employee who dies while actively employed with Cinergy can elect to become covered under the non-union medical plan and receive subsidized coverage at the active employee rate until death or a disqualifying event (for the spouse, this would include, but not be limited to, remarrying or becoming Medicare eligible; for an eligible dependent, it would include, but not be limited to, ceasing to qualify as an eligible dependent due to age).

7. **Will the Company contributions be indexed in future years (e.g., indexed to the trend line for health care costs)?**

A: No. At this time, we do not plan to align our service credit or interest credit to any index. However, the Company will continue to evaluate its crediting levels. Subject to any collective bargaining obligations, the Company reserves the right to make adjustments, including increasing, decreasing or discontinuing credits unilaterally.

Ms. Mary Harthun
June 10, 2004
Page 5

8. **Will the opening HRA balances be calculated with retroactive interest crediting?**
A: No. Making retroactive interest credits would be cost prohibitive from the Company's perspective.
9. **What are other companies doing with regards to post-retirement healthcare?**
A: See Hewitt survey previously provided (51% of survey respondents have a unionized workforce).
10. **How can HRA Participants use amounts credited to the HRA?**
A: Money credited to a HRA can be used to reimburse the HRA Participant for medical expenses as defined in Section 213(d) of the Internal Revenue Code. See IRS publication 502 for examples of qualified medical expenses.
11. **Who will administer the HRA account balances?**
A: Hewitt Associates will track the HRA credits while HRA Participants are actively employed. The Company is reviewing proposals from third party administrators for post-retirement administration, but this will likely be Hewitt Associates.
12. **Will the HRAs be protected/guaranteed?**
A: The benefit under the HRA option is based on a bookkeeping account and is not funded like a 401(k) plan. See Section I regarding the Company's ability to amend.
13. **If the Company decides to eliminate the Traditional Option at a later date, would employees be allowed to get in the HRA?**
A: The Company periodically evaluates its benefit programs and would determine the appropriate course of action at that time.
14. **Would interest on the HRA account continue to accrue after an employee retires?**
A: See Section I.
15. **If two Cinergy employees are married, can they make different elections with respect to the HRA Option?**

Ms. Mary Harthun
June 10, 2004
Page 6

A: Yes, one could elect to remain in the Traditional Option, and the other could elect the HRA Option; if they remain married during retirement and so elect, they would receive subsidized coverage under the Traditional Option and have access to amounts credited to the HRA on behalf of the other spouse. Regardless, the elections are independent of each other.

Please note that the explanation set forth above merely summarizes the basic elements of our currently proposed design for the HRA Option. The Company is in the process of working out the details of the HRA proposal and necessarily reserves the right to work out those details. The Company also reserves the right to more fully document the HRA Option, which option will be governed and construed in accordance with the terms of the Plan as adopted by the Company.

Very truly yours,



John E. Polley
General Manager
Labor Relations

cc: T. Verhagen
P. Gibson
K. Feld

bcc: L. Gregory

What are other companies doing with regards to post-retirement healthcare? Hewitt Associates conducted a survey for the Henry J Kaiser Family Foundation between June and September 2003 to understand how large private-sector employers are handling retiree health benefits. The survey included responses from 45% of all Fortune 100 companies and 30% of all Fortune 500 companies. Among the companies surveyed this is what they had to say:

- 10% have terminated all subsidized health benefits for *future* retirees
- 20% say they are very likely to terminate all subsidized health benefits for future retirees
- 35% of the firms terminated benefits for future retirees and now provide access-only to health benefits with the retiree paying 100% of the cost
- 6% of employers shifted to a defined contribution approach
- 71% report having increased retiree contributions to premiums in the past year 53% report increases to plan design cost sharing
- 57% increased prescription drug co-payments
- 12% now require mandatory mail-order refills for maintenance drugs

Summary of Post-Retirement Health Care Options

Current Post-Retirement Health Care Option

Employees hired before January 1, 2005, who elect the subsidy option and who retire from the company on or after age 50 with at least five years of service, may be entitled to a post-retirement health care subsidy from the company dependent on their years of service at retirement.

Subsidy Schedule:

Service at Retirement	(Pre-65 only)
30+	50%
29	45%
28	40%
27	35%
26	30%
25	25%
24	20%
23	15%
22	10%
21	5%
20	0%
19	0%
18	0%
17	0%
16	0%
15	0%
14	0%
13	0%
12	0%
11	0%
10	0%
9	0%
8	0%
7	0%
6	0%
5	0%



April 13, 2012

Mr. James Anderson
President
Utility Workers Union of America
IUU Local 600
810 Brighton Street
Newport, Kentucky 41071

Re: Amendment to Sidebar Letter A-42 Post-Retirement Medical Benefits

Dear Mr. Anderson:

During 2012 contract negotiations, the parties discussed Sidebar Letter A-42 dated June 10, 2004 regarding post-retirement medical benefits. As a result of those discussions, the parties agreed that Sidebar Letter A-42 will (i) continue to apply without modification for employees hired prior to January 1, 2013, and (ii) be amended to reflect that any employee hired or rehired on or after January 1, 2013 will not participate in the HRA Option or the Traditional Option (both as defined in Sidebar Letter A-42). It follows that Sidebar Letter A-42 is hereby amended as set forth below:

In the second full paragraph on page one of Sidebar Letter A-42, the fifth and sixth sentences are hereby deleted and replaced with the following:

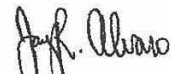
- All employees hired or rehired on or after January 1, 2005 and before January 1, 2013 will participate in the HRA Option. No employee hired on or after January 1, 2013 will participate in the HRA Option or the Traditional Option.
- No employee rehired on or after January 1, 2013 will continue to participate in the HRA Option or the Traditional Option following such rehire date. Any such rehired employee who was participating in the HRA Option or the Traditional Option at the time of such employee's prior termination of employment:
 - (i) shall be eligible for access to the HRA or premium subsidies, as applicable, only if he or she was eligible for such HRA access or premium subsidies at the time of such prior termination of employment, and
 - (ii) shall not accrue additional benefits under either the HRA Option or the Traditional Option.
- Employees hired or rehired on or after January 1, 2013 who retire after attaining age 50 with at least five (5) years of service under the applicable Pension Plan are provided unsubsidized access to post-retirement medical coverage.
- Each employee who elected to participate in the HRA Option, and each employee hired on or after January 1, 2005 and before January 1, 2013 will be referred to as an 'HRA Participant' herein.

A-42a

Any provision of Sidebar Letter A-42 that is inconsistent with the above shall be deemed no longer in effect. Except as provided herein, the remaining provisions of Sidebar Letter A-42 continue in full force and effect.

It is believed that this letter accurately reflects the parties' agreement.

Very truly yours,



Jay R. Alvaro
Vice President, Labor Relations



Duke Energy
Labor Relations
139 East Fourth St
Cincinnati, OH 45201

April 1, 2019

Mr. Steve Kowolonek
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Post-Retirement Healthcare

Dear Mr. Kowolonek:

During the 2019 negotiations, the parties discussed post-retirement healthcare benefits. This letter amends the Post-Retirement Medical Benefits Sidebar Letter A-42 dated June 10, 2004 and A-42a dated April 13, 2012, and confirms these discussions and the resulting agreement.

Access to Post-Retirement Health Benefits

Employees who terminate on or after October 1, 2015 after attaining at least age 50 with at least 5 years of service will have unsubsidized access (i.e., no Company contributions) to post-retirement medical, dental, and vision coverage; provided, however, that beginning as soon as January 1, 2021, employees who do not enroll in Duke Energy-sponsored pre-65 retiree medical, dental and vision coverage at the time of retirement or following the expiration of any COBRA continuation will not be permitted to enroll themselves or their eligible dependents at a future date. Coverage for retirees age 65 and older will be provided on an unsubsidized basis through a Medicare Coordinator. The Company shall provide a subsidy/contribution towards the cost of post-retirement health coverage only as provided below in this letter.

Subsidies/Company Contributions - Traditional Option

For employees who terminate on or after October 1, 2015, the "Traditional Option" is hereby amended to provide contributions towards the cost of post-retirement healthcare coverage, in the form of credits to a newly established Subsidy Health Reimbursement Account ("Subsidy HRA"), only for individuals who are under age 65 and who are:

- In a group eligible for a medical subsidy under the rules in effect prior to October 1, 2015, which is limited to those hired prior January 1, 2013; and
- At least age 55 with at least 10 years of service at termination of employment.

The amount of the contributions will vary as follows:

- Eligible employees age 50 or older by October 1, 2015 will receive (during retirement) a pre-65 contribution of \$350 per month, plus \$175 per month for their spouse/domestic partner, if any; and
- Eligible employees younger than age 50 as of October 1, 2015 will receive (during retirement) a pre-65 contribution of \$250 per month, plus \$125 per month for their spouse/domestic partner, if any.

Sidebar Letter A42b
Page 2

Subsidies/Company Contributions - HRA Option

Effective October 1, 2015, the "HRA Option" is hereby amended such that:

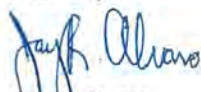
- The Company will discontinue crediting 1 /12 of \$1,000 each month to the health reimbursement accounts for those employees who have a health reimbursement account under the HRA Option, with interest credits continuing; and
- The Company will offer a choice window in 2015 to employees who have a health reimbursement account under the HRA Option to elect whether to continue in the HRA Option (modified as described in the above bullet) or to forego their rights to their modified health reimbursement accounts under the HRA Option in exchange for participation in the Traditional Option (modified to provide credits to a Subsidy HRA as described above).

Miscellaneous

The post-retirement health benefits described above will replace the post-retirement medical coverage options in effect prior to October 1, 2015, for employees who terminate on or after October 1, 2015, including those described in Sidebar Letters A-42 and A-42a. These benefits will be governed by and construed in accordance with the applicable plan documents.

In all other respects, Sidebar Letters A-42 and 42a shall continue in accordance with their terms.

Sincerely,



Jay R. Alvaro
Director, Labor Relations



Duke Energy
Labor Relations
139 East Fourth St
Cincinnati, OH 45201

April 1, 2019

Mr. Steve Kowolonek
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Temporary Upgrading

Dear Mr. Kowolonek:

During the 2019 contract negotiations, representatives of the Company and the Union discussed temporarily upgrading employees in clerical and technical job classifications.

The Agreement provides that temporary upgrading shall only be available for manual employees. However, as a result of these discussions, the Company will agree, during the term of the 2019 – 2023 Agreement, to permit clerical and technical employees to be temporarily advanced to higher classifications. Employees will only be given consideration for temporary advancement when they actually replace another employee in a higher job classification for a full day or more; or supervision deems there is a need for an employee to fulfill the duties of a higher classified job for a full day or more. When employees are temporarily upgraded they will receive the minimum rate of the higher job classification or \$10.00 per week more than their current wage rate, whichever is greater. When selecting the individual to be temporarily advanced, the management will give consideration to seniority and rotation among qualified employees. Such upgrading will not take place when the work duties of another employee are distributed among several other employees, or when employees perform duties of higher classified jobs for training purposes.

The Company voiced a serious concern about the potential for voluminous grievances if temporary upgrading is permitted for non-manual employees as described. As agreed, no grievances will be processed by the Union as a result of this limited exception to Article XII, Section 6 of the Agreement.

Sincerely,

A handwritten signature in blue ink that reads "Michael Ciccarella".

Michael A. Ciccarella
Senior HR Consultant
Labor Relations



Duke Energy
Labor Relations
139 East Fourth St
Cincinnati, OH 45201

April 1, 2019

Mr. Steve Kowolonek
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Meter Reading

Dear Mr. Kowolonek:

During the 2019 contract negotiations, representatives of the Company and the Union discussed Meter Reading operations.

Job Classification, Meter Reader - New: As discussed, the Meter Reader - Full Time job classification will be retitled Meter Reader - New and the wage rate adjusted to the MR 3 wage level upon ratification of the new Agreement. Incumbent employees in this classification will have their hourly rate adjusted to the minimum rate of the MR 3 wage level and will be eligible for merit and general wage increases as outlined in the Agreement.

Part-time Meter Readers: Should part time employees be utilized in the future, they will be hired into the Meter Reader - New classification at the minimum rate of pay as outlined in the Agreement. All provisions of the Agreement regarding part-time employment would apply to these employees. Part-time Meter Readers will receive the appropriate compensation for overtime when they work in excess of 8-hours in a day or any other regularly scheduled shift that is longer than 8 hours.

Hours of Work: Core meter reading hours will be from 7:30 AM to 4:00 PM, subject to changes based on business needs and to any schedule arrangements approved by an employee's supervisor or manager. The normal work day will consist of 8.5 hours including a 30 minute unpaid meal break; however, based on business needs, employees may be assigned a straight eight hour shift with a paid fifteen minute break. The Company reserves the right to change these hours based on business needs in accordance with the Agreement. Employees working in excess of their scheduled work day will receive premium pay and meal compensation as provided for in the Agreement.

Transfers: Any future full-time openings in divisions offices will first be offered to voluntary transfers of current qualified full-time Meter Readers.

Sincerely,

A handwritten signature in blue ink that reads "Michael Ciccarella".

Michael A. Ciccarella
Senior HR Consultant
Labor Relations

April 21, 2005

Cinergy Corp.
139 East Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

Mr. Jim Anderson
President
Utility Workers Union of America
IUU Local 600
810 Brighton Street
Newport, Kentucky
Cincinnati, Ohio 45202



Re: Interplant Seniority Rights

Dear Mr. Anderson:

During the 2005 negotiations, representatives of the Company and the Union discussed the interplant seniority rights for employees at the electric generating stations, in the event of a surplus situation.

As agreed, during the term of the 2005 - 2008 Agreement, should the Company declare a surplus at one of its electric generating stations and affected employees cannot be absorbed into the work force at the plant, all of the electric generating stations within the CG&E service territory will be considered one department for purposes of administering roll-backs. The intent is to provide the more senior employees at the station with a surplus situation, the ability to bump the less senior employees at the other stations. The wage rates of surplus employees will be red circled.

By proceeding in this manner, the Union's concern in this matter is alleviated.

Very truly yours,

A handwritten signature in black ink that reads "John E. Polley".

John E. Polley
General Manager
Labor Relations

A-49

Cinergy Corp.
139 East Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

April 21, 2005

Mr. Jim Anderson
President
Utility Workers Union of America
IUU Local 600
810 Brighton Street
Newport, Kentucky 41071



Re: Treatment for Substance Abuse

Dear Mr. Anderson:

During the 2005 negotiations, representatives of the Company and the Union discussed the compensation policy for employees who undertake treatment for substance abuse.

While the treatment of these conditions is specifically excepted from coverage under the sick leave provisions of the Agreement, the Company will, for the term of the 2005 – 2008 Agreement, continue the arrangement of providing short-term disability benefits (STD) to employees who obtain treatment at an appropriate detoxification facility under the direction of the Company or in coordination with the Company and the employee's personal physician. Available STD may only be used for the first continuous absence when an employee undertakes to correct a substance abuse problem through an approved program. If the initial rehabilitation effort at a treatment center is not successful, the employee will not be granted additional STD.

The Company is willing to extend this extra effort to help afflicted employees and their families, to eliminate the burden imposed upon fellow employees, and to minimize lost productivity and absenteeism caused by substance abuse. Employees who are unwilling to accept the responsibility for their own behavior or who refuse to participate in a necessary program will, as in the past, jeopardize their continued employment with the Company.

The Union is encouraged to make the Company aware of individuals thought to have substance abuse problems. With such assistance, fellow employees may be given a chance for which they may be forever grateful.

Very truly yours,

A handwritten signature in black ink that reads "John E. Polley".

John E. Polley
General Manager
Labor Relations

A-50

Cinergy Corp.
139 East Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

April 21, 2005

Mr. Jim Anderson
President
Utility Workers Union of America
IUU Local 600
810 Brighton Street
Newport, Kentucky 41071



Re: Personal/Diversity Day Requests

Dear Mr. Anderson:

It was agreed that the individual departments would attempt to accommodate as many requests as possible to take a personal/Diversity or vacation day on Martin Luther King, Jr. Day, Presidents' Day and/or Good Friday during the term of the 2005 - 2008 Agreement. All requests for a personal/Diversity or vacation day must be made by employees at least 7 days in advance. Days requested with the 7 day advance notice will not be considered as an absence for determining an individual attendance record.

It is thought that this agreement will be mutually beneficial for all involved.

Very truly yours,

A handwritten signature in cursive script that reads "John E. Polley".

John E. Polley
General Manager
Labor Relations

A-51



Duke Energy
Labor Relations
139 East Fourth St
Cincinnati, OH 45201

April 1, 2019

Mr. Steve Kowolonek
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Vacation Carryover

Dear Mr. Kowolonek:

During the 2019 negotiations, representatives of the Company and the Union discussed carryover vacations.

It was agreed that henceforth employees entitled to a vacation may carryover up to a maximum of 80 hours of vacation into the next year. The amount of carryover vacation available in any calendar year may not exceed the 80 hour maximum. Use of vacation carried over may be taken any time during the following calendar year, subject to approval by supervision and the terms outlined in the Agreement for vacation use.

Sincerely,

A handwritten signature in blue ink that reads "Michael Ciccarella".

Michael A. Ciccarella
Senior HR Consultant
Labor Relations

April 21, 2004 2005

Cinergy Corp.
139 East Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

Mr. James Anderson
President
Utility Workers Union of America
IUU Local 600
810 Brighton Street
Newport, Kentucky 41071

Re: Job Elimination Situations

CINERGY.
CG&E

Dear Mr. Anderson:

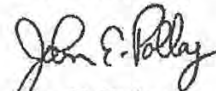
During the 2005 contract negotiations, representatives of the Company and the Union discussed the possibility of employees bumping other employees with less system service seniority at the same wage level in other job classifications in the event of a job elimination situation.

During the discussions the Union wanted the Company to agree to allow senior employees at a given wage level within a bidding area, the right to bump junior employees in other job classifications at the same wage level within the same bidding area, even though the senior employees had never been in the job classification(s) occupied by the junior employees. Due to the potential for a significant loss in productivity, the Company could not agree to that arrangement. However, during the term of the 2005 – 2008 agreement, it was agreed that if such a situation should arise, the Company would work with the Union on a case-by-case basis, in an attempt to place such employees in other available job classifications at the same wage level within the same bidding area. It was further agreed that if the Company is unable to place such employees in job classifications at the same wage level within the bidding area and they have 25 or more years of system service, they will maintain their job titles and wage levels and be eligible for negotiated increases and bonuses. This only applies when such employees with more system service seniority are qualified, but cannot bump into a same wage level job within the bidding area, held by a junior system service seniority individual because they have not passed through the other job.

It was also agreed that should a job elimination situation occur during the term of this Agreement, at the request of the Union, the parties would meet to discuss the rollback procedure described in Article V, Section 3, which may be revised by mutual agreement of the parties.

This accurately reflects the agreements reached between the parties.

Very truly yours,



John E. Polley
General Manager
Labor Relations

A-55



DUKE ENERGY CORPORATION
139 East Fourth St.
PO Box 960
Cincinnati, OH 45201-0960

June 2, 2008

Mr. James W. Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Retirement Plan Agreement

Dear Mr. Anderson:

During the 2008 contract negotiations, representatives of the Company and the UWUA, Local 600 (the "Union") discussed the Company's desire to migrate all employees to a common benefits program. The following outlines the agreement between the Company and the Union for providing the employees with options and protections for Retirement Plan participation that will remain in effect during the 2008 – 2012 Contract.

Traditional Retirement Program Frozen:

Participation in the Cinergy Traditional Retirement Program will be frozen as of January 1, 2013 for certain employees. Active employees on January 1, 2013 who are younger than age 50 (as of December 31, 2012) and anyone who is older than 50 but has fewer than 25 years of service (as of December 31, 2012), will automatically begin participating in the New Duke Retirement Program.

Voluntary Conversion Opportunities:

Active employees in the Traditional Retirement Program will be offered a voluntary window in 2008 to elect to remain in the Traditional Pension Program or elect the New Retirement Program. In 2012, a second voluntary window will be offered only to those active employees who remain in the Traditional Program and who are age 50 with 25 years or more of service as of December 31, 2012.

Voluntary Conversion to the New Retirement Program:

Part A Benefit (Part A): The pension plan benefit employees will earn under the Traditional Program will be based on their participation service as of the "day before conversion date" and their final average monthly pay at retirement (not the date of conversion).

AND

Part B Benefit (Part B): On the "conversion date," employees will start earning an additional pension plan benefit through a new formula that "mirrors" the Duke Energy Retirement Cash Balance Plan.

The Company matching contributions for the 401(k) plan will be enhanced to mirror the Duke Energy Retirement Savings Plan. As a result, employees will be eligible to receive higher matching contributions on a broader definition of pay. The higher

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Mr. James W. Anderson
June 2, 2008
Page 2

amount is a dollar-for-dollar match on the first 6% of eligible pay (this includes base, overtime and annual incentive pay).

Employees will also begin participating in an annual incentive plan with greater award opportunities (up to 5%).

With Mandatory Conversion to the New Retirement Program:

1. Mandatory conversion will be effective January 1, 2013 for employees who have elected to remain in the Cinergy Traditional Retirement Program. Other terms applicable to the mandatory conversion are as follows:
 - a. The final average monthly pay for retirement will be frozen at the time of conversion (no pay run up).
 - b. Employees will have no choice between annuity and lump sum on Part A; only the current traditional program annuitant options will be available for Part A.
 - c. Can still grow in to the 85 points.
 - d. Employees will receive the enhanced 401(k) and enhanced incentive pay as described above once they mandatorily convert.

Employees Currently in the Cash Balance Plans:

Employees who previously selected one of the Cinergy cash balance plans (Balance or Investor) will automatically transition to the New Retirement Program as soon as administratively possible, but no later than January 1, 2009, to include participation in a cash balance pension plan that mirrors the Duke Energy Retirement Cash Balance Plan and an enhanced 401(k) plan to mirror the Duke Energy Retirement Savings Plan and an enhanced annual incentive plan as described below:

Annual Incentive Plan Summary Changes for those who elect or automatically move to the New Retirement Program:

In conjunction with the New Retirement Program, all participants who volunteer or upon mandatory conversion to the New Retirement Program will be eligible for up to a 5% maximum annual incentive pay (payable in 2010) based on the achievement of goals as set forth below:

NEW RETIREMENT PROGRAM – UEIP

Goal	Level 1	Level 2	Level 3
Company Financial Result	.75%	1.5%	3%
Safety	.5%	.75%	1%
Customer Satisfaction	.5%	.75%	1%
	1.75%	3.0%	5.0%

Mr. James W. Anderson
June 2, 2008
Page 3

Annual Incentive Plan Summary Changes for those who do not elect the New Retirement Program:

Employees who elect to remain in the Cinergy Traditional Program, which provides benefits under the current final average pay formula, will not be eligible for the higher incentive payout, but will continue their eligibility for the current Cinergy 401(k) Plan formula and will begin participating in an annual incentive plan, with a maximum award of 2% based on the achievement of goals as set forth below:

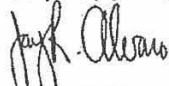
TRADITIONAL RETIREMENT PLAN – UEIP

Goal	Level 1	Level 2	Level 3
Company Financial Result	.5%	.75%	1%
Safety	.25%	.375%	.5%
Customer Satisfaction	.25%	.375%	.5%
	1.0%	1.5%	2.0%

The Retirement Conversion Agreement Survives the 2008 – 2012 Contract:

The Company and the Union expressly understand and agreed that the Retirement Program conversion agreement shall continue in full force through January 1, 2013, surviving the termination of the 2008 – 2012 Contract, and shall continue in full force through succeeding contracts, or in the absence of succeeding contracts, unless changed by mutual agreement of the parties.

Very truly yours,



Jay R. Alvaro
Vice President



Duke Energy
139 East Fourth St
Cincinnati, OH 45201

April 15, 2015

Mr. James Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Amendment to A-58 Retirement Plan Agreement

Dear Mr. Anderson:

During the 2015 negotiations, the Company and the Union discussed changes to the Company's retirement programs. This letter sets forth the changes that were agreed to by the Company and the Union.

Retirement Benefits for New Hires

For employees hired or rehired on or after January 1, 2016, the Company will provide an annual contribution to the Duke Energy Retirement Savings Plan ("RSP") in the amount of 4% of the employee's annual compensation (including base, overtime, and incentive compensation) in accordance with the RSP plan documents. Such newly hired or rehired employees also will be eligible for the Company-provided matching contribution equal to 100% of the before-tax (and Roth) contributions made up to 6% of eligible compensation in accordance with the RSP plan documents on the same basis as employees hired or rehired prior to January 1, 2016. Employees hired or rehired on or after January 1, 2016 will not be eligible to participate in the Cinergy Corp. Union Employees' Retirement Income Plan (the "Retirement Income Plan").

Cash Balance Interest Credit

The cash balance interest credit rate under the Retirement Income Plan for pay credits made on and after January 1, 2016 will be based on a 4% interest rate (0.327% monthly equivalent interest rate). For purposes of clarity, the cash balance interest credit rate applies to cash balance participants and the Part B benefit for participants who have a Part A (traditional) and Part B (cash balance) pension plan benefit. The Part A (traditional) portion of the participant's benefit will not be affected by this change.

Retirement Income Benefit for Long-Term Disability

A participant who starts receiving long-term disability benefits on or after July 1, 2016 will receive interest credits under the Retirement Income Plan's cash balance formula while disabled, but will not receive pay credits while long-term disabled, in accordance with the Retirement Income Plan documents. This change will not apply for any individual who starts receiving long-term disability benefits before July 1, 2016, or participants under the traditional formula, or for the Part A benefit for participants who have a Part A (traditional) and Part B (cash balance) pension plan benefit.

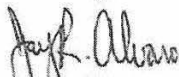
Sidebar Letter A58a
Page 1

For purposes of clarity, as previously agreed, the Company may in its discretion merge the Retirement Income Plan into the Duke Energy Retirement Cash Balance Plan or other defined benefit plan maintained by the Company. In accordance with applicable law, any such merger will not reduce participants' accrued benefits.

The complete provisions of the Company's retirement plans are set forth in the plan documents, as amended to make administrative changes, legally-required changes and/or technical changes that do not reduce the benefits formula. In the event of a conflict between any other communication and the plan documents themselves, the plan documents control.

It is thought that this letter accurately describes the agreement reached by the parties regarding amendments to Sidebar Letter A-58 relating to retirement plan agreements.

Sincerely,



Jay R. Alvaro
Director, Labor Relations
Duke Energy



DUKE ENERGY CORPORATION
139 East Fourth St.
PO Box 960
Cincinnati, OH 45201-0960

June 2, 2008

Mr. James W. Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Sabbatical Vacation Bank and Vacation Credit Programs

Dear Mr. Anderson:

During the 2008 contract negotiations, representatives of the Company and the UWUA, Local 600 (the "Union") discussed the phasing out of the Sabbatical Vacation Bank and the Vacation Credit Programs.

As agreed, these programs shall be phased out in accordance with the attached document, Attachment A, which outlines the specific revisions to the Sabbatical Vacation Bank and Vacation Credit Programs that will remain in effect through December 31, 2012.

The Company and the Union expressly understand and agreed that the phasing out of the Sabbatical Vacation Bank and the Vacation Credit Programs, as stated in the attached document, shall continue in full force until December 31, 2012, surviving the termination of the 2008 – 2012 Contract, and shall continue in force through succeeding contracts, or in the absence of succeeding contracts, unless changed by mutual agreement of the parties.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Jay R. Alvaro'.

Jay R. Alvaro
Vice President

Attachment

A-59

ATTACHMENT A

**REVISIONS TO THE SABBATICAL VACATION BANK
AND VACATION CREDIT PROGRAMS
FOR UWUA, LOCAL 600**

Effective January 1, 2009, the Vacation Bank and Vacation Credit Programs will be phased out over a four year period and will be ending on December 31, 2012.

THE CHANGES:

Sabbatical Vacation Program:

- The sabbatical banking program will be eliminated for employees who are younger than 47 years old as of December 31, 2008.
- Employees who are 47 years old or older as of December 31, 2008 will be eligible to continue banking vacation until December 31, 2012, up to the limits described on the schedule below.
- Employees who have already banked more than the maximum amount of vacation based on the schedule below (including any vacation credits) cannot bank more after January 1, 2009 but will be grandfathered with the amount they have banked.
- No additional banking will be permitted after January 1, 2013. Therefore, the last opportunity to bank vacation will be in December 31, 2012 because banking is done at the end of the year.
- Banked vacation will be paid out at the final rate of pay at retirement.

Vacation Credit Program:

- **Vacation Credits:** Up to six weeks credit, starting at age 51, cannot exceed the employee's vacation entitlement.
- Employees who are at least 51 years old as of December 31, 2012 will continue to receive "vacation credits" up to the lesser of their annual vacation entitlement or the schedule below.
- The vacation credit program will be modified for employees who are younger than 51 years old as of December 31, 2012. For those employees "only" hired prior to January 1, 1997 will receive their "vacation credits" up to the amount of vacation time they were eligible for as of January 1, 2006.
- Vacation credits will be paid out at the final rate of pay of retirement.

Service Credit Program:

- **Service Credits:** Up to two weeks for years 32 and 33 years of employment in lieu of a 6th week of vacation time off.
- Employees will continue to receive one week of "service credit" added to their vacation bank in years 32 and 33 of employment in lieu of time off until December 31, 2012. Effective January 1, 2013, employees will be granted a 6th week of vacation time off during their 32nd year of employment in lieu of a week of service credit.
- An employee who has already reached their maximum or more of vacation bank before January 1, 2013 will receive their 6th week of vacation as "time off" in lieu of a service credit.

THE SCHEDULE:

Age as of: 12/31/2008	Maximum Banked Vacation (including vacation and service credits)
47	10
48	10
49	10
50	12
51	14
52	16
53	18
54	20
55	22
56	22



DUKE ENERGY CORPORATION
139 East Fourth St.
PO Box 960
Cincinnati, OH 45201-0960

June 2, 2008

Mr. James W. Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Union Employee Annual Incentive Program (UEIP)

Dear Mr. Anderson:

During the 2008 contract negotiations, representatives of the Company and the UWUA, Local 600 (the "Union") discussed that the payout for the incentive bonuses for employees will vary based on their participation in the offered retirement program.

Beginning with the 2009 goals and during the term of the 2008 – 2012 Agreement, the UEIP payout (payable in 2010) will be administered as follows:

Annual Incentive Plan Summary Changes for those who elect or automatically move to the New Retirement Program:

In conjunction with the New Retirement Program, all participants who volunteer, or upon mandatory conversion, will be eligible for up to a 5% maximum annual incentive pay, as specified below:

NEW RETIREMENT PROGRAM – UEIP

Goal	Level 1	Level 2	Level 3
Company Financial Result	.75%	1.5%	3%
Safety	.5%	.75%	1%
Customer Satisfaction	.5%	.75%	1%
	1.75%	3.0%	5.0%

A-60

Mr. James W. Anderson
June 2, 2008
Page 2

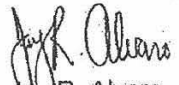
Annual Incentive Plan Summary Changes for those who remain in the Traditional Retirement Program:

Employees who elect to remain in the Cinergy Traditional Program, which provides benefits under the current final average pay formula, will not be eligible for the higher incentive payout, but will participate in an annual incentive plan; with a maximum award of 2%, as specified below:

TRADITIONAL RETIREMENT PLAN – UEIP

Goal	Level 1	Level 2	Level 3
Company Financial Result	.5%	.75%	1%
Safety	.25%	.375%	.5%
Customer Satisfaction	.25%	.375%	.5%
	1.0%	1.5%	2.0%

Very truly yours,


Jay R. Alvaro
Vice President



Duke Energy
139 East Fourth St
Cincinnati, OH 45201

April 15, 2015

Mr. James Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Amendment to A-60 Letter Regarding the Union Employee Annual Incentive Plan (UEIP)

Dear Mr. Anderson:

During the 2015 contract negotiations, representatives of the Company and the UWUA, Local 600 ("Union") discussed eligibility for the Union Employee Annual Incentive Plan ("UEIP"). As a result of those discussions, the parties agreed to amend Letter A-60 dated June 2, 2008 as set forth below.

Beginning with the 2015 calendar year performance period under the UEIP, the Company will provide a prorated UEIP payment (calculated as set forth below) to any eligible Union employee who meets the following criteria during a performance period: (i) works for at least six complete calendar months, and (ii) retires (as defined below).

Such prorated UEIP payments shall be paid in the first quarter of the calendar year immediately following the applicable performance period at the same time and on the same basis as other UEIP payments are made to other eligible Union employees, and any such prorated UEIP payment shall be calculated based on the eligible earnings of the retired Union employee during the applicable performance period and actual achievement relative to the pre-established goals set forth in Letter A-60.

For purposes of clarity, in no event will a Union employee who does not meet the criteria set forth in this letter be eligible for a prorated UEIP payment for a performance period if he or she isn't employed on December 31st of the performance period. For purposes of this Letter, "retire" means separate from employment with the Company after having attained at least age 55 and 10 years of service (as determined for purposes of access to Company sponsored retiree medical coverage).

In other respects, Sidebar Letter A-60 shall continue in full force and effect herein for the duration of the 2015 - 2019 Agreement, unless changed by mutual agreement of the parties.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jay R. Alvaro'.

Jay R. Alvaro
Director, Labor Relations
Duke Energy

Sidebar Letter A60a



Duke Energy
Labor Relations
139 East Fourth St
Cincinnati, OH 45201

April 1, 2019

Mr. Steve Kowolonek
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Union Employee Annual Incentive Program (UEIP)

Dear Mr. Kowolonek:

During the 2019 negotiations, the parties discussed the UWUA Union Employee Annual Incentive Program (UEIP). This letter amends the UEIP Sidebar Letter A-60 dated June 2, 2008 and confirms these discussions and the resulting agreement.

As discussed during negotiations, beginning with the 2020 incentive year UWUA represented employees are eligible for an incentive lump sum bonus up to a maximum of 2% or 5% of straight time and overtime wages per year in accordance with Sidebar Letter A60 Union Employee Incentive Plan (UEIP), based on the achievement of goals during the previous year, as determined by the Company.

In all other respects, Sidebar Letters A60 shall continue in accordance with the terms as outlined.

Sincerely,

A handwritten signature in blue ink that reads "Michael Ciccarella".

Michael A. Ciccarella
Senior HR Consultant
Labor Relations



Duke Energy
Labor Relations
139 East Fourth St
Cincinnati, OH 45201

April 1, 2019

Mr. Steve Kowolonek
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Cincinnati Customer Care Center

Dear Mr. Kowolonek:

During the 2019 contract negotiations, representatives of the Company and the UWUA, Local 600 (the "Union") discussed the Duke Energy Cincinnati Customer Care Center.

As agreed, the Cincinnati Customer Care Center organization will consist of Customer Service Representatives (CSR) and Service Installation (SI). The CSR group will consist of employees in the Cust Svc Rep-FT Regular, Customer Service Rep-Full Time New, and Cust Service Rep-Part Time New job classifications. The Service Installation group will consist of employees in the Order Processing and Customer Service Representative – Service Installation classifications.

The Cincinnati Customer Care Center wages and merit increases will be administered per the attached (Attachment A). The minimum wage rate for the Cust Svc Rep-FT Regular and Customer Service Rep-Full Time New classifications will be \$14.50 per hour and the maximum hourly rate will be \$16.00 per hour. Effective April 1, 2020 and for the remaining term of the 2019 – 2023 Agreement, the General Wage Increase (GWI) applicable to UWUA represented Clerical employees will be applied to the maximum hourly wage rate of \$16.00 for the Cust Svc Rep-FT Regular and Customer Service Rep-Full Time New classifications. In addition, this increase will be applied to the individual hourly wage rates for employees in these classifications not to exceed the maximum rate of pay. The minimum rate of pay will not increase over the term of the Agreement.

Incentives in the Cincinnati Customer Care Center will be based on the achievement of established performance measures as determined by the Company. The Company will notify the Union of any changes and will meet to discuss if requested by the Union. Any request by the Union to meet for discussion will not delay the implementation of incentive measures. Any employee, who is serving in a non-call-taking role, will receive a bonus equal to the average bonus payout for call-takers, unless an alternative method is mutually agreed upon by management and union representatives. There will be a quarterly review by management and union representatives to ensure that bonus calculations are accurate. Assuming the union representatives involved in this review are in agreement with the calculations, the Union agrees not to support or process grievances related to the bonus calculations.

An incentive eligible employee, who leaves the Cincinnati Call Center, prior to the end of a quarter, will receive a prorated bonus for the time worked in the Cincinnati Call Center organization.

It is expected that representatives working evening, night, holiday or weekend shifts provide at least three hours' notice if they are going to be unable to report to work, whether due to illness or other factors. It is understood that there will be times when an emergency occurs within three hours of the start of an employee's shift.

Employees (including SI), who are called out for other than planned overtime, will be paid a minimum of four hours at the appropriate overtime rate except when they come in, relative to storms, less than four hours before their scheduled shift. In this case, they will only be paid at the applicable overtime rate for a minimum of two hours.

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Page 2

Employees (including SI), who are called out for other than planned overtime, will be paid a minimum of four hours at the appropriate overtime rate except when they come in, relative to storms, less than four hours before their scheduled shift. In this case, they will only be paid at the applicable overtime rate for a minimum of two hours.

The Call Center may elect to observe the actual holiday or the Company designated holiday based on business needs. Prior to December 31 of each year the Company will notify employees of the holiday schedule for the following year. Employees scheduled to work the holiday designated by the Call Center that are excused from work by the Company will receive holiday pay for the regularly scheduled hours they would have worked on the holiday. All other employees will receive eight hours of holiday pay. Twelve hour and nine hour employees working on the holiday designated by the Call Center will receive time and one-half pay for their scheduled hours. If the employee exceeds their scheduled hours, double time will be paid for those hours worked in excess of their schedule. In order to be eligible to receive holiday pay, full time Customer Service Representatives must work the last regularly scheduled workday prior to the holiday and the first regularly scheduled workday after the holiday.

The Union agrees to support the following:

Virtual Routing (Base Customer Care)

- The Union agrees to not grieve the routing of Duke Energy customer calls and other types of Call Center non-call work to available representatives within the Duke Energy Call Centers or outsourced center(s). The outsourced portion of this work is not subject to any related side-letter agreements.

Premium for Specialties

- Employees in developmental roles will receive \$1.75 per hour in addition to the employee's normal hourly wage rate. These roles currently include the training of new employees and performing the duties of On Job Trainer. This premium may be applied to other roles as determined by the Company. Prior to applying this premium to other duties, the Union and Company will meet at least thirty days in advance to discuss.
- Full-time new and part-time representatives, within the Cincinnati Call Center, who demonstrate, through assessment, that they are fluent in Spanish, will be paid a premium of \$1.00 per hour.

Applicable to Customer Care Operations (Base and SI)

- Virtual Agents. The use of Virtual Agents was discussed and it was agreed that the Company will have the ability to implement a Virtual Agent program based on business needs. The advantages to such a program include faster response for emergency/outage situations, a more efficient use of resources, and increased customer satisfaction. Eligibility will be based on an employee's performance including but not limited to:
 - Achieving or exceeding all performance metrics.
 - No corrective action within the past twelve months.
 - Minimal escalations or Resource Support Line (RSL) calls.
 - Participating employees who subsequently develop performance related issues may have their Virtual Agent privileges revoked.

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Page 3

The number of employees participating in the program is at the sole discretion of the Company. In the event that two or more employees' performance is equal as determined by the Company, seniority will be the deciding factor. Order Processing Representative and Customer Service Representative – Service Installation (CSR-SI) classifications will be combined when determining eligibility for the Service Installation work group. In addition, the program may be suspended or discontinued based on business needs by the Company in its sole discretion. Prior to making such a decision, the Company will meet with the Union for discussion.

- *Emergency or Abnormal Operations.* In order to ensure that our customers' needs are met during outage, abnormal, or emergency situations, it was agreed that a 33% response rate over a rolling twelve month period would apply to all Cincinnati Customer Care employees. Response is defined as reporting to work a call out associated with these types of situations. Any employee who has pre-approved vacation/personal time scheduled immediately prior to or after scheduled off days, or is beginning or ending a bereavement leave, will not have a non-response credited to them for the purposes of calculating the response rate. However, if an employee does respond in this situation a credit will be applied. Employees failing to meet the required rate are subject to corrective action.
- *Vacation Availability.* In the event that Workforce Management determines that additional vacation slots are available during the workday, employees will have the ability to make a request to take advantage of these slots.

Applicable to Base Customer Care Operations

Employees may be hired either as full time or part time based on business needs. In accordance with the Collective Bargaining Agreement new employees will be classified as probationary for a period of one year. Probationary CSRs will not be eligible to apply for other positions for a period of twelve months from the date of hire. Employees meeting the educational requirements for technical positions represented by the UWUA will be eligible to apply within the twelve month period.

Based on business needs there may be a requirement for part time CSRs. All part-time CSRs will receive part-time employee benefits, regardless of the number of hours they work. While the intention is for part-time CSRs to be scheduled for less than 32 hours per week, they may exceed this number of hours due to actual or expected peak call volumes, trading of hours between employees, etc.

In 2012 two new schedules were agreed to;

- A) 3 twelve hour days and 1 four hour day.
- B) 4 nine hour days and 1 four hour day.

The Company reserves the right to implement these and other schedules based on business needs. At least 30 days prior to implementation, the Union and Company will meet to discuss the schedule. The Company will make every attempt to notify effected employees within a reasonable amount of time when planned overtime is being cancelled.

The meal provision for twelve hour workers will be triggered when the employee works thirteen consecutive hours and fifteen consecutive hours with the employee receiving a meal, or compensation in lieu thereof. For employees on a nine hour schedule, a meal or compensation in lieu thereof, will be provided at eleven and fifteen consecutive hours respectively.

Personal days must be taken in full day increments regardless of the employee's schedule. Twelve hour shift workers will be entitled to three personal day and one diversity day and nine hour shift workers will be entitled to four personal days and one diversity day.

Sidebar Letter A61
Page 4

Applicable to Service Installation

Customer Service Representative – Service Installation (CSR-SI) within the Customer Relations bid area will have a minimum wage rate of \$16.50 and a maximum wage rate of \$19.00 per hour. Only full time employees will be considered for this position. The minimum and maximum wage rates are not subject to the negotiated annual wage increases. For the first 12 months after entry into the classification, and in accordance with the Patrick P. Gibson Letter, employees failing to meet performance standards may be demoted to the Full Time New job classification. Such demotion may take place prior to corrective action being taken. This does not preclude action being taken on more serious offenses such as but not limited to attendance, zero tolerance calls, or any dischargeable offense. Any demotion will not be subject to the grievance procedure. If such a demotion occurs, the employee's rate of pay will be reduced to the rate of pay at the time the employee promoted to the CSR-SI position plus any merit increase that the employee had received since their promotion, not to exceed the maximum wage rate for the CSR classification. If the employee is demoted, they will not be considered for promotion for an additional nine months, from the date of demotion or last corrective action. During the first six months, an employee can request to demote from CSR-SI. Employees who demote within six months will retain their classified seniority. Employees demoted after six months will receive an adjusted seniority date.

Employees in the CSR-SI classification will receive a \$0.50 merit increase every six months in accordance with the December 29, 2000 Patrick P. Gibson Letter in lieu of the annual general wage increase until reaching the maximum rate of pay. Once an employee reaches the maximum rate of pay, they will receive an annual lump sum equal to the negotiated general wage increase for clerical employees.

Employees accepting a Customer Service Representative – Service Installation position will not be eligible to cross or laterally bid for a period of nine months from the date they enter the classification.

This letter will be in effect during the term of the 2019 – 2023 Agreement.

Sincerely,



Michael A. Ciccarella
Senior HR Consultant
Labor Relations

Sidebar Letter A61
Attachment A

Attachments

	Cust Svc Rep-FT Regular and Customer Service Rep-Ftn			
	Current Max	April 1, 2020	April 1, 2021	April 1, 2022
General Wage Increase	NA	2.5%	2.5%	2.5%
Max Wage	\$16.00	TBD	TBD	TBD

1. Merit increases for Customer Service Rep-Ftn remain at \$0.25 every six months in accordance with the Letter of Agreement dated February 23, 2018.
2. Merit increases for Cust Svc Rep-FT Regular remain at \$0.50 until April 1, 2020 at which time the amount will be reduced to \$0.25 due to the GWI being applicable.
3. Customer Care Incentive Bonus of up to \$500 per quarter based on performance.
4. Employees are eligible to participate in the UEIP.

Title	Wage Range	Negotiated Base Wage Increases	Merit Increases	UEIP	Call Center Incentive Bonus
CSR – PTN	\$12.00 - \$13.00 ¹	Same as Clerical ²	\$0.25	Yes	Up to \$375 per Quarter
CSR-SI	\$16.50 - \$19.00 ¹	See #3	\$0.50 ⁴	Yes	See #5
Order Processing Rep	N9	Same as Clerical	\$0.25 every six months.	Yes	See #5

1. The minimum and maximum wage rates for the CSR-PTN and CSR -SI will not increase with annual base wage increases.
2. Any CSR-PTN with a wage rate at or above the maximum will receive their annual increase in the form of a lump sum rather than a base increase.
3. Semi-annual merit increases are in lieu of General Wage Increase.
4. \$0.50 every six months is in lieu of General Wage Increase. After maximum is reached employee will receive a lump sum increase equal to the negotiated annual wage increase for clerical employees.
5. Service Installation representatives assigned to take base calls at least 35% of the quarter will receive the quarterly Call Center Incentive based on their performance.



DUKE ENERGY CORPORATION
139 East Fourth St.
PO Box 960
Cincinnati, OH 45201-0960

June 2, 2008

Mr. James W. Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Part-Time Employee Benefits

Dear Mr. Anderson:

During the 2008 contract negotiations, representatives of the Company and the UWUA, Local 600 (the "Union") discussed benefits that would be extended to part-time employees represented by the Union. Accordingly, the following table outlines the benefits that these employees will receive during the term of the 2008 – 2012 Collective Bargaining Agreement.

Benefit	Comment
Pension	Only if work greater than 999 hours in a 365 day period
401(k)	Same as full time employees
Medical	Same as full time employees
Dental	Same as full time employees
Vision	Same as full time employees
Flex Spending Accounts	Same as full time employees
Short-Term Disability (STD)	After 12 consecutive months of employment
Bereavement	Day of funeral only
Holidays	Only if holiday falls on a regular scheduled work day
Personal Day	One personal day after 12 consecutive months of employment
Vacation	Number of hours regularly scheduled per week times # of vacation weeks based on years of service
Supplemental Workers' Compensation	Same as full time employees
Jury Duty & Witness Pay	Only if it falls on a regular scheduled work day
Shift/Sunday Premiums	Same as full time employees
Life and AD&D Insurance	Same as full time employees
Dependent Life Insurance	Same as full time employees

Very truly yours,

Jay R. Alvaro
Vice President

A-62



Duke Energy
Labor Relations
139 East Fourth St
Cincinnati, OH 45201

April 1, 2019

Mr. Steve Kowolonek
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Revenue Services Representative

Dear Mr. Kowolonek:

During the 2012 negotiations, the parties discussed consolidating the current three work groups within the Revenue Services Department into one newly created job classification titled "Revenue Services Representative" (RSR). Based on these discussions, the parties agreed to create the RSR position in accordance with this letter.

Specifically, Revenue Services currently is comprised of three work groups: (1) Billing, (2) Accounts Receivables, and (3) Payments. These three work groups' functions will be combined and performed by the newly created RSR position. The job description for the RSR position is Attachment A to this letter.

Wage Rate: The minimum rate of pay for the RSR position is established at \$17.00 per hour and will not increase during the term of the contract. The maximum rate of pay is \$19.50 per hour with the maximum increasing to \$19.75 on April 1, 2021. The GWI will not increase the minimum or maximum rate of pay for this position. Any employee below the new minimum rate of pay will be increased to new minimum with next payroll following contract ratification.

Merit Increases: Employees in the RSR position may progress to the maximum wage rate through merit increases of \$0.25 at six-month intervals. Employees will be eligible for \$0.25 merit increases in accordance with the December 29, 2000 Patrick P. Gibson Letter. Employees at the maximum rate of pay will receive an annual merit increase in a lump sum amount equal to the negotiated general wage increase for clerical employees, which may be in the form of a percentage pay increase and/or lump sum amount.

Selection: The Company will give first consideration to full-time employees over part-time employees in the competency-based selection process for the RSR position when all other things are equal.

Incumbent Employees. Incumbent employees will perform all functions of the newly created job description but will be considered grandfathered in their existing classifications. Incumbent employees will continue to receive the negotiated general wage increases applicable to their current job classifications in accordance with the Collective Bargaining Agreement. In addition, these employees will retain all bid and rollback rights in the Customer Relations Bidding Area.

Tamper Theft and Switched Meter Work -The Company and the Union agree to establish a \$1.75 per hour premium to be paid to employees in the RSR position when management assigns them to perform tamper theft and switched meter work. Management will assign full-time employees to perform specialty-type work as needed. Any employee who has received a verbal warning in the past six months, or a disciplinary letter or higher-level discipline in the past year will not be considered. Such employees are eligible for consideration once his or her record is free from a verbal warning for six months, and/or free from any disciplinary letter or higher-level discipline for one year. It is anticipated the number of employees performing this work will vary based on work load.

Sidebar Letter A64
Page 2

Should additional specialty type work be brought into these teams the company will meet with the Union, at their request, to determine whether the premium is applicable to the work. The Company reserves the right in its sole discretion to determine whether the premium is applicable.

Management will consider seniority as a tiebreaker to determine which equally qualified employees will be assigned to perform this work. No premium will be paid to employees while training or on paid time off. This letter shall not be construed as limiting management's rights under the terms of the applicable collective bargaining agreement.

Title	Wage Range	Merit Increase
Revenue Services Rep April 1, 2019 - March 31, 2020	\$17.00 - \$19.50	\$0.25 every 6 months
Revenue Services Rep April 1, 2021 - March 31, 2023	\$17.00 - \$19.75	\$0.25 every 6 months

This letter will be in effect during the term of the 2019 - 2023 Agreement.

Sincerely,



Michael A. Ciccarella
Senior HR Consultant
Labor Relations



Duke Energy
Labor Relations
139 East Fourth St
Cincinnati, OH 45201

April 1, 2019

Mr. Steve Kowolonek
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Competency Based Selection

Dear Mr. Kowolonek:

During the 2019 negotiations, the Company and Union discussed the ongoing implementation of a Competency Based Selection (CBS) Process for certain job classifications. Specifically, this process will be utilized when filling certain clerical jobs designated as Level NB and above and certain technical jobs designated as level T4 and above. This will ensure that the most qualified candidate is selected for the position and is more likely to succeed.

Job openings will be filled using the following Competency Based Selection process:

- Job applications/resumes will be screened to determine that the basic qualifications, as set forth in the job description are met. An employee's corrective action which is below Suspension will not affect consideration of the employee for any jobs that are posted externally.
- To supplement their application, Company employees may print copies of their training records, job history, or other similar documents relating to their employment from the Employee Center on the Company's portal, and provide such documents to interviewers during the interview process or as attachments to their electronic application. All such documents provided by employees will be considered by the Company.
- Candidates meeting the minimum qualifications will be evaluated based on the following factors: skills and qualifications, prior job performance and/or experience and, in certain positions, a Basic Skills Assessment.
- Absent unusual circumstances, candidates will be interviewed by a team of at least three qualified, interviewers as determined by the Company. When determined by the Company to be feasible, one of the interviewers will be from a department outside of the department posting the position. Human Resources and/or Labor Relations will continue to provide guidance as appropriate.
- Company employees will be provided with advantage points in the process that will not be provided to external applicants. Specifically, the advantage points will be calculated as follows:
- One point will be provided for existing UWUA members; and
- One point will be provided for existing UWUA members who are full-time employees.

Accordingly, a part-time UWUA member would be provided with one advantage point and full-time UWUA members would be provided with two advantage points.

Sidebar Letter A65
Page 2

- Seniority will be the deciding factor if there are two full-time, internal candidates who are equally qualified as determined by the Company. (
- Unsuccessful candidates under this process will be provided with additional interview training and/or assistance with resume preparation upon their written request to their HR Business Partner.

The process, as outlined above, will be used for the following job classifications:

CLERICAL	TECHNICAL
Gas Operations Administrator	System Integrity Technician Associate
Administrative Office Clerk	System Integrity Technician
Electric Operations Clerk	Sr System Integrity Technician
Order Processing Representative	Gas Technician
Sourcing/Purchasing Associate	Control Technician III
Customer Relations Representative B	Technician
Gas Document Specialist	Control Technician II
Customer Relations Clerk B	Gas Layout Technician
Office Coordinator	T&D Support Technician
Revenue Services Representative	Control Technician I
Service Installation Representative	Sr Gas Layout Technician
Customer Experience Support	GIS Technologist II
Senior Work Management Specialist	GIS Technologist I
Land Analyst	GIS Technologist III
Gas Office Coordinator	LIT Support Agent II
Gas Operations Support Specialist	LIT Support Agent I
Customer Relations Representative C	T&D Design Technician
Customer Relations Clerk C	Design Technician
Engineering Office Clerk	Operations Technician
Administrative Office Clerk - IT	Sr Substation Design Technician
	Sr T&D Design Technician
	Distribution Technician
	Substation Design Technician
	Surveying Technician
	Sr Transmission and Distribution Technician
	Sr T&D Support Technician
	Gas Marketing Specialist
	Configuration Management Specialist
	Engineering Specialist I
	Engineering Specialist Assistant
	Event Tech Services Specialist I
	Gas Controls System Tech
	P&C Design Document Specialist
	Lighting Specialist I
	Lighting Specialist II

Sidebar Letter A65
Page 3

Additionally, the Company would use this process to fill any newly created job classifications that are at or above the NB or T4 wage level (or its equivalent). The selection process for Customer Projects Resource Specialist, Customer Project Coordinator and the Gas Operations Trainer, will remain as outlined in the applicable side bar letters.

Sincerely,

A handwritten signature in blue ink that reads "Michael Ciccarella". The signature is written in a cursive style with a large initial "M".

Michael A. Ciccarella
Senior HR Consultant
Labor Relations



Duke Energy
Labor Relations
139 East Fourth St
Cincinnati, OH 45201

April 1, 2019

Mr. Steve Kowolonek
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Severance Program

Dear Mr. Kowolonek:

To the extent the Company and the union agree that a severance opportunity will be provided to UWUA represented employees during the term of the CBA, the Company will provide employees who are designated as eligible by management a one-time lump-sum severance payment and other benefits if they meet basic plan requirements, as set forth below;

Severance Payment Formula

The Severance Payment will be calculated as follows based on the Eligible Employee's release date;

- Two weeks of Annual Base Pay for each Year of Service (including partial Years of Service).
- For employees hired on or after April 1, 1989, the Severance Payment will not be less than 12 weeks and not more than 52 weeks of the eligible employee's Annual Base Pay.
- For employees hired before April 1, 1989, the Severance Payment will not be more than two times the eligible employees Annual Base Pay. The maximum severance payment will not exceed two times an employee's annual compensation calculated as two times the compensation listed in Box 5 of the employee's most current W-2.

Additional Benefits

- Six months of Company-paid medical/dental coverage under COBRA following separation for all participating employees who have such coverage in effect as active employees upon separation.
- Access to outplacement services under the Company's program.

Design Features

- Employees are required to remain employed in good standing until their release date, which will be established by management in its sole discretion.
- Employees must sign and not revoke a Waiver and Release of All Claims in order to receive any benefits under this Program.
- Employees who separate under this Program will not be eligible for rehire or for staff-augmentation contingent worker (contractor) assignments for 12 months after their release date.

Sidebar Letter 70
Page 2

The Company shall designate who will be eligible for the severance program by department, job classification, age and/or years of service, or other legitimate, objective criteria, as determined by the Company, in its sole discretion.

Sincerely,

A handwritten signature in blue ink that reads "Michael Ciccarella". The signature is written in a cursive, flowing style.

Michael A. Ciccarella
Senior HR Consultant
Labor Relations



April 13, 2012

Mr. James Anderson
President
Utility Workers Union of America
IUU Local 600
810 Brighton Street
Newport, Kentucky 41071

Re: Overtime Provisions

Dear Mr. Anderson:

During 2012 contract negotiations, the parties discussed providing employees' flexibility in certain situations to work overtime assignments at a time mutually agreeable to the individual employee and his or her management, when consistent with business needs.

Per our discussion regarding overtime scheduling, the parties have agreed to the following in order to provide flexibility to employees. If an employee volunteers or is required to work overtime and the employee requests to work the overtime on their second scheduled off-day in lieu of working the overtime on a different scheduled off-day, management may approve the employee's request if it meets business needs as determined by the Company. When such employee requests are granted by the Company, the overtime worked will be paid at the rate of time and one-half, instead of double time.

Similarly, if an employee requests to work overtime at a date and/or time of his or her choice and the supervisor approves the request as consistent with business needs as determined by the Company, the Company will pay the overtime at the time and one-half rate.

This in no manner restricts the right of the Company to schedule overtime based on business and operational needs. Such assignments may be mandatory and employees are expected to work such mandatory assignments, and the applicable overtime and meal provisions would apply as stated in the Agreement.

It is believed that this letter accurately describes the parties' agreement.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Jay R. Alvaro'.

Jay R. Alvaro
Vice President, Labor Relations

A-71



April 13, 2012

Mr. James Anderson
President
Utility Workers Union of America
IUU Local 600
810 Brighton Street
Newport, Kentucky 41071

Re: Outsourcing Affecting Job Elimination

Dear Mr. Anderson:

During the 2012 negotiations, the parties discussed the issue of outsourcing and its impact on bargaining unit members. The parties agreed that the 2005 Labor Management Executive Committee (LMEC) process was outdated, and should be replaced as set forth herein.

The parties will continue to engage in a collaborative process where Labor Relations professionals, management, and union representatives exchange data, perspectives, and ideas so that outsourcing decisions affecting job elimination can be made in an open and candid environment.

As a first step, once the Company has determined that outsourcing is feasible based on proposals received from a potential vendor(s) and that outsourcing will likely result in job elimination, the Company will notify the Utility Workers Union of America, IUU Local 600 ("Union"). Upon receiving this notice, the Union can request information from the Company and/or propose how it would be more advantageous for unionized employees to retain the work at issue.

If requested by the Union, a meeting will be held to discuss the most competitive bid. During the meeting, the Company will provide the Union the key criteria used to evaluate the bid. The meeting should include the following representatives:

- Management representative of the outsourcing department;
- Union leadership;
- A representative from Labor Relations

The Company is fully aware of any legal responsibilities it may have, including the legal duty to share information and bargain in good faith, and will comply with those responsibilities. The Union understands that information shared between the parties while utilizing the process described in this letter is subject to legal protections, and the information shall remain confidential to this process and to the Company.

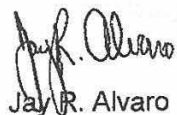
A-72

The parties recognize that each outsourcing proposal should be evaluated on a case-by-case basis, with consideration of factors including but not limited to the overall operating costs, relative labor costs (including the applicable loading rates such as benefits, pension, payroll taxes, etc.), any applicable regulatory requirements, equipment, technological developments, job process improvements, special expertise, efficiency, safety, availability of skilled labor and supervision, scalability, and any other factors that may impact the merits of outsourcing.

The parties further recognize and agree that neither party shall cause unreasonable delay during the process. It is the intent of the parties that this process will occur during approximately two months following the notice provided to the Union referred to in Paragraph 3 hereinabove and/or the parties' first meeting on the issue, if later than the notice. No provision of this letter shall be construed to eliminate or otherwise modify any applicable provision of the parties' collective bargaining agreement relating to outsourcing.

It is agreed that this letter accurately reflects the parties' agreement.

Very truly yours,



Jay R. Alvaro
Vice President, Labor Relations



Duke Energy Corporation
139 East Fourth St.
Cincinnati, OH 45202

Michael A. Ciccarella
Labor Relations Consultant
513.287.5022 (Tel)
513.287.1760 (Fax)

November 16, 2009

Mr. Jim Anderson
President, UWUA Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: LIT Support Agent Job Progression

Dear Mr. Anderson:

The Company is establishing a new job progression in order to provide information technology support to various business units. The classifications are as follows;

- LIT Support Agent I
- LIT Support Agent II
- LIT Support Agent III

Initially three positions will be filled with one employee classified as a Support Agent I and two classified as Support Agent II. Based on the skill set required to perform this work, the Company will select the individuals for these positions. In regard to educational requirements, employees initially placed in these positions will be grandfathered and will be considered as meeting the requirements for promotional opportunities within this progression. Going forward, the LIT Support Agent III will be the entry level position for this progression and posted as stated in the Collective Bargaining Agreement.

Wage Rates

The wage rates for this classification will be as follows;

Job Classification	Minimum Hourly Rate	Maximum Hourly Wage	Merit Increase
LIT Support Agent I	\$30.71	\$33.71	\$0.25
LIT Support Agent II	\$25.97	\$28.97	\$0.25
LIT Support Agent III	\$21.88	\$24.50	\$0.25

Individuals placed initially in these positions will be placed at their current wage level not to exceed the maximum wage rate established for the classification. Employees making less than the minimum will be placed at the minimum wage rate for that classification.

Merit Increases

Merit increases will be given every six months in accordance with the "Patrick P. Gibson" letter dated December 29, 2000. These increases will be \$0.25 per hour.

Sidebar Letter A73
Page 1

Mr. James Anderson
November 16, 2009
Page 2

Out of Town Work Assignments

It is anticipated that all employees in this progression will be given out of town assignments to support Duke Energy facilities. Based on skill level, the majority of these assignments will fall within the LIT Support Agent I classification. When such assignments are made Sidebar Letter A-15 will prevail.

Emergency Overtime Callouts

There may be occasions when employees are called out to respond to information technology issues that require an immediate response to ensure continuity of operations. In such cases, employees will be permitted to respond from locations other than a Duke Energy facility. In such case, the minimum call out of four hours will apply. If a second call out is required within four hours of the first call out it will be considered a continuation of that call out. If an employee does not travel in order to respond then no travel time will be paid.

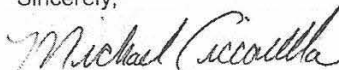
Employees are expected to respond to and work a reasonable number of emergency overtime assignments. Employees who are consistently unavailable for such assignments are subject to disciplinary action, up to and including discharge.

Progression


Employees will perform satisfactory will automatically promote from the Support Agent III classification to the Support Agent II classification once all qualifications are met. Employees on a disciplinary track or those that have been denied a merit increase will not be eligible to promote until they have received two consecutive merit increases or have been discipline free for one year. Promotions to the Support Agent I classification will be based on business need only.

This letter describes the establishment of the above mentioned classifications, wage rates, and initial staffing. Except where specifically abridged by this letter, all provisions of the 2008 – 2012 Collective Bargaining Agreement apply. In addition, the rights retained by the Company under Article I, Section 2 (c) of the Agreement remain unchanged. This letter in no manner represents a commitment on behalf of the Company in regard to staffing levels. The Company reserves the right to change or modify these job descriptions in accordance with the Agreement. I believe that this letter adequately describes our discussion regarding this matter. If the Union is in agreement with this proposal please return a signed copy of this letter to me at your earliest convenience.

Sincerely,



Michael A. Ciccarella
Labor Relations Consultant
Duke Energy

Signed:  Date: 12/7/09
James Anderson, President
Utility Workers Union of America, Local 600



DUKE ENERGY CORPORATION
139 E. Fourth Street
P.O. Box 960
Cincinnati, OH 45201-0960

Michael A. Ciccarella
513.287.5022 (Tel)
513.287.1760 (Fax)

March 31, 2011

Mr. Jim Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: On Call Rotation – Local IT Support

Dear Mr. Anderson:

Per our recent discussion, the Company is establishing an on call rotation for employees in the Local Information Technology job progression. As we discussed, the employee in the LIT I classification is excluded from this rotation due to business needs at this time. However, it is acknowledged and agreed that the Company has the sole discretion to include employee(s) in the LIT I classification in the rotation if business requirements change in the future.

While on call, employees will be compensated at the rate of \$16.50 per day. In addition, the minimum call out will be two hours. If a second call out is required within two hours of the first call out, it will be considered a continuation of that first call out. As previously agreed to, employees will be permitted to respond from locations other than a Duke Energy facility. If an employee does not travel in order to respond, then no travel time will be paid.

Employees failing to respond to a call out in a timely manner may be subject to disciplinary action, up to and including discharge.

Sincerely,

Michael A. Ciccarella
Labor Relations Consultant
Duke Energy

For the Union:

James Anderson
President, UMW Local 600

Date 4/5/11

A-74



DESIGN ENGINEERING AND
CONSTRUCTION PLANNING

Duke Energy Corporation
139 East Fourth Street
Cincinnati, OH 45202

December 20, 2012

Mr. Jim Andersen
President
Local 600
Utility Workers Union of America
810 Brighton Street
Newport, KY. 41071

Re: Foreign Utility Assistance

Dear Mr. Andersen:

This letter documents our discussions and agreement concerning emergency work performed for other utilities. The following guidelines will apply when employees represented by UWUA Local 600, are called upon to work for a foreign utility in emergency situations.

Compensation Guidelines:

- All hours of travel or work will be paid at the rate of time and one-half.
- After 16 consecutive hours of work, Article XII, Section 2(c) will continue to apply.
- Compensation when traveling begins when the employee begins driving toward their destination and ends when the employee arrives at the final destination of the day.
- When employees reach their destination and are to begin work, compensation will begin when the employee leaves the host Company staging area. If the staging area is away from the place of lodging and crews have to be transported to the staging area, then time begins when the employee leaves the place of lodging.
- Compensation ends for the work day when the employee returns to the host Company's staging area. If the staging area is away from the place of lodging and crews have to be transported, then the time will stop when the employee returns to the place of lodging.



DESIGN ENGINEERING AND
CONSTRUCTION PLANNING

Duke Energy Corporation
139 East Fourth Street
Cincinnati, OH 45202

- Employees required to work ten consecutive hours or more, shall be furnished a meal or compensation in lieu thereof (in accordance with the Contract), and an additional meal or compensation in lieu thereof, for each contiguous five hour interval worked thereafter until released from duty.
- Employees are not eligible to receive a daily per diem allowance.

Crew Assignments:

- Management will determine which bidding areas will be eligible to participate in a deployment, and the number of employees and crews from each of the bidding areas.
- During their deployment, employees are expected to comply with the Duke Energy Code of Business Ethics and related policies and procedures.

This letter will be interpreted and applied to comply with all laws. To the extent that this letter conflicts with any applicable law, the law will prevail. The current Contract will remain in effect for issues not addressed herein.

Sincerely,

A handwritten signature in black ink, appearing to read 'Marc W. Arnold'.

Marc W. Arnold
Director Design Engineering OH/KY

cc: L. Gregory
R. Atkins
M. Ciccarella



Duke Energy
139 East Fourth St.
Cincinnati, OH 45202

May 8, 2014

Mr. Jim Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Senior Work Management Support Specialist

Dear Mr. Anderson:

I am writing in regard to our conversations regarding the establishment of the Senior Work Management Support Specialist within Midwest Delivery Operations. As we have discussed, the minimum hourly rate for this position will be \$31.02 and a maximum rate of \$31.52 per hour. Merit increases will be administered as outlined in the Collective Bargaining Agreement. Furthermore, Sidebar Letter A65 (Competency Based Selection) will be applicable to this position. Also as discussed, the Company will agree that the first three positions will be limited to qualified UWUA represented employees plus any additional positions for two years after entering this agreement. In the event that three positions are not filled within two years, the agreement will be extended until such time as three total positions are offered. This agreement in no manner restricts the Company's right to revise this job description in the future as provided for in the Collective Bargaining Agreement or any applicable sidebar letter.

I believe that this letter accurately describes our conversations regarding this issue. If you are in agreement, please sign and return this letter to me.

Sincerely,

Michael A. Ciccarella
Senior HR Consultant
Labor Relations KY/OH/Carolina

For the Union:

Signed:

James Anderson, President
Utility Workers Union of America, Local 600

Date:

5/8/14

www.duke-energy.com

Sidebar Letter A77



Duke Energy
139 East Fourth St
Cincinnati, OH 45201

April 15, 2015

Mr. James Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Separation of Delivery Operations and Gas Operations

Dear Mr. Anderson:

During the 2015 negotiations, the parties discussed the separation of Midwest Delivery Operations and Gas Operations relating to clerical functions performed by Office Coordinators, Customer Projects Recourse Specialists, and employees assigned to the Order Completion role.

As discussed, the work being performed by the above referenced classifications is being divided between the Midwest Delivery Operations (Electric) and Gas Operations (Gas) business units. As such, two new positions are being established in the Gas Operations Clerical Bid Area, Gas Office Coordinator (Gas QC) and Gas Operations Support Specialist (GOSS). Employees in the Office Coordinator classification currently assigned to Gas Operations will be reclassified as Gas Office Coordinators. The Customer Projects Resource Specialists (CPRS) currently assigned to Gas Operations will be re-classified into the new Gas Operations Support Specialist position. Employees currently performing the Order Completion role will remain in their respective classifications in the Customer Relations Bid Area.

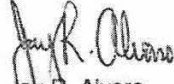
The wage levels for the new positions remains the same as the existing Office Coordinator and CPRS classifications. The Company maintains all rights provided under the Collective Bargaining Agreement and applicable sidebar letters to revise job descriptions and/or discontinue filling these job classifications based on future business needs. Should such material revisions occur to the job descriptions, UWUA Local 600 may request a re-evaluation by the Job Evaluation Committee as provided for in the Agreement.

In order to give incumbent employees a final opportunity to move between the electric and gas bidding areas, the next three vacancies in either bidding area for an OC or a Gas QC will be filled by cross bidding (hand raising) as a combined area. The process for each vacancy will continue until the original posting is filled. This same process will also apply for the next CPRS or GOSS vacancy. Once this commitment is fulfilled, vacancies will be filled using the Competency Based Selection process in accordance with Sidebar Letters A21 (CPRS) and A65 and hand raising will apply only within the individual bid area.

Sidebar Letter A79
Page 1

In the event of a work force reduction, the Office Coordinator and Gas Office Coordinator classifications will be combined for the purpose of determining any rollbacks or layoffs. The same will apply for the CPRS and Gas Operations Support Specialist classifications.

Sincerely,



Jay R. Alvaro
Director, Labor Relations
Duke Energy



Duke Energy
139 East Fourth St
Cincinnati, OH 45201

April 15, 2015

Mr. James Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Global Positioning Satellite (GPS)

Dear Mr. Anderson:

During the 2015 contract negotiations, the parties discussed the use of Global Positioning Satellite (GPS) system and other types of technology being contemplated for use in Company vehicles.

The primary purpose of the GPS and similar technology is to allow the Company the ability to more efficiently manage and assign work and to enhance safety by allowing us to locate a vehicle in the event we have lost contact with someone or a vehicle has been stolen. As discussed, it is not the Company's intent to constantly monitor employee's whereabouts using the GPS or other technology for the purpose of issuing corrective action.

Although its primary use is for managing work, the Company may review and rely on technology and/or the information obtained through its use to aid in an investigation where there is reason to believe an employee may have violated a Company policy or work rule, and the violation may be substantiated or disproven by such a review. To the extent the Company does rely on such information, the Company will treat similarly-situated employees in the same manner. Any such information, upon which the Company relies for purpose of imposing corrective action, will be provided upon request by the Union in accordance with applicable law.

In accordance with the March 29, 2007 GPS Letter, the Company is providing notice to the Union that the amount of history maintained in these systems may be longer than 30 days.

Sincerely,

A handwritten signature in black ink that reads 'Jay R. Alvaro'.

Jay R. Alvaro
Director, Labor Relations
Duke Energy

Sidebar Letter A-80



Duke Energy
Labor Relations
139 East Fourth St
Cincinnati, OH 45201

April 1, 2019

Mr. Steve Kowolonek
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Engineering Specialist Progression

Dear Mr. Kowolonek:

During the 2015 and 2019 negotiations, the parties discussed the Company's decision to establish an Engineering Specialist Job Progression in the Customer Projects Bidding Area and the Transmission & Distribution Bidding Area. This progression will consist of the Engineering Specialist I, II, and III classifications. The wage levels for these newly created positions will be as follows:

Job Classification	Wage Level	Maximum Hourly Rate as of 3/31/19
Engineering Specialist III	T9	\$37.89
Engineering Specialist II	T8	\$36.83
Engineering Specialist I	T4	\$30.39

Wage progression will be as outlined in Article VIII of the Agreement and Sidebar Letter A40, with selections determined by the Company in accordance with Sidebar Letter A65. Employees are required to successfully complete all training programs required by the Company and to promote to the Engineering Specialist II position in a timely manner. Employees successfully completing the requirements for the Engineering Specialist III position will automatically promote to that position. In addition, the Company maintains all rights provided under the Collective Bargaining Agreement and applicable sidebar letters, including but not limited to the right to revise the Engineering Specialist job descriptions based on future business needs. Should such material revisions occur, UWUA Local 600 may request a re-evaluation by the Job Evaluation Committee as provided for in the Agreement.

Employees in the Engineering Specialist I classification may be assigned to a specific headquarters for training purposes as determined by the Company. Employees in the Engineering Specialist I classification will receive all training necessary as identified by the Company to safely perform assigned duties and meet all requirements to promote to the Engineering Specialist II position.

Due to a restructuring of how work is performed by the Company, the Company does not anticipate any future postings for Customer Project Apprentice positions. Incumbent employees will be grandfathered under their existing job description, and will be eligible to continue to receive the negotiated wage increase applicable to employees in the Technical Unit. Existing employees in the progression not at the maximum rate of pay will be eligible to continue receive merit increases as outlined in the December 28, 2012 letter regarding this subject. Also, incumbent employees in the Customer Project Associate and Customer Project Apprentice classifications must continue to meet all Company expectations as previously required, including but not limited to the requirement to progress.

Sidebar Letter A81
Page 2

As agreed, when the Company fills a position in the "Engineering Specialist II" classification, the senior qualified Technician in good standing will be promoted to T&D Design Technician. Furthermore, when the Company fills a position in the "Engineering Specialist III" classification, the senior qualified T&D Design Technician in good standing will be promoted to Senior T&D Design Technician. In all cases, employees must be in qualified and in good standing to be eligible for a promotion. This process will continue until all incumbents in the following classifications: Technical Apprentice, Design Technician, Technician, and, T&D Design Technician as of the date the Collective Bargaining Agreement is ratified until all eligible employees have had the opportunity to progress to the Sr. T&D Design Technician position. The T&D progression will be closed to Technical Apprentices and Technicians hired after April 15, 2015. It is the intent of the Distribution Design organization to utilize the Engineering Specialist progression for all such future hires.

For the purposes of "hand-raising" (bidding on headquarters or location) within the Customer Projects Bid Area, the Customer Projects Coordinator and the Engineering Specialist III classifications will be combined. In the event of a work force reduction, the Engineering Specialist progressions in the Customer Projects Bid Area and the Transmission & Distribution Bidding Area will be combined.

Additionally, the Company would use this process to fill any newly created job classifications that are at or above the NB or T4 wage level (or its equivalent). The selection process for Customer Projects Resource Specialist, Customer Project Coordinator and the Gas Operations Trainer, will remain as outlined in the applicable side bar letters.

Sincerely,



Michael A. Ciccarella
Senior HR Consultant
Labor Relations



Duke Energy
139 East Fourth St
Cincinnati, OH 45201

April 15, 2015

Mr. James Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Customer Relations Representative/Clerk C Positions

Dear Mr. Anderson:

During the 2015 negotiations, the parties discussed the filling of future vacancies in the Customer Relations Representative C and the Customer Relations Clerk C classifications.

Based on these discussions, the parties have agreed that future openings in the Customer Relations Representative C and Customer Relations Clerk C classifications will be filled by the Company using the Competency Based Selection process.

The first three (3) positions will be filled using the Competency Based Selection process among the incumbent Order Processing Representatives in good standing. Should there only be one Order Processing Representative apply for each of the first three positions and he or she meets the minimum qualifications and is in good standing they will be the successful candidate. Order Processing Representatives selected by the Company for the first 3 opportunities will have their rate of pay reduced to the maximum wage rate of the Customer Relations Representative/Clerk C classification. In the event that no Order Processing Representative in good standing applies for one or more of the first three positions, the Company may fill the vacancy by a Union wide posting using the Competency Based Selection process.

Sincerely,

A handwritten signature in black ink that reads 'Jay R. Alvaro'.

Jay R. Alvaro
Director, Labor Relations
Duke Energy

Sidebar Letter A82



Duke Energy
Labor Relations
139 East Fourth St
Cincinnati, OH 45201

April 1, 2019

Mr. Steve Kowolonek
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Inclement Weather

Dear Mr. Kowolonek:

At Duke Energy, our goal is a zero injury and illness safety culture for our employees and the communities we serve. In order to address the UWUA Local 600's concerns regarding inclement weather, when the Company determines there is a safety concern during periods of heavy or continuous storms or excessive cold weather, the Company will not require employees to perform construction or maintenance work in exposed locations outdoors, unless such work is necessary to protect life, property, or continuity of service. Employees are encouraged to communicate with their supervisors or managers to report and discuss any weather situations they believe may be unsafe. It is expressly understood and agreed that the services to be performed by the employees covered by this Contract pertain to and are essential to the operation of a public utility and to the welfare of the public.

Sincerely,

A handwritten signature in blue ink that reads "Michael Ciccarella".

Michael A. Ciccarella
Senior HR Consultant
Labor Relations



Labor Relations

Duke Energy
139 East Fourth Street
Cincinnati, OH 45202

March 12, 2018

Mr. James Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Alternate Schedule

Dear Mr. Anderson:

I am writing in regard to our conversations regarding an alternate work schedule consisting of 4 nine hour days and one 4 hour day. As discussed, this schedule will be administered as follows;

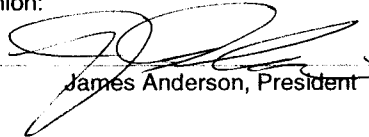
- The four hour day will be determined by business needs and may not necessarily be a Monday or Friday.
- Meal compensation will remain at ten hours as outlined in the Collective Bargaining Agreement including the four hour day.
- Where possible, seniority will be used in the selection of schedules absent business needs as determined by the Company. Should it be necessary to deviate from seniority, the Company will notify the Union the reason for the deviation and afford the Union an opportunity to offer alternatives.
- The double-time day will be Sunday.
- Personal/diversity days must be taken in full days regardless of the employee's schedule and cannot be taken in smaller increments.
- Employees working this schedule will revert to an eight hour schedule during all workweeks that contain a holiday recognized by the Company in an effort to maintain consistency throughout the bargaining unit.

The availability of this schedule to various workgroups and employees within those groups will be based on business needs. The Company retains all rights under the Agreement and applicable sidebar letters including the right to discontinue this schedule. I believe that this letter accurately describes our conversations regarding this issue. If you are in agreement, please sign and return this letter to me.

Sincerely,

Michael A. Ciccarella
Senior HR Consultant

For the Union:

Signed:  Date: 3/12/18
James Anderson, President



Labor Relations

Duke Energy
139 East Fourth Street
Cincinnati, OH 45202

September 13, 2016

Mr. James Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Gas Marketing Progression

Dear Mr. Anderson:

The Gas Marketing progression, consisting of the Gas Marketing Specialist and Senior Gas Marketing Specialist classifications, was established in 2015 in order to assist in the expansion of Duke Energy's commercial gas operations. Since that time, the roles have evolved to the extent that the Company has determined that combining the classifications will provide the maximum flexibility in meeting customer needs.

Per our conversation, the existing classifications will be combined into one classification. Current educational requirements for the Gas Marketing Specialist call for a minimum of 45 credit hours with an Associate's Degree obtained within three years. The requirement for the revised job description will be a minimum of 45 credit hours with an Associate's Degree in engineering, technology, construction management, or business obtained within eighteen months of entry into the classification. Absent extenuating circumstances as solely determined by the Company, employees who fail to obtain the required degree within the eighteen month time frame are subject to discharge. The Company retains all rights under the Collective Bargaining Agreement to modify the duties and qualifications including acceptable degree requirements. Should the Company contemplate such revisions, notice will be given to the Union prior to any changes being made.

The wage rate for employees entering the classification will be the T7 minimum hourly rate. As outlined in the Patrick P. Gibson letter (Sidebar Letter A40) employees will be granted a merit increase in accordance with the Collective Bargaining Agreement if progress, measured by demonstrated ability and performance, has been satisfactory after six months. After one year, and again based on satisfactory performance, the employee's wage rate will be adjusted to the T8 minimum hourly rate provided that all educational requirements are met. For those employees not meeting the educational requirement at the twelve month mark, the wage adjustment will be made when the employee completes the requirement. As stated above, this must occur within eighteen months of entering the classification.

Incumbent Gas Marketing Specialists with more than one year of classified seniority and meeting all qualifications of the revised job description will have their wage rate adjusted to the T8 minimum hourly rate. Any current Gas Marketing Specialist not meeting the educational requirement of the revised job description will continue to have three years from entry into the classification to meet the requirement. Upon meeting the education requirement and all other qualifications, the employee will have their wage rate adjusted to the T8 minimum hourly rate. Employees in this category will maintain their seniority.

A85

www.duke-energy.com

Mr. James Anderson
September 13, 2016
Page 2

As stated previously, the Company maintains all rights provided under the Collective Bargaining Agreement and applicable sidebar letters to revise or discontinue job descriptions, including this one, based on future business needs. Should such material revisions occur to the job description, UWUA Local 600 may request a re-evaluation by the Job Evaluation Committee as provided for in the Agreement.

In addition, UWUA Local 600 agrees to withdraw Grievance #399 pertaining to the establishment of the Gas Marketing progression.

I believe that this accurately describes our conversation regarding this matter. If you are in agreement, please sign and return a copy of this letter to me.

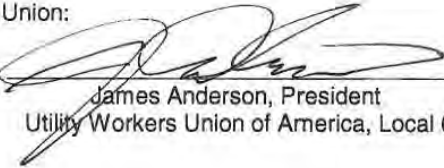
Sincerely,



Michael A. Ciccarella
Senior HR Consultant
Labor Relations

For the Union:

Signed:


James Anderson, President
Utility Workers Union of America, Local 600

Date:

9/14/16



Duke Energy
139 East Fourth St
Cincinnati, OH 45201
Labor Relations

September 26, 2017

Mr. James Anderson
President
Utility Workers Union of America
Local 600
810 Brighton Street
Newport, Kentucky 41071

RE: Lighting Specialist Progression

Dear Mr. Anderson:

I am writing in regard to our conversations regarding the establishment of the Lighting Specialist progression. As discussed, this will be a separate bid area consisting of the Lighting Specialist I (Wage Level T5) and Lighting Specialist II (Wage Level T8) job classifications. All applicable provisions of the Collective Bargaining Agreement, including Sidebar Letter A65 - Competency Based Selection, will apply to these positions.

The initial posting will be for two Lighting Specialists IIs and be restricted to qualified employees in the Distribution Design OH/KY and the Distribution Design (Subdivision) departments. Should the successful candidate be in a classification with a wage level higher than T8, then they will be grandfathered in their current classification and be eligible for contractual wage increases applicable to that classification. For all other purposes under the Collective Bargaining Agreement these grandfathered employees will be considered as Lighting Specialists IIs. As such, they will have no rollback rights within their former work groups. Conversely, these employees would not be included in any surplus/rollback scenario within their prior work group. The ability of employees with more than fifteen years of service to displace employees outside of their bidding area is not impacted. Employees in the Technician or T&D Design Technician classifications accepting a Lighting Specialist position will not be eligible to promote as outlined in Sidebar Letter A81.

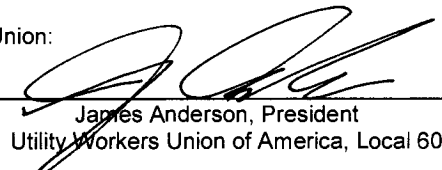
The Company maintains all rights provided under the Collective Bargaining Agreement and applicable sidebar letters to revise or discontinue job descriptions, including these, based on future business needs. Should such material revisions occur to the job description, UWUA Local 600 may request a re-evaluation by the Job Evaluation Committee as provided for in the Agreement.

I believe that this letter accurately describes our conversations regarding this issue. If you are in agreement, please sign and return this letter to me.

Sincerely,

Michael A. Ciccarella
Senior HR Consultant
Labor Relations KY/OH/Carolina

For the Union:

Signed: 
James Anderson, President
Utility Workers Union of America, Local 600

Date: 10/2/17

**SUMMARY OF TENTATIVE AGREEMENT BETWEEN
DUKE ENERGY OHIO, INC. & DUKE ENERGY KENTUCKY, INC.
AND IBEW LOCAL NO. 1347
June 9, 2022**

TERM OF THE AGREEMENT – Subject to membership ratification, the new Agreement will be a four-year Agreement effective April 1, 2022 through March 31, 2026.

WAGE INCREASES – Employees will receive a 3.5% general wage increase, retroactive to April 1, 2022, if this Tentative Agreement is ratified by June 24, 2022. For the remainder of the term of the new Agreement, employees will receive a 3.5% general wage increase effective April 1, 2023, a 3.0% general wage increase effective April 1, 2024, and a 3.0% general wage increase effective April 1, 2025. Applicable to all employees unless otherwise negotiated.

Following ratification of the Agreement, certain job classifications will receive market adjustments in addition to the agreed upon general wage increase (Appendix).

REVISED LINEPERSON PROGRESSIONS – Revised progressions allowing for a dedicated workforce in the Customer Delivery and Transmission line organizations. This will enhance safety for employees. The Agreement allows for employees to move between progressions.

ANNUAL FR CLOTHING ALLOTMENT – Beginning in 2023, the annual allowance for FR clothing will be \$655 for eligible employees in the Customer Delivery, Customer Services, Transmission and Telecommunications Departments.

REVISED FLEET PROGRESSION – Provides for auto-progression from the Vehicle Maintenance I classification to the Vehicle Maintenance II classification.

CALL-OUT PROCESS – Revised call-out responsiveness measures to provide clarification on the administration of the corrective action process and provides additional opportunity for credits when working unscheduled and scheduled overtime assignments.

TWELVE HOUR SHIFT AGREEMENT – Enhancements to the holiday and Sunday premiums for twelve hour rotating shift workers.

FLEET TOOL ALLOWANCE – Should Fleet Services decide in the future to provide a tool allowance or an initial set of tools to Fleet Services employees across the enterprise, the Company will also provide those items to Fleet Services employees represented by IBEW 1347.

REVISED HOLIDAY LANGUAGE – Contract language revised to clarify overtime provisions on holidays.

ELECTRIC TROUBLE GUIDELINES – Provides clarity concerning rest periods and the trading of shifts.

GENERATION WELDING PREMIUM – Employees in the Support Technician or Maintenance Services Team Member job classifications whose job requires them to perform structural welding and who have completed any required specialized training and certification, will receive a premium in the amount of \$0.75 per hour. Employees whose job requires them to perform pressure component welding and who have completed any required specialized training and certification, will receive a premium in the amount of \$1.50 per hour. This premium will be applicable to all hours paid.

EMPLOYEE DEVELOPMENT CREW (EDC) - The Leadperson Trainer Premium as defined in Sidebar Letter A51 will be applicable to all hours paid for those Leadperson Trainers assigned to the Employee Development Crew on a full-time basis. Should the EDC be split into smaller groups working independently, a second Leadperson-Trainer may be designated as deemed appropriate by the Company.

POST-RETIREMENT HEALTH BENEFITS – Beginning no sooner than January 1, 2023, employees who retire and are eligible, who do not enroll in Company-sponsored pre-65 healthcare coverage at the time of retirement or upon the expiration of any COBRA continuation coverage, will not be permitted to enroll

themselves or their eligible dependents at any future date. Retirees who enroll in Company-sponsored pre-65 healthcare coverage but subsequently, decline/drop coverage, will not be permitted to re-enroll themselves or their eligible dependents at any future date.

WORKPLACE SECURITY POLICY – Duke Energy is committed to providing a safe and secure workplace for employees, contingent workers, vendors, customers, and visitors. This commitment includes promotion of a work environment free from incidents or threats of workplace violence and intimidation or harassment on Company property or while conducting Company business. The terms of this Policy apply to all IBEW 1347 represented employees.

This Summary of the Tentative Agreement contains highlights of the parties' negotiations outcomes. More detailed information is contained in the side letter agreements and language modifications to the collective bargaining agreement.

APPENDIX

JOB TITLE	MARKET ADJUSTMENTS				CURRENT	2022	2023	2024	2025
	2022	2023	2024	2025	MAX	MAX RATE	MAX RATE	MAX RATE	MAX RATE
ASSISTANT CONTROL SYSTEMS TECH	\$1.00	\$1.00	\$0.75	\$0.75	34.20	36.40	38.67	40.58	42.55
CABLE SPLICER A	\$0.50	\$0.50	\$0.50	\$0.75	43.60	45.63	47.73	49.66	51.90
CONSTRUCTION ELECTRICIAN A	\$1.00	\$1.00	\$1.00	\$1.00	38.33	40.67	43.09	45.38	47.74
CONTROL ROOM OPERATOR	\$0.75	\$0.50	\$0.50	\$0.50	44.88	47.20	49.35	51.33	53.37
CONTROL SYSTEMS TECHNICIAN	\$0.50	\$0.50	\$0.50	\$0.25	44.01	46.05	48.16	50.10	51.85
EQUIPMENT TESTER A	\$1.00	\$1.00	\$1.00	\$1.00	38.33	40.67	43.09	45.38	47.74
INCUMBENT CT PROD TECHN SIMPLE CYCLE	\$0.25	\$0.25	\$0.25	\$ -	44.88	46.70	48.58	50.29	51.80
LINEPERSON A	\$0.50	\$0.50	\$0.50	\$0.75	43.60	45.63	47.73	49.66	51.90
LINEPERSON A- TROUBLE	\$0.50	\$0.50	\$0.50	\$0.75	44.88	46.95	49.09	51.06	53.34
METER TESTER	\$0.50	\$0.25	\$0.25	\$0.25	35.13	36.86	38.40	39.80	41.24
METER TESTERS ASSISTANT	\$0.50	\$0.25	\$0.25	\$0.25	32.61	34.25	35.70	37.02	38.38
MOBILE OPERATOR	\$0.25	\$0.25	\$0.25	\$ -	43.18	44.94	46.76	48.41	49.86
MTCE SERV TEAM MEMBER (I&C)	\$0.25	\$0.25	\$0.25	\$ -	43.18	44.94	46.76	48.41	49.86
MTCE SERV TEAM MEMBER (M&E)	\$0.25	\$0.25	\$0.25	\$ -	43.18	44.94	46.76	48.41	49.86
PRD TECHNICIAN	\$0.50	\$0.50	\$0.50	\$0.50	43.18	45.19	47.27	49.19	51.17
PRODUCTION TEAM MEMBER	\$0.25	\$0.25	\$0.25	\$ -	44.88	46.70	48.58	50.29	51.80
PRODUCTION TEAM MEMBER I&C	\$0.25	\$0.25	\$0.25	\$ -	44.88	46.70	48.58	50.29	51.80
SENIOR CABLE SPLICER	\$0.50	\$0.50	\$0.50	\$0.75	44.88	46.95	49.09	51.06	53.34
SENIOR CONTROL SYSTEMS TECHNICIAN	\$1.00	\$1.00	\$1.00	\$1.00	45.44	48.03	50.71	53.23	55.83
SENIOR EQUIPMENT TESTER	\$0.25	\$0.25	\$0.25	\$0.25	44.01	45.80	47.65	49.33	51.06
SENIOR LINEPERSON A	\$0.50	\$0.50	\$0.25	\$0.50	45.44	47.53	49.69	51.43	53.47
SR CONSTRUCTN ELECTRICIAN	\$0.25	\$0.25	\$0.25	\$0.25	44.01	45.80	47.65	49.33	51.06
SR MAINT ELECTRICIAN-ELECTRICAL	\$0.25	\$0.25	\$0.25	\$0.25	44.01	45.80	47.65	49.33	51.06
SR TELECOMMUNICATIONS SPEC	\$0.50	\$0.50	\$0.25	\$0.50	45.44	47.53	49.69	51.43	53.47

STORES & SALVAGE EQUIPT OPER	\$0.25	\$0.25	\$0.25	\$ -	36.79	38.33	39.92	41.37	42.61
SUPPORT TECHNICIAN	\$0.25	\$0.25	\$ -	\$ -	43.18	44.94	46.76	48.16	49.60
UNDERGROUND SERVICEPERSON	\$0.50	\$0.50	\$0.50	\$0.75	43.60	45.63	47.73	49.66	51.90

CONFIDENTIAL PROPRIETARY TRADE SECRET



2022 EXECUTIVE LONG-TERM INCENTIVE PLAN



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This brochure is intended to be a general summary of the 2022 Executive Long-term Incentive (LTI) Plan granted under the terms of the Duke Energy Corporation 2015 Long-term Incentive Plan (LTIP). The Executive LTI Plan is subject to the provisions of the LTIP and related prospectus and should be read together with the award agreements. In the event of any conflict between the information in this brochure and the LTIP or the applicable award agreements, the terms of the LTIP/award agreements will govern. Duke Energy Corporation reserves the right to amend, suspend or terminate the 2022 Executive LTI Plan at any time and for any reason. PARTICIPATION IN THE 2022 EXECUTIVE LTI PLAN IS NOT AN OFFER OR GUARANTEE OF EMPLOYMENT OR AN EMPLOYMENT CONTRACT AND DOES NOT ALTER THE AT-WILL NATURE OF ANY EMPLOYEE'S EMPLOYMENT IN ANY WAY.

2022 EXECUTIVE LONG-TERM INCENTIVE PLAN

As a leader at Duke Energy Corporation (Duke Energy), you receive stock-based incentives as part of your annual compensation. The grant date for the 2022 annual award was **February 23, 2022**. Under the 2022 Executive Long-term Incentive (LTI) Plan, you will receive two types of stock-based awards:

- **Performance Shares** — You will receive 70% of your 2022 LTI opportunity in performance shares. Performance shares are subject to vesting, but only after specified performance goals have been determined to have been achieved, subject to your continuous employment (or as otherwise described in the *2022 Executive LTI Plan Summary* on page 8). The 2022 Executive LTI Plan contains the following three performance goals, each of which is measured over a three calendar-year period (2022-2024):

Performance Goal	% of Shares
Goal 1: Cumulative adjusted basic Earnings Per Share (EPS)	50%
Goal 2: Total Incident Case Rate (TICR)	25%
Goal 3: Total Shareholder Return (TSR) relative to that of the companies in the Philadelphia Utility Index	25%

- **Restricted Stock Units (RSUs)** — You will receive the remaining 30% of your 2022 LTI opportunity in the form of RSUs that will vest equally over a three-year period (one-third on each of the first three anniversaries of the grant date), subject to your continuous employment (or as otherwise described in the *2022 Executive LTI Plan Summary* on page 8).

The 2022 Executive LTI Plan continues Duke Energy's focus on increased stock ownership, more direct alignment with shareholders and retention. Specifically, the plan:

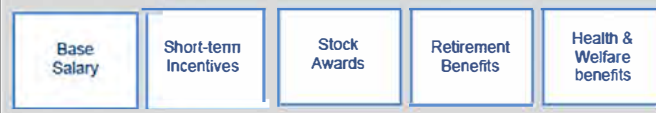
- Provides for share ownership by executives;
- Delivers a portion of your long-term incentive opportunity to you only when value is delivered to shareholders;
- Provides for increased award value in alignment with increases in shareholder value; and
- Assists in the retention of key executive talent.

Total Rewards

Duke Energy's executive compensation and benefits programs are designed to reward high-performing individuals for delivering the results needed to ensure the company's success.

Duke Energy's rewards strategy remains constant with the goal being to attract and retain high-caliber leaders by providing a competitive compensation package that recognizes corporate and individual performance.

Given today's business environment, the concept of a "total rewards" approach has never been more important. Stock awards are an important component — but not the only component — of a total rewards package that is reviewed annually to ensure ongoing competitiveness and appropriateness in light of internal and external factors. The elements of your total rewards package may include:



Accepting Your Stock Awards

In order for your 2022 Executive LTI Plan awards to take effect, it will be necessary for you to accept the awards and agree to their terms via the Fidelity NetBenefits website. An email communication with detailed instructions will be sent to you when it is time to accept your stock awards.

We encourage you to read this brochure carefully in conjunction with your award agreements, as well as the 2015 Long-term Incentive Plan Summary and its Prospectus. You may also wish to discuss this information with your personal financial advisor.

Accessing Your Stock Awards

Record keeping for your stock awards is provided by Fidelity Stock Plan Services, LLC. You will be able to access your stock plan information online at www.netbenefits.com or by calling a Fidelity Stock Plan Services representative at 800-376-4015 (toll free).

Eligibility

Participation in the Executive LTI Plan is generally reserved for members of the Enterprise Leadership Team (ELT) to ensure alignment with shareholder interests and accountability for making short and long-term strategic decisions.

Calculating Your Stock Awards

To understand vesting opportunities under your stock awards, it is important to first understand how your stock awards were calculated. Your LTI opportunity is expressed as a percentage of your base pay. You should have received information about your 2022 LTI opportunity from your manager. You can also locate this information on the “Your Total Rewards Statement” page on the Duke Energy Portal.

The number of performance shares and RSUs awarded to you was based on:

- Your annual base salary as of March 1, 2022;
- Your 2022 LTI opportunity; and
- The closing price of Duke Energy common stock on the grant date (i.e., \$97.67).

The number of performance shares specified in your award agreement represents the number of shares that are subject to vesting if Duke Energy’s performance is at the target level. However, at maximum performance, you have the opportunity, depending on Duke Energy’s performance, to vest in up to 200% of the number of target shares.

The following example illustrates how the Executive LTI stock awards are calculated:

Calculation Example	
Assumptions:	
• Annual base salary as of March 1, 2022 is \$250,000.	
• Target LTI opportunity is 50% of base salary or \$125,000 (\$250,000 x 50%).	
• Closing price of a share of Duke Energy common stock on the grant date is \$97.67.	
LTI opportunity value by component:	
Performance Shares.....	\$125,000 x 70% = \$87,500
Restricted Stock Units.....	\$125,000 x 30% = \$37,500
Number of shares in award by component:	
Performance Shares.....	\$87,500 / \$97.67 = 896 (target)
	896 shares x 200% = 1,792 (max)
Restricted Stock Units	\$37,500 / \$97.67 = 384

Highlights of 2022 Executive LTI Plan Awards

Performance Shares

- 70% of LTI opportunity awarded as performance shares.
- Three performance goals based on cumulative adjusted Earnings Per Share (EPS), Total Incident Case Rate (TICR) and relative Total Shareholder Return (TSR) compared to companies in the Philadelphia Utility Index.
- Performance measured over a three calendar-year period from 2022 to 2024 and will vest, subject to company performance, in early 2025.
- May vest in up to 200% of the target number of shares at maximum performance.
- Performance shares vest, subject to continuous employment, based on performance at the end of the three-year performance period. Prorated vesting provided if employment terminates after attaining age 55 with 10 years of service or after involuntary termination without cause.*
- Number of shares distributed is reduced to satisfy any tax withholding obligation.
- At the end of the performance period, receive cash payment equal to dividends declared and paid for the three-year period for each performance share that is vested and paid.

Restricted Stock Units (RSUs)

- 30% of LTI opportunity awarded as RSUs.
- One-third of the RSUs vest, subject to continuous employment, on each of the first three anniversaries of the grant date. Prorated vesting provided if employment terminates after attaining age 55 with 10 years of service or after involuntary termination without cause.*
- Number of shares distributed is reduced to satisfy any tax withholding obligation.
- For each unvested RSU, receive quarterly cash payment equal to the cash dividend per share declared and paid on Duke Energy common stock

*Special vesting rules apply to certain participants. You will be notified if these rules apply to you.

PERFORMANCE GOALS (applicable to 70% of your award)

The intent of your performance share award is to link a portion of your LTI value to the achievement of performance goals that directly align with shareholders' interests. Part of your award is at risk, such that you will forfeit the performance shares if the goals are not achieved.

Performance Award Updates

Determination of goal achievement for the 2022 Executive LTI Plan performance shares will be made in early 2025. During the 2022-2024 performance period, periodic updates on Duke Energy's progress relative to the performance goals will be posted on the Stock Awards page under the myHR menu on the Duke Energy Portal.

Performance achievement for the 2022 performance shares will be measured against three metrics.

- **EPS Performance Goal:** The vesting opportunity for one-half (50%) of your performance shares will be based on Duke Energy's cumulative adjusted basic EPS over the three calendar-year period 2022 to 2024. The chart below indicates the percentage of this portion of your performance shares that will vest based on a determination of achievement of EPS:

Cumulative Adjusted Basic EPS	% of Target Shares Vested
Below ██████	0%
██████ (threshold)	50%
██████ (target)	100%
██████ or higher (maximum)	200%

The percentage of performance shares that will vest will be interpolated for achievement of cumulative adjusted basic EPS between these amounts.

- **TICR Performance Goal:** The vesting opportunity for one-quarter (25%) of your performance shares will be based on Duke Energy's TICR measured over the three calendar-year period 2022 to 2024. The chart below indicates the percentage of this portion of your performance shares that will vest based on a determination of achievement at the specified percentile rankings:

TICR Percentile Ranking vs. EEI Peer Group*	% of Target Shares Vested
Below 75 th	0%
75 th (threshold)	50%
90 th (target)	100%
Top Company (maximum)	200%

The percentage of performance shares that will vest will be interpolated for achievement of TICR between these percentile rankings.

**EEI Group 1 Large Company Index, excluding companies without gas or nuclear operations, that report TICR results for at least one year during the 2021-2023 period*

- **TSR Performance Goal:** The vesting opportunity for the remaining one-quarter (25%) of your performance shares will be based on Duke Energy's cumulative TSR relative to that of the companies in the Philadelphia Utility Index (UTY), measured over the three calendar-year period 2022 to 2024. The chart below indicates the percentage of this portion of your performance shares that will vest based on a determination of achievement at the specified percentile rankings:

TSR Percentile Ranking vs. UTY	% of Target Shares Vested
Below 25 th	0%
25 th (threshold)	50%
55 th (target)	100%
90 th or higher (maximum)	200%

The percentage of performance shares that will vest will be interpolated for achievement of TSR between these percentile rankings.

In addition, if Duke Energy's cumulative TSR is at least 15% during the performance period, the payout for the TSR portion cannot be less than 30% of target shares, and if Duke Energy's TSR is negative during the performance period, the payout cannot exceed the target level (i.e., 100%).

About Cumulative Adjusted Basic Earnings Per Share (EPS)

What is cumulative adjusted basic EPS?

Cumulative EPS measures earnings over a specified period of time. Adjusted EPS is a company's earnings, as adjusted for "special items", divided by the number of its weighted average outstanding shares of common stock. For instance, a corporation that earned \$10 million last year and has 10 million shares outstanding would report EPS of \$1.

Why was cumulative adjusted EPS chosen as one of the performance measures for the 2022 performance shares?

This measure aligns the interests of executives with shareholders. Over time, increases in EPS drive shareholder value and should result in increases to Duke Energy's stock price.

How is cumulative adjusted basic EPS calculated?

Cumulative adjusted basic EPS is calculated by adding the actual adjusted EPS results for each year during the performance period (i.e., 2022-2024).

About Total Incident Case Rate (TICR)

What is TICR?

Total Incident Case Rate, or TICR, measures the number of occupational injuries and illnesses per 100 employees, including staff augmentation workers, and is calculated as follows.

$$\text{TICR} = \frac{\text{Number of injuries X 200,000 hours}}{\text{Total Hours worked}}$$

The TICR performance goal under the 2022 Executive LTI Plan is based on the number of injuries and hours worked measured over the three calendar-year period (2022-2024).

Why was TICR chosen as one of the performance measures for the 2022 performance shares?

Safety is a core value for our company. In addition, research shows that the discipline necessary to achieve high performance in safety influences all other aspects of operational excellence.

How is the TICR goal evaluated?

The TICR goal is based on how Duke Energy's TICR over the 2022-2024 performance period compares to the results of the companies in the EEI Group I Large Company Index, excluding companies without gas or nuclear operations, that report TICR results for at least one year during the 2021-2023 period.

About Total Shareholder Return (TSR)

What is Total Shareholder Return?

Total Shareholder Return is the return a shareholder earns over a specified period of time. TSR measures the change in fair market value of an initial investment in common stock, over a specified period, with dividends reinvested, and is typically expressed as an annual percentage.

The average closing price on each day during the month of December at the beginning and ending of the performance period (i.e., 2022 and 2024) will be used to calculate TSR results.

Why was TSR chosen as one of the performance measures for the 2022 performance shares and how is it evaluated?

Because TSR measures the change in a shareholder's investment over a period of time, it aligns the interests of executives with shareholders. This concept is consistent with Duke Energy's focus on long-term shareholder value creation. The TSR measure under the 2022 Executive LTI Plan is measured on a relative basis (i.e., as compared to the TSR of a published index of companies in the UTY).

Why was the Philadelphia Utility Index (UTY) chosen as the benchmark against which to compare Duke Energy's TSR?

The UTY is an index of companies similar to Duke Energy. When measuring Duke Energy's TSR as compared to the companies in the UTY, only those companies in the UTY on the first day of the performance period will be considered unless a company is no longer a separate publicly-traded company due to merger, acquisition or privatization.

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This example illustrates how TSR is calculated for a one-year period. Keep in mind that the TSR performance goal under the 2022 Executive LTI Plan is based on TSR measured over the three calendar-year period (2022-2024) relative to the companies in the Philadelphia Utility Index.

TSR Calculation*			
Month	Share Value	Dividend Reinvestment	Total Shares
Jan. 1	\$95.00	Not applicable	Initial investment of 100 shares = \$9,500
Mar.	\$95.50	100.00 shares x 0.945 = \$94.50	Buy 0.99 share = 100.99 total shares
Jun.	\$96.00	100.99 shares x 0.945 = \$95.44	Buy 0.99 share = 101.98 total shares
Sep.	\$96.50	101.98 shares x 0.945 = \$96.37	Buy 1.00 share = 102.98 total shares
Dec.	\$97.00	102.98 shares x 0.945 = \$97.32	Buy 1.00 share = 103.98 total shares
Dec. 31	\$97.50	Not applicable	103.98 shares x \$97.50 = \$10,138
TOTAL SHAREHOLDER RETURN = (\$10,138 - \$9,500) / \$9,500 = 6.7%			

**The amounts reflected in the preceding example are merely intended for illustrative purposes and do not reflect any expectations or predictions by the company.*

Certification of Final Results by the Compensation and People Development Committee

Duke Energy's results with respect to the performance measures will be certified by the Compensation and People Development Committee of the Board of Directors. The Compensation and People Development Committee reserves the right to adjust or reduce payments if it determines that such action is appropriate to reflect an adjustment to the calculation of EPS (for unusual or nonrecurring items) or in connection with another change in circumstances or events. As a result, it is important to remember that the performance share results will not be officially determined until they are certified by the Compensation and People Development Committee in early 2025.

GENERAL INFORMATION

Performance shares and RSUs provide some, but not all, of the benefits of actual shares of Duke Energy common stock.

Vesting

Generally, your performance shares will become vested following a determination in early 2025 based on the extent to which the performance goals have been achieved. If, at the time of such determination, your continuous employment has not terminated (or as otherwise described in the *2022 Executive LTI Plan Summary* on page 8), up to 200% of the target number of performance shares in your award will then immediately vest, depending upon the level of goal achievement. Any shares not vested are forfeited.

Your RSUs vest, while your employment continues, according to an installment-based vesting schedule (or as otherwise described in the *2022 Executive LTI Plan Summary* on page 8). Under that schedule, one-third of your RSUs will vest on each of the first three anniversaries of the grant date.

The following provisions apply to the vesting of your performance shares and RSUs:

- Performance shares and RSUs generally are paid as soon as practicable after they vest. Certain exceptions apply if such awards vest on or following your termination of employment.
- Vested performance shares and vested RSUs are paid in whole shares of Duke Energy common stock.
- The number of shares paid is reduced to satisfy your tax withholding obligation (see *Taxes* on page 7 for additional details).

Dividend Equivalents

You will receive dividend equivalent payments on your performance shares and RSUs as follows:

- For each performance share that is vested and paid, following the determination in early 2025 of whether the performance goals have been achieved, you will receive a cash payment equal to the dividends declared and paid after the grant date and before the vested performance shares are paid (i.e., the dividend equivalent). This amount is paid on an accumulated basis at the end of the three calendar-year period.

- For each unvested RSU, you will receive a cash payment equal to the cash dividend per share declared and paid on Duke Energy common stock. These amounts are paid on a current basis each quarter. Upon vesting and payment, or forfeiture of the unit, future dividend equivalent payments will end.
- Dividend equivalent payments will be included in your paycheck. They are treated as ordinary income and are, therefore, subject to tax withholding.

Stock Ownership Guidelines

Members of the Enterprise Leadership Team (ELT) are subject to the Duke Energy Stock Ownership Guideline Policy. Unvested RSUs, but not unvested performance shares, count toward your target ownership level. Actual shares of Duke Energy common stock paid to you following vesting of RSUs and performance shares that you continue to hold also count toward your target ownership level.

Voting Rights

Prior to vesting, your performance shares and RSUs do not give you shareholder voting rights because no actual shares of common stock are issued to you unless and until they vest and are paid.

Ability to Sell

You may not sell your performance shares or RSUs, but you may sell the shares of Duke Energy common stock that you receive upon vesting, subject to Duke Energy's Insider Trading Policy and, if applicable, stock ownership guidelines.

Taxes

Under current U.S. tax rules, you will incur taxable income when your vested performance shares and RSUs are paid based on the fair market value of the common stock delivered to you. This income will be included on your Duke Energy Form W-2. Federal income tax and any applicable state, local, Social Security and Medicare tax withholdings are required upon the vesting of your award. Your taxes will be paid by the share reduction method. You will receive the number of shares that have vested less the shares used to pay your tax withholding. Shortly after vesting, you will receive your net shares in your Fidelity brokerage account.

Keep in mind you may owe additional income taxes depending on your personal financial situation. You may wish to consult with your tax advisor to determine whether you should make additional estimated tax payments.

Example: Tax Withholding Through Reduction of Shares

You vest in 100 RSUs and are notified that the tax withholding amount due is \$3,400. The shares used to pay your tax withholding are valued at fair market value (let's assume \$85). The amount of Duke Energy common stock you receive would be reduced by 40 shares ($\$3,400/\$85 = 40$ shares). You would receive 60 shares in your Fidelity Brokerage account, the 100 shares that vested less the 40 shares withheld to pay your tax withholding.

CONFIDENTIAL PROPRIETARY TRADE SECRET**2022 EXECUTIVE LTI PLAN SUMMARY**

The following chart summarizes the terms of your stock awards under the 2022 Executive LTI Plan.

Provision	Performance Shares	Restricted Stock Units (RSUs)																								
Grant date	February 23, 2022	February 23, 2022																								
Performance Goals and Vesting Opportunity	<p>The extent to which the performance shares vest depends on achievement relative to three performance measures during the 2022-2024 performance period, as follows:</p> <table border="1"> <thead> <tr> <th></th> <th>(50% Weighting)</th> <th>(25% Weighting)</th> <th>(25% Weighting)</th> </tr> <tr> <th>% of Target Shares</th> <th>Cumulative Adjusted Basic EPS</th> <th>Duke Energy TICR vs. EEI Peer Group*</th> <th>Duke TSR vs. Phil. Utility Index</th> </tr> </thead> <tbody> <tr> <td>0%</td> <td>Below ██████</td> <td>Below 75th</td> <td>Below 25th</td> </tr> <tr> <td>50%</td> <td>██████</td> <td>75th</td> <td>25th</td> </tr> <tr> <td>100%</td> <td>██████</td> <td>90th</td> <td>55th</td> </tr> <tr> <td>200%</td> <td>██████</td> <td>Top Company</td> <td>90th or higher</td> </tr> </tbody> </table> <p>* EEI Group 1 Large Company Index, excluding companies without gas or nuclear operations, that report TICR results for at least one year during the 2021-2023 period.</p>		(50% Weighting)	(25% Weighting)	(25% Weighting)	% of Target Shares	Cumulative Adjusted Basic EPS	Duke Energy TICR vs. EEI Peer Group*	Duke TSR vs. Phil. Utility Index	0%	Below ██████	Below 75 th	Below 25 th	50%	██████	75 th	25 th	100%	██████	90 th	55 th	200%	██████	Top Company	90 th or higher	N/A
	(50% Weighting)	(25% Weighting)	(25% Weighting)																							
% of Target Shares	Cumulative Adjusted Basic EPS	Duke Energy TICR vs. EEI Peer Group*	Duke TSR vs. Phil. Utility Index																							
0%	Below ██████	Below 75 th	Below 25 th																							
50%	██████	75 th	25 th																							
100%	██████	90 th	55 th																							
200%	██████	Top Company	90 th or higher																							
<p>Vesting</p> <ul style="list-style-type: none"> • While employment continues • When employment with Duke Energy and its affiliated companies terminates <ul style="list-style-type: none"> - After attaining the age of 55 with 10 years of service or on account of termination by the company without cause or termination as the result of a divestiture - On account of death/disability - Other than after attaining the age of 55 with 10 years of service or on account of death/disability/termination by company without cause/divestiture 	<p>Following determination in early 2025 of the extent to which the performance measures have been achieved, immediate vesting of the applicable number of shares based on actual performance.</p> <p>If on or after 12/31/24 but before determination in early 2025 that the goals have been achieved – once the determination is made, immediate vesting of applicable number of shares based on actual performance.</p> <p>If before 12/31/24 – once the determination is made in early 2025 that the goals have been achieved, immediate vesting of the applicable number of shares based on actual performance, adjusted to reflect only actual 2022-2024 service.*</p> <p>Shares not immediately vested are forfeited. <u>Note:</u> Special vesting rules apply to certain participants. You will be notified if these rules apply to you.</p> <p>If on or after 12/31/24 but before determination in early 2025 that the goals have been achieved – once the determination is made, immediate vesting of applicable number of shares based on actual performance.</p> <p>If before 12/31/24 – once the determination is made in early 2025 that the goals have been achieved, immediate vesting of the applicable number of shares based on actual performance, adjusted to reflect only actual 2022-2024 service.*</p> <p>Shares not immediately vested are forfeited.</p> <p>If before 12/31/24, all shares are forfeited.</p>	<p>Three-year installment vesting — 1/3 of units vest each year on anniversary of grant date.</p> <p>Units in award are reduced to reflect only actual service during the installment vesting period** and become immediately vested and paid to the extent not previously vested.</p> <p>Units not previously or immediately vested are forfeited.</p> <p>Units become immediately vested and paid.</p> <p>Vesting ends — units not previously vested are forfeited.</p>																								
Dividend Equivalents	Following determination in early 2025 that the goals have been achieved, for each performance share that becomes vested, payment will be in an amount equal to the aggregate cash dividends on a share of Duke Energy common stock previously declared and paid after the grant date and before the vested performance share is paid.	Quarterly payments on unvested units that have not been forfeited are paid when common stock cash dividends are declared and paid.																								

* Calculated based on number of days of actual service, divided by the total number of days in the 2022-2024 period

** Calculated based on number of days of actual service from the grant date divided by the total number of days in the period from the grant date to the third anniversary of the grant date

CONTACT INFORMATION

Resources

If you have specific questions about the Executive LTI Plan, you may contact:

Scott Smith
Director, Executive Rewards and Compensation
980.373.7178
scott.smith6@duke-energy.com

Brian Callahan
Executive Rewards
859.801.5975
brian.callahan@duke-energy.com

If you have general questions regarding RSUs or performance shares, you may contact:

Fidelity Stock Plan Services, LLC
Toll free: 800.376.4015
www.netbenefits.com

**CONFIDENTIAL PROPRIETARY TRADE
SECRET**

**JAKE J. STEWART TESTIMONY
ATTACHMENT JJS-3(a)**

FILED UNDER SEAL

**CONFIDENTIAL PROPRIETARY TRADE
SECRET**

**JAKE J. STEWART TESTIMONY
ATTACHMENT JJS-3(b)**

FILED UNDER SEAL

**CONFIDENTIAL PROPRIETARY TRADE
SECRET**

**JAKE J. STEWART TESTIMONY
ATTACHMENT JJS-3(c)**

FILED UNDER SEAL

2022 Restricted Stock Unit (RSU) Award Summary (granted 2/23/2022)

As a participant in Duke Energy's long-term incentive (LTI) program, you have been awarded a restricted stock unit (RSU) grant which was approved **February 23, 2022** (i.e., the grant date).

Your grant value was calculated by multiplying your annual rate of base pay that was effective on the grant date by your LTI opportunity. The number of RSUs awarded to you was determined by dividing your grant value by **\$97.67**, the closing price of Duke Energy common stock on the grant date. These RSUs will vest over a three-year period, as described below.

Accepting Your RSU Grant

It will be necessary for you to accept your RSU award and agree to its terms via the Fidelity NetBenefits site. Upon accepting your award, we encourage you to read your award agreement carefully as well as the 2015 Long-Term Incentive Plan (LTIP) Summary and its Prospectus. In the event of any conflict between the information in this summary and the LTIP or the award agreement, the terms of the LTIP/award agreement will govern. You may also wish to discuss this information with your personal financial advisor.

Accessing Your Stock Award

Record keeping for your stock award is provided by Fidelity Stock Plan Services, LLC. You will be able to access your stock plan information online at www.netbenefits.com or by calling a Fidelity Stock Plan Services representative at **800-376-4015**.

Vesting

Your RSUs vest, while your employment continues, according to an installment-based vesting schedule (or as otherwise described in the *Restricted Stock Unit Award Summary Chart* on page 3). Under that schedule, one-third of your RSUs will vest on each of the first three anniversaries of the grant date (i.e., 2/23/2023, 2/23/2024 and 2/23/2025).

Vested RSUs are paid in whole shares of Duke Energy common stock shortly after they vest and will be reduced by the applicable tax withholding, as described below.

Dividend Equivalents

You will receive a cash payment equal to the quarterly cash dividend per share declared and paid on Duke Energy common stock for each unvested RSU awarded to you. These cash payments will be included in your paycheck. Dividend equivalent payments are treated as ordinary income, and, therefore, are subject to tax withholding. Upon vesting and payment, or forfeiture of the unit, future dividend equivalent payments will end.

Voting Rights

Prior to vesting, your RSUs do not give you shareholder voting rights because no actual shares of common stock are issued to you until your RSUs vest and are paid.



Ability to Sell

You may not sell your unvested RSUs, but you may sell the shares of Duke Energy common stock that you receive upon vesting, subject to Duke Energy's Insider Trading Policy.

Taxes

Under current U.S. tax rules, you will incur taxable income when your vested RSUs are paid, based on the fair market value of the common stock delivered to you. This income will be included on your Duke Energy Form W-2. Federal income tax and any applicable state, local, Social Security and Medicare tax withholding is required upon the vesting of your award. Your taxes will be paid by the share reduction method which means you will receive the number of shares that have vested less the shares withheld to pay your tax withholding. Shortly after vesting, you will receive your net shares in your Fidelity brokerage account.

EXAMPLE: Tax Withholding Payment Through a Reduction of Shares

You vest in 100 RSUs and are notified that the tax withholding amount due is \$3,400. The shares used to pay your tax withholding are valued at fair market value (let's assume \$85). The amount of Duke Energy common stock you receive would be reduced by 40 shares ($\$3,400/\$85 = 40$ shares). You would receive 60 shares in your Fidelity Brokerage account, the 100 shares that vested less the 40 shares withheld to pay your tax withholding.

Keep in mind that your income will be taxed at applicable withholding rates, and you may owe additional income taxes depending on your personal financial situation. You may wish to consult with your tax advisor to determine whether you should make additional estimated tax payments.

Resources

If you have specific questions about your RSU award, you may contact:

Brian Callahan
Executive Rewards
859-801-5975
brian.callahan@duke-energy.com

If you have general questions regarding restricted stock units, you may contact:

Fidelity Stock Plan Services, LLC
800-376-4015
www.netbenefits.fidelity.com

Restricted Stock Unit Award Summary Chart

The following chart summarizes the terms of your 2022 RSU award.

Provision	Restricted Stock Units (RSUs)
Grant Date	February 23, 2022
<p>Vesting's</p> <ul style="list-style-type: none"> • While employment continues • When employment with Duke Energy and its affiliated companies terminates <ul style="list-style-type: none"> - <i>After attaining the age of 55 with 10 years of service or on account of termination by the company without cause or termination as the result of divestiture</i> - <i>On account of death/disability</i> - <i>Termination other than described above</i> 	<p>Three-year installment vesting — 1/3 of units vest each year on anniversary of grant date (i.e., 2/23/2023, 2/23/2024 and 2/23/2025)</p> <p>Units in award are reduced to reflect actual service during the installment vesting period* and become immediately vested to the extent not previously vested</p> <p>Units not previously or immediately vested are forfeited</p> <p>Unvested units become immediately vested</p> <p>Vesting ends — units not previously vested are forfeited</p>
Dividend Equivalents	Quarterly payments on unvested units that have not been forfeited are paid when common stock cash dividends are declared and paid

*Calculated based on number of days of actual service from the grant date divided by total number of days in the period from the grant date to the third anniversary of the grant date.

This document contains selected highlights of Duke Energy's employee compensation plans. If any statement herein, or any other communication, conflicts with the applicable plan documents and/or award agreements, the plan documents and/or award agreements will govern. Duke Energy retains the right to amend, modify or terminate its compensation plans in any respect and at any time, and neither its benefits plans, nor your plan participation, will be considered a contract for future employment.

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke)
Energy Kentucky, Inc., for: 1) An)
Adjustment of the Electric Rates; 2)) Case No. 2022-00372
Approval of New Tariffs; 3) Approval of)
Accounting Practices to Establish)
Regulatory Assets and Liabilities; and 4))
All Other Required Approvals and Relief.)

DIRECT TESTIMONY OF
JOHN D. SWEZ
ON BEHALF OF
DUKE ENERGY KENTUCKY, INC.

December 1, 2022

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I. INTRODUCTION AND PURPOSE	1
II. OVERVIEW OF DUKE ENERGY’S CURRENT GENERATING RESOURCES AND PARTICIPATION IN PJM	3
III. INFORMATION SPONSORED BY WITNESS	17
IV. CONCLUSION	17

ATTACHMENT:

Attachment JDS-1 Managing the Energy Transition: Coordinating Environmental Policy and Regulation with Grid Reliability

I. INTRODUCTION AND PURPOSE

1 **Q. STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is John D. Swez and my business address is 526 S. Church Street,
3 Charlotte, North Carolina 28202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed as Managing Director, Trading and Dispatch, by Duke Energy
6 Carolinas, LLC, a utility affiliate of Duke Energy Kentucky, Inc. (Duke Energy
7 Kentucky or Company).

8 **Q. PLEASE DESCRIBE BRIEFLY YOUR EDUCATION AND**
9 **PROFESSIONAL EXPERIENCE.**

10 A. I received a Bachelor of Science degree in Mechanical Engineering from Purdue
11 University in 1992. I received a Master of Business Administration degree from
12 the University of Indianapolis in 1995. I joined PSI Energy, Inc. in 1992 and have
13 held various engineering positions with the Company or its affiliates in the
14 generation dispatch or power trading departments. In 2003, I assumed the position
15 of Manager, Real-Time Operations, on January 1, 2006, became the Director of
16 Generation Dispatch and Operations, and finally assumed my current role on
17 November 1, 2019.

18 **Q. HAVE YOU EVER TESTIFIED BEFORE THE KENTUCKY PUBLIC**
19 **SERVICE COMMISSION?**

20 A. Yes, I have testified before the Kentucky Public Service Commission
21 (Commission) on several occasions.

1 **Q. PLEASE BRIEFLY DESCRIBE YOUR DUTIES AS MANAGING**
2 **DIRECTOR, TRADING & DISPATCH.**

3 A. As Managing Director, Trading and Dispatch of Duke Energy, I am responsible
4 for Power Trading on behalf of Duke Energy's regulated utilities in the Carolinas
5 and Florida and Generation Dispatch on behalf of Duke Energy's regulated
6 utilities in Indiana, Ohio, and Kentucky. I am responsible for Duke Energy
7 Kentucky's participation as a member of PJM Interconnection LLC (PJM) as it
8 relates to the Company's generation dispatch, unit commitment, 24-hour real-time
9 operations, short-term maintenance planning. I am also responsible for the
10 Company's submittal of supply offers in PJM's day-ahead and real-time electric
11 energy (collectively Energy Markets) and ancillary services markets (ASM), as
12 well as managing the Company's short-term supply position to ensure that the
13 Company has adequate economic resources committed to serve its retail
14 customers' electricity needs. I also work closely with the teams responsible for
15 managing the Company's capacity position with respect to meeting its Fixed
16 Resource Requirement (FRR) obligation as a member of PJM.

17 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

18 A. I provide a brief overview of the Company's generating resources used to meet its
19 customer load obligations and provide safe, reliable, and adequate service. I then
20 discuss the Company's participation in the PJM energy markets and discuss the
21 customer benefits that the Company's PJM membership provides. Finally, I
22 sponsor Filing Requirement (FR) 16(7)(h)(7) and certain forecasted financial data

1 that I provided to Duke Energy Kentucky witness Mr. Grady S. “Tripp” Carpenter
2 for his use in preparing the Company’s forecast.

**II. OVERVIEW OF DUKE ENERGY’S
CURRENT GENERATING RESOURCES AND PARTICIPATION IN PJM**

3 **Q. PLEASE PROVIDE A BRIEF OVERVIEW OF HOW DUKE ENERGY**
4 **KENTUCKY MEETS ITS KENTUCKY LOAD OBLIGATIONS.**

5 A. Duke Energy Kentucky currently owns and operates approximately 1,076 net
6 installed megawatts (MW) of summer generating capacity, provided by two
7 assets. Base load requirements are met by the East Bend Unit 2 Generating
8 Station (East Bend). East Bend is a 600-megawatt (MW) (net rating) coal-fired
9 base load unit located along the Ohio River in Boone County, Kentucky. The
10 Company’s peaking requirements are met with the Woodsdale Generating Station
11 (Woodsdale). Woodsdale is a 476 MW (net summer rating) six-unit natural gas-
12 fired combustion turbine (CT) facility located in Trenton, Ohio. The net ratings
13 represent the amount of power that the Company can dispatch from the plants
14 after some portion of the gross power output is used to power the plant
15 machinery.

16 Additionally, the Company has 8.8 MW of solar assets consisting of the
17 nameplate ratings of Walton 1 (2 MW), Walton 2 (2 MW), Crittenden (2.8 MW),
18 and the soon to be completed Aero (2.0 MW) site with the net firm summer
19 capacity at all four solar sites of 3.7 MW. These assets are connected at the
20 distribution level and thus, from PJM’s perspective are behind the meter, meaning
21 these generating assets reduce the customer demand as seen from PJMs
22 perspective, but are not separately dispatched into the market.

1 Collectively, East Bend and Woodsdale generating assets are dispatched
2 into PJM, which maintains functional control of the transmission system within its
3 footprint including the Duke Energy Ohio/Kentucky system. To the extent Duke
4 Energy Kentucky can monetize its assets to produce off-system sales through
5 PJM, customers receive the majority of those net revenues (or costs) through the
6 Company's profit-sharing mechanism (Rider PSM).

7 **Q. PLEASE GENERALLY DESCRIBE DUKE ENERGY KENTUCKY'S**
8 **MEMBERSHIP IN PJM.**

9 A. Duke Energy Kentucky is a member of PJM, the nation's first fully functioning
10 Regional Transmission Organization (RTO) that operates the power grid and
11 wholesale electric market for all or parts of thirteen states and the District of
12 Columbia. This electric market consists of energy markets, capacity markets,
13 ancillary services markets (ASM), and a Financial Transmission Rights (FTR)
14 market. PJM's operation is governed by agreements approved by the Federal
15 Energy Regulatory Commission (FERC) including the Operating Agreement,
16 Open Access Transmission Tariff (OATT), and the Reliability Assurance
17 Agreement (RAA).

18 As a member of PJM, Duke Energy Kentucky is subject to these
19 agreements, which among other things, require Duke Energy Kentucky to offer its
20 available generation to PJM and to purchase its customer energy load from the
21 PJM Day-Ahead or Real-Time Energy Markets. The Day-Ahead and Real-Time
22 Energy Markets are collectively referred to as the PJM Energy Market for the
23 remainder of my testimony.

1 Through PJM’s Day-Ahead market, market participants can mitigate their
2 exposure to real-time price risk by selling available generation and purchasing
3 forecasted demand. Duke Energy Kentucky submits demand bids and supply
4 offers as both a load serving entity and a generator owner, respectively. Thus, the
5 Company simultaneously functions as both a buyer and seller to serve its retail
6 electric customers.

7 **Q. PLEASE BRIEFLY DESCRIBE THE PJM ENERGY MARKET.**

8 A. PJM administers its Energy Market utilizing locational marginal pricing (LMP).
9 LMP can be broadly defined as the value of one additional megawatt of energy at
10 a specific point on the electric grid. In PJM, LMP is composed of three
11 components: the system energy price, the transmission marginal congestion price,
12 and the marginal loss price. Both the Day-Ahead and Real-Time Energy Markets
13 are based on supply offers and demand bids submitted to PJM by market
14 participants, including both generator owners (as sellers) and load serving entities
15 (as buyers).

16 The Day-Ahead Energy Market provides a means for market participants
17 to mitigate their exposure to price risk in the Real-Time Energy Market. The Day-
18 Ahead Energy Market also provides meaningful information to PJM regarding
19 expected real-time operating conditions for the next day, which enhances PJM’s
20 ability to ensure reliable operation of the transmission system. The Real-Time
21 Energy Market functions as a balancing market between generation and load in
22 real-time. Through the PJM Energy Market and the LMP price signals, PJM
23 provides a market-based solution to value and thus manages energy production,

1 transmission congestion, and marginal losses in the PJM region. PJM also
2 operates, and Duke Energy Kentucky participates in the ASM. Ancillary services
3 include:

- 4 • Synchronized Reserves, which provide energy during an unexpected
5 period of need;
- 6 • Non-Synchronized Reserves, which also provide energy during an
7 unexpected period of need, but which are typically off-line;
- 8 • Regulating Reserves, which are utilized to manage short-term changes
9 in energy requirements;
- 10 • Day-Ahead Scheduling Reserves, a 30-minute day-ahead reserve
11 product;
- 12 • Black Start Service, which provides energy to the grid in the event of a
13 black out condition; and
- 14 • Reactive Supply and Voltage Control, which is produced by capacitors
15 and generators and absorbed by reactors and other inductive devices.

16 Synchronized, Non-Synchronized, Regulating, and Day-Ahead Scheduling
17 Reserves are co-optimized with the PJM Energy Market to minimize overall
18 production costs across the PJM footprint.

19 **Q. PLEASE EXPLAIN HOW PJM DISPATCHES GENERATING**
20 **RESOURCES TO MEET DEMAND.**

21 A. PJM performs a security constrained economic commitment and least-cost
22 security constrained economic dispatch process that simultaneously optimizes
23 energy and reserves for all generation in its footprint in determining which

1 additional assets to commit and dispatch. This process considers the various,
2 unique challenges faced in reliably and economically supplying power to all load
3 across its footprint, most significantly aligning the production of energy
4 simultaneously with the volatility in demand within the capability of the
5 transmission network. PJM must continually act to account for the fact that
6 customer demand is dynamic in nature, fluctuating over the course of a hour, day,
7 week, and season, while analyzing factors such as costs, unit availability, and
8 operating characteristics of generation from different types of units within its
9 entire footprint and expected and unexpected conditions on the transmission
10 network that affect which generation units can be used to serve load economically
11 and reliably given the numerous constraints that must be considered. Because of
12 these challenges, PJM's dispatch process "is designed to be an optimization
13 process...so that a reliable supply of electricity at the lowest cost possible under
14 the conditions prevailing in each dispatch time interval can be delivered."¹

15 Importantly, PJM's decisions as to which generating units should be
16 dispatched are not made exclusively based on the individual unit's cost. Although
17 the price of energy at a generating unit is certainly important, PJM's dispatch
18 process must consider several factors, including system-wide reliability,
19 transmission grid congestion and losses, and numerous operational conditions.
20 PJM has access to complete information regarding the operation of its Day-Ahead
21 and Real-Time Energy Markets in making the determination to commit and
22 dispatch a unit. Because of the efficient and informed nature of PJM's dispatch

¹ FERC Docket AD05-13-000, *Report on Security Constrained Economic Dispatch by the Joint Board of PJM/MISO Region*, Attachment 1, at pg. 5 (May 24, 2006).

1 methodology, a utility's energy purchases in PJM's Day-Ahead and Real-Time
2 Energy Markets are efficient and economic means available to satisfy customer
3 load. Stated another way, energy acquired by all load serving entities from PJM is
4 necessarily, and by definition, purchased on an economic dispatch basis.

5 **Q. PLEASE BRIEFLY EXPLAIN HOW DUKE ENERGY KENTUCKY'S**
6 **CURRENT GENERATION PORTFOLIO PARTICIPATES AND IS**
7 **DISPATCHED IN THE DAY-AHEAD AND REAL-TIME ENERGY**
8 **MARKETS.**

9 A. Under the terms of PJM's RAA, as a FRR entity and generation owner in PJM,
10 Duke Energy Kentucky is under a must-offer requirement to offer its generation
11 committed to the FRR plan into the Day-Ahead Energy Market. Duke Energy
12 Kentucky offers its units to PJM's Energy Market and ASM for commitment and
13 dispatch purposes based on variable production costs used for the calculation of
14 incremental cost, no-load cost, and startup cost. These costs are comprised of the
15 market price of fuel and emissions plus variable operation and maintenance costs.
16 The generating units are offered with designations including Must Run,
17 Economic, Emergency, and Unavailable. Units offered with a Must Run status
18 will clear the market and are available for dispatch between the unit's economic
19 minimum and economic maximum load. Units will be dispatched down or at
20 minimum load during periods when the marginal cost of the unit is above the
21 LMP solved by the dispatch model or will be dispatched up or at full load during
22 periods when the marginal cost of the unit is below the LMP solved by the
23 dispatch model. Economic status units generally are committed if their "all in"

1 costs, including startup costs, are economic across the following day or during
2 periods of the following day. Emergency status units can be committed during an
3 energy emergency event. Unavailable status units will not be considered by the
4 commitment and dispatch model.

5 **Q. HOW DOES DUKE ENERGY KENTUCKY'S GENERATION COMPETE**
6 **IN THE PJM ENERGY MARKET?**

7 A. In the Day-Ahead and Real-Time Energy Markets, East Bend historically
8 competed favorably in the PJM market. However, while it still remains mostly
9 economic, in recent times there have been periods when the unit was uneconomic
10 to operate and was placed in reserve shutdown status. During reserve shutdown
11 periods, the summation of the variable costs to run the unit are generally expected
12 to be greater than the energy and ancillary service revenues received from the
13 market. This occurred during 57 days at the beginning of the COVID pandemic
14 during the 2nd quarter of 2020. Additionally, there have been few instances since
15 that time when, due to market conditions, reserve shutdown again occurred.

16 The Company's six natural gas-fired combustion turbines at Woodsdale
17 station, which operate as peaking units, continue to see limited dispatch within the
18 PJM energy markets. These units, however, may clear the energy market for
19 ancillary services such as Day-Ahead Planning Reserves and may not actually be
20 turned on-line. Thus, it is possible for the units to provide value to the Kentucky
21 customer and PJM without being on-line. PJM reimburses service providers such
22 as Duke Energy Kentucky for black start and reactive services. Woodsdale is

1 currently a black start unit in the Company's black start plan and thus two of the
2 units are reimbursed for certain costs to provide black start service to PJM.

3 **Q. DOES DUKE ENERGY KENTUCKY'S MODELING AND FORECASTS**
4 **INDICATE EAST BEND WILL CONTINUE TO EXPERIENCE PERIODS**
5 **WHERE EAST BEND IS UNECONOMIC IN THE PJM ENERGY**
6 **MARKETS?**

7 A. Yes. The Company's dispatch models are forecasting more instances of reserve
8 shutdown in the future. This likelihood of reserve shutdown modeling appears in
9 both shorter-term models that look out up to 5-years and in longer term resource
10 planning models. Both models are showing a declining net capacity factor at East
11 Bend. While environmental factors may be an additional headwind towards East
12 Bend's economics in the future, it is not a primary driver of the expected
13 continuation of reserve shutdown status. Rather, the primary driver is simply that
14 the variable cost of the unit as compared to energy market revenues indicates that
15 East Bend is expected to have difficulties competing in Energy Markets in the
16 future. As a result of these incredibly low capacity factors, the Company is
17 modeling that East Bend should be retired in 2035 as it is simply no longer being
18 regularly dispatched in the Energy Markets. Company witness Scott Park
19 discusses the economics of East Bend and its eventual retirement in his testimony.

20 **Q. PLEASE EXPLAIN THE CAPACITY PERFORMANCE CONSTRUCT**
21 **WITHIN THE PJM CAPACITY MARKETS.**

22 A. In an effort to improve the reliability of generating resources in the PJM footprint,
23 PJM re-designed the capacity market with the "Capacity Performance" construct.

1 In doing so, PJM defined its capacity products with performance-based incentives
2 and assessments for non-performance. With Capacity Performance, PJM adopted
3 a “no-excuses” policy to improve reliability. Complying capacity performance
4 resources must be capable of sustained, predictable operation that provides energy
5 and reserves during performance assessment hours throughout the Delivery Year.
6 Performance assessment hours will be determined in real-time based on system
7 conditions. They are not pre-determined but are anticipated to occur during
8 seasonal peak periods. Resources are subject to non-performance assessments
9 during emergency conditions throughout the entire Delivery Year. Resources are
10 required to be available to PJM during periods of high load demand or system
11 emergency or face substantial non-performance assessments. Conversely, over-
12 performance is rewarded with performance-based bonuses.

13 **Q. HOW WOULD YOU CLASSIFY THE CURRENT DUKE ENERGY**
14 **KENTUCKY RESOURCES IN TERMS OF PJM CAPACITY**
15 **PERFORMANCE COMPLIANCE AND RESPONSE?**

16 A. PJM Capacity Performance compliance does not have a strict or bright line set of
17 guidelines to determine whether or not it complies. The best a utility can do is
18 manage the risks and make appropriate and prudent investments to maintain and if
19 possible, enhance the reliability of its assets to reduce the likelihood of the asset
20 not being able to perform when called upon during a PJM-determined event. That
21 said, there are some minimum strategies that Duke Energy Kentucky can take in
22 terms of ensuring there is a reliable source of fuel and maintaining regular and
23 proactive maintenance schedules and activities.

1 In my opinion, East Bend meets the minimum requirements of a Capacity
2 Performance resource in that it is a coal-fired facility that maintains a significant
3 reserve of fuel stored on-site. The Company is taking proactive steps to invest in
4 the maintenance of East Bend through “asset hardening” strategies designed to
5 reduce the possibility and likelihood of forced outages. Additionally, the
6 Woodsdale facility also meets minimum Capacity Performance requirements due
7 to the Company’s addition of dual fuel.

8 **Q. PLEASE EXPLAIN POTENTIAL IMPACTS TO THE COMPANY AND**
9 **CUSTOMERS OF CAPACITY PERFORMANCE.**

10 A. The generation assets that the Company has invested in are sound and
11 dependable. Duke Energy Kentucky continues to invest in and maintain these
12 assets so that they remain reliable resources and continue to provide benefits to
13 Duke Energy Kentucky’s customers. These investments will include capital
14 expenditures to ensure generation unit availability, as well as potential upgrades at
15 generation stations designed to mitigate, to the greatest extent possible, exposure
16 to the significant assessments for non-performance.

17 **Q. ARE YOU AWARE OF ANY CHANGES TO THE WHOLESALE**
18 **ELECTRIC POWER MARKETS THAT ARE ANTICIPATED TO OCCUR**
19 **IN THE FUTURE THAT COULD AFFECT DUKE ENERGY**
20 **KENTUCKY’S POWER PROCUREMENT PRACTICES.**

21 A. From a macro level perspective, the Company believes that the energy and
22 electricity sector continues to go through an extraordinary period of change. This
23 change is primarily driven by shifts in load growth patterns, commodity price

1 relationships, the move towards sustainable generation, and increasing regulatory
2 uncertainty.

3 Although the Company believes that the PJM energy markets will
4 continue to function as they do today, wholesale energy and capacity price
5 volatility have and will likely continue to experience upward pressure in the short
6 term. Drivers behind this increased volatility include effects from commodity
7 pricing impacts from world events such as the war in Ukraine, US natural gas and
8 coal exports, new environmental regulations as they become effective, trends
9 towards a more renewable and efficient generation mix, and structural market
10 changes implemented by PJM. As coal-fired generation continues to retire, the
11 natural gas and intermittent resources connecting to the grid, both in front of and
12 behind the meter, drive potential impacts on how grid operators will reliably meet
13 demands, and the investments that will be required in energy resources and grid
14 infrastructure and modernization. It remains to be seen what extent the current
15 federal administration will have on the arc of environmental regulation; but that
16 uncertainty itself will be a challenge to utilities such as Duke Energy Kentucky.

17 **Q. PLEASE EXPLAIN WHAT CHANGES TO COAL GENERATION**
18 **CAPACITY HAS OCCURRED AND IS EXPECTED TO CONTINUE TO**
19 **OCCUR IN PJM?**

20 A. According to the PJM Independent Market Monitor, Monitoring Analytics, LLC
21 State of the Market Report for the third quarter of 2022:

- 22 • 40,617.1 MW of coal has retired or will retire in PJM between the
23 years of 2011 and 2024.

- 1 • As of 9/30/2022, the PJM total installed generating capacity is
2 196,245.9 MW
- 3 • Coal comprises 23.6 percent of this installed generating unit capacity,
4 or 44,332 MW.²

5 **Q. IS PJM FORECASTING CHANGES TO COAL GENERATION**
6 **CAPACITY IN ITS MARKETS?**

7 A. Yes. According to the October 19, 2022, report by PJM titled “Managing the
8 Energy Transition: Coordinating Environmental Policy & Regulation With Grid
9 Reliability”, PJM forecasts that 32,000 MW of capacity is projected to retire
10 between now and 2035 and 37,000 MW of capacity to retire between now and
11 2045.³ This is due to numerous policy factors, including Coal Combustion
12 Residuals, Cross-State Air Pollution Rule, EPA Effluent Limitation Guidelines,
13 and other state or company specific reasons. By examining the reasons listed in
14 the legend, approximately 16,000 MW of the generation expected to retire by
15 2035 from these policies alone, not including other potential reasons such as
16 economic reasons, are coal-fired generating units. These policy type retirements
17 coupled with economic retirements will likely impact a large portion of the
18 remaining coal generation in PJM. Finally, this report also indicates that no new
19 coal-fired capacity is present in PJM’s interconnection queue as of September 20,
20 2022.⁴

² https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2022/2022q3-som-pjm.pdf
(Pages 73-74)

³ Attachment JDS-1, Managing the Energy Transition: Coordinating Environmental Policy and Regulation with Grid Reliability, October 19, 2022; See page 11; indicating Annual Capacity retirements through 2045 and the drivers, including Coal Combustion Residuals and Climate & Equitable Jobs Act.

⁴ *Id.* pp. 9-12.

1 **Q. HOW WILL THE LOW-CAPACITY FACTOR FORECASTED BY**
2 **COMPANY MODELS FOR EAST BEND IN THE LATE 2020'S IMPACT**
3 **ITS OPERATION IN PJM?**

4 A. There are several factors that are negatively impacted when a large coal unit such
5 as East Bend has a prolonged period of low usage. First, due to the nature of East
6 Bend currently supplying a substantial amount of low-cost energy for the customer,
7 when the unit operates with a low-capacity factor, an overreliance of PJM
8 purchased energy typically results. Although this can work well for the customer
9 during periods of low power prices such as during the 2nd quarter of 2020 at the
10 start of the COVID pandemic, having a large reliance on purchased energy can
11 lead to higher energy costs and price volatility for customers due to purchased
12 power price volatility, resulting inefficiencies in unit commitment, additional
13 cycling wear and tear due to additional unit startups, and resulting other impacts
14 from this additional maintenance. This can lead to not only higher immediate
15 customer energy costs, but higher customer costs in the longer term due to a
16 higher calculated forced outage rate (EFOR).

17 The EFOR of a unit in PJM is important for two reasons; the first being
18 that a unit that has a forced outage or derate during times of higher power prices is
19 replaced either by a more expensive unit or more expensive PJM purchased
20 energy (immediate impact) and the second being the impact of higher EFOR on a
21 units Unforced Capacity (UCAP) and therefore its capacity value (longer term
22 impact). The higher EFOR translates directly into a lower UCAP and therefore
23 less capacity for the Company to use to satisfy its FRR Plan, and/or less capacity

1 available to monetize in the RPM capacity auctions. Additionally, when a unit in
2 PJM is off-line on reserve shutdown, it is still subject to PJM capacity
3 performance penalties for the time that it takes to re-start the unit.

4 **Q. CONSIDERING THE CHANGES IN THE WHOLESALE PJM**
5 **MARKETS, INCLUDING BOTH POTENTIAL RISKS AND REWARDS,**
6 **DO YOU BELIEVE DUKE ENERGY KENTUCKY'S CUSTOMERS**
7 **STILL BENEFIT FROM THE COMPANY'S MEMBERSHIP IN PJM?**

8 A. Yes. Duke Energy Kentucky's customers benefit significantly from PJM's
9 centrally dispatched RTO construct. PJM dispatches generation in broad
10 consideration of total RTO cost minimization, the benefits of which are directly
11 passed to customers in the form of energy alternatives to owned generation. The
12 approximately 180,000 MWs of generating capacity in PJM's footprint provides a
13 significant benefit in terms of reliability and provides Duke Energy Kentucky
14 with access to the most efficient generation providing energy. Further, these
15 markets maximize the opportunity for non-native sales from the Company's
16 generation, the majority of the proceeds flow back to Duke Energy Kentucky's
17 customers through a credit on their bills. PJM's focus is on maintaining and
18 improving reliability across its entire system, which directly translates to more
19 efficient and reliable access to electric resources to serve Duke Energy
20 Kentucky's customers.

III. INFORMATION SPONSORED BY WITNESS

1 **Q. PLEASE DESCRIBE FR 16(7)(h)(7).**

2 A. FR 16(7)(h)(7) provides Duke Energy Kentucky's generation mix for the
3 forecasted years of 2022 through 2024 and it is projected to be approximately 99
4 percent coal and 1 percent gas/oil for each year.

5 **Q. DID YOU PROVIDE ANY INFORMATION TO MR. CARPENTER FOR**
6 **HIS USE IN DEVELOPING THE FORECASTED FINANCIAL DATA?**

7 A. Yes. I supplied Mr. Carpenter with information for the forecasted portion of the
8 base period, consisting of the six months ending February 28, 2023, and for the
9 forecasted test period, consisting of the twelve months ending June 30, 2024. I
10 provided Mr. Carpenter with certain production costs and revenues such as fuel
11 costs, emission allowances costs and purchased power costs, and revenue derived
12 from off-system sales, after applying the off-system sales sharing mechanism.

13 I also provided Mr. Carpenter with the projected account balances, for his
14 use in preparing the balance sheet, and for the forecasted test period for the
15 following items: emission allowances, coal, oil, gas and materials and supplies. I
16 obtained this information from historic trends and adjustments for expected
17 changes forecasted within the GenTrader[®] Model run.

IV. CONCLUSION

18 **Q. WAS ATTACHMENT JDS-1 PREPARED BY YOU OR AT YOUR**
19 **DIRECTION AND UNDER YOUR CONTROL?**

20 A. Yes.

1 **Q. WAS FR 16(7)(h)(7), THE INFORMATION SUPPLIED TO MR.**
2 **CARPENTER PREPARED BY YOU OR UNDER YOUR SUPERVISION?**

3 A. Yes.


4 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

5 A. Yes.

VERIFICATION

STATE OF NORTH CAROLINA)
) SS:
COUNTY OF MECKLENBURG)

The undersigned, John Swez, Managing Director Trading & Dispatch, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony and that it is true and correct to the best of his knowledge, information and belief.



John Swez Affiant

Subscribed and sworn to before me by John Swez on this 22 day of November 2022.



NOTARY PUBLIC

My Commission Expires:

SHAMALE M WILSON
Notary Public, North Carolina
Mecklenburg County
My Commission Expires
July 06, 2026



Managing the Energy Transition: Coordinating Environmental Policy & Regulation With Grid Reliability

PJM Energy & Environmental Regulators

October 19, 2022

Asim Z. Haque

Vice President – State & Member Services

M. Gary Helm

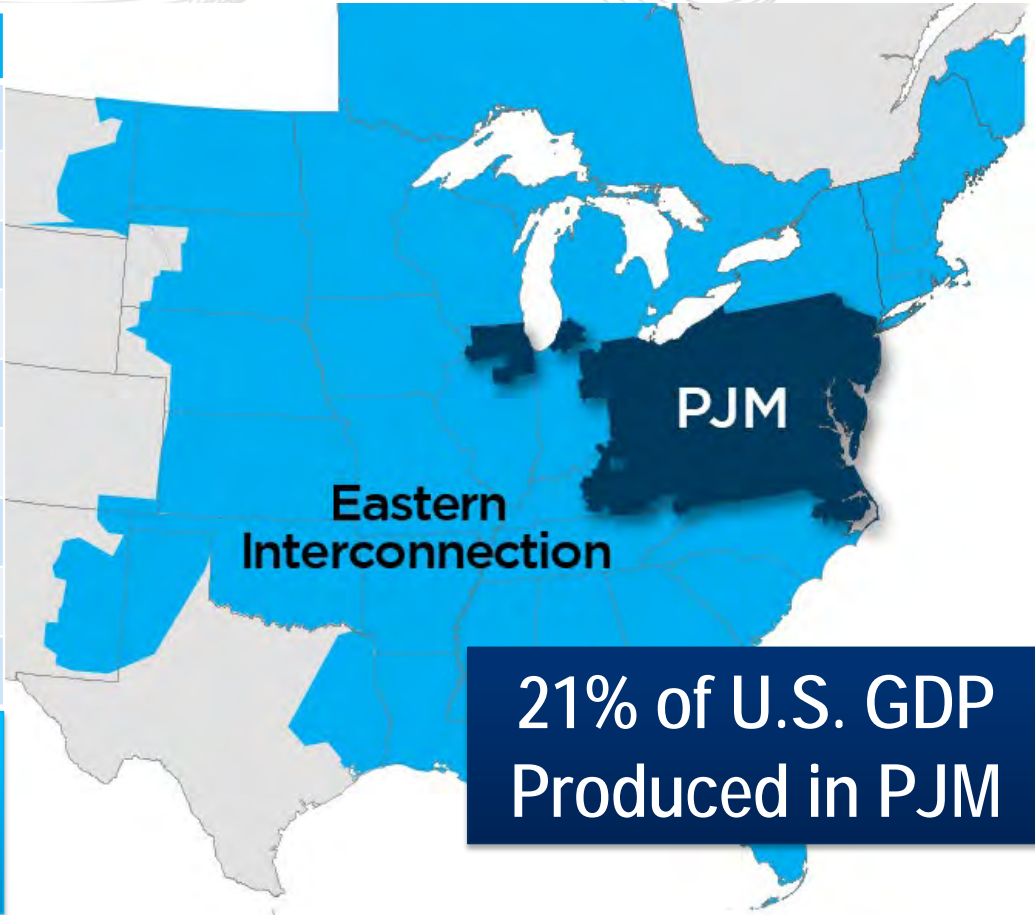
Sr. Lead Market Strategist – Applied Innovation



PJM as Part of the Eastern Interconnection

Key Statistics	
Member companies	1,060+
Millions of people served	65
Peak load in megawatts	165,563
Megawatts of generating capacity	185,442
Miles of transmission lines	85,103
2020 gigawatt hours of annual energy	782,683
Generation sources	1,436
Square miles of territory	368,906
States served	13 + DC

- 26% of generation in Eastern Interconnection
- 25% of load in Eastern Interconnection
- 20% of transmission assets in Eastern Interconnection

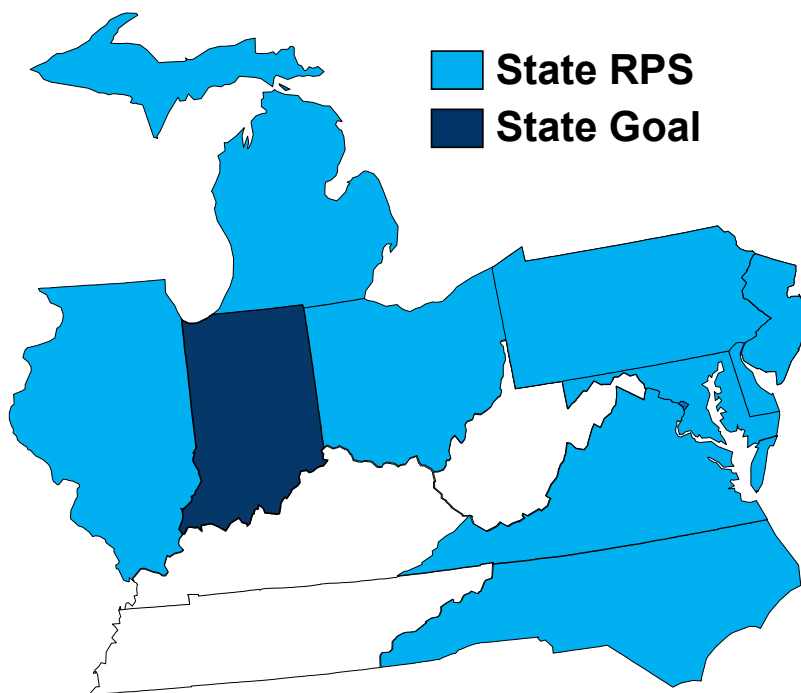


As of 2/2022



PJM States With RPS and Offshore Wind Objectives

State Renewable Portfolio Standards (RPS) require suppliers to utilize renewable resources to serve an increasing percentage of total demand.



State RPS Targets*

☀️ NJ: 50% by 2030**	☀️ VA: 100% by 2045/2050 (IOUs)
☀️ MD: 50% by 2030**	☀️ NC: 12.5% by 2021 (IOUs)
☀️ DE: 40% by 2035	OH: 8.5% by 2026
☀️ DC: 100% by 2032	MI: 15% by 2021
☀️ PA: 18% by 2021***	IN: 10% by 2025***
☀️ IL: 50% by 2040	

NC OSW
8,000 MW
By 2040

NJ OSW
11,000 MW
By 2040

MD OSW
1,568 MW
By 2030

VA OSW
5,200 MW
By 2034

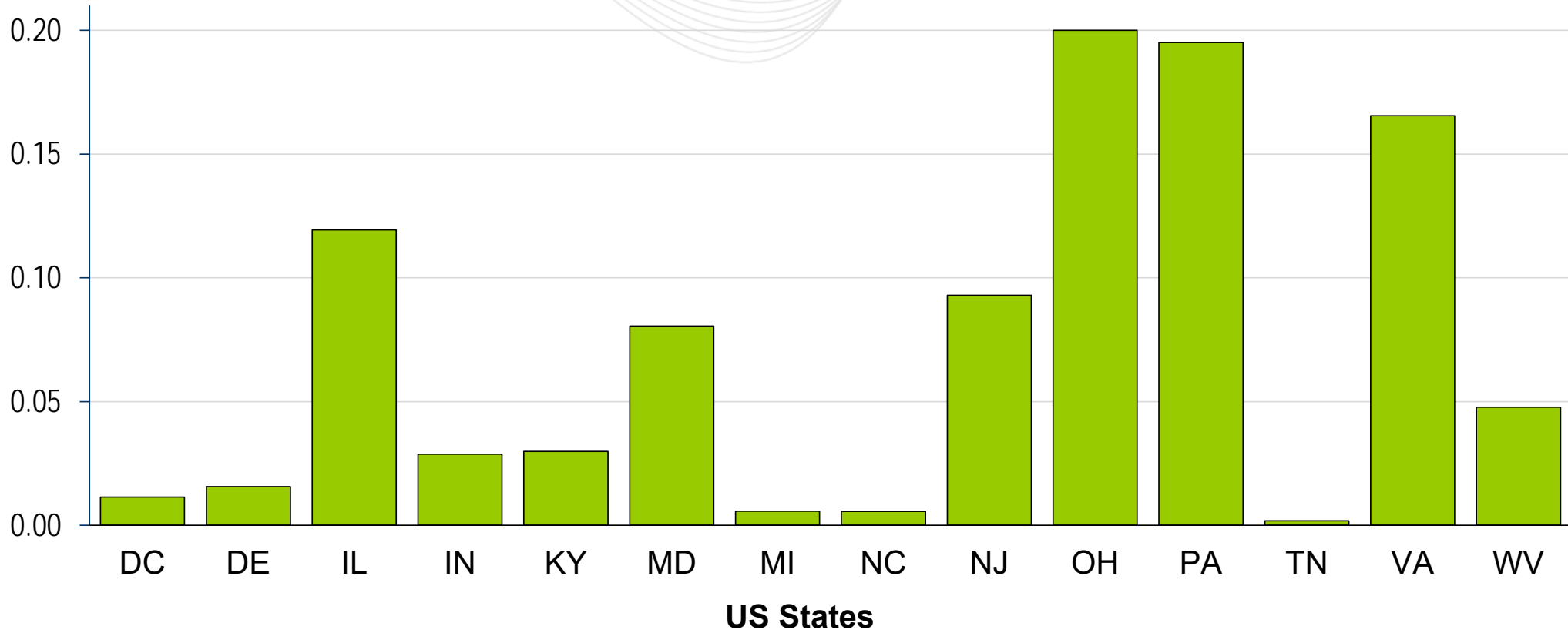
☀️ Minimum solar requirement
* Targets may change over time; these are recent representative snapshot values.
** Includes an additional 2.5% of Class II resources each year
*** Includes non-renewable "alternative" energy resources

Sept. 2021



PJM Load by State

Annual PCT Rate





Proposal

As our states evolve ... we must evolve with them.

State Policy Solutions

is a technical arm at PJM that exists purely to assist states in the advancement of their energy policy initiatives.

State Policy Solutions



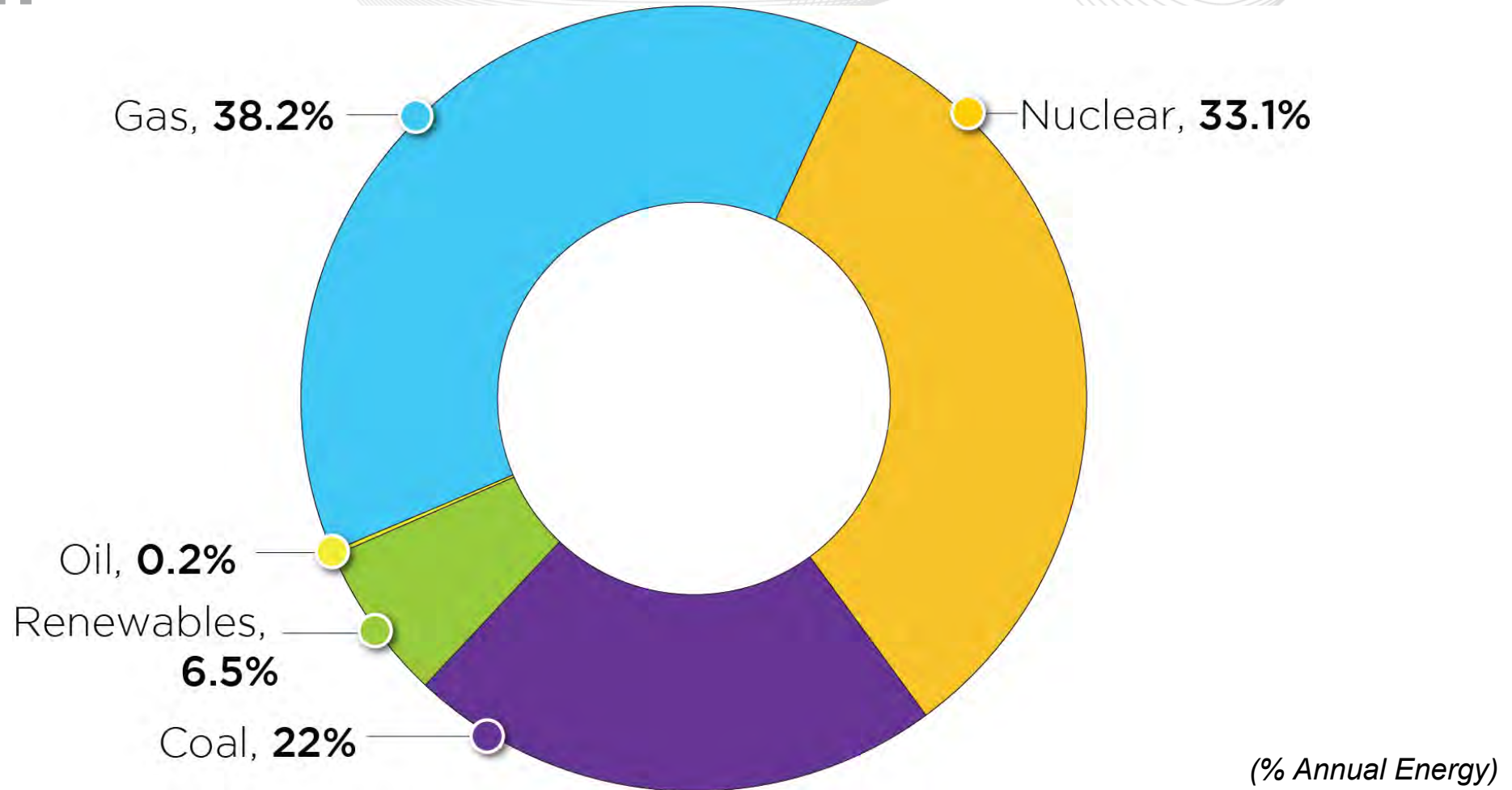


PJM – Primary Focus





2021 PJM System Mix

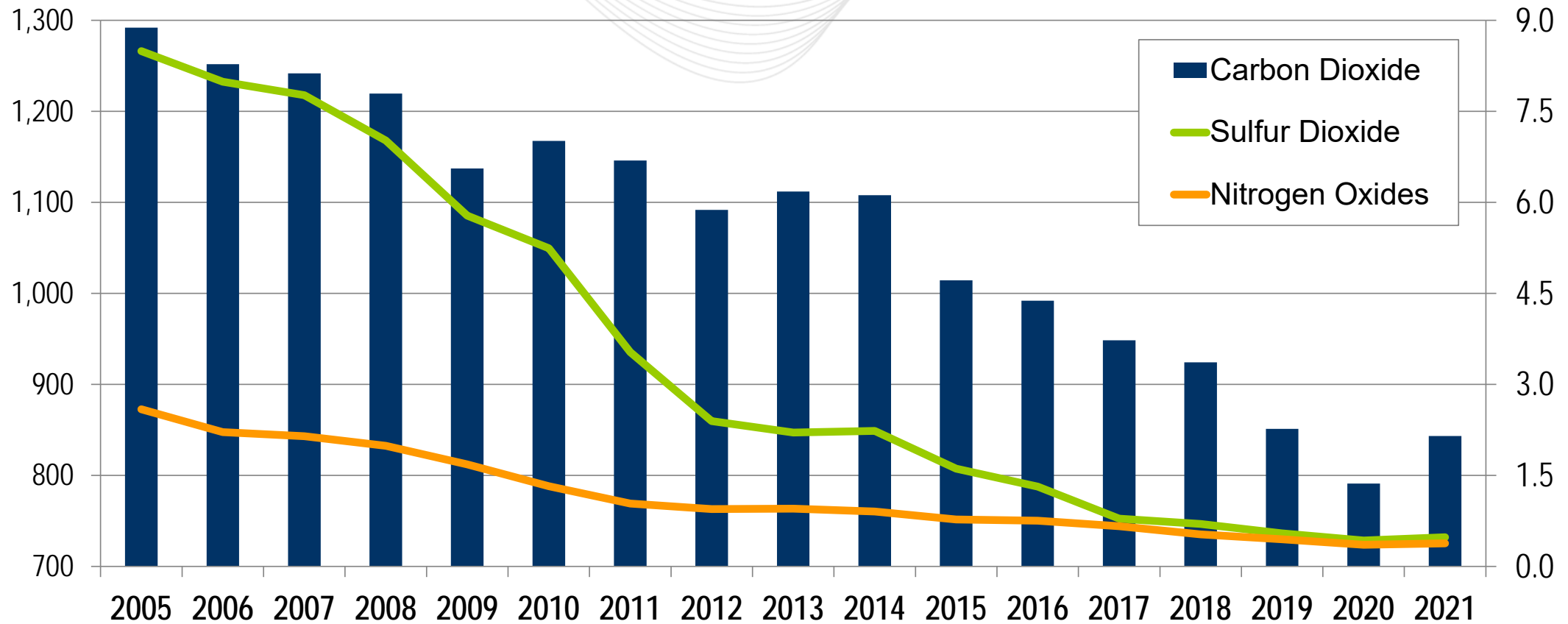




PJM System Average Emission Rates

CO₂ lbs/MWh

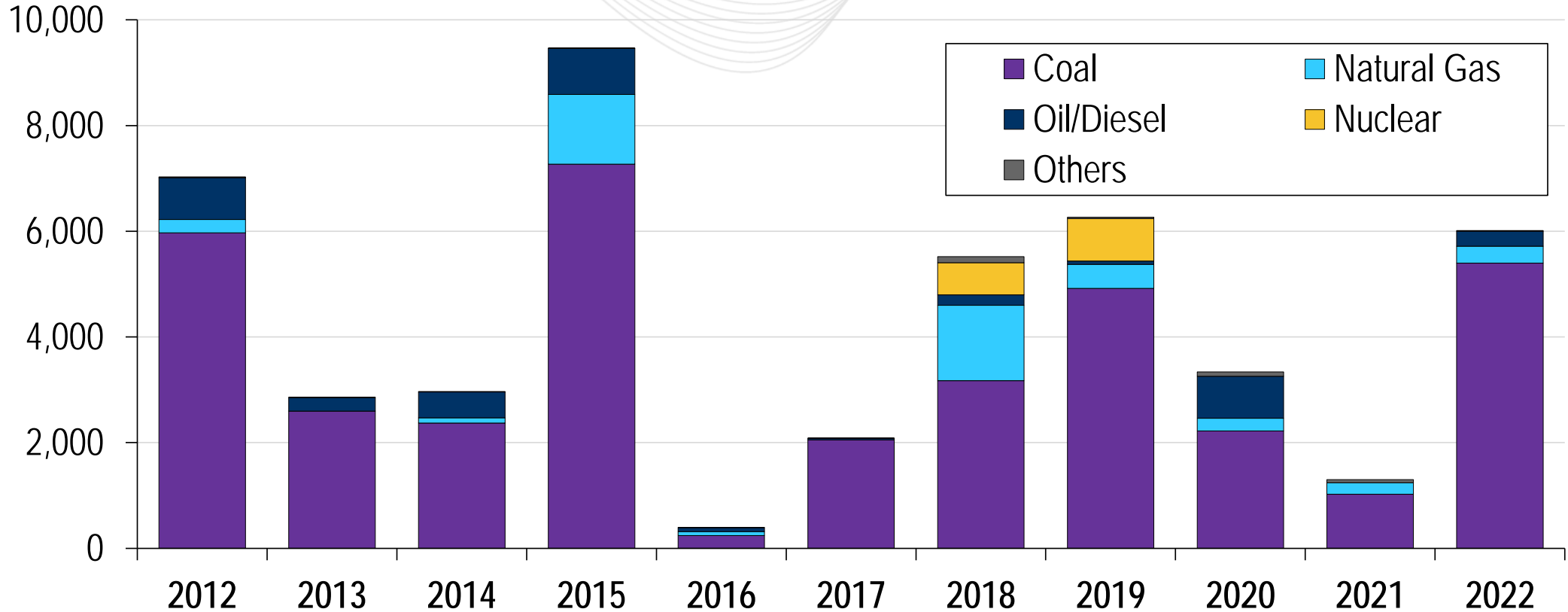
SO₂ and NO_x lbs/MWh





Exit: Historical Retirements (2012–2022 YTD)

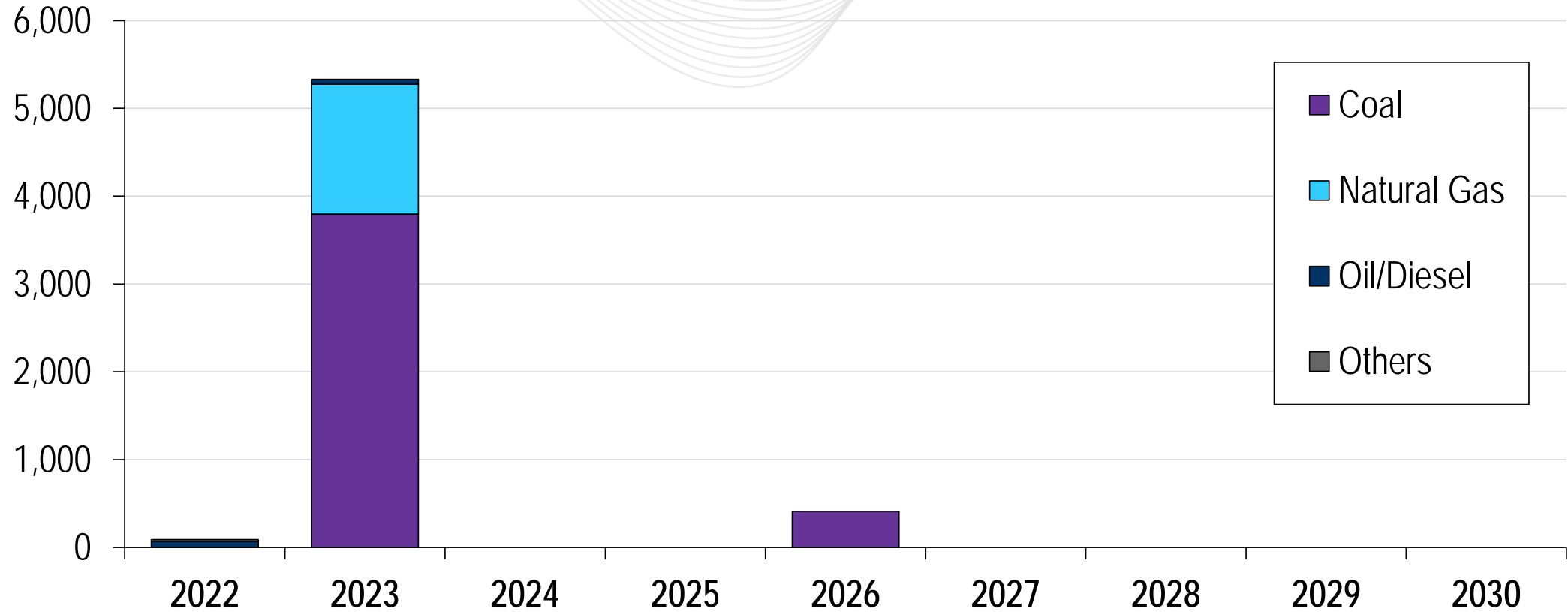
Capacity (MW)





Exit: Announced Retirements (by Year)

Capacity (MW)



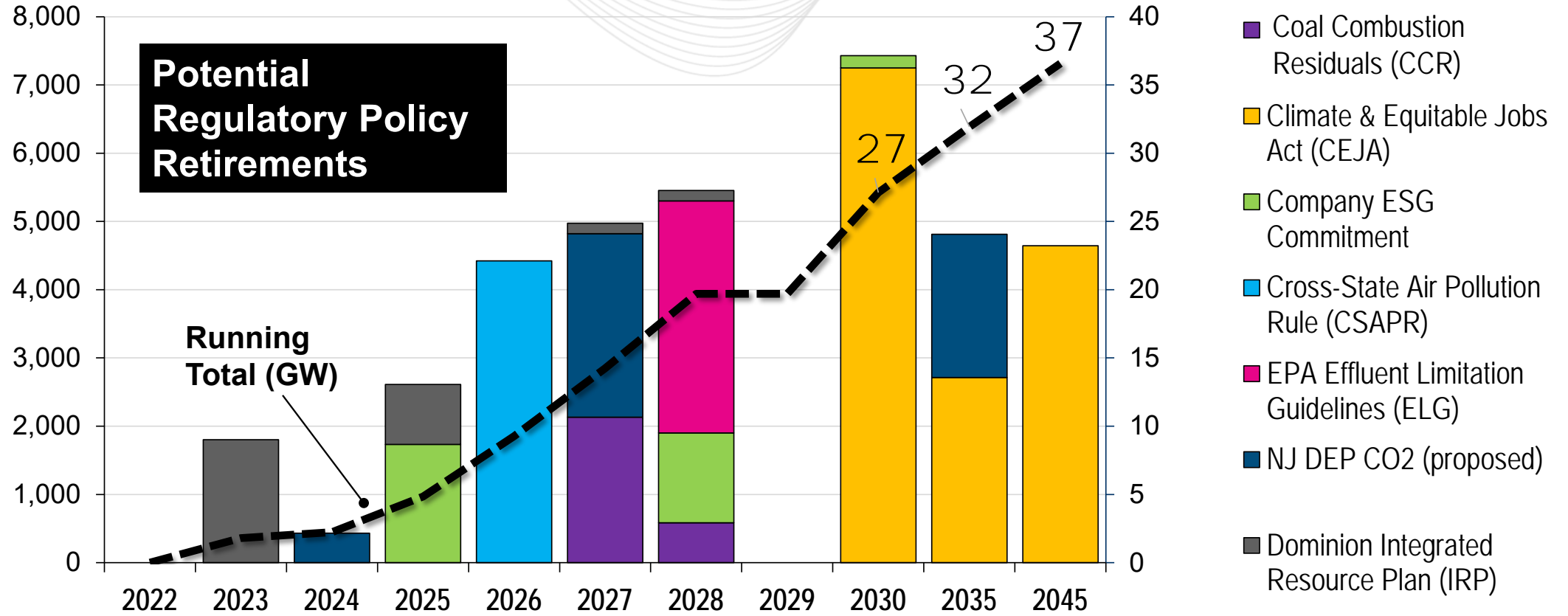
As of 8/11/2022



Cumulative Impact of Policy on Retirements

Annual Policy Retirement Capacity (MW)

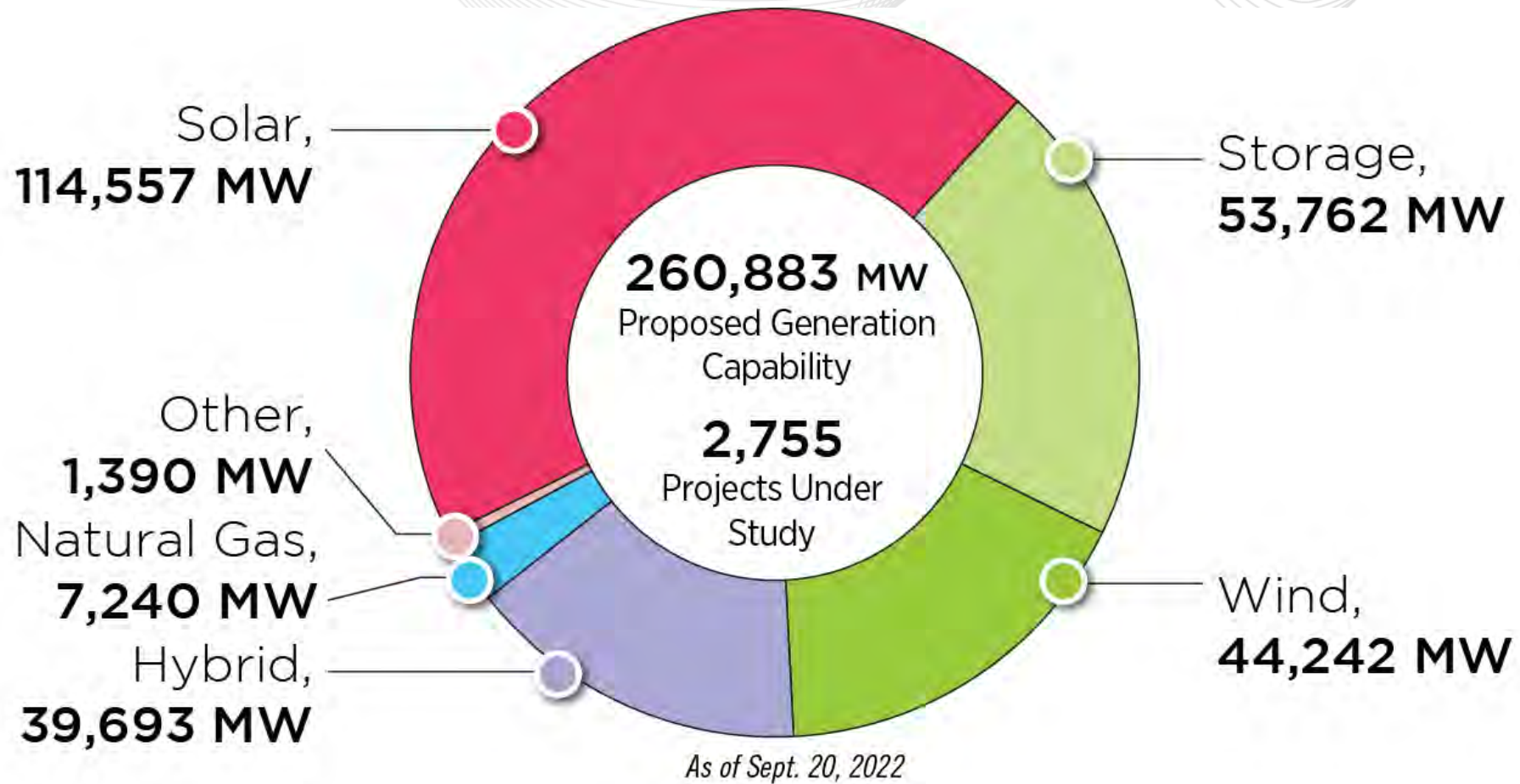
Total Policy Retirement Capacity (GW)





Current Interconnection Queue

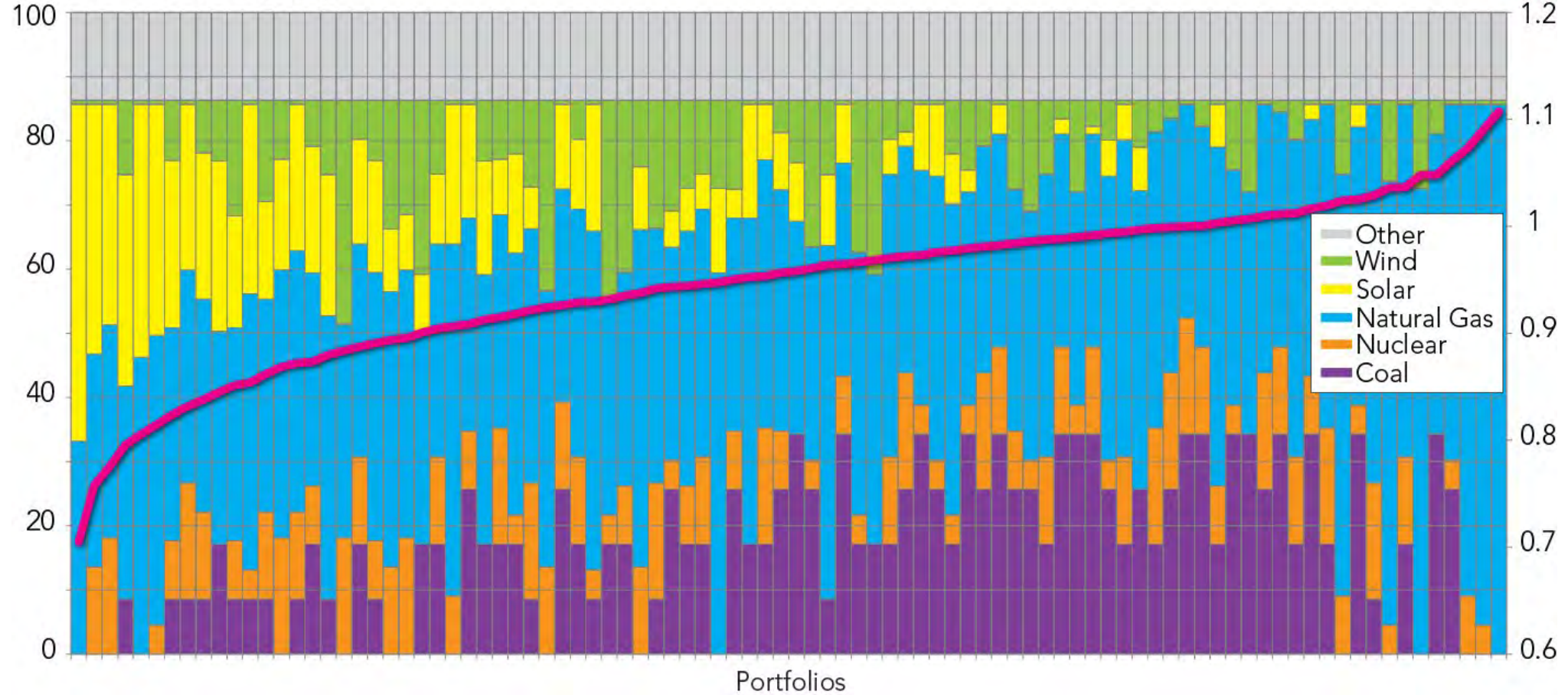
As of Sept. 20, 2022





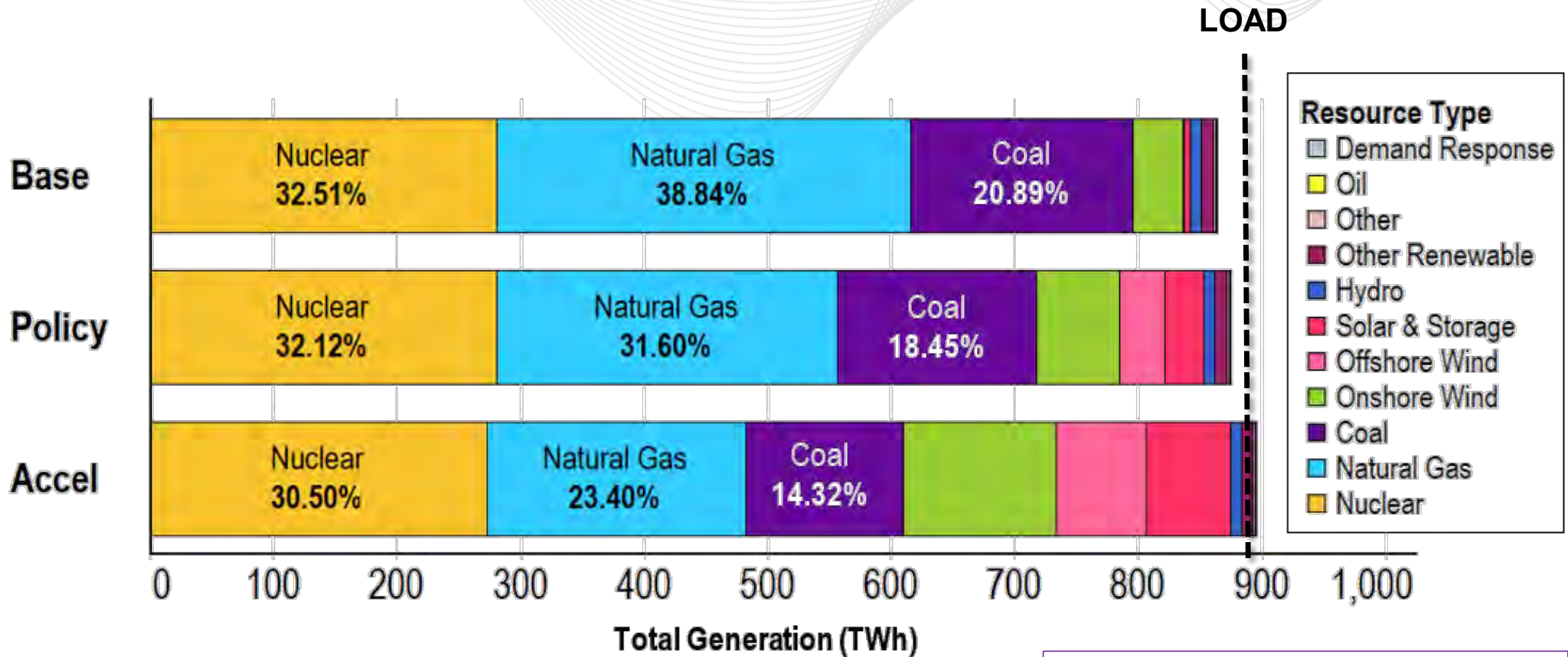
Importance of Resource Attributes

% Share Unforced Capacity





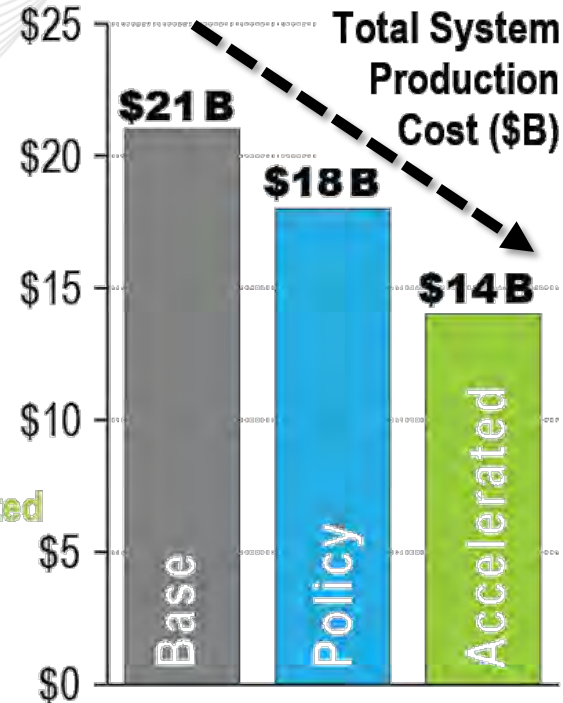
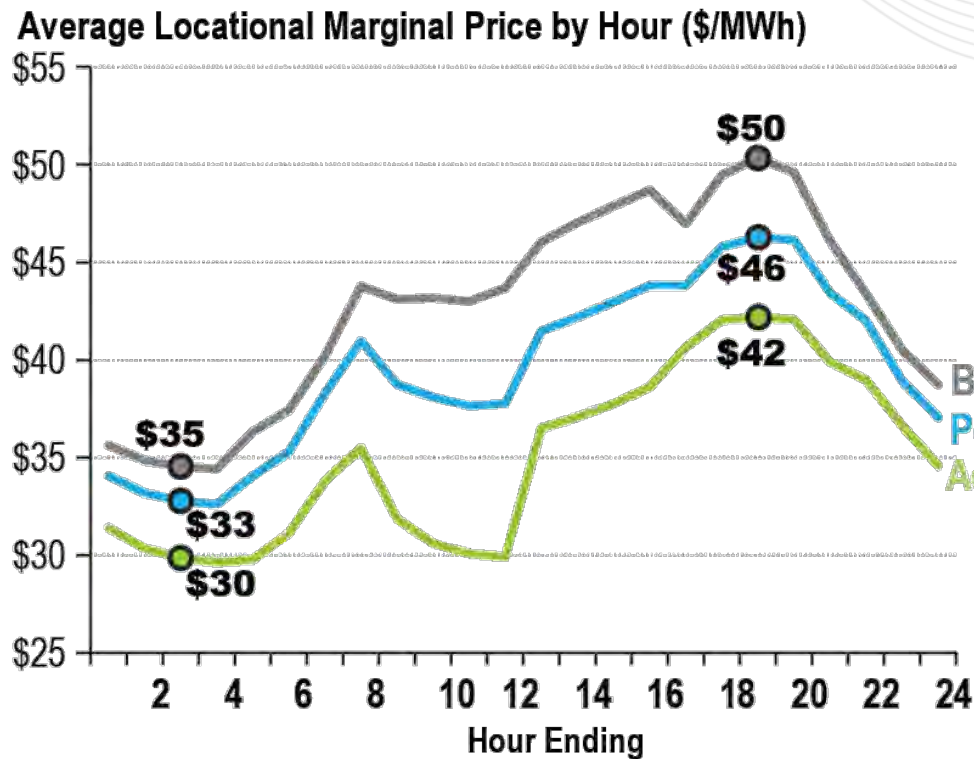
Recent Studies* Highlight Concerns



[*Energy Transition in PJM report](#)



Energy Market Shrinks as Renewables Increase



33% Decrease in Energy Market Size

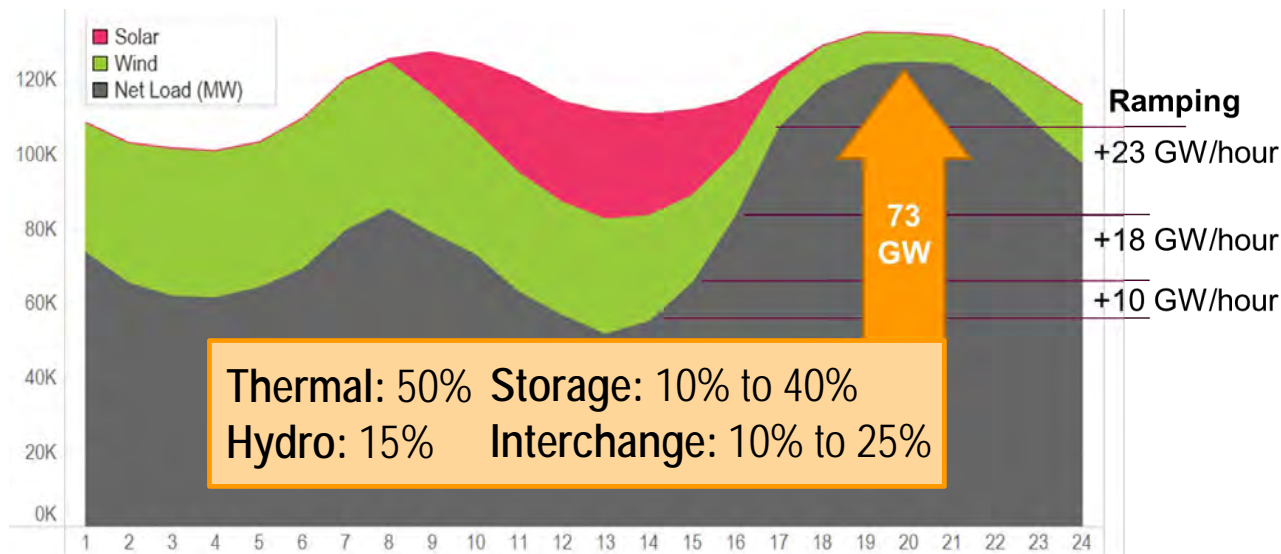


Need To Maintain Reliability Services



Focus Area No. 4

The Integration of Renewable Resources Increases the Need for Balancing Resources To Meet Forecasted Ramping Requirements & Increases the Operational Flexibility Needs in Winter



* Peak ramping in Winter

KEY INDICATORS

- Ramping: 50% load, 50% renewables
- 90th percentile > 10 GW/hour
- Peak ramping > 20 GW/hour
- Winter season has the highest ramps (adverse alignment with load)



EPA's Suite of Regulations

High Potential Impact	Moderate Potential Impact
<ul style="list-style-type: none">• CSAPR “Good Neighbor Rule”• Coal Combustion Residuals• Effluent Limitation Guidelines• GHG Guidelines Existing EGUs• GHG New Source Performance Stds• Mercury & Air Toxics Standards• GHG NSPS & Guidelines – Oil & Gas	<ul style="list-style-type: none">• PA RACT FIP• PSD & NNSR Fugitive Emissions• State Implementation Plan Timelines• Review of PM NAAQS• Reconsideration of Ozone NAAQS• Revisions to Minor New Source Review



“Good Neighbor Rule”

Address Areas That Contribute to Non-Attainment of Ozone National Ambient Air Quality Standards in Downwind States

EPA proposed revisions to NO_x allowance trading program

- Addition of more states
- Significant reductions in allowance allocations and annual updates
- Daily backstop limits

- PJM, SPP, MISO & ERCOT requested “reliability safety valve”
- PJM requested seasonal, supplemental pool of allowances

EPA to finish up end of November, Final rule – March 2023



Coal Combustion Residuals

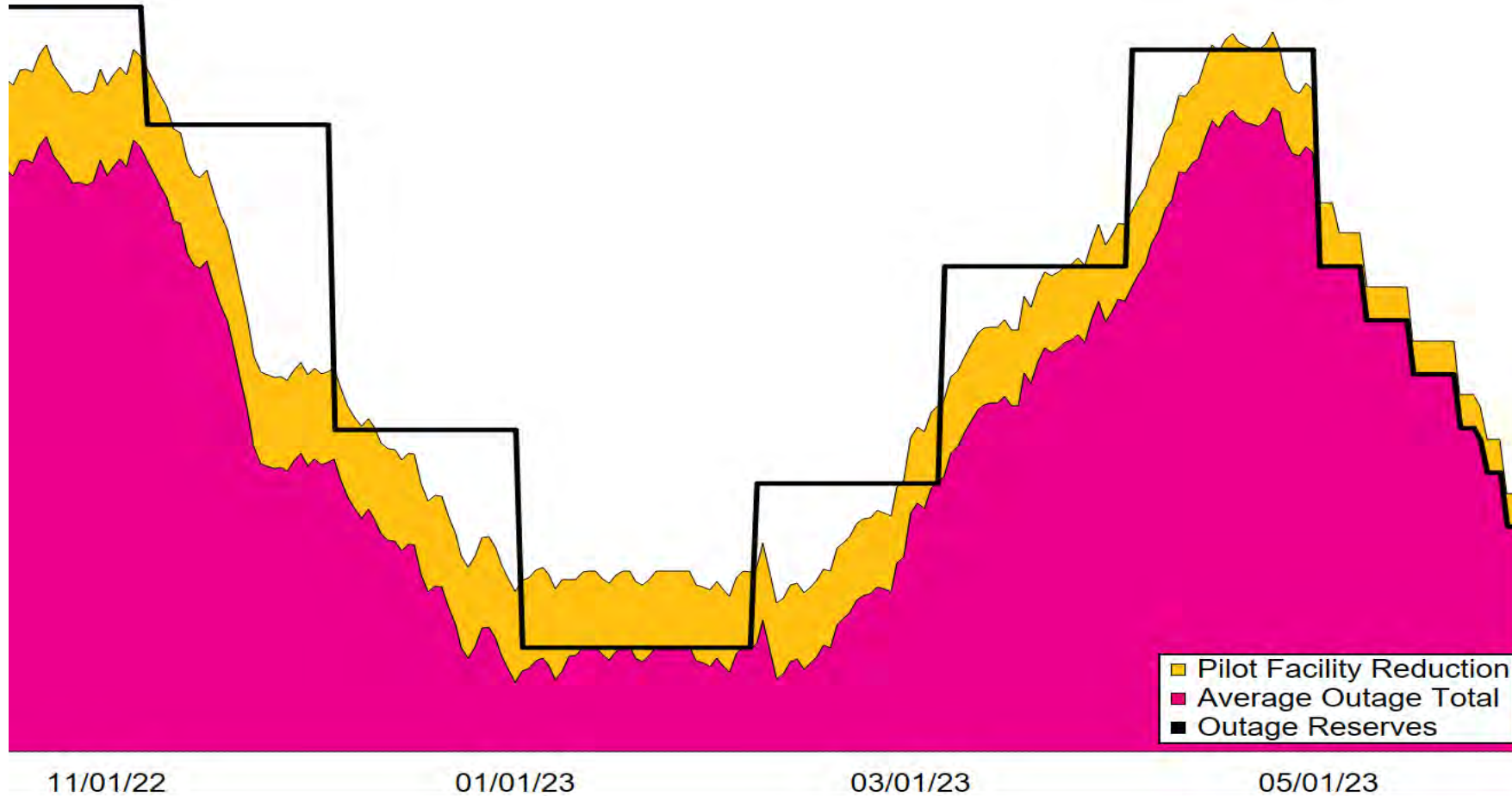
Facilities Request Alternate Closure Deadline or Commit To Cease Firing Coal (@ 28,500 MW in PJM)

- Proposed Denial – Gavin and Clifty Creek
- Proposed Conditional Approval – Spurlock and Mountaineer
- PJM provided comments to EPA on these proposals
- Generator information request
- Letter from members of Congress

Final rule on
additional issues
due March 2023



CCR Outage Analysis



Expanding Studies



Summer and Winter
Seasonal Studies

High-level study evaluating summer and winter conditions

Six-Month-Out Study

Study of transmission system six months in the future using submitted outage data

Long-Range Study*

Similar to the Six-Month-Out Study but looking further into the future

System Voltage Study*

Evaluation to identify potential system voltage violations on the transmission system

**Note: Long-Range Study and System Voltage Studies are new reliability studies being developed specifically for outage coordination.*



Effluent Limitation Guidelines

Strengthen the Guidelines for EGUs

- More stringent guidelines for covered waste streams
- Guidelines for uncovered waste streams
- Implement during discharge permit renewals

- Keystone & Conemaugh announced intention to retire in 2028
- Proposal expected November 2022



Greenhouse Gas Guidelines and Standards – EGUs

New Source Performance Standards for EGUs

Carbon sequestration for
gas turbines?

Emissions Guidelines for Existing EGUs

Limitations impacting
coal units

- Non-technical docket open until
March 27, 2023
 - EPA posed a number of questions
regarding the best system of emissions
reductions, metrics used for CO₂ limits,
state considerations, new technologies
and the energy transition
- Rules will be developed on a parallel path
- Notice of Proposed Rulemaking –
March 2023



Mercury & Air Toxics Standards

EPA Directed Review

- Residual Risk and Technology Review
 - Notice of Proposed Rulemaking – February 2023
 - Final Rule – December 2023
- Reconsideration of Supplemental Finding
 - Final Rule – December 2022



Emission Guidelines and Standards – Oil & Gas

New Source Performance Standards for New, Modified or Reconstructed Sources

Methane and volatile organic compounds

Emissions Guidelines for Existing Sources

Methane

*Includes: exploration and production, transmission,
processing and storage segments*

- Supplemental Notice of Potential Rulemaking – November 2022
- Final Rule – May 2023



Shared Responsibility for Reliability



COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke)
Energy Kentucky, Inc., for: 1) An)
Adjustment of the Electric Rates; 2)) Case No. 2022-00372
Approval of New Tariffs; 3) Approval of)
Accounting Practices to Establish)
Regulatory Assets and Liabilities; and 4))
All Other Required Approvals and Relief.)

DIRECT TESTIMONY OF
DANIELLE L. WEATHERSTON
ON BEHALF OF
DUKE ENERGY KENTUCKY, INC.

December 1, 2022

TABLE OF CONTENTS

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I. INTRODUCTION AND PURPOSE	1
II. OVERVIEW OF DUKE ENERGY KENTUCKY’S ACCOUNTING RECORDS	2
III. ACCOUNTING TREATMENT	4
IV. SCHEDULES AND FILING REQUIREMENTS SPONSORED BY WITNESS	9
V. CONCLUSION	12

I. INTRODUCTION AND PURPOSE

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Danielle L. Weatherston and my business address is 526 S. Church
3 Street, Charlotte, North Carolina 28202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services LLC (DEBS), as Manager
6 Accounting II. DEBS provides various administrative and other services to Duke
7 Energy Kentucky, Inc., (Duke Energy Kentucky or Company) and other affiliated
8 companies of Duke Energy Corporation (Duke Energy).

9 **Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATION AND**
10 **PROFESSIONAL EXPERIENCE.**

11 A. I graduated from Indiana State University with a Bachelor of Science in Accounting
12 and from Ball State University with a Master of Arts in Business Education. I am
13 also a certified public accountant in Indiana. I have held various accounting roles
14 at Sony Disc Manufacturing and Hill-Rom in Indiana, prior to joining Duke Energy.
15 At Duke Energy I have worked in various groups such as corporate accounting,
16 regulated accounting, and commercial power before accepting my current role as
17 Manager Accounting II in Charlotte.

18 **Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS MANAGER**
19 **ACCOUNTING II.**

20 A. I am responsible for maintaining the books of account and reporting the financial
21 position and the results of electric operations for Duke Energy's public utility
22 operating companies in Kentucky and Ohio.

1 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**
2 **PUBLIC SERVICE COMMISSION?**

3 A. Yes.

4 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS**
5 **PROCEEDING?**

6 A. My testimony in this proceeding addresses the various capital and operating
7 expenditures and accounting adjustments to Duke Energy Kentucky's books of
8 account in support of Duke Energy Kentucky's application in this proceeding. I
9 discuss the accounting treatment being requested in this proceeding for three
10 categories of regulatory assets/liabilities as I will discuss further in my testimony.
11 I sponsor the historical data in Schedule B-8 provided in satisfaction of Filing
12 Requirement FR 16(8)(b); and Filing Requirements FR 12(2)(i), FR 16(7)(i), FR
13 16(7)(k), FR 16(7)(m), FR 16(7)(n), FR 16(7)(o), FR 16(7)(p), and FR 16(7)(q).
14 Finally, I also sponsor the historical data on Schedules I-1 through I-5 in response
15 to FR 16(8)(i), and Schedule K in response to FR 16(8)(k).

II. OVERVIEW OF DUKE ENERGY KENTUCKY'S
ACCOUNTING RECORDS

16 **Q. ARE YOU FAMILIAR WITH THE ACCOUNTING PROCEDURES AND**
17 **BOOKS OF ACCOUNT OF DUKE ENERGY KENTUCKY?**

18 A. Yes. The books of account for Duke Energy Kentucky's regulated business follow
19 the Uniform System of Accounts prescribed by the Federal Energy Regulatory
20 Commission (FERC).

1 **Q. ARE THE BOOKS OF ACCOUNT FOR THE ELECTRIC BUSINESS OF**
2 **DUKE ENERGY KENTUCKY PREPARED AT YOUR DIRECTION AND**
3 **UNDER YOUR SUPERVISION?**

4 A. Yes.

5 **Q. ARE THE CAPITAL AND OPERATING EXPENDITURES**
6 **REPRESENTED ON DUKE ENERGY KENTUCKY'S BOOKS OF**
7 **ACCOUNT ACCURATE AND REASONABLE?**

8 A. Yes. Duke Energy Kentucky has various budgeting, planning, and review
9 procedures in place to establish and monitor the capital and operating budgets, as
10 well as actual expenditures. The system of internal accounting controls provides
11 reasonable assurance that all transactions are executed in accordance with
12 management's authorization and are recorded properly.

13 The system of internal accounting controls is annually reviewed, tested, and
14 documented by Duke Energy Kentucky to provide reasonable assurance that
15 amounts recorded on the books and records of the Company are accurate and
16 proper. In addition, independent certified public accountants perform an annual
17 audit to provide assurance that internal accounting controls are operating
18 effectively and that Duke Energy Kentucky's financial statements are materially
19 accurate.

III. ACCOUNTING TREATMENT

1 **Q. PLEASE BRIEFLY DESCRIBE THE ACCOUNTING TREATMENT FOR**
2 **THE COMPANY'S SALE OF RECEIVABLES.**

3 A. Duke Energy Kentucky sells on a revolving basis certain accounts receivable
4 arising from the sale of electricity, natural gas and related services to Cinergy
5 Receivables Company (CRC). These receivables are both billed and unbilled.
6 These receivables are sold at a discount and without recourse. Duke Energy
7 Kentucky witness Christopher Bauer discusses how the Company uses the sale of
8 receivable process as an alternative to long-term borrowing.

9 CRC borrowed amounts under a credit facility to buy the initial pool of
10 receivables from the Company. Borrowing availability from the credit facility is
11 limited to the amount of qualified receivables sold to CRC, which generally exclude
12 receivables past due more than a predetermined number of days and reserves for
13 expected past-due balances. When the amount of qualified receivables exceeds the
14 credit facility limit, no additional funds are received by Duke Energy Kentucky.
15 For any month in which the amount of qualified receivables is less than the credit
16 facility limit, Duke Energy Kentucky funds a repayment of the outstanding CRC
17 loan based on its pro rata share of the deficiency based on outstanding receivables.
18 In subsequent months when the amount of qualified receivables meets or exceeds
19 the credit facility limit, Duke Energy Kentucky receives proceeds up to its pro rata
20 share of the credit facility limit based on outstanding receivables. Duke Energy
21 Kentucky services these receivables and receives a collection fee monthly.

22 To summarize the process, when the Company sells receivables to CRC,
23 Duke Energy Kentucky debits a receivable from CRC (Account 145) and credits

1 the retail customer accounts receivable account (Account 142). No cash is received
2 from CRC at this time for those receivables, other than in the instances described
3 in the above paragraph. When the cash is received from retail customers for
4 payment of their balance, the Company records a debit to cash and a credit to the
5 receivable from CRC (Account 145).

6 **Q. PLEASE BRIEFLY DESCRIBE THE ACCOUNTING TREATMENT THE**
7 **COMPANY IS REQUESTING IN THIS PROCEEDING IN RELATION TO**
8 **REGULATORY ASSETS.**

9 A. As part of this proceeding, Duke Energy Kentucky is seeking Commission
10 authorization to create a rate recovery mechanism for any remaining net book value
11 of its East Bend and Woodsdale generating stations that may remain on the books and
12 records at the end of its useful life, the Generation Asset True-Up Mechanism (Rider
13 GTM). If approved by the Commission, the Company will create a regulatory asset at
14 the time of retirement. As Company witness Sarah E. Lawler discusses, the Company
15 is proposing to recover a return on and of this regulatory asset through this new Rider
16 GTM over a ten-year period upon retirement of the generating assets. The return
17 would be calculated at the weighted average cost of capital (WACC) approved in the
18 Company's most recent electric base rate case. The Company would begin
19 amortization of this regulatory asset at the time the Rider GTM becomes effective in
20 rates.

21 A second regulatory asset is being requested in conjunction with the Electric
22 Vehicle Site Make Ready Service program (Rate MRC). Rate MRC is intended to
23 encourage adoption of electric vehicles (EV's) and EV charging by offering credits to
24 customers to assist them with the expenses for the make ready infrastructure needs

1 associated with EV's. As Ms. Lawler discusses in her testimony, the Company
2 requests approval to establish a regulatory asset for these credits. The Company is also
3 seeking approval to record carrying costs at the cost of debt approved in this
4 proceeding. Recovery of this regulatory asset would be requested in a future
5 proceeding.

6 A third regulatory asset is being requested to defer any lost revenues
7 associated with the Company's new proposed time of use rate for residential
8 customers, Rate RS-TOU-CPP. Company witness Bruce L. Sailors discusses this new
9 rate proposal in his testimony. Recovery of this regulatory asset would be requested
10 in a future proceeding.

11 In addition to the request for regulatory asset treatment for these items, Duke
12 Energy Kentucky will continue recording deferrals and amortization, per normal
13 regulatory accounting standards, for previously approved deferral mechanisms, as
14 well as its various riders that are subject to being trued-up. Over- or under-recovery
15 of costs are flowed through riders such as the fuel adjustment clause, environmental
16 surcharge, demand-side management and the profit sharing mechanism and, therefore,
17 the Company records the amounts to be trued-up in future periods as regulatory assets
18 or regulatory liabilities.

19 **Q. WHY IS IT APPROPRIATE TO CREATE A REGULATORY ASSET**
20 **ASSOCIATED WITH THE RIDER GTM?**

21 A. The Commission has exercised its discretion to approve regulatory assets where a
22 utility has incurred: (1) an extraordinary, nonrecurring expense which could not
23 have reasonably been anticipated or included in the utility's planning; (2) an
24 expense resulting from a statutory or administrative directive; (3) an expense in

1 relation to an industry sponsored initiative; or (4) an extraordinary or nonrecurring
2 expense that over time will result in a saving that fully offsets the costs.

3 The costs for which the Company is seeking to create the regulatory deferral
4 for remaining net book value of the generating assets at the time of its retirement
5 would constitute a nonrecurring expense that could not be included in the utility's
6 planning and an expense resulting from an administrative directive. Additionally,
7 to the extent the Company has undepreciated plant on its books at the time of
8 retirement, it is because the Company's rates, as approved by the Commission (an
9 administrative directive), were not sufficient to fully recover the costs of the station
10 during its service life.

11 **Q. PLEASE DESCRIBE THE ACCOUNTING/JOURNAL ENTRIES THAT**
12 **WILL BE USED TO CREATE THIS REGULATORY ASSET.**

13 A. Any remaining net book value of East Bend or Woodsdale at the time of its
14 retirement, would be placed into a regulatory asset. The Company would debit a
15 regulatory asset and credit various plant accounts, for example:

16 Debit Account 182.3

17 Debit Account 108

18 Credit Account 101

19 **Q. WHY IS IT APPROPRIATE TO CREATE A REGULATORY ASSET**
20 **ASSOCIATED WITH THE PROPOSED RATE MRC?**

21 A. As I mentioned above, the Commission has exercised its discretion to approve
22 regulatory assets where a utility has incurred: (1) an extraordinary, nonrecurring
23 expense which could not have reasonably been anticipated or included in the
24 utility's planning; (2) an expense resulting from a statutory or administrative

1 directive; (3) an expense in relation to an industry sponsored initiative; or (4) an
2 extraordinary or nonrecurring expense that over time will result in a saving that
3 fully offsets the costs.

4 The costs for which the Company is seeking to create this regulatory
5 deferral constitute an expense in relation to an industry sponsored initiative and is
6 in support of a statutory directive to expand the electrification of vehicles across
7 the country. Company witness Cormack C. Gordon discusses the need for this
8 program as it relates to the Infrastructure Investment & Jobs Act (IIJA).

9 **Q. PLEASE DESCRIBE THE ACCOUNTING/JOURNAL ENTRIES THAT**
10 **WILL BE USED TO CREATE THIS REGULATORY ASSET.**

11 A. The costs will be placed into a regulatory asset. The Company would debit a
12 regulatory asset and credit accounts payable, for example:

13 Debit Account 182.3

14 Credit Account 232

15 **Q. WHY IS IT APPROPRIATE TO CREATE A REGULATORY ASSET FOR**
16 **RATE RS-TOU-CPP POTENTIAL LOST REVENUES?**

17 A. As explained by Mr. Sailors, the regulatory asset for the RS-TOU is for potential lost
18 revenues that may occur as a result of this program. Again, the Commission has
19 exercised its discretion to approve regulatory assets where a utility has incurred: (1)
20 an extraordinary, nonrecurring expense which could not have reasonably been
21 anticipated or included in the utility's planning; (2) an expense resulting from a
22 statutory or administrative directive; (3) an expense in relation to an industry
23 sponsored initiative; or (4) an extraordinary or nonrecurring expense that over time
24 will result in a saving that fully offsets the costs.

1 The costs for which the Company is seeking to create this regulatory
2 deferral constitute an extraordinary, nonrecurring expense which could not have
3 reasonably been anticipated or included in the utility’s planning expense and are in
4 response to an industry sponsored initiative and statutory directive. By including
5 the deferral mechanism for potential lost revenue recovery instead of imputing an
6 estimated revenue adjustment (increase) to base rates in this case, customers will
7 not experience an estimated and speculative increase related to this program at this
8 time. The Company will, in a future rate case, seek to recover the actual lost
9 revenues with the program, if any, through an amortization process. Additionally,
10 as this program will support EV charging for residential customers in accordance
11 with the IIJA, this deferral is also supported as an industry sponsored initiative and
12 in response to a statutory directive. Mr. Sailors discusses how the introduction of
13 this new rate will assist consumers who are interested in EV and solar adoption.

14 **Q. PLEASE DESCRIBE THE ACCOUNTING/JOURNAL ENTRIES THAT**
15 **WILL BE USED TO CREATE THIS REGULATORY ASSET.**

16 A. The costs will be placed into a regulatory asset. The Company would debit a
17 regulatory asset and credit a regulatory credit, for example:

18 Debit Account 182.3

19 Credit Account 407.4

IV. SCHEDULES AND FILING REQUIREMENTS
SPONSORED BY WITNESS

20 **Q. PLEASE DESCRIBE SCHEDULE B-8.**

21 A. Schedule B-8 contains the Comparative Balance Sheets for Duke Energy Kentucky
22 for the most recent five calendar years, the base period and the forecasted period.

1 **Q. PLEASE DESCRIBE FR 12(2)(i).**

2 A. FR 12(2)(i) consists of Duke Energy Kentucky's detailed income statement and
3 balance sheet for the period ended September 30, 2022.

4 **Q. PLEASE DESCRIBE FR 16(7)(i).**

5 A. FR 16(7)(i) consists of the Company's most recent Federal Energy Regulatory
6 Commission (FERC) audit report, reporting the results of the Company's last FERC
7 audit.

8 **Q. PLEASE DESCRIBE FR 16(7)(k).**

9 A. FR 16(7)(k) consists of Duke Energy Kentucky's most recent FERC Form 1 and
10 FERC Form 2.

11 **Q. PLEASE DESCRIBE FR 16(7)(m).**

12 A. FR 16(7)(m) consists of Duke Energy Kentucky's current chart of accounts.

13 **Q. PLEASE DESCRIBE FR 16(7)(n).**

14 A. FR 16(7)(n) consists of the latest twelve months of the monthly management
15 reports providing financial results of the Company's operations in comparison to
16 the forecast.

17 **Q. PLEASE DESCRIBE FR 16(7)(o).**

18 A. FR 16(7)(o) consists of management's monthly budget variance reports for Duke
19 Energy Kentucky electric operations.

20 **Q. PLEASE DESCRIBE FR 16(7)(p).**

21 A. FR 16(7)(p) consists of Duke Energy Kentucky's most recent Form 10-K and Form
22 8-K as well as those forms for the last two years. Additionally, the Company is
23 submitting copies of its Form 10-Qs that were filed during the past six quarters.

1 **Q. PLEASE DESCRIBE FR 16(7)(q).**

2 A. FR 16(7)(q) consists of the independent auditor's annual opinion report for Duke
3 Energy Kentucky. The auditor did not note any material weaknesses in internal
4 controls.

5 **Q. PLEASE DESCRIBE THE INFORMATION YOU SUPPORT IN**
6 **RESPONSE TO FR 16(8)(i), SCHEDULES I-1 THROUGH I-5.**

7 A. Schedule I-1 contains comparative income statements for the Company. Schedules
8 I-2.1 through I-5 contains comparative revenue and sales statistical information as
9 required by the Commission's filing requirements. I support the historic
10 information contained on these schedules.

11 **Q. PLEASE DESCRIBE THE INFORMATION YOU SUPPORT IN**
12 **RESPONSE TO FR 16(8)(k), THE "K" SCHEDULES.**

13 A. The information I support in response to FR 16(8)(k) consists of the Capital
14 Structure and the Consolidated Condensed Income Statement for Duke Energy
15 Kentucky. I also provided the Mix of Sales schedules. I provided this information
16 to Mr. Carpenter for his use in preparation of the forecast.

V. CONCLUSION

1 **Q. WAS THE INFORMATION YOU SPONSORED IN SCHEDULES B-8, I-1,**
2 **I-2.1, I-3, I-4, I-5 AND K AS WELL AS FR 12(2)(i), FR 16(7)(i), FR 16(7)(k),**
3 **FR 16(7)(m), FR 16(7)(n), FR 16(7)(o), FR 16(7)(p), FR 16(7)(q), FR 16(8)(b),**
4 **FR 16(8)(i), AND FR 16(8)(k) PREPARED BY YOU OR UNDER YOUR**
5 **DIRECTION AND SUPERVISION?**

6 A. Yes.

7 **Q. IS THE INFORMATION YOU SPONSORED IN THOSE SCHEDULES**
8 **AND FILING REQUIREMENTS ACCURATE TO THE BEST OF YOUR**
9 **KNOWLEDGE AND BELIEF?**

10 A. Yes.

11 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

12 A. Yes.

VERIFICATION

STATE OF NORTH CAROLINA)
) SS:
COUNTY OF MECKLENBURG)

The undersigned, Danielle L. Weatherston, Manager Accounting II, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing testimony and that it is true and correct to the best of her knowledge, information and belief.

Danielle Weatherston
Danielle L. Weatherston, Affiant

Subscribed and sworn to before me by Danielle L. Weatherston on this 18 day of November, 2022.



Virginia M. Adams
NOTARY PUBLIC

My Commission Expires: 10/2/26

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke)
Energy Kentucky, Inc. for: 1) An)
Adjustment of the Electric Rates; 2)) Case No. 2022-00372
Approval of New Tariffs; 3) Approval of)
Accounting Practices to Establish)
Regulatory Assets and Liabilities; and 4))
All Other Required Approvals and Relief.)

DIRECT TESTIMONY OF
JAMES E. ZIOLKOWSKI
ON BEHALF OF
DUKE ENERGY KENTUCKY, INC.

December 1, 2022

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ATTACHMENTS:

Attachment JEZ-1	Electric Cost of Service Study
Attachment JEZ-2	K201 Generation Allocator Using 12 CP
Attachment JEZ-3	Cost of Service Study Calculation of Average & Excess Allocator
Attachment JEZ-4	Cost of Service Study Calculation of Production Stacking (TOD) Allocator
Attachment JEZ-5	Zero Intercept

I. INTRODUCTION AND PURPOSE

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is James E. Ziolkowski, and my business address is 139 East Fourth
3 Street, Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services LLC (DEBS) as Director,
6 Rates & Regulatory Planning. DEBS provides various administrative and other
7 services to Duke Energy Kentucky, Inc., (Duke Energy Kentucky) and other
8 affiliated companies of Duke Energy Corporation (Duke Energy).

9 **Q. PLEASE BRIEFLY SUMMARIZE YOUR EDUCATION AND**
10 **PROFESSIONAL EXPERIENCE.**

11 A. I received a Bachelor of Science degree in Mechanical Engineering from the U.S.
12 Naval Academy in 1979 and a Master of Business Administration degree from
13 Miami University in 1988. I am also a licensed Professional Engineer in the state
14 of Ohio. I received certification as a Chartered Industrial Gas Consultant in 1994
15 from the Institute of Gas Technology and the American Gas Association. I have
16 attended the EUCI Cost of Service seminar.

17 After graduating from the Naval Academy, I attended the Naval Nuclear
18 Power School and other follow-on schools. I served as a nuclear-trained officer on
19 various ships in the U.S. Navy through 1986. From 1988 through 1990, I worked
20 for Mobil Oil Corporation as a Marine Marketing Representative in the New York
21 City area.

22 I joined The Cincinnati Gas & Electric Company n/k/a Duke Energy Ohio,

1 Inc., (Duke Energy Ohio) in 1990 as a Product Applications Engineer, in which
2 capacity I designed and managed some of Duke Energy Ohio's demand side
3 management programs, including Energy Audits and Interruptible Rates. From
4 1996 until 1998, I was an Account Engineer and worked with large customers to
5 resolve various service-related issues, particularly in the areas of billing,
6 metering, and demand management. In 1998, I joined the Rate Department, where
7 I focused on rate design and tariff administration. I was appointed to my current
8 position in January 2014.

9 **Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AS DIRECTOR**
10 **RATES & REGULATORY PLANNING.**

11 A. As Director Rates & Regulatory Planning, I am responsible for cost of service
12 studies, tariff administration, billing, and revenue reporting issues in Kentucky
13 and Ohio. I also prepare filings to modify charges and terms in the retail tariffs of
14 both Duke Energy Kentucky and Duke Energy Ohio, and I develop rates for new
15 services. During major rate cases, I help with the design of the new base rates.
16 Additionally, I frequently work with Duke Energy Kentucky's and Duke Energy
17 Ohio's customer contact and billing personnel to answer rate-related questions,
18 and to apply the retail tariffs to specific situations. Occasionally, I meet with
19 customers and Company representatives to explain rates or provide rate training. I
20 also prepare reports that are required by regulatory authorities.

21 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**
22 **PUBLIC SERVICE COMMISSION?**

23 A. Yes.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
2 **PROCEEDING?**

3 A. I sponsor Schedules B-7, B-7.1, B-7.2, D-3, D-4, and D-5 in response to Filing
4 Requirement FR 16(8)(b) and FR 16(8)(d), respectively. I also support the cost of
5 service studies identified in response to Filing Requirement FR 16(7)(v).

II. SCHEDULES AND FILING REQUIREMENTS SPONSORED BY WITNESS

6 **Q. PLEASE DESCRIBE SCHEDULES B-7 AND D-3.**

7 A. These schedules report the allocation factors used to determine the jurisdictional
8 percentages of electric plant, expenses, *etc.*, necessary to allocate the amount of
9 the proposed new electric rates between jurisdictional and non-jurisdictional
10 customers. These schedules indicate that 100 percent of the costs are
11 jurisdictional, because Duke Energy Kentucky does not provide service to any
12 non-jurisdictional electric customers.

13 **Q. PLEASE DESCRIBE SCHEDULES B-7.1 AND D-4.**

14 A. These schedules are the support for Schedules B-7 and D-3 described above. They
15 provide the basis for the actual jurisdictional allocation factors.

16 **Q. PLEASE DESCRIBE SCHEDULES B-7.2 AND D-5.**

17 A. These schedules explain changes made to the jurisdictional allocation from the
18 Company's prior electric base rate proceeding in Case No. 2019-00271.

19 **Q. PLEASE DESCRIBE FR 16(7)(v).**

20 A. FR 16(7)(v) contains 25 schedules: Schedules FR 16(7)(v)-1 through FR 16(7)(v)-
21 25 which represent the fully allocated, embedded cost of service study by rate
22 class. I discuss these filing requirements in greater detail in my testimony below.

III. COST OF SERVICE STUDIES

1 **Q. WHAT IS THE PURPOSE OF A COST-OF-SERVICE STUDY?**

2 A. A cost-of-service study is an analytical tool used in traditional utility rate design
3 to allocate costs to different classes of customers. When the process of preparing a
4 cost-of-service study is completed, the resulting class cost-of-service study can
5 (1) assist in determining the revenue requirement for the services offered by a
6 utility; (2) analyze, at a very detailed level, the costs imposed on the utility's
7 system by different classes of customers; (3) show the total costs the company
8 incurs in serving each retail rate class, as well as the rate of return on
9 capitalization earned from each class during the test year; and (4) establish cost
10 responsibility that makes it possible to determine just and reasonable rates based
11 on costs.

12 **Q. WHAT INFORMATION DID THE COMPANY USE TO DEVELOP THE**
13 **COST ALLOCATION FACTORS FOR THE COST OF SERVICE STUDIES**
14 **USED IN THIS PROCEEDING?**

15 A. The test year for this proceeding is the twelve months ending June 30, 2024, which
16 is comprised of forecasted test period data. The development of the test year
17 allocation factors is primarily based on historical data for the twelve months ended
18 March 2022. Otherwise, forecasted test year information was used as appropriate. I
19 will discuss the actual development of the various allocation factors used in this
20 proceeding later in my testimony.

21

1 **Q. HAS THE COMPANY PREPARED MULTIPLE COSTS OF SERVICE**
2 **STUDIES?**

3 A. Yes. The Company prepared three Class Cost of Service Studies that contain
4 essentially the same data, except that different methodologies were used to develop
5 the allocation factor for the demand component of Production-related costs. The
6 demand allocation methods are as follows: (1) the Average of the Twelve (12)
7 Coincident Peaks (12 CP) method; (2) the Average and Excess (A&E) method; and
8 (3) the Production Stacking method.

9 **Q. PLEASE DESCRIBE THE DEMAND METHODOLOGIES USED IN THESE**
10 **COST OF SERVICE STUDIES.**

11 A. The 12 CP method is designed to allocate capacity related costs to the customer
12 classes using the system during maximum system load. The allocation of capacity
13 costs to each customer class is based on the class load contribution to the maximum
14 peak, at the time of peak, regardless of what their respective loads were at other
15 times of the day.

16 The A&E method, also referred to as the “used and unused capacity
17 method,” recognizes both the class average use of the system capacity and the class
18 contribution to the capacity required to meet the maximum system load. The
19 capacity costs are allocated in a two-part formula. Attachment JEZ-3 shows the
20 calculation of the production allocator K201 using the A&E method.

21 The “class-used” capacity component is the proportion of the class’s
22 respective average hourly kilowatt-hour (kWh) sales to the total average hourly
23 sales. The “class-unused” capacity is the class excess hourly peak demand

1 contribution ratio, which is the difference between the class average hourly demands
2 and the hourly class peak demands. The used and unused capacity factors for each
3 class are combined to allocate capacity costs to the respective rate classes.

4 The Production Stacking method is a time-differentiated method that
5 allocates baseload plant costs on energy (kWh) and peaker plants costs on peak
6 demands. As shown in Attachment JEZ-4, net plant associated with the East Bend
7 plant is allocated to each rate class based on annual kWh. Net plant associated with
8 the Woodsdale facility is allocated to each rate class based on 12 CP. The K201
9 production allocator combines both allocations.

10 **Q. DID YOU COMPARE THE CLASS DEMAND RATIOS FOR EACH OF**
11 **THE DEMAND METHODOLOGIES?**

12 A. Yes. Attachment JEZ-1 shows the demand ratios for the different methods.
13 Attachment JEZ-2 shows the rate impacts using the different methods.

14 **Q. BASED UPON YOUR COMPARISON OF THE 12 CP, A&E AND**
15 **PRODUCTION STACKING METHODOLOGIES, WHICH DO YOU**
16 **RECOMMEND THE COMMISSION APPROVE IN THIS PROCEEDING?**

17 A. I recommend using the Average 12 CP methodology for three reasons. First, the 12
18 CP method is generally accepted in the utility industry and was approved by the
19 Commission in the Company's last electric base rate case. The 12 CP demand
20 methodology has been used in other jurisdictions including Duke Energy Indiana's
21 rate proceedings. Second, this methodology recognizes that Duke Energy
22 Kentucky's current generating facilities are in place precisely to meet the monthly
23 maximum peak loads of customers. Third, there was no compelling reason to adopt

1 a new methodology. Rate subsidies will generally occur among customer classes,
2 regardless of the cost of service methodology used. Changing to either the A&E or
3 Production Stacking methodology will not change this fact. The Company believes
4 that the use of the 12 CP methodology is the appropriate means to align capacity
5 costs with the customer classes that are imposing the costs.

6 **Q. PLEASE DESCRIBE THE ELECTRIC COST OF SERVICE STUDY.**

7 A. The electric cost of service study contained in Schedules FR-16(7)(v)-1 through
8 FR-16(7)(v)-25 is an embedded, fully allocated cost of service study by rate class
9 for the test period ended June 30, 2024. In preparing the cost of service study, I
10 used information provided by other Company employees. The cost of service
11 study functionalizes, classifies, and allocates cost items such as plant investment,
12 operating expenses, and taxes to the various customer classes and calculates the
13 revenue responsibility of each class. Finally, the cost of service study calculates
14 the revenue responsibility of each rate class required to generate the
15 recommended rate of return.

16 **Q. PLEASE DESCRIBE HOW THE COST OF SERVICE STUDY IS**
17 **ORGANIZED IN SCHEDULES FR-16(7)(v)-1 THROUGH SCHEDULE**
18 **FR-16(7)(v)-25.**

19 A. The schedules provided in the cost of service study are organized as shown in the
20 table below. The detailed calculation and derivation of the allocation factors
21 utilized in the cost of service study are included in the workpapers filed in these
22 proceedings.

Table 1		
Schedule	Page No.	Description
Schedule 1	1	Summary of Results
Schedule 2	2	Gross Plant in Service
Schedule 3	3	Depreciation Reserve
Schedule 4	4	Net Electric Plant in Service
Schedule 5	5	Subtractive Rate Base Adjustments
Schedule 5.1	6	Additive Rate Base Adjustments
Schedule 5.2	7	Working Capital
Schedule 6	8	O&M Expenses
Schedule 6.1	9	O&M Expenses
Schedule 7	10	Depreciation Expense
Schedule 8	11	Taxes Other Than Income Taxes
Schedule 9	12	Federal Income Tax Based on Return
Schedule 9.1	13	State Income Tax Based on Return
Schedule 10	14	Cost of Service Computation
Schedule 11	15	ROR, Tax Rates & Special Factors
Schedule 12	16	Allocation Factors
Schedule 12.1	17	Allocation Factors
Schedule 12.2	18	Allocation Factors

1 **Q. WHAT JURISDICTIONAL RATE CLASSES WERE USED IN THE CLASS**
2 **COST OF SERVICE STUDY?**

3 A. The cost of service is organized showing the following rate classes:

- 4 • Residential: (Rate RS);
- 5 • Secondary Distribution Small: (Rates DS, GS-FL, EH and SP);
- 6 • Secondary Distribution Large: (Rates DT);
- 7 • Primary Distribution: (Rate DT and DP);
- 8 • Transmission: (Rates TT);
- 9 • Lighting: (Rates NSU, NSP, OL, SC, SE, SL, TL and UOLS combined); and
- 10 • Other: (Flood Control Water Pumping Stations).

11 **Q. WHAT ARE THE ELEMENTS OF A COST OF SERVICE STUDY?**

12 A. Much like the components of the overall revenue requirement, the elements of a

1 cost of service study consist of the following elements, which are allocated to
2 each function, classification and rate class:

3 Operating & Maintenance Expense
4 + Depreciation
5 + Other Taxes
6 + Federal Income Tax
7 + State Income Tax
8 + Return (Jurisdictional Rate Base x Rate of Return (ROR))
9 - Revenue Credits
10 = Class Revenue Requirement or Cost of Service

11 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-1.**

12 A. Schedule FR-16(7)(v)-1 is a functional cost of service study that separates the cost
13 items into the production, transmission, and distribution functions.

14 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-2.**

15 A. Schedule FR-16(7)(v)-2 is a classified cost of service study that separates the cost
16 items contained in the production function on Schedule FR-16(7)(v)-1 between
17 the demand, energy, and customer classifications.

18 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-3.**

19 A. Schedule FR-16(7)(v)-3 is an allocated cost of service study that allocates the cost
20 items contained in the production demand classification from Schedule FR-
21 16(7)(v)-2 to the various rate groups.

22 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-4.**

23 A. Schedule FR-16(7)(v)-4 is an allocated cost of service study that allocates the cost

1 items contained in the production energy classification from Schedule FR-
2 16(7)(v)-2 to the various rate groups.

3 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-5.**

4 A. Schedule FR-16(7)(v)-5 is an allocated cost of service study that allocates the cost
5 items contained in the production customer classification from Schedule FR-
6 16(7)(v)-2 to the various rate groups. As is evident on the schedule, there are no
7 production costs classified as customer related.

8 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-6.**

9 A. Schedule FR-16(7)(v)-6 is a classified cost of service study that separates the cost
10 items contained in the transmission function on Schedule FR-16(7)(v)-1 between
11 the demand, energy, and customer classifications.

12 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-7.**

13 A. Schedule FR-16(7)(v)-7 is an allocated cost of service study that allocates the cost
14 items contained in the transmission demand classification from Schedule FR-
15 16(7)(v)-6 to the various rate groups.

16 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-8.**

17 A. Schedule FR-16(7)(v)-8 is an allocated cost of service study that allocates the cost
18 items contained in the transmission energy classification from Schedule FR-
19 16(7)(v)-6 to the various rate groups. As is evident on the schedule, there are no
20 transmission costs classified as energy related.

21 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-9.**

22 A. Schedule FR-16(7)(v)-9 is an allocated cost of service study that allocates the cost
23 items contained in the transmission customer classification from Schedule FR-

1 16(7)(v)-6 to the various rate groups.

2 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-10.**

3 A. Schedule FR-16(7)(v)-10 is a classified cost of service study that separates the
4 cost items contained in the distribution function on Schedule FR-16(7)(v)-1
5 between the demand, energy, and customer classifications.

6 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-11.**

7 A. Schedule FR-16(7)(v)-11 is an allocated cost of service study that allocates the
8 cost items contained in the distribution demand classification from Schedule FR-
9 16(7)(v)-10 to the various rate groups.

10 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-12.**

11 A. Schedule FR-16(7)(v)-12 is an allocated cost of service study that allocates the
12 cost items contained in the distribution energy classification from Schedule FR-
13 16(7)(v)-10 to the various rate groups. As is evident on the schedule, there are no
14 distribution costs classified as energy related.

15 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-13.**

16 A. Schedule FR-16(7)(v)-13 is an allocated cost of service study that allocates the
17 cost items contained in the distribution customer classification from Schedule FR-
18 16(7)(v)-10 to the various rate groups.

19 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-14.**

20 A. Schedule FR-16(7)(v)-14 is a total class cost of service study that sums the
21 allocated costs from Schedules FR-16(7)(v)-3, FR-16(7)(v)-4, FR-16(7)(v)-5, FR-
22 16(7)(v)-7, FR-16(7)(v)-8, FR-16(7)(v)-9, FR-16(7)(v)-11, FR-16(7)(v)-12 and
23 FR-16(7)(v)-13, by the various rate groups.

1 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-15.**

2 A. Schedule FR-16(7)(v)-15 is a classified cost of service study for the residential
3 class that shows the allocated costs from Schedules FR-16(7)(v)-3, FR-16(7)(v)-7
4 and FR-16(7)(v)-11, summarized by the demand, energy, and customer
5 classifications.

6 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-16.**

7 A. Schedule FR-16(7)(v)-16 is a classified cost of service study for the Distribution
8 Secondary class that shows the allocated costs from Schedules FR-16(7)(v)-3,
9 FR-16(7)(v)-7 and FR-16(7)(v)-11, summarized by the demand, energy, and
10 customer classifications.

11 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-17.**

12 A. Schedule FR-16(7)(v)-17 is a classified cost of service study for the GSFL
13 Secondary class that shows the allocated costs from Schedules FR-16(7)(v)-3,
14 FR-16(7)(v)-7 and FR-16(7)(v)-11, summarized by the demand, energy, and
15 customer classifications.

16 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-18.**

17 A. Schedule FR-16(7)(v)-18 is a classified cost of service study for the EH
18 Secondary class that shows the allocated costs from Schedules FR-16(7)(v)-3,
19 FR-16(7)(v)-7 and FR-16(7)(v)-11, summarized by the demand, energy, and
20 customer classifications.

21 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-19.**

22 A. Schedule FR-16(7)(v)-19 is a classified cost of service study for the SP Secondary
23 class that shows the allocated costs from Schedules FR-16(7)(v)-3, FR-16(7)(v)-7

1 and FR-16(7)(v)-11, summarized by the demand, energy, and customer
2 classifications.

3 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-20.**

4 A. Schedule FR-16(7)(v)-20 is a classified cost of service study for the DT
5 Secondary class that shows the allocated costs from Schedules FR-16(7)(v)-3,
6 FR-16(7)(v)-7 and FR-16(7)(v)-11, summarized by the demand, energy, and
7 customer classifications.

8 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-21.**

9 A. Schedule FR-16(7)(v)-21 is a classified cost of service study for the DT Primary
10 class that shows the allocated costs from Schedules FR-16(7)(v)-3, FR-16(7)(v)-7
11 and FR-16(7)(v)-11, summarized by the demand, energy, and customer
12 classifications.

13 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-22.**

14 A. Schedule FR-16(7)(v)-22 is a classified cost of service study for the Distribution
15 Primary class that shows the allocated costs from Schedules FR-16(7)(v)-3, FR-
16 16(7)(v)-7 and FR-16(7)(v)-11, summarized by the demand, energy, and customer
17 classifications.

18 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-23.**

19 A. Schedule FR-16(7)(v)-23 is a classified cost of service study for the Time-of-Day
20 Rate for Service at Transmission Voltage (Rate TT) class that shows the allocated
21 costs from Schedules FR-16(7)(v)-3, FR-16(7)(v)-7 and FR-16(7)(v)-11,
22 summarized by the demand, energy, and customer classifications.

23

1 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-24.**

2 A. Schedule FR-16(7)(v)-24 is a classified cost of service study for the Lighting class
3 that shows the allocated costs from Schedules FR-16(7)(v)-3, FR-16(7)(v)-7 and
4 FR-16(7)(v)-11, summarized by the demand, energy, and customer classifications.

5 **Q. PLEASE DESCRIBE SCHEDULE FR-16(7)(v)-25.**

6 A. Schedule FR-16(7)(v)-25 is a classified cost of service study for the Other –
7 Water Pumping class that shows the allocated costs from Schedules FR-16(7)(v)-
8 3, FR-16(7)(v)-7 and FR-16(7)(v)-11, summarized by the demand, energy, and
9 customer classifications.

10 **Q. HOW DID YOU DEVELOP THE COST OF SERVICE STUDY THAT**
11 **YOU USED TO ALLOCATE COSTS TO THE DIFFERENT RATE**
12 **CLASSES?**

13 A. First, I developed various allocation factors based on customer, energy usage, and
14 demand statistics for the test period. Next, I functionalized costs into the specific
15 utility functions, *i.e.*, production, transmission and distribution. I then classified
16 the costs as demand, energy, or customer related, or a combination in some
17 instances. Lastly, I allocated the demand, energy, and customer related costs to
18 rate classes based on the cost causation guidelines published in the NARUC
19 “Electric Utility Cost Allocation Manual,” my utility company experience, and
20 my knowledge of cost of service studies.

A. Functionalizing Costs

21 **Q. PLEASE EXPLAIN HOW YOU FUNCTIONALIZE COSTS.**

22 A. The production function includes the costs associated with power generation and

1 power purchases and their delivery to the bulk transmission system. The
2 transmission function consists of costs associated with the high voltage system
3 utilized for the bulk transmission of power to and from interconnected utilities to the
4 load centers of the utility's system. The distribution function includes the radial
5 distribution system that connects the transmission system and the ultimate customer.

6 The Company's accounting records use the Uniform System of Accounts of
7 the Federal Energy Regulatory Commission (FERC). These accounts functionalize
8 the Company's investment into the primary categories of production (generation),
9 transmission, distribution, and general plant. Similarly, the Company's operating
10 costs are categorized into production, transmission, distribution, customer services,
11 and administrative and general (A&G) functions.

B. Classifying Costs

12 **Q. PLEASE EXPLAIN THE CLASSIFICATION OF COSTS.**

13 A. Next, functionalized costs are grouped according to their cost-causation
14 characteristics. This process is known as classification of costs. Typically, these
15 cost-causing characteristics are defined as demand-related, energy-related, or
16 customer-related.

17 **Q. PLEASE DEFINE DEMAND-RELATED COSTS.**

18 A. Demand-related costs are fixed costs incurred regardless of the level of energy sales
19 and have a direct relationship to the kilowatts (kW) of demand that customers place
20 on the various segments of the system. Costs that are classified as demand-related
21 include major portions of the Company's investment and related expenses in its
22 production and transmission facilities and a significant portion of the investment and

1 related expenses of its distribution system. Until the Company has the full ability to
2 bill all customers based on demand (both from a technical and a regulatory
3 perspective), the Company will continue to use fixed and kWh charges to recover
4 demand related costs for some base rates.

5 **Q. PLEASE DEFINE ENERGY-RELATED COSTS.**

6 A. Energy-related costs are costs incurred that vary in direct relationship to the amount
7 of energy or kilowatt hours (kWh) generated and delivered. These costs are often
8 referred to as variable costs. Fuel is an example of an energy-related cost.

9 **Q. PLEASE DEFINE CUSTOMER-RELATED COSTS.**

10 A. Customer-related costs are costs incurred primarily as a result of the number of
11 customers being served. These fixed costs include items of investment and related
12 expenses in functional categories such as metering, and costs associated with
13 customer accounting and sales. Customer costs do not vary significantly with the
14 customers' volume of usage but are influenced more by factors such as number of
15 customers.

C. Allocation of Costs

16 **Q. PLEASE EXPLAIN HOW COSTS ARE ALLOCATED TO VARIOUS**
17 **CUSTOMER CLASSES.**

18 A. The allocation of costs is the process of multiplying the functionalized and classified
19 costs by allocation factors, resulting in costs being assigned to customer classes.
20 Some costs are directly assignable to a single class of customers. Most costs,
21 however, are attributable to more than one type of customer. Costs are allocated to
22 the various customer groups in relationship to how those customers influence the

1 Company to incur the costs. This relationship is referred to as “cost causation.”
2 Specific allocation factors are developed that relate to the demand, energy, and
3 customer classifications identified above, to accomplish a proper matching of the
4 costs to the customer groups, based on cost causation.

5 **Q. PLEASE DESCRIBE THE ALLOCATION METHODOLOGY YOU USED**
6 **IN THIS PROCEEDING TO ALLOCATE DEMAND-RELATED COSTS.**

7 A. Each customer class’ cost responsibility (*i.e.*, the percentage of the demand related
8 costs assigned to each customer class) is equal to the ratio of their demand in relation
9 to the total demand placed on the system. The cost of service study supporting the
10 Company’s proposed rate design in this proceeding allocates production and
11 transmission demand-related costs based upon the 12 monthly coincident peaks (12
12 CP).

13 **Q. HOW WERE THE DEMAND VALUES DEVELOPED FROM COMPANY**
14 **CUSTOMER LOAD RESEARCH DATA?**

15 A. kWh sales and load research data for the twelve months ended March 31, 2022, were
16 used to calculate the monthly peak contributions. The calculations of the monthly
17 demands appear on pages 11 through 32 of work paper FR-16(7)(v). The following
18 is an example of how the class group demand was calculated for rate RS for the
19 month of January 2022.

20 Step 1 – Determine the average demand by dividing the total kWh by the
21 number of hours in the month.

22
$$150,942,818 \text{ kWh} \div 744 \text{ hours} = 202,880 \text{ kW}$$

23 Step 2 – Determine the coincident peak demand by dividing the average

1 demand from Step 1 by the coincident peak load factor supplied by load
2 research.

3
$$202,880 \text{ kW} \div 68.83 \text{ percent} = 294,776 \text{ kW}$$

4 Step 3 – To determine the demand at generation, line losses are added by
5 multiplying the coincident peak demand from step 2 by the loss factor.

6
$$294,776 \times 1.03751 = 305,833 \text{ kW (with losses)}$$

7 This process was followed for all customer classes for the twelve months of the test
8 year to determine each class' monthly peak coincident with Duke Energy
9 Kentucky's monthly system peak. I used a similar procedure to develop each class's
10 diversified class peak and highest (single) non-coincident peak demands.

11 **Q. PLEASE DESCRIBE HOW THE 12 CP DEMAND ALLOCATOR WAS**
12 **USED TO ALLOCATE COSTS.**

13 A. The 12 CP demand allocator was used to allocate Production and Transmission
14 capacity related investments and expenses to the customer classes.

15 **Q. PLEASE DESCRIBE THE METHODS USED TO ALLOCATE**
16 **DISTRIBUTION RELATED COSTS TO THE VARIOUS RATE CLASSES.**

17 A. Several different allocation factors were used to allocate distribution plant to the
18 customer classes. First, distribution plant was grouped by the type of plant such as
19 substations, poles, conductors, *etc.* Then it was determined whether each type is
20 customer- or demand-related factor. Finally, each customer- or demand-related
21 cost was allocated to rate class.

22 Substations are considered 100 percent demand-related and were allocated
23 using the average class group coincident peak demand ratios for the twelve

1 months ending March 31, 2022. This factor takes into consideration the load
2 diversity by rate group at the distribution substation level.

3 Poles and conductors are allocated partially on demand and partially based
4 on customer counts using the minimum size method.

5 Transformers were allocated between customer and demand using the
6 minimum size method. Transformers, as well as other distribution plant facilities,
7 are considered to have a customer component because the number of facilities
8 needed on the system, are dependent on the number of customers. The remaining
9 costs are demand related. I allocated the demand portion of transformers among
10 the customer classes using the maximum non-coincident peak load ratios. The
11 maximum non-coincident peak demand allocator is appropriate because
12 transformers are sized to meet the maximum demand and are close to the
13 customer so there is little or no load diversity. I then allocated the customer
14 portion of transformers among the customer classes based on the total number of
15 customers.

16 Services are considered 100 percent customer-related and were allocated
17 based on a weighted-average number of customers (K217). The weighting is
18 based on an engineering analysis that prices various service drop costs based on
19 demands. For example, it is twice as costly for a service drop at 100 kVA versus a
20 service drop at 25 kVA. Customers with an average demand of 100 kVA are
21 weighted at twice the cost of customers with an average demand of 25 kVA.

22 Other distribution and customer service-related costs can be more directly
23 associated with a customer statistic such as the cost of meters (K407), customer

1 charge-offs (K411) and other customer-related studies. As an example, the
2 investment in meters can be directly associated with the costs of metering the
3 various customer groups (K407).

4 Streetlights were directly assigned to the street lighting rate class.

5 **Q. PLEASE DESCRIBE THE MINIMUM SIZE METHOD USED TO**
6 **ALLOCATE TRANSFORMER COSTS BETWEEN CUSTOMER- AND**
7 **DEMAND-RELATED COSTS.**

8 A. The minimum size study is shown on Work Paper FR-16(7)(v), page 53. The
9 minimum size method assumes that a minimum size distribution system can be
10 built to serve the minimum load requirements of the customer. For transformers,
11 the study involved determining the minimum size transformer currently installed
12 by Duke Energy Kentucky. In this case, it is a 15 kVa transformer. Duke Energy
13 Kentucky's 2022 cost of a 15 kVa transformer was \$2,231.

14 I used asset accounting records to determine the number of overhead and
15 pad-mounted transformers installed each year from 1910 to 2021. I then used the
16 Handy-Whitman Index for Utility Plant Materials (specifically line transformers)
17 to calculate the cost per transformer for each of the years 1910 to 2021, beginning
18 with a 2022 Handy-Whitman index of 1192 and 2022 cost of \$2,231. For each
19 year, I multiplied the number of transformers by the cost per transformer to get
20 the minimum size cost per year. I summarized each of the years 1910 to 2021 to
21 arrive at the minimum size transformer cost of approximately \$18.8 million. This
22 was classified as a customer-related cost. The difference between this customer-
23 related cost and the balance in FERC Line Transformer account 368 is the

1 demand component, resulting in allocation factors of 22.69 percent to customer
2 and 77.31 percent to demand. I allocated all transformer-related cost (plant,
3 accumulated depreciation) to customer and demand using these factors.

4 **Q. DID YOU PERFORM MINIMUM SIZE STUDIES FOR OTHER TYPES**
5 **OF DISTRIBUTION EQUIPMENT?**

6 A. Yes, in a manner like the transformer study, I prepared minimum size studies for
7 primary poles, secondary poles, overhead primary conductor, secondary overhead
8 conductor, underground primary conductor, and underground secondary
9 conductor. The results of these analyses appear on the “Minimum Size Summary”
10 tab. This tab also includes the results of the minimum size studies that were
11 performed in Case No. 2019-00271.

12 **Q. DID YOU PERFORM ANY ZERO-INTERCEPT ANALYSES TO**
13 **DETERMINE THE CUSTOMER AND DEMAND COMPONENTS OF**
14 **TRANSFORMERS, POLES, AND CONDUCTORS?**

15 A. Yes. In its Order dated April 27, 2020, in Case No. 2019-00271, the Commission
16 stated that the Company should perform a zero-intercept study in its next base rate
17 case. Page 1 of Attachment JEZ-5 shows the results of the zero-intercept analyses
18 and how they compare with the results of the minimum size studies.

19 **Q. PLEASE DESCRIBE THE ZERO-INTERCEPT ANALYSIS OF**
20 **TRANSFORMERS.**

21 A. The zero-intercept analysis of transformers appears on page 4 of Attachment JEZ-
22 5. Transformer cost and quantity data were obtained from the Company’s plant
23 accounting records, and the average cost for each transformer accounting group

1 was calculated. Only transformers with ratings of about 500 kVA or lower were
2 included. The accounting data groups transformers into size ranges, e.g., 46-150
3 kVA. For each accounting group, I assumed that the typical transformer in the
4 group had a size that was approximately in the middle of the range. For example,
5 I assumed that all transformers in the 46-150 kVA accounting group were 100
6 kVA transformers. These assumptions were necessary because more granular data
7 is not available. If a straight line is drawn through the various data points (size
8 versus average cost), the calculated zero-intercept cost (i.e., the cost of a zero-kW
9 transformer) is \$1,604. This is lower than the minimum size study cost of \$2,231.
10 The zero-intercept method results in a customer percentage of 69.55% versus the
11 customer percentage of 22.69% in the minimum size study. This very large
12 difference in customer percentages occurs because the zero-intercept method does
13 not account for the age of the transformers that exist on the Company's
14 distribution system. The minimum size study uses a Handy Whitman factor to
15 recognize that many transformers were installed decades ago and recorded on the
16 Company's books at much lower costs than current costs.

17 **Q. PLEASE DESCRIBE THE ZERO-INTERCEPT ANALYSIS OF POLES.**

18 A. The zero-intercept analysis of poles appears on page 2 of Attachment JEZ-5. Pole
19 cost and quantity data were obtained from the Company's plant accounting
20 records, and the average cost for each pole-size accounting group was calculated.
21 Only poles with heights of 70 feet or smaller were included. If a straight line is
22 drawn through the various data points (size versus average cost), the calculated
23 zero-intercept cost (i.e., the cost of a zero-foot pole) is \$186. This is lower than

1 the minimum size study cost of \$1,288 for primary poles and \$820 for secondary
2 poles. The analysis includes both primary and secondary poles because the
3 accounting data does not specify the type of pole in each category. The zero-
4 intercept method results in a customer percentage of 8.66% for primary poles
5 versus the customer percentage of 27.20% in the minimum size study. The zero-
6 intercept method results in a customer percentage of 10.62% for secondary poles
7 versus the customer percentage of 21.61% in the minimum size study.

8 **Q. PLEASE DESCRIBE THE ZERO-INTERCEPT ANALYSIS OF**
9 **CONDUCTORS.**

10 A. The zero-intercept analysis of conductors is based on three types of commonly
11 used conductor on the Company's distribution system. Only three data points
12 were used because of the difficulty of obtaining consistent engineering data that
13 matches cost versus ampacity. The line compares the ampacity rating of the
14 conductor versus the cost per circuit mile. The analysis uses overhead conductor
15 costs and assumes that the minimum size for overhead would also apply to
16 underground conductor. In other words, underground circuits would not exist in a
17 hypothetical minimum size system. The zero-intercept cost of conductors with
18 zero ampacity (i.e., a conductor that cannot carry any current) was calculated to
19 be \$10,494 per circuit mile. The use of this zero-intercept cost results in customer
20 percentages of overhead conductor that are substantially higher than the
21 percentage derived from the minimum size study. I believe that this large
22 difference in customer percentage occurs because the zero-intercept method does
23 not account for the age of the overhead conductor that exist on the Company's

1 distribution system. For underground conductor, the zero-intercept method
2 results in lower customer percentages versus the minimum size method.

3 **Q. WHY DID YOU USE THE MINIMUM SIZE ANALYSES IN THE COST**
4 **OF SERVICE STUDY INSTEAD OF THE ZERO-INTERCEPT**
5 **ANALYSES?**

6 A. I believe that the minimum size analyses, using the Handy Whitman indexes,
7 more accurately calculate the costs of minimum size systems. The minimum size
8 analyses use actual costs of actual minimum size equipment. I believe that the
9 zero-intercept method has the following flaws:

- 10 • The zero-intercept method does not recognize that much of the equipment
11 on the distribution system was installed many years ago, and the costs of
12 the older equipment were recorded at much lower dollar values than
13 current. This flaw is especially noticeable when looking at transformers.
- 14 • The zero-intercept method assumes that there is a linear relationship
15 between equipment size and cost.
- 16 • The zero-intercept method assumes that this linear relationship between
17 size and cost continues outside of the range of data that was used to
18 develop the line.
- 19 • The zero-intercept method attempts to accurately compute the costs of
20 fictitious equipment that do not and cannot exist (e.g., zero height poles).
- 21 • The Company's plant accounting records are not sufficiently detailed to
22 perform the zero-intercept analyses without making numerous
23 assumptions about the size of equipment within various accounting

1 groups.

2 On the other hand, the minimum size method uses actual costs of actual
3 equipment, and it adjusts those costs for decades of inflation. I believe that the
4 minimum size methodology more accurately depicts the split between the
5 customer and demand components of transformers, poles, and conductors.

6 **Q. PLEASE DESCRIBE THE METHODOLOGY USED TO ALLOCATE**
7 **COMMON AND GENERAL PLANT.**

8 A. I functionalized common and general plant based on functional salaries and wages
9 as presented on pages 354-355 of Duke Energy Kentucky's 2021 FERC Form 1
10 annual report. I then used distribution kW and various weighted O&M expense
11 ratios to allocate each function to customer classes.

12 **Q. PLEASE EXPLAIN HOW YOU ALLOCATED A&G EXPENSES USING**
13 **THIS METHODOLOGY.**

14 A. I functionalized A&G expenses based on the same functional salaries and wages
15 used for general and common plant. After I functionalized the expenses, I allocated
16 the expenses to rate classes based on the allocation of direct O&M for that function.
17 For example, A&G expenses functionalized as distribution were allocated to rate
18 classes based on each rate class' allocation of direct distribution O&M.

19 **Q. WHAT ARE THE RATE BASE ADJUSTMENTS THAT YOU IDENTIFY IN**
20 **THE COST OF SERVICE?**

21 A. While net plant is the largest single component of rate base, there are other items
22 which must be added to or subtracted from rate base. These items include deferred

1 income taxes, miscellaneous deferrals, and working capital which includes materials
2 and supplies and prepayments.

3 **Q. HOW DID YOU ALLOCATE THE ADJUSTMENTS THAT WERE**
4 **SUBTRACTED FROM RATE BASE?**

5 A. I allocated the subtractive adjustments based on the net plant ratios and other
6 allocators for each rate class.

7 **Q. HOW DID YOU ALLOCATE ADJUSTMENTS THAT WERE ADDED TO**
8 **RATE BASE?**

9 A. I used various factors to allocate the amounts reflected in the Accumulated Deferred
10 Income Tax Account 190.

11 **Q. HOW DID YOU ALLOCATE WORKING CAPITAL?**

12 A. Working capital consists of the following items: fuel inventories, emission
13 allowances, materials and supplies, prepayments, cash, and other miscellaneous
14 items. Fuel Inventories and emission allowances were allocated to rate groups based
15 on K301, class kWh ratios; materials and supplies were allocated using PD29, class
16 net plant ratios; general insurance and excise tax were allocated to rate groups using
17 net plant ratios NP29, collateral asset was allocated to rate groups based on K301
18 class kWh ratios.

19 Cash working capital is based on the lead/lag study.

20 **Q. HOW DID YOU ALLOCATE DEPRECIATION EXPENSES?**

21 A. I allocated depreciation expenses to rate class based on the functional class net-
22 depreciable plant ratios.

1 **Q. HOW DID YOU ALLOCATE REAL ESTATE AND PROPERTY TAXES?**

2 A. I allocated real estate and property taxes to rate class based on the functional class
3 net plant ratios.

4 **Q. HOW DID YOU ALLOCATE PAYROLL AND HIGHWAY TAXES, THE**
5 **PSC ASSESSMENT AND OTHER MISCELLANEOUS TAXES?**

6 A. I allocated the PSC Maintenance Taxes to class based on each rate class revenue
7 ratio. I allocated Payroll, Highway and Other Miscellaneous Taxes to rate class
8 based the class-weighted A&G expense ratio (A315).

9 **Q. HOW DID YOU ALLOCATE FEDERAL AND STATE INCOME TAX**
10 **ADJUSTMENTS AND DEDUCTIONS?**

11 A. I reviewed each income tax adjustment and deduction to determine the functional
12 cause of the adjustment and deduction, then selected the appropriate allocation
13 factor. For example, an "Other Deductions" item, tax depreciation in excess of book
14 depreciation, was allocated to the rate classes based on the class depreciation
15 expense ratio (DE49).

16 **Q. HOW DID YOU ALLOCATE OTHER OPERATING REVENUES?**

17 A. I evaluated each other operating revenue item to determine the source of the
18 revenue, then selected the appropriate allocation factor. The class ratio of present
19 revenues was the primary allocation factor used to allocate the revenue credits to the
20 respective rate groups.

21 **Q. DID YOU USE ANY OTHER ALLOCATION FACTORS IN THE COST OF**
22 **SERVICE STUDY?**

23 A. Yes, there are many plant and expense ratios that were developed internally in the

1 cost of service study. The cost of service study lists each item's allocation factor
2 under the column identified as "ALLO."

IV. RESULTS OF COST OF SERVICE STUDY

3 **Q. WHAT DO THE RESULTS OF THE COST OF SERVICE STUDY SHOW?**

4 A. Schedule FR-16(7)(v)-14, page 1 of 15, is a summary of the cost of service study
5 that shows the costs allocated to each rate class.

6 **Q. HOW WERE THE RESULTS OF YOUR COST OF SERVICE STUDY
7 USED IN THESE PROCEEDINGS?**

8 A. The results of the fully allocated cost of service study by rate class were supplied
9 to Duke Energy Kentucky witness Bruce Sailors, who used this data to develop
10 the proposed rate design for these proceedings.

V. DISTRIBUTION OF PROPOSED REVENUE INCREASE

11 **Q. DID THE COST OF SERVICE STUDY SHOW THAT THE INCREASE
12 REQUIRED FOR EACH CUSTOMER CLASS WAS PROPORTIONAL?**

13 A. No. The cost of service study revealed that there are significant differences among
14 the rate classes when comparing the actual return earned by each rate class to the
15 7.526 percent overall return on rate base being requested in this case. Put another
16 way, developing rates that generate the amount of revenue that equals the allocated
17 revenue requirement for each rate class will mean much greater increases for some
18 rate classes, in terms of percentage increases, than other classes.

19 To mitigate the rate shock that may come from eliminating the
20 subsidy/excess (or rate disparities) among the rate classes, the Company is proposing
21 to use a two-step process to distribute the proposed revenue increase. The first step

1 eliminates 5 percent of the subsidy/excess revenues between customer classes based
2 on present revenues. The second step allocates the rate increase to customer classes
3 based on electric original cost depreciated (OCD) rate base.

4 **Q. THE WATER PUMPING RATE CLASS APPEARS TO BE RECEIVING A**
5 **RATE DECREASE. PLEASE EXPLAIN HOW THIS IS BEING HANDLED**
6 **IN THE PROPOSED RATES.**

7 A. The customers in this class are served under special contracts. The rates for these
8 customers will not change. The proposed rate decrease for this class was added to
9 the proposed revenues for Rate DS.

10 **Q. PLEASE EXPLAIN IN GREATER DETAIL THE FIRST STEP THAT**
11 **ELIMINATES 5 PERCENT OF THE SUBSIDY/EXCESS REVENUES.**

12 A. Again, it is a general tenet of ratemaking that each class should, to the extent
13 practicable, pay the costs of providing service to that class. The elimination of a
14 portion of the subsidy/excess takes into consideration that the Company is not
15 earning the same rate of return on all customer classes. It is unlikely that equal rates
16 of return across all rate classes are achievable; nonetheless, to the extent possible,
17 large variances among the customer classes should be eliminated. A comparison of
18 revenues under present rates and at the retail average rate of return is made and then
19 5 percent of that amount is added to, or subtracted from, the rate increase to
20 determine the proposed revenues in this proceeding.

21 Admittedly, this proposal lets a subsidy/excess persist but it will reduce the
22 gap so that each class is paying rates that more closely reflect their costs of service.

23

1 **Q. HOW DID THIS RATE DISPARITY ARISE?**

2 A. Rate disparities exist mostly because over the years rates have not been set based on
3 the cost to serve customers as determined by a cost of service study. Other factors
4 include: (1) customer mix often changes between rate cases, *i.e.*, residential, for
5 example, may make up more or less of the total today than it did the last time rates
6 were set; (2) different asset classes depreciate at different rates and because different
7 asset classes are allocated differently, long periods between rate cases can shift the
8 relative costs to serve each rate class. Also, regulators may purposely allow
9 subsidy/excesses to persist in the interest of rate gradualism.

10 **Q. WHY DID YOU PROPOSE A FIVE PERCENT REDUCTION OF THE**
11 **SUBSIDY/EXCESS REVENUES IN THESE PROCEEDINGS?**

12 A. The present rate of returns by class shown on Work Paper FR-16(7)(v), page 1,
13 indicate that there is a significant difference in those returns. To ensure that each rate
14 class pays the actual cost to serve that class and move each class to the average rate
15 of return, 100 percent of the subsidy/excess would need to be eliminated. However,
16 given the wide disparity among rate classes, complete elimination of the subsidy
17 excess would cause a dramatic swing in rate impacts between and among various
18 rate classes. By proposing to eliminate only five percent of the subsidy/excess, the
19 Company is choosing to invoke the rate making principle of gradualism so to
20 mitigate the volatility of 100 percent subsidy/excess elimination.

VI. CONCLUSION

1 **Q. WERE ATTACHMENTS JEZ-1 THROUGH JEZ-4, SCHEDULES B-7, B-**
2 **7.1, B-7.2, D-3, D-4 AND D-5, AS WELL AS, FR 16(7)(v), AND**
3 **WORKPAPER FR 16(7)(v), AND ATTACHMENT JEZ-5, ZERO**
4 **INTERCEPT PREPARED BY YOU OR UNDER YOUR SUPERVISION?**

5 **A. Yes.**

6 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

7 **A. Yes.**

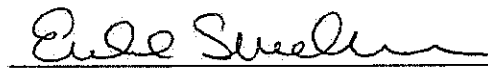
VERIFICATION

STATE OF OHIO)
)
COUNTY OF HAMILTON) **SS:**

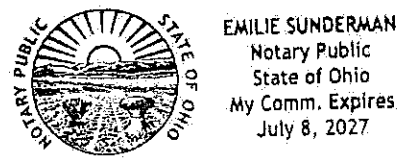
The undersigned, James E. Ziolkowski, Director, Rates & Regulatory Planning, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony and that it is true and correct to the best of his knowledge, information and belief.


James E. Ziolkowski Affiant

Subscribed and sworn to before me by James E. Ziolkowski on this 30th day of November, 2022.


NOTARY PUBLIC

My Commission Expires: July 8, 2027



DUKE ENERGY KENTUCKY, INC.
ELECTRIC COST OF SERVICE STUDY
CASE NO: 2022-00372
ALLOCATION FACTORS FOR COST OF SERVICE STUDY

Attachment JEZ-1
Witness Responsible:
James E. Ziolkowski
Page 1 of 1

LINE NO.	RATE GROUP	12 CP DEMAND RATIO %	AVG & EXCESS RATIO %	DIFFERENCE %	PROD STACKING RATIO %	DIFFERENCE %
		A	B	C = B - A	D	E = D - A
1						
2	Retail:					
3	Residential	45.387%	54.568%	9.181%	39.797%	-5.590%
4	Dist Secondary - DS	27.353%	22.267%	-5.086%	27.856%	0.503%
5	Dist Secondary - GS-FL	0.132%	0.103%	-0.029%	0.153%	0.021%
6	Dist Secondary - EH	0.473%	0.513%	0.040%	0.432%	-0.041%
7	Dist Secondary - SP	0.004%	0.004%	0.000%	0.004%	0.000%
8	Dist Secondary - DT	12.580%	10.263%	-2.317%	14.627%	2.047%
9	Dist Primary - DT	9.633%	8.364%	-1.270%	11.871%	2.238%
10	Dist Primary - DP	0.254%	0.238%	-0.017%	0.299%	0.045%
11	Transmission	3.484%	3.274%	-0.210%	4.436%	0.952%
12	Lighting	0.698%	0.398%	-0.300%	0.510%	-0.188%
13	Other	0.002%	0.009%	0.007%	0.015%	0.013%
14	Total Retail	100.000%	100.000%	0.000%	100.000%	0.000%

K201 Generation Allocator Using 12 CP

Line No.	Rate Class	Jurisdictional Electric Rate Base (A)	Present Revenues (B)	Net Operating Income (C)	Present ROR (D)	Present Revenues At Average ROR (E)	Inter Class Subsidization Overcollected (Undercollected) (F)	Inter Class Subsidization times 5.00% (G)	Rate Increase (Allocated to class based on Rate Base) (H)	Proposed Revenues 95.00% Interclass Subsidization (I)	Proposed Percent Increase (J)	ROR At Proposed Rates (K)	Proposed Increase Less (Subsidy) Excess (L)
		FR-16(7)(v)-14, page1	FR-16(7)(v)-14, page1	Work Paper FR-16(7)(v), Page 2	(C) / (A)	(B) + ((D) Line 5 * (C)) / (1- Composite Tax Rate)	(B) - (E)	(F) * 5.00%	(H) Line 5 * ((A) / (A) Line 5)	(B) - (G) + (H)	((H) - (G)) / (B)	((((H) - (G)) * (1- Composite Tax Rate) + (C)) / (A)	(H) - (G)
1	Rate RS	\$ 572,882,694	\$ 152,711,851	\$ 652,444	0.1139%	\$ 172,671,237	\$ (19,959,386)	\$ (997,968)	\$ 36,583,902	\$ 190,293,721	24.610%	5.038901%	\$ 37,581,870
2	Rate DS	311,193,862	112,012,413	18,541,537	5.9582%	98,629,178	13,383,235	669,162	19,872,630	131,215,881	17.144%	10.590993%	19,203,468
3	Rate GS-FL	1,552,907	744,090	206,792	13.3164%	525,102	218,988	10,949	99,187	832,328	11.859%	17.582285%	88,238
4	Rate EH	5,725,959	1,531,599	80,863	1.4122%	1,632,069	(100,470)	(5,024)	365,639	1,902,262	24.201%	6.272101%	370,663
5	Rate SP	53,894	24,971	7,969	14.7864%	16,316	8,655	433	3,457	27,995	12.108%	18.998219%	3,024
6	Rate DT - Secondary	139,181,003	51,162,016	5,884,451	4.2279%	48,384,147	2,777,869	138,893	8,887,977	59,911,100	17.101%	8.947209%	8,749,084
7	Rate DT-Primary	107,494,084	39,895,033	3,840,571	3.5728%	38,687,570	1,207,463	60,373	6,864,488	46,699,148	17.055%	8.324879%	6,804,115
8	Rate DP	2,858,447	1,203,961	232,646	8.1389%	998,001	205,960	10,298	182,519	1,376,182	14.305%	12.662146%	172,221
9	Rate TT	25,746,933	14,293,738	1,976,860	7.6780%	12,596,642	1,697,096	84,855	1,644,174	15,853,057	10.909%	12.224822%	1,559,319
10	Lighting	9,959,035	1,919,474	2,427	0.0244%	2,278,325	(358,851)	(17,943)	635,999	2,573,415	34.069%	4.954022%	653,942
11	Other - Water Pumping	26,047	926,059	690,980	2652.8199%	6,618	919,441	45,972	1,653	881,740	-4.786%	2525.080234%	(44,319)
12													
13	Total	\$ 1,176,674,865	\$ 376,425,205	\$ 32,117,540	2.7295%	\$ 376,425,205	\$ (0)	\$ -	\$ 75,141,624	\$ 451,566,829	19.962%	7.523746%	\$ 75,141,624

K201 Generation Allocator Using Average and Excess Method

1	Rate RS	\$ 625,650,059	\$ 152,711,851	\$ (3,883,358)	-0.6207%	\$ 180,631,418	\$ (27,919,567)	\$ (1,395,979)	\$ 39,953,553	\$ 194,061,383	27.077%	4.341046%	\$ 41,349,532
2	Rate DS	281,962,585	112,012,413	21,054,295	7.4671%	94,219,407	17,793,006	889,650	18,005,962	129,128,725	15.281%	12.024413%	17,116,312
3	Rate GS-FL	1,386,310	744,090	221,114	15.9498%	499,968	244,122	12,206	88,517	820,401	10.256%	20.082396%	76,311
4	Rate EH	5,955,748	1,531,599	61,102	1.0259%	1,666,746	(135,147)	(6,757)	380,367	1,918,723	25.276%	5.905804%	387,124
5	Rate SP	53,894	24,971	7,969	14.7864%	16,316	8,655	433	3,457	27,995	12.108%	18.998219%	3,024
6	Rate DT - Secondary	125,864,759	51,162,016	7,029,174	5.5847%	46,375,230	4,786,786	239,339	8,037,599	58,960,276	15.242%	10.236153%	7,798,260
7	Rate DT-Primary	100,198,299	39,895,033	4,467,457	4.4586%	37,587,301	2,307,732	115,387	6,398,610	46,178,256	15.749%	9.166402%	6,283,223
8	Rate DP	2,760,787	1,203,961	241,041	8.7309%	983,268	220,693	11,035	176,282	1,369,208	13.725%	13.224497%	165,247
9	Rate TT	24,540,543	14,293,738	2,080,586	8.4782%	12,414,617	1,879,121	93,956	1,567,154	15,766,936	10.307%	12.984992%	1,473,198
10	Lighting	8,235,621	1,919,474	150,635	1.8291%	2,018,252	(98,778)	(4,939)	525,916	2,450,329	27.656%	6.666273%	530,855
11	Other - Water Pumping	66,260	926,059	687,525	1037.6170%	12,682	913,377	45,669	4,208	884,598	-4.477%	990.640130%	(41,461)
12													
13	Total	\$ 1,176,674,865	\$ 376,425,205	\$ 32,117,540	2.7295%	\$ 376,425,205	\$ (0)	\$ -	\$ 75,141,624	\$ 451,566,829	19.962%	7.523746%	\$ 75,141,624

K201 Generation Allocator Using Production Stacking Method

1	Rate RS	\$ 540,746,770	\$ 152,711,851	\$ 3,414,096	0.6314%	\$ 167,824,333	\$ (15,112,482)	\$ (755,626)	\$ 34,531,706	\$ 187,999,183	23.107%	5.530504%	\$ 35,287,332
2	Rate DS	314,083,452	112,012,413	18,293,065	5.8243%	99,065,202	12,947,211	647,361	20,057,147	131,422,199	17.328%	10.463760%	19,409,786
3	Rate GS-FL	1,673,546	744,090	196,393	11.7351%	543,339	200,751	10,038	106,871	840,923	13.014%	16.079069%	96,833
4	Rate EH	5,490,426	1,531,599	101,090	1.8412%	1,596,564	(64,965)	(3,248)	350,615	1,885,462	23.104%	6.879466%	353,863
5	Rate SP	53,894	24,971	7,969	14.7864%	16,316	8,655	433	3,442	27,980	12.049%	18.977488%	3,009
6	Rate DT - Secondary	150,946,175	51,162,016	4,873,162	3.2284%	50,158,937	1,003,079	50,154	9,639,316	60,751,178	18.743%	7.997695%	9,589,162
7	Rate DT-Primary	120,362,241	39,895,033	2,734,915	2.2722%	40,628,158	(733,125)	(36,656)	7,686,248	47,617,937	19.358%	7.089330%	7,722,904
8	Rate DP	3,116,959	1,203,961	210,395	6.7500%	1,037,038	166,923	8,346	199,047	1,394,662	15.839%	11.343216%	190,701
9	Rate TT	31,221,644	14,293,738	1,506,587	4.8255%	13,422,092	871,646	43,582	1,993,792	16,243,948	13.644%	9.514890%	1,950,210
10	Lighting	8,879,029	1,919,474	95,307	1.0734%	2,115,342	(195,868)	(9,793)	567,009	2,496,275	30.050%	5.950424%	576,802
11	Other - Water Pumping	100,729	926,059	684,561	679.6067%	17,884	908,175	45,409	6,432	887,082	-4.209%	650.556865%	(38,977)
12													
13	Total	\$ 1,176,674,865	\$ 376,425,205	\$ 32,117,540	2.7295%	\$ 376,425,205	\$ (0)	\$ -	\$ 75,141,624	\$ 451,566,829	19.962%	7.523746%	\$ 75,141,624

**DUKE ENERGY KENTUCKY
 COST OF SERVICE STUDY
 CALCULATION OF AVERAGE & EXCESS ALLOCATOR
 CASE NO. 2019-00271**

**Attachment JEZ-3
 Witness Responsible:
 James E. Ziolkowski
 Page 1 of 1**

Line No.	Rate Group	Annual Usage (a) (kWh)	System Hour CP (b) (kW)	Class Maximum NCP Demand (c) (kW)	Average Hourly Demand (kW) (Col. 1 / 8,760 hrs)	Excess Demand (Hourly kW) (Col.3 - Col.4)	Excess Demand Ratio (%)	Allocated Excess Demand (kW)	Average & Excess Hourly Demand (kW) (Col.4 + Col. 7)	Average & Excess Hourly Demand (Ratio) K201
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1										
2										
3	Residential	1,498,078,273		982,296	#####	811,282	74.8637%	273,172	444,186	54.5683%
4	Dist Secondary - DS	1,101,232,804		290,667	#####	164,955	15.2217%	55,543	181,255	22.2672%
5	Dist Secondary - GS-FL	6,246,724		1,091	713	378	0.0349%	127	840	0.1032%
6	Dist Secondary - EH	16,492,265		8,685	1,883	6,802	0.6277%	2,290	4,173	0.5127%
7	Dist Secondary - SP	156,706		54	18	36	0.0033%	12	30	0.0037%
9	Dist Secondary - DT	599,486,169		113,290	68,434	44,856	4.1392%	15,104	83,538	10.2627%
10	Dist Primary - DT	493,290,770		91,259	56,312	34,947	3.2248%	11,767	68,079	8.3635%
8	Dist Primary - DP	12,279,221		2,980	1,402	1,578	0.1456%	531	1,933	0.2375%
11	Transmission	188,309,773		36,813	21,497	15,316	1.4133%	5,157	26,654	3.2744%
12	Lighting	17,836,390		5,612	2,036	3,576	0.3300%	1,204	3,240	0.3980%
13	Other	758,599		41	87	(46)	-0.0042%	(15)	72	0.0088%
14	Total	3,934,167,694	#####	1,532,788	#####	1,083,680	100.0000%	364,892	814,000	100.0000%

**DUKE ENERGY KENTUCKY
 COST OF SERVICE STUDY
 CALCULATION OF PRODUCTION STACKING (TOD) ALLOCATOR
 CASE NO. 2019-00271**

**Attachment JEZ-4
 Witness Responsible:
 James E. Ziolkowski
 Page 1 of 1**

Line No.	Rate Group	Annual Usage (a) (kWh)	<u>Baseload</u>	12CP Demand (kW)	<u>Peak</u>	Total Revenue Requirement	Allocator K201
			East Bend Net Plant (Allocated on kWh)		Woodsdale Net Plant (Allocated on 12CP)		
		(1)	(2)	(3)	(4)	(5)	(6)
1							
2							
3	Residential	1,498,078,273	\$197,089,869	301,163	\$70,941,107	\$268,030,976	39.7971%
4	Dist Secondary - DS	1,101,232,804	\$144,880,166	181,403	\$42,730,779	\$187,610,945	27.8564%
5	Dist Secondary - GS-FL	6,246,724	\$821,830	873	\$205,641	\$1,027,472	0.1526%
6	Dist Secondary - EH	16,492,265	\$2,169,752	3,136	\$738,707	\$2,908,459	0.4318%
7	Dist Secondary - SP	156,706	\$20,617	26	\$6,124	\$26,741	0.0040%
9	Dist Secondary - DT	599,486,169	\$78,869,477	83,378	\$19,640,287	\$98,509,764	14.6267%
10	Dist Primary - DT	493,290,770	\$64,898,220	63,913	\$15,055,166	\$79,953,386	11.8714%
8	Dist Primary - DP	12,279,221	\$1,615,476	1,685	\$396,914	\$2,012,390	0.2988%
11	Transmission	188,309,773	\$24,774,372	21,650	\$5,099,813	\$29,874,185	4.4357%
12	Lighting	17,836,390	\$2,346,588	4,630	\$1,090,630	\$3,437,217	0.5104%
13	Other	758,599	\$99,803	11	\$2,591	\$102,394	0.0152%
14	Total	3,934,167,694	\$517,586,170	661,868	\$155,907,760	\$673,493,930	100.0000%

**DUKE ENERGY KENTUCKY, INC.
ELECTRIC COST OF SERVICE STUDY
CASE NO: 2022-00372
SUMMARY OF MINIMUM SIZE AND ZERO INTERCEPT STUDIES**

**Attachment JEZ-5
Witness Responsible:
James E. Ziolkowski
Page 1 of 4**

Account	Class of Property	WPE-3.2d Reference	Minimum Size Method							Zero Intercept Method		
			Minimum Size	Cost Per	Loaded Cost	Quantity	Loaded Cost	Customer	Demand	Zero Intercept Cost	Customer	Demand
<u>Poles, Towers & Fixtures</u>												
364	Primary	pages 55-57	40 ft, Class 4, Wood	Pole	\$ 1,288	29,114	\$ 62,499,791	27.70%	72.30%	\$ 186	8.66%	91.34%
364	Secondary	pages 58-60	35 ft, Class 5, Wood	Pole	\$ 820	11,890	\$ 20,833,264	21.61%	78.39%	\$ 186	10.62%	89.38%
<u>Overhead Conductors</u>												
365	Primary	pages 61-63	1/0 ACSR Primary OH Conductor	Mile of Conductor	\$ 19,225	3,929	\$ 118,667,143	16.99%	83.01%	\$ 10,494	34.75%	65.25%
365	Secondary	pages 64-66	#2 ALTX Secondary OH Conductor	Mile of Conductor	\$ 21,473	1,608	\$ 48,469,678	19.01%	80.99%	\$ 10,494	34.81%	65.19%
<u>Underground Conductors</u>												
367	Primary	pages 67-69	1/0 ALTRXPE 15KV Primary UG cable	Mile of Conductor	\$ 27,572	1,330	\$ 116,694,168	18.24%	81.76%	\$ 10,494	11.96%	88.04%
367	Secondary	pages 70-72	4/0 ALTX Secondary UG cable	Mile of Conductor	\$ 24,870	268	\$ 23,901,215	16.31%	83.69%	\$ 10,494	11.77%	88.23%
368	Line Transformer	pages 52-54	15 kVa	Transformer	\$ 2,231	36,082	\$ 83,218,780	22.69%	77.31%	\$ 1,604	69.55%	30.45%

**DUKE ENERGY KENTUCKY, INC.
ELECTRIC COST OF SERVICE STUDY
CASE NO: 2022-00372
ZERO INTERCEPT - POLES**

**Attachment JEZ-5
Witness Responsible:
James E. Ziolkowski
Page 2 of 4**

<u>TYPE</u>	<u>COST</u>	<u>QUANTITY</u>	<u>AVERAGE COST</u>
Pole: Wood, 10'	\$14,105	6	\$2,351
Pole: Wood, 25'	\$104,212	559	\$186
Pole: Wood, 30'	\$571,867	1,322	\$433
Pole: Wood, 35'	\$2,973,944	5,712	\$521
Pole: Wood, 40'	\$10,234,477	14,643	\$699
Pole: Wood, 45'	\$9,398,452	8,008	\$1,174
Pole: Wood, 50'	\$3,156,895	2,003	\$1,576
Pole: Wood, 55'	\$1,037,548	606	\$1,712
Pole: Wood, 60'	\$504,035	240	\$2,100
Pole: Wood, 65'	\$235,612	67	\$3,517
Pole: Wood, 70'	\$66,239	26	\$2,548
Pole: Wood, 30' or less	\$399,483	144	\$2,774
Pole: Wood, 35'	\$2,094,706	844	\$2,482
Pole: Wood, 40'	\$6,509,353	1,988	\$3,274
Pole: Wood, 45'	\$9,870,193	2,892	\$3,413
Pole: Wood, 50'	\$3,514,193	1,016	\$3,459
Pole: Wood, 55'	\$1,626,334	421	\$3,863
Pole: Wood, 60'	\$825,688	193	\$4,278
Pole: Wood, 65'	\$215,636	50	\$4,313
Pole: Wood, 70'	\$218,352	46	\$4,747
Grand Total	\$53,571,325	40,786	\$1,313

	<u>Height</u>	<u>Average Cost</u>
Pole: Wood, 10'	10	\$2,351
Pole: Wood, 25'	25	\$186
Pole: Wood, 30'	30	\$433
Pole: Wood, 35'	35	\$521
Pole: Wood, 40'	40	\$699
Pole: Wood, 45'	45	\$1,174
Pole: Wood, 50'	50	\$1,576
Pole: Wood, 55'	55	\$1,712
Pole: Wood, 60'	60	\$2,100
Pole: Wood, 65'	65	\$3,517
Pole: Wood, 70'	70	\$2,548
Pole: Wood, 30' or less	30	\$2,774
Pole: Wood, 35'	35	\$2,482
Pole: Wood, 40'	40	\$3,274
Pole: Wood, 45'	45	\$3,413
Pole: Wood, 50'	50	\$3,459
Pole: Wood, 55'	55	\$3,863
Pole: Wood, 60'	60	\$4,278
Pole: Wood, 65'	65	\$4,313
Pole: Wood, 70'	70	\$4,747

Zero Intercept \$186

Overhead Primary Cost		
Cable Type	Cost Per Circuit Mile	Ampacity Rating (Amps)
556 AAC	\$ 21,490	658
4/0 AAAC	\$ 15,101	370
1/0 AAAC	\$ 15,101	231

Zero Intercept (Zero Ampacity)
\$ 10,494

**DUKE ENERGY KENTUCKY, INC.
 ELECTRIC COST OF SERVICE STUDY
 CASE NO: 2022-00372
 ZERO INTERCEPT - TRANSFORMERS**

**Attachment JEZ-5
 Witness Responsible:
 James E. Ziolkowski
 Page 4 of 4**

	<u>TYPE</u>	<u>COST</u>	<u>QUANTITY</u>	<u>AVERAGE COST</u>
Conv 2009 Transformer OH 46-150 KVA		\$1,541,784	711	\$2,168
Conv 2009 Transformer OH 76-250 KVA		\$1,154,615	669	\$1,726
Conv 2009 Transformer UG 46-150 KVA		\$1,729,920	454	\$3,810
Conv 2009 Transformer UG 76-250 KVA		\$2,623,937	1,280	\$2,050
Conv 2009 Xfrmr OH 251<833 KVA		\$16,992	4	\$4,248
Transformers OH 0 to 99 KVA		\$21,912,514	23,464	\$934
Transformers OH 100 to 499 KVA		\$2,216,133	334	\$6,635
Transformers UG 0 to 99 KVA		\$14,488,238	7,567	\$1,915
Transformers UG 100 to 499 KVA		\$6,484,151	951	\$6,818
Grand Total		\$52,168,283	35,434	\$1,472

	<u>Size</u>	<u>Average Cost</u>
	100	\$2,168
	100	\$1,726
	100	\$3,810
	100	\$2,050
	500	\$4,248
	50	\$934
	300	\$6,635
	50	\$1,915
	300	\$6,818
Zero Intercept		\$1,604