

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

**IN THE MATTER OF THE ADJUSTMENT  
OF NATURAL GAS RATES OF DUKE ENERGY KENTUCKY, INC.**

**CASE NO. 2021-00190**

**FILING REQUIREMENTS**

**VOLUME 15**

**Duke Energy Kentucky, Inc.**  
**Case No. 2021-00190**  
**Forecasted Test Period Filing Requirements**  
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<b>Vol. #</b>	<b>Tab #</b>	<b>Filing Requirement</b>	<b>Description</b>	<b>Sponsoring Witness</b>
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>	Chris R. Bauer Bryan T. Manges
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	Jeff L. Kern
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.	Jeff L. Kern
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.	Abby L. Motsinger
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.	Jay P. Brown David G. Raiford Abby L. Motsinger
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.	Jay P. Brown
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.	Abby L. Motsinger

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.	Abby L. Motsinger
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.	Jay P. Brown
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.	Abby L. Motsinger Brian R. Weisker
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.	Abby L. Motsinger
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.	Abby L. Motsinger
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.	Abby L. Motsinger Brian R. Weisker
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.	Abby L. Motsinger Brian R. Weisker

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.	Abby L. Motsinger Brian R. Weisker Benjamin W. Passty
1	29	807 KAR 5:001 Section 16(7)(i)	Most recent FERC or FCC audit reports.	Bryan T. Manges
1	30	807 KAR 5:001 Section 16(7)(j)	Prospectuses of most recent stock or bond offerings.	Chris 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).	Bryan T. Manges
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.	Chris 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.	Bryan T. Manges
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.	Bryan T. Manges
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.	Bryan T. Manges Abby L. Motsinger
3-9	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.	Bryan T. Manges
10	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.	Bryan T. Manges
10	38	807 KAR 5:001 Section 16(7)(r)	Quarterly reports to the stockholders for the most recent 5 quarters.	Chris R. Bauer

10	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
10	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	Jay P. Brown
10	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
10	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
10	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.	Not Applicable
10	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.	Jay P. Brown

10	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.	Jay P. Brown David G. Raiford Abby L. Motsinger John R. Panizza James E. Ziolkowski Bryan T. Manges
10	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.	Jay P. Brown
10	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.	Jay P. Brown David G. Raiford Abby L. Motsinger James E. Ziolkowski
10	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
10	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.	Jay P. Brown
10	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.	Jay P. Brown Jake J. Stewart
10	51	807 KAR 5:001 Section 16(8)(h)	Computation of gross revenue conversion factor for forecasted period.	Jay P. Brown
10	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.	Bryan T. Manges Abby L. Motsinger
10	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.	Chris R. Bauer
10	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.	David G. Raiford Abby L. Motsinger Bryan T. Manges
10	55	807 KAR 5:001 Section 16(8)(l)	Narrative description and explanation of all proposed tariff changes.	Jeff L. Kern
10	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.	Jeff L. Kern
10	57	807 KAR 5:001 Section 16(8)(n)	Typical bill comparison under present and proposed rates for all customer classes.	Jeff L. Kern
10	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

10	59	807 KAR 5:001 Section 16(10)	<p>A request for a waiver 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. In determining if good cause has been shown, the commission shall consider:</p> <ol style="list-style-type: none"> <li>1. if other information that the utility would provide if the waiver is granted is sufficient to allow the commission to effectively and efficiently review the rate application;</li> <li>2. if the information that is the subject of the waiver request is normally maintained by the utility or reasonably available to it from the information that it maintains; and</li> <li>3. the expense to the utility in providing the information that is the subject of the waiver request.</li> </ol>	Not Applicable
10	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"> <li>1. A copy of the public notice; and</li> <li>2. A hyperlink to the location on the commission's Web site where the case documents are available.</li> </ol> <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
10	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"> <li>1. Including notice with customer bills mailed no later than the date the application is submitted to the commission;</li> <li>2. Mailing a written notice to each customer no later than the date the application is submitted to the commission;</li> <li>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</li> <li>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.</li> </ol> <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

10	62	807 KAR 5:001 Section 17(3)	<p><b>(3) Proof of Notice.</b> 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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10	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 <a href="http://psc.ky.gov">http://psc.ky.gov</a>;</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>	Jeff L. Kern
10	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.	Not Applicable



11	-	807 KAR 5:001 Section 16(8)(a) through (k)	Schedule Book (Schedules A-K)	Various
12	-	807 KAR 5:001 Section 16(8)(l) through (n)	Schedules L-N	Jeff L. Kern
13	-	-	Workpapers	Various
14	-	807 KAR 5:001 Section 16(7)(a)	Testimony (Volume 1 of 3)	Various
15	-	807 KAR 5:001 Section 16(7)(a)	Testimony (Volume 2 of 3)	Various
16	-	807 KAR 5:001 Section 16(7)(a)	Testimony (Volume 3 of 3)	Various
17-18	-	KRS 278.2205(6)	Cost Allocation Manual	Jeffrey R. Setser

**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 Natural Gas Rates; 2) ) Case No. 2021-00190  
Approval of New Tariffs; and 3) All )  
Other Required Approvals, Waivers, and )  
Relief. )

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**DIRECT TESTIMONY OF**  
**DAVID G. RAIFORD**  
**ON BEHALF OF**  
**DUKE ENERGY KENTUCKY, INC.**

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June 1, 2021

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**I. INTRODUCTION AND PURPOSE**

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

2 A. My name is David G. Raiford and my business address is 550 South Tryon Street,  
3 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 I. 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 am a graduate of the University of North Carolina at Wilmington, with a  
12 Bachelor of Science degree in Business Administration, and a Master of Science  
13 degree in Accountancy. I am a Certified Public Accountant in the State of North  
14 Carolina. I began my employment with Duke Energy in 2010 in the Financial  
15 Reporting group within the Accounting Department and have also supported the  
16 accounting for Asset Retirement Obligations within Asset Accounting. I  
17 transitioned to my current position within Asset Accounting in June 2020. My  
18 work experience prior to Duke Energy was with Grant Thornton, LLP as an Audit  
19 Senior Associate serving clients in a variety of industries.

20 **Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS MANAGER**  
21 **ACCOUNTING I.**

22 A. As Manager I, Asset Accounting, I have responsibility for accounting and

1 reporting activities within Duke Energy's electric and natural gas utilities and  
2 infrastructure segment related to fixed assets, including electric and natural gas  
3 plant in service, construction work in progress, depreciation, asset retirement  
4 obligations (ARO), and various regulatory assets.

5 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**  
6 **PUBLIC SERVICE COMMISSION?**

7 A. No.

8 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
9 **PROCEEDING?**

10 A. I am responsible for actual net plant in service contained in rate base and other  
11 actual plant-related items that Duke Energy Kentucky witness, Ms. Abby L.  
12 Motsinger uses in her testimony. In particular, I sponsor the following Schedules  
13 in satisfaction of Filing Requirements (FR) 16(8)(b): B-2, B-2.1, B-2.2, B-2.3, B-  
14 2.4, B-2.5, B-2.6, B-2.7, B-3, B-3.1, B-3.2, and B-4. I sponsor the following  
15 Schedules in satisfaction of FR 16(8)(d): D-2.23 as well as the actual plant data  
16 on Schedule K page 1, and the composite depreciation rates on Schedule K, both  
17 being in response to FR 16(8)(k). The source and sponsor of the budgeted and  
18 projected data as shown on these schedules is Ms. Motsinger. The source of the  
19 proposed depreciation and amortization accrual rates used in these schedules,  
20 including the supporting depreciation study, is the Company's most recently  
21 approved depreciation study and rates from the Company's last natural gas base  
22 rate case proceeding, Case No. 2018-00261.

## **II. SCHEDULES SPONSORED BY WITNESS**



1 **Q. PLEASE DESCRIBE THE INFORMATION CONTAINED IN THE**  
2 **SECTION B SCHEDULES.**

3 A. The Section B schedules develop the Jurisdictional Net Plant in Service. The  
4 schedules are based on the Company's budget records as of the end of the base  
5 period (August 31, 2021) and the end of the forecast period (December 31, 2022). I  
6 provided Ms. Motsinger with the actual balances as of February 28, 2021 (the last  
7 month of the base period based on actual data). She uses these balances to assist  
8 in developing the forecasted portions of the base period and the forecasted test  
9 period.

10 **Q. PLEASE DESCRIBE SCHEDULE B-2.**

11 A. Schedule B-2 shows the plant in service including allocated common plant by major  
12 property grouping for the base period and the 13-month average as of the plant  
13 valuation date of December 31, 2022. The amount shown in the column labeled  
14 "Adjusted Jurisdiction" on page 1 of 2, and "13 Month Average Adjusted  
15 Jurisdiction" on page 2 of 2, represents plant in service that is deemed used and  
16 useful in providing natural gas service to our Kentucky jurisdictional customers.

17 **Q. PLEASE DESCRIBE SCHEDULE B-2.1.**

18 A. Schedule B-2.1 consists of a further breakdown of Schedule B-2 by the Federal  
19 Energy Regulatory Commission (FERC) and Company Account for each major  
20 property grouping for the base period and the forecast period. The plant in service  
21 investment shown in the column labeled "Adjusted Jurisdiction" on pages 1 through  
22 4, and "13 Month Average Adjusted Jurisdiction" on pages 5 through 8, represents  
23 natural gas plant in service including allocated common plant that is deemed used

1 and useful in providing natural gas service to the Company's Kentucky jurisdictional  
2 customers.

3 **Q. PLEASE DESCRIBE SCHEDULE B-2.2.**

4 A. Schedule B-2.2 shows proposed adjustments to plant in service for the base period  
5 and the forecast period. The adjustments shown on this schedule are related to the  
6 manufactured gas production plant, distribution plant, common plant and general  
7 plant and are related to gas facilities devoted to other than Kentucky customers and  
8 AROs.

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

10 A. Schedule B-2.3 shows gross additions, retirements and transfers by FERC and  
11 Company Account for each major property grouping for the base period and the  
12 forecast period.

13 **Q. PLEASE DESCRIBE SCHEDULE B-2.4.**

14 A. Schedule B-2.4 is entitled "Property Merged or Acquired" for the base period and  
15 the forecast period. Duke Energy Kentucky projects that no property will be  
16 merged or acquired during the forecast period, so no items appear in this  
17 schedule.

18 **Q. PLEASE DESCRIBE SCHEDULE B-2.5.**

19 A. Schedule B-2.5 is entitled "Leased Property" and provides data for the base period  
20 and the forecast period. Duke Energy Kentucky's leases for gas meters and  
21 regulators ended in June 2019. In 2005, Duke Energy Kentucky entered into a lease  
22 for a building on Cox Road in Erlanger, Kentucky, to house its natural gas and  
23 electric construction and maintenance operations. This building was purchased by

1 Duke Energy Kentucky in December 2018.

2 **Q. PLEASE DESCRIBE SCHEDULE B-2.6.**

3 A. Schedule B-2.6 shows the property held for future use included in rate base for the  
4 base period and forecast period. The Company has not included any property held  
5 for future use in rate base.

6 **Q. PLEASE DESCRIBE SCHEDULE B-2.7.**

7 A. Schedule B-2.7 contains data on utility property excluded from rate base for the base  
8 period and forecast period. There are no exclusions of utility property from rate base.

9 **Q. PLEASE DESCRIBE SCHEDULE B-3.**

10 A. Schedule B-3 shows the total plant investment and Reserve for Accumulated  
11 Depreciation and Amortization by FERC and Company Account grouping for the  
12 base period and the forecast period. The amounts for the forecast period, on pages 5  
13 through 8, are 13-month averages. The adjusted jurisdictional reserve in the last  
14 column is applicable to the jurisdictional plant shown on Schedule B-2, "Adjusted  
15 Jurisdiction" and "13-Month Average Adjusted Jurisdiction."

16 **Q. PLEASE DESCRIBE SCHEDULE B-3.1.**

17 A. Schedule B-3.1 shows adjustments to Accumulated Depreciation and Amortization  
18 for the base period and the forecast period. The adjustments shown on this schedule  
19 are the related accumulated depreciation balances for the adjustments to Plant in  
20 Service shown on Schedule B-2.2, which is described above.

21 **Q. PLEASE DESCRIBE SCHEDULE B-3.2.**

22 A. Schedule B-3.2 lists the 13-month average jurisdictional plant investment and  
23 reserve balance as of December 31, 2022, for each FERC and Company Account



1 within each major property grouping. It also shows the proposed depreciation and  
2 amortization accrual rate, calculated annual depreciation and amortization expense,  
3 percentage of net salvage value, average service life and curve form, as applicable  
4 for each account. The calculated annual depreciation and amortization was  
5 determined by multiplying the 13-month average adjusted jurisdictional plant  
6 investment for the forecast period by the proposed depreciation and amortization  
7 accrual rates.

8 With this filing, the Company proposes depreciation and amortization  
9 accrual rates prepared in 2018 by Mr. Spanos of Gannett Fleming, Inc. and approved  
10 by the Commission in Case No. 2018-00261. The Company is not proposing any  
11 changes in its depreciation rates, which went into effect in 2019. The account  
12 numbers referred to in the depreciation study were those in effect in 2018 for Duke  
13 Energy Kentucky. The Company proposes to continue using these existing  
14 depreciation and amortization accrual rates.

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

16 A. Schedule B-4 is a list of construction work in progress (CWIP) by major property  
17 grouping. Duke Energy Kentucky is not requesting to include its investment in  
18 CWIP in rate base.

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

2 A. Schedule D-2.23 reflects the adjustment to the forecasted period depreciation  
3 expense to reflect annualized depreciation expense as calculated on Schedule B-3.2.  
4 Schedule B-3.2 shows annual depreciation on 13-month average plant balance at  
5 December 31, 2022, using the current depreciation rates.

6 **Q. PLEASE DESCRIBE THE INFORMATION YOU SPONSOR IN**  
7 **SCHEDULE K.**

8 A. I sponsor the actual plant data submitted on page 1 of Schedule K. This information  
9 includes Plant in Service by major property grouping and Reserve for Accumulated  
10 Depreciation and Amortization by utility service for the 13-month average forecast  
11 period, for the base period and as of December 31 for each of the last ten years. Plant  
12 held for future use and construction work in progress have also been provided for the  
13 same periods. I also sponsor the composite depreciation rates shown on Schedule K.

**III. INFORMATION PROVIDED TO OTHER WITNESSES**

14 **Q. DID YOU SUPPLY ANY INFORMATION TO OTHER WITNESSES FOR**  
15 **THEIR USE IN THIS PROCEEDING?**

16 A. Yes, I provided Ms. Motsinger with the actual net book value for the existing  
17 natural gas and common plant for the period ending February 28, 2021, for her  
18 use in calculating the forecasted financial data for the periods ending August 31,  
19 2021 and December 31, 2022.

**IV. CONCLUSION**

1   **Q.   WERE SCHEDULES B-2, B-2.1, B-2.2, B-2.3, B-2.4, B-2.5, B-2.6, B-2.7, B-3,**  
2       **B-3.1, B-3.2, B-4, D-2.23, THE INFORMATION YOU PROVIDED ON**  
3       **SCHEDULE K, AND THE INFORMATION YOU PROVIDED TO MS.**  
4       **MOTSINGER, (EXCLUDING THE BUDGET AND FORECAST**  
5       **NUMBERS PREPARED BY MS. MOTSINGER AND THE PROPOSED**  
6       **DEPRECIATION AND AMORTIZATION ACCRUAL RATES AND**  
7       **SUPPORTING DEPRECIATION STUDY PREPARED BY MR. SPANOS)**  
8       **PREPARED BY YOU OR UNDER YOUR DIRECTION AND**  
9       **SUPERVISION?**

10   **A.   Yes.**

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

12   **A.   Yes.**

**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 Natural Gas Rates; 2) ) Case No. 2021-00190  
Approval of New Tariffs; and 3) All )  
Other Required Approvals, Waivers, and )  
Relief. )

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**DIRECT TESTIMONY OF**

**JEFFREY R. SETSER**

**ON BEHALF OF**

**DUKE ENERGY KENTUCKY, INC.**

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June 1, 2021



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ATTACHMENTS:

- Attachment JRS-1 Service Company Utility Service Agreement
- Attachment JRS-2 Operating Companies Service Agreement
- Attachment JRS-3 Second Amended Restated Operating Company/Non-Utility Company Service Agreement
- Attachment JRS-4 Asymmetrically Priced Operating Company/Non-Utility Companies Service Agreements
- Attachment JRS-5 Affiliate Asset Transfer Agreement

**I. INTRODUCTION AND PURPOSE**

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

2 A. My name is Jeffrey R. Setser and my business address is 550 South Tyron Street,  
3 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 Director of  
6 Allocations and Reporting. 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 graduated with a Bachelor of Science Degree in Industrial Engineering from  
12 North Carolina State University and a Master's Degree in Business  
13 Administration from Queens University in Charlotte. I am a Certified Public  
14 Accountant in North Carolina.

15 I joined the company in 1984 in the Nuclear Production Department's  
16 corporate office as an Assistant Engineer, primarily focusing on nuclear process  
17 improvement activities. In 1986, I moved to Catawba Nuclear Station where I was  
18 promoted to Associate Engineer and responsible for nuclear outage scheduling  
19 and training. In 1989, I was promoted to Nuclear Production Engineer responsible  
20 for the supervision and scheduling of all online plant activities, and the planning  
21 for Nuclear Station Modifications. In 1992, I joined the Catawba Nuclear Station  
22 Business group as a Strategic Business Consultant responsible for site financial



1 reporting, budgeting, performance measures, accounting support, economic  
2 analysis and business case justifications. In 1996, I assumed the role of Catawba  
3 Nuclear Station Manager of Financial Analysis supervising the development of  
4 business plans, budgets and measures and the reporting on site financial results. In  
5 2000, I moved back to the corporate offices as an Accounting Manager  
6 overseeing the utilities Accounting Controls and Application Support Department,  
7 which included the management of department level allocation processes. In  
8 2002, I joined the Corporate Controllers department as an Accounting Manager  
9 where I held numerous roles, including overseeing the accounting and reporting  
10 for stock based compensation, employee and executive benefits, managing the  
11 intercompany billing process and service level agreements for joint venture and  
12 foreign entities, accounting for Canadian entities related to corporate and captive  
13 insurance, reporting and analysis on the Duke Energy Other business segment,  
14 and supervising the allocation of benefits and corporate costs. In 2006, I assumed  
15 my current role as Director of Allocations and Reporting in the Corporate  
16 Controller's department.

17 **Q. PLEASE BRIEFLY DESCRIBE YOUR DUTIES AS DIRECTOR OF**  
18 **ALLOCATIONS AND REPORTING.**

19 A. I am responsible for various accounting activities, including the cost allocation  
20 processes for service company costs utilized for Duke Energy and its affiliates,  
21 including allocations to Duke Energy Kentucky.

1 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**  
2 **PUBLIC SERVICE COMMISSION?**

3 A. Yes.

4 **Q WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
5 **PROCEEDING?**

6 A. My testimony in this proceeding addresses the various cost assignment processes  
7 utilized by Duke Energy Kentucky and its affiliates, including its service  
8 company, DEBS, which as an ordinary course of business provide services among  
9 each other.

10 I discuss the primary service agreements used by Duke Energy Kentucky  
11 to enable the sharing of expertise and personnel between and among the Duke  
12 Energy family of companies and to assign costs for such services. These service  
13 agreements include the following: (1) the Service Company Utility Service  
14 Agreement (DEBS Service Agreement); (2) the Operating Companies Service  
15 Agreement (Operating Company Service Agreement); (3) the Operating  
16 Company/Non-Utility Companies Service Agreements (Cost-Based Non-Utility  
17 Service Agreement); (4) the Asymmetrically-Priced Duke Energy Kentucky, Inc.,  
18 Non-Utility Companies Service Agreement (Asymmetric Non-Utility  
19 Agreement); and (5) the Intercompany Asset Transfer Agreement (Asset Transfer  
20 Agreement). In my testimony, I briefly describe the history of these agreements as  
21 well as the Commission's approval thereof. I also describe the processes to be  
22 used to assign costs to the various parties under those agreements as well as the  
23 nature and types of cost assignment that Duke Energy Kentucky experiences as a



1 combination gas and electric utility and wholly owned subsidiary of Duke Energy  
2 Ohio, Inc., (Duke Energy Ohio). I sponsor certain information that I supplied to  
3 Duke Energy Kentucky witness, Abby L. Motsinger for her use in developing the  
4 forecasted financial data. Finally, I also sponsor the information contained in  
5 Filing Requirement (FR) 16(7)(u) and the Cost Allocation Manual in compliance  
6 with KRS 278.2205(6).

## **II. THE SERVICE AGREEMENTS**

### **A. OVERVIEW OF THE MAJOR SERVICE AGREEMENTS**

7 **Q. DO ALL CHARGES FOR DUKE ENERGY KENTUCKY ORIGINATE ON**  
8 **DUKE ENERGY KENTUCKY'S BOOKS?**

9 A. No. Charges can originate either on Duke Energy Kentucky's books for its own  
10 operations or can originate from its parent company, Duke Energy Ohio, and/or  
11 other affiliated companies pursuant to several Commission-approved affiliate  
12 service agreements. These services enable Duke Energy Kentucky to provide safe  
13 and reliable utility service to its Kentucky customers at a reasonable price.

14 **Q. PLEASE BRIEFLY DESCRIBE THE VARIOUS SERVICE**  
15 **AGREEMENTS THAT ENABLE DUKE ENERGY KENTUCKY TO**  
16 **PROVIDE SAFE, RELIABLE, AND REASONABLE SERVICE TO ITS**  
17 **KENTUCKY CUSTOMERS.**

18 A. Duke Energy Kentucky has several service agreements in place that allow the  
19 Company to provide services to, or receive services from the Duke Energy family  
20 of companies that are incidental or necessary to the provision of utility service.  
21 These agreements provide for the standard procedures and defined accounting

1 processes for cost assignment that allow these services to occur on an equitably-  
2 priced basis among all parties.

3 I have attached the five major service agreements to my testimony, all of  
4 which were effective when the Company commenced these proceedings and  
5 submitted its pre-filing notice. Attachment JRS-1 is the DEBS Service Agreement  
6 that governs the provision of various services and the associated cost allocations  
7 to Duke Energy Kentucky for the services DEBS provides. DEBS is a Federal  
8 Energy Regulatory Commission (FERC) authorized service company that  
9 provides various administrative and other services to Duke Energy Kentucky and  
10 other affiliated companies of Duke Energy.

11 Attachment JRS-2 is the Operating Company Service Agreement that  
12 governs services performed between or among Duke Energy's regulated utility  
13 operating companies and the cost allocations or assignments for providing and  
14 receiving those services.

15 Attachment JRS-3 and JRS-4 are the two Utility/Non-Utility Companies  
16 Service Agreements, which govern the services performed and cost allocations  
17 between Duke Energy Kentucky and its non-utility affiliates.

18 Finally, Attachment JRS-5 is the Asset Transfer Agreement that allows for  
19 the "at cost" transfer of assets by and between Duke Energy Kentucky and its  
20 regulated utility affiliates.



1 **Q. HAS DUKE ENERGY KENTUCKY HISTORICALLY RELIED UPON**  
2 **SERVICE AGREEMENTS TO SERVE ITS KENTUCKY CUSTOMERS?**

3 A. Yes. These service agreements allow Duke Energy Kentucky, and in turn, its  
4 customers to have access to equipment and personnel that are common to utility  
5 operations and share in those costs between multiple businesses as opposed to  
6 having to maintain separate pools of personnel. The use of service agreements has  
7 helped Duke Energy Kentucky, and its regulated utility affiliates, to manage  
8 staffing levels and costs through the sharing of common business functions and to  
9 have ready access to experienced and expertly trained personnel to manage its  
10 business and various utility functions. Absent the ability to share these resources,  
11 Duke Energy Kentucky would have to maintain its own independent  
12 organizations and systems, as well as cost responsibility, for various operations  
13 including, but not limited to engineering, construction, operations and  
14 maintenance, installation services, equipment testing, generation technical  
15 support, environmental health and safety and procurement services, not to  
16 mention, accounting, human resources, legal, and other necessary business  
17 functions.

18 **Q. WHY IS THAT?**

19 A. Duke Energy Kentucky itself is relatively small in size. It has approximately  
20 145,958 electric and approximately 102,422 natural gas customers. Because of its  
21 size, the relationship between Duke Energy Kentucky and its parent, Duke Energy  
22 Ohio, as well as its affiliated regulated and service companies have been  
23 instrumental in allowing Duke Energy Kentucky to provide service to its

1 Kentucky customers at a reasonable price. The Company has benefitted from the  
2 economies of scale that occur with being part of a larger corporate family that are  
3 not present as a stand-alone entity. By sharing resources and personnel, Duke  
4 Energy Kentucky is able to function as a lean utility without having to invest in its  
5 own full-time corporate personnel and resources that are otherwise able to be  
6 shared among a family of companies.

7 Throughout its history, Duke Energy Kentucky has benefitted from the  
8 relationships with the families of companies of which it has been a member. Since  
9 1945, Duke Energy Kentucky (f/k/a The Union Light Heat & Power Company)  
10 has been a wholly owned subsidiary of Duke Energy Ohio (f/k/a/ The Cincinnati  
11 Gas & Electric Company [CG&E]). The respective service territories of the two  
12 utilities are contiguous and interconnected. The two companies have operated in  
13 symmetry in terms of personnel and facilities and have shared in costs, equipment  
14 and personnel, for more than seventy years.

15 With the creation of Cinergy Corp (Cinergy) in the mid 1990's, by way of  
16 the merger of the CG&E with Public Service Indiana, to the merger between  
17 Cinergy and Duke Power in 2006, followed by the merger of Duke Energy and  
18 Progress Energy (Progress) in 2012, to the most recent merger between Duke  
19 Energy and Piedmont Natural Gas Company (Piedmont), Duke Energy Kentucky  
20 has benefitted from the pool of expert personnel resources and access to  
21 equipment and expertise from its sister companies. Duke Energy Kentucky has  
22 been able to share in common business functions rather than maintain its own  
23 dedicated and thus duplicative functions. These shared functions include but are



1 not limited to, executive and management personnel, human resources,  
2 accounting, tax, legal services, and engineering. Through the Utility Service  
3 Agreement, Duke Energy Kentucky has also been able to take advantage of the  
4 key personnel employed by its sister utilities, allowing the Company to take  
5 advantage of the economies of scale and best practices that exist with an  
6 organization the size of Duke Energy through shared expertise and resources.

7 **Q. HAVE THERE BEEN ANY CHANGES TO THESE AGREEMENTS**  
8 **SINCE THE TIME OF THE COMPANY'S LAST NATURAL GAS RATE**  
9 **CASE IN 2018 OR ITS MOST RECENT ELECTRIC RATE CASE IN**  
10 **2019?**

11 A. There are regular and normal updates that occur to these agreements to reflect  
12 changes in the Duke Energy corporate structure. Companies are routinely  
13 dissolved and are eliminated from some of the agreements. Duke Energy  
14 Kentucky routinely files updates to these agreements when there are material  
15 changes and also as part of its annual reporting. These agreements are included in  
16 the Appendix to the Company's Cost Allocation Manual that is routinely  
17 submitted to the Commission annually in March and included in the Application  
18 filed in this proceeding.

19 Since the time of the Company's last natural gas base rate case in 2018,  
20 there have been no significant changes to these agreements. In recent years, the  
21 only changes have been through additions and deletions to the service agreement  
22 participants, and as a result, allocations (direct and indirect) between and among  
23 the parties have also changed over the years. There have not been any substantial

1 changes to these agreements since the Company's recently concluded electric  
2 base rate case, 2019-00271.

3 **Q. PLEASE BRIEFLY DESCRIBE THE DEBS AGREEMENT.**

4 A. This agreement permits DEBS to provide services that are corporate or general  
5 utility in nature and are used by various business units, including Duke Energy  
6 Kentucky. In general, the services provided by the service companies include, but  
7 are not limited to the following:

- Information Systems;
- Meters; Transportation;
- System Maintenance;
- Marketing and Customer Relations;
- Transmission and Distribution Engineering and Construction;
- Power and Gas Engineering and Construction;
- Human Resources;
- Supply Chain;
- Facilities;
- Accounting;
- Power and Gas Planning and Operations;
- Public Affairs;
- Legal;
- Rates;
- Finance;
- Rights of Way;
- Internal Auditing;
- Environmental, Health and Safety;
- Fuels;
- Investor Relations;
- Planning; and
- Executive.

8 By the terms of the DEBS Service Agreement, compensation for any service  
9 rendered by DEBS to its utility affiliates is the fully embedded cost thereof (*i.e.*,  
10 the sum of: (i) direct costs; (ii) indirect costs; and (iii) costs of capital), except to  
11 the extent otherwise required by Section 482 of the Internal Revenue Code. Each  
12 client company is required to reasonably cooperate with each respective service  
13 provider to record billings and payments in their common accounting systems.  
14 The affiliate companies receiving services from DEBS are referred to as "Client  
15 Companies".



1 **Q. PLEASE BRIEFLY DESCRIBE THE OPERATING COMPANY SERVICE**  
2 **AGREEMENT AND ITS HISTORY.**

3 A. Like the DEBS Service Agreement, the Operating Company Service Agreement  
4 has been in place in some form for decades. Under this agreement, Duke Energy  
5 Kentucky and its utility affiliates, Duke Energy Carolinas LLC., (Duke Energy  
6 Carolinas), Duke Energy Ohio, Duke Energy Indiana, LLC., (Duke Energy  
7 Indiana), Duke Energy Progress, LLC., Duke Energy Florida, LLC., and  
8 Piedmont, are permitted to provide and receive services to and from each other in  
9 the normal course of conducting business at the providing company's fully  
10 embedded cost. This agreement was most recently approved by the Commission  
11 on June 1, 2017, in Case No 2016-00312 reflecting the addition of Piedmont.  
12 Prior to that, the agreement was reviewed and approved by the Commission on  
13 August 2, 2011, in Case No 2011-00124, as part of the merger of Duke Energy  
14 Corporation and Progress. A copy of this agreement included as Attachment JRS-  
15 2. The services which may be provided between affiliate operating companies  
16 may include, but are not limited to the following:

- Engineering and Construction;
- Operations and Maintenance;
- Installation Services;
- Equipment Testing;
- Generation Technical Support;
- Environmental, Health and Safety;
- Customer Operations; and
- Procurement Services.

17 By the terms of the Operating Company Service Agreement,  
18 compensation for any service rendered between utility affiliates is the fully  
19 embedded cost thereof (*i.e.*, the sum of: (i) direct costs; (ii) indirect costs; and (iii)  
20 costs of capital), except to the extent otherwise required by Section 482 of the  
21 Internal Revenue Code. Each client company is required to reasonably cooperate

1 with each respective service provider to record billings and payments in their  
2 common accounting systems.

3 **Q. PLEASE DESCRIBE THE TWO NON-UTILITY SERVICE**  
4 **AGREEMENTS.**

5 A. Duke Energy Kentucky is a party to two service agreements that identify services  
6 and cost allocations between the Company and its non-utility affiliates. The  
7 distinction between these two agreements is due to timing in relation to FERC  
8 Orders and the types of pricing for the provision of services allowed therein.

9 Under the Cost-Based Non-Utility Service Agreement, Duke Energy  
10 Kentucky and certain of its non-utility affiliates are authorized to provide certain  
11 services to one another, priced at the providing company's fully embedded cost. A  
12 copy of this agreement is included in Attachment JRS-3. This agreement was last  
13 approved by the Commission on November 27, 2005, in Case No 2005-00228, as  
14 part of the merger of Duke Energy Corporation and Cinergy Corp. The permitted  
15 services provided by Duke Energy Kentucky to certain of its non-utility affiliates  
16 may include, but are not limited to the following:

- Engineering and Construction;
- Operations and Maintenance;
- Installation Services;
- Equipment testing;
- Generation Technical Support;
- Environmental, Health and Safety; and
- Procurement Services.



1 The types of services that may be provided by certain non-utility affiliates to  
2 Duke Energy Kentucky, include, but are not limited to, the following:

- Information Technology Services;
- Monitoring;
- Surveying;
- Inspecting;
- Constructing;
- Locating and Marking of Overhead and Underground Utility Facilities;
- Meter Reading;
- Materials Management;
- Vegetation Management;  
and
- Marketing and Customer Relations.

3 By the terms of the Cost-Based Non-Utility Agreement, requests for services will  
4 be made in writing, in substantially the same form as set forth in “Exhibit A” of  
5 the Agreement. Compensation for any service rendered between Duke Energy  
6 Kentucky and its non-utility affiliates are the fully embedded cost thereof (*i.e.*, the  
7 sum of: (i) direct costs; (ii) indirect costs; and (iii) costs of capital), except to the  
8 extent otherwise required by Section 482 of the Internal Revenue Code. The non-  
9 utility affiliates that are parties to this agreement are limited to those that existed  
10 prior to FERC’s February 2008 Order 707 (Order 707) that expanded FERC’s  
11 asymmetrical pricing rules to include transfers of non-power goods and services  
12 between a franchised utility and its non-utility affiliates.

13 Non-utility companies that became affiliates of Duke Energy Kentucky  
14 after Order 707 are subject to a different service agreement, the Asymmetric Non-  
15 Utility Service Agreement, included as Attachment JRS-4. The Asymmetric Non-  
16 Utility Service Agreement was created in response to Order 707. The non-utility  
17 affiliates who are parties to this agreement are subject to the asymmetric pricing  
18 requirements of FERC, which is also consistent with Kentucky’s own default  
19 affiliate pricing requirements. Duke Energy Kentucky provides (non-tariffed)

1 goods or services to a Party to this agreement at the greater of cost or market, but  
2 pays the lesser of cost or market for any goods or services received under this  
3 agreement.

4 **Q. CAN YOU PLEASE EXPLAIN WHAT CHANGED WITH THE FERC 707**  
5 **ORDER?**

6 A. It is my understanding that prior to Order 707, FERC's asymmetrical pricing rules  
7 only applied to transfers of non-power goods and services between franchised  
8 utilities and nonregulated utility affiliates. However, following the Order 707  
9 ruling, FERC's asymmetric pricing requirements were extended to all transactions  
10 between utilities and their non-utility affiliates. This asymmetric pricing  
11 requirement excluded services provided by service companies or services between  
12 and among regulated utility affiliates. The Order 707 ruling also provided a  
13 grandfathering exception to the asymmetric pricing for pre-existing service  
14 agreements between regulated utilities and their non-regulated non-utility  
15 affiliates, as well as, state affiliate pricing rules that are stricter than FERC's  
16 pricing restrictions.

17 In short, the Asymmetric Non-Utility Agreement was entered into in  
18 response to FERC Order 707 and includes new affiliates that were created after  
19 the effective date of Order 707 and that are not grandfathered as parties under the  
20 Cost-Based Non-Utility Service Agreement. The Cost-Based Non-Utility  
21 Agreement remains unchanged since the issuance of Order 707, except to reflect  
22 the dissolution of non-utility companies that were at one time a party. No new



1 companies have been added to that Cost-Based Non-Utility Agreement since the  
2 Order 707.

3 **Q. PLEASE EXPLAIN HOW SERVICES BETWEEN DUKE ENERGY**  
4 **KENTUCKY AND ITS AFFILIATES THAT ARE NOT COVERED BY**  
5 **THE AFOREMENTIONED SERVICE AGREEMENTS ARE PRICED?**

6 A. Non-covered services, as well as non-utility affiliates that are not a party to the  
7 Cost-based Non-Utility Service Agreement, must follow Kentucky's stricter  
8 asymmetric pricing for any transaction with Duke Energy Kentucky unless  
9 Commission approval and a waiver is first obtained.

10 **Q. PLEASE EXPLAIN AND DESCRIBE THE ASSET TRANSFER**  
11 **AGREEMENT.**

12 A. This agreement permits the transfer of assets between and among Duke Energy  
13 Kentucky and its regulated utility affiliates, excluding commodities, at the  
14 transferring company's fully-allocated cost, subject to certain limitations. This  
15 agreement was most recently approved by the Commission on June 1, 2017, in  
16 Case No. 2016-00312, to reflect the addition of Piedmont. Prior to that, the  
17 Commission approved the agreement on August 2, 2011, in Case No. 2011-  
18 00124, as part of the merger of Duke Energy Progress Energy. A copy of this  
19 agreement is included as Attachment JRS-5.

1 **Q. ARE THERE ANY LIMITATIONS APPLICABLE TO TRANSACTIONS**  
2 **INVOLVING DUKE ENERGY KENTUCKY UNDER THE ASSET**  
3 **TRANSFER AGREEMENT?**

4 A. The Commission approved this agreement under several conditions, including  
5 that:

- 6 • Duke Energy Kentucky agrees that it would continue to seek  
7 Commission approval under KRS 278.218 over all transactions  
8 involving Duke Energy Kentucky assets that have an original book  
9 value of over \$1,000,000 and that are to be transferred for reasons  
10 other than obsolescence or if the parts are to be used to continue to  
11 provide service to the utility customers;
- 12 • Duke Energy Kentucky agree to abide by the KRS 278.218 approval  
13 threshold for transfers involving its natural gas assets; and
- 14 • Duke Energy Kentucky maintains a list of all transactions under the  
15 Intercompany Asset Transfer Agreement in its Cost Allocation Manual  
16 (CAM).

17 **Q. DOES DUKE ENERGY KENTUCKY MAINTAIN THE LIST OF**  
18 **TRANSACTIONS IN ITS CAM?**

19 A. Yes. The Company submits those transactions to the Commission annually each  
20 March as part of an annual CAM update.

### **III. COST ALLOCATIONS**

#### **A. OVERVIEW OF COST ALLOCATIONS**

1 **Q. PLEASE DESCRIBE WHAT IS MEANT BY THE TERM “COST”.**

2 A. “Cost”, as used in the Utility Service Agreement and Non-Utility Service  
3 Agreement, means fully embedded cost, which is the sum of: (1) direct costs; (2)  
4 indirect costs; and (3) cost of capital. Direct costs include labor, material and  
5 other expenses incurred specifically for a particular service and any associated  
6 loadings. Indirect costs include labor, material and other expenses, and any  
7 associated loadings that cannot be directly identified with any particular service.  
8 Indirect costs include, but are not limited to, overhead costs, administrative  
9 support costs, and taxes. Cost of capital represents financing costs, including, but  
10 not limited to, interest on debt and a fair return on equity to shareholders.

11 **Q. PLEASE DESCRIBE THE COST ALLOCATIONS THAT AFFECT DUKE**  
12 **ENERGY KENTUCKY AND ITS AFFILIATES?**

13 A. In general, there are four primary categories of cost allocations that affect Duke  
14 Energy Kentucky and its affiliates: (1) cost allocations from DEBS; (2) cost  
15 allocations between Duke Energy Kentucky and Duke Energy Ohio for common  
16 costs shared by Duke Energy Ohio and Duke Energy Kentucky; (3) cost  
17 allocations for goods and services provided between and among Duke Energy  
18 Kentucky and its sister regulated utilities; and (4) administrative and general  
19 (A&G) cost allocations between its natural gas and electric operations for both  
20 capital and expense accounts.



1 Duke Energy Kentucky also provides various services and goods to and  
2 receives various services and goods from its regulated and non-regulated affiliates  
3 as set forth in various service agreements I previously described.

4 **Q. WHAT ARE “LOADINGS”?**

5 A. “Loadings” represent costs that are incurred and aggregated in “cost pools”,  
6 which are then subsequently “loaded” out to specific entities and projects by  
7 attaching an additional charge (loading rate) to the associated direct cost. Duke  
8 Energy’s loadings include fringe benefits (*e.g.*, medical, dental, pension,  
9 postretirement), indirect labor (*e.g.*, vacation, holiday, sick-time), stores, freight  
10 and handling (*e.g.*, material management labor, freight), transportation (*e.g.*,  
11 vehicle leases, fuel, oil), and payroll taxes (*e.g.*, Federal Insurance Contributions  
12 Act (FICA) taxes, and state and federal unemployment taxes). Loading rates are  
13 determined through annual studies of both actual and budgeted information and  
14 are calculated by dividing the anticipated component costs by anticipated labor  
15 cost, material issues, or vehicle utilization, as applicable.

**B. COST ALLOCATIONS UNDER THE SERVICE AGREEMENTS**

16 **Q. PLEASE DESCRIBE HOW COSTS INCURRED BY DEBS ARE**  
17 **ACCOUNTED FOR UNDER THE SERVICE AGREEMENTS.**

18 A. DEBS maintains an accounting system in which all of its costs are accumulated.  
19 These costs are charged to the appropriate Client companies monthly, using one  
20 of the three approved methods of assignment.

1 **Q. WHAT ARE THE APPROVED METHODS OF ASSIGNMENT?**

2 A. The approved methods of assignment are: (1) directly assignable; (2)  
3 distributable; and (3) allocable.

4 **Q. PLEASE DESCRIBE EACH METHOD OF ASSIGNMENT.**

5 A. The directly assignable basis of cost assignment is utilized to directly charge costs  
6 for services specifically performed for a single Client company. The distributable  
7 cost assignment method is used to assign costs for services rendered specifically  
8 for two or more Client companies. The allocable method of assignment is used to  
9 allocate costs for services of a general nature, which are applicable to all Client  
10 companies or to a class or classes of Client companies.

11 **Q. WHAT TYPES OF EXPENDITURES ARE DIRECTLY ASSIGNED FROM**  
12 **DEBS TO DUKE ENERGY KENTUCKY?**

13 A. DEBS employees who work on a project specifically for Duke Energy Kentucky  
14 charge their labor and expenses directly to Duke Energy Kentucky. For example,  
15 the legal services function will charge Duke Energy Kentucky directly for work  
16 performed specifically for Duke Energy Kentucky. This is determined by the  
17 number of hours spent on jurisdictional activities.

18 **Q. PLEASE EXPLAIN THE ALLOCABLE CHARGES FROM DEBS TO**  
19 **DUKE ENERGY KENTUCKY.**

20 A. Allocable charges to Duke Energy Kentucky are for a portion of expenditures  
21 originating on DEBS' books that are applicable to Duke Energy Kentucky and  
22 one or more other Client Companies, but which are not directly assignable to  
23 Duke Energy Kentucky. These charges are allocated to Duke Energy Kentucky



1 based on allocation ratios set forth in Appendix A of the DEBS Service  
2 Agreement. For example, costs related to Investor Relations activities are  
3 applicable to all Duke Energy affiliates but cannot be directly charged to any one  
4 affiliate. Those costs are allocated to all affiliates using the allocation factor  
5 described for the Investor Relations Function in Appendix A of the DEBS Service  
6 Agreement.

7 **Q. WHAT ARE THE ALLOCATION METHODS SPECIFIED IN APPENDIX**  
8 **A OF THE DEBS SERVICE AGREEMENT?**

9 A. Twenty (20) allocation ratios are specified in the Utility Service Agreement.  
10 These ratios are the: (1) Sales Ratio; (2) Electric Peak Load Ratio; (3) Number of  
11 Customers Ratio; (4) Number of Employees Ratio; (5) Construction-Expenditures  
12 Ratio; (6) Miles of Electric Distribution Lines Ratio; (7) Circuit Miles of Electric  
13 Transmission Lines Ratio; (8) Millions of Instructions Per Second Ratio; (9)  
14 Revenues Ratio; (10) Inventory Ratio; (11) Procurement Spending Ratio; (12)  
15 Square Footage Ratio; (13) Gross Margin Ratio; (14) Labor Dollars Ratio; (15)  
16 Number of Personal Computer Work Stations Ratio; (16) Number of Information  
17 Systems Servers Ratio; (17) Total Property, Plant and Equipment Ratio; (18)  
18 Generating Unit MW Capability Ratio; (19) Number of Meters Ratio; and (20)  
19 O&M Expenditures Ratio.

20 **Q. WHAT WAS THE RATIONALE BEHIND THE SELECTION OF THESE**  
21 **RATIOS?**

22 A. Consistent with traditional cost causation principles, the ratios represent “cost  
23 drivers” for a particular function (*i.e.*, those factors which are the greatest



1 contributors to costs). For example, costs related to human resources are allocated  
2 based on the Number of Employees Ratio. Costs related to support of personal  
3 computers are allocated based on the Number of Personal Computer Workstations  
4 Ratio. Costs related to meter reading and to customer billing and payment  
5 processing in the Marketing and Customer Relations Function are allocated based  
6 on the Number of Customers Ratio. For some Functions, costs of a general nature  
7 are allocated based on a weighted-average of more than one ratio. The DEBS  
8 Service Agreement describes how the weighted-average ratios are calculated.

9 **Q. UNDER WHAT CIRCUMSTANCES ARE THE ALLOCATION RATIOS**  
10 **SET FORTH IN APPENDIX A OF THE DEBS SERVICE AGREEMENT**  
11 **USED TO DETERMINE CHARGES TO DUKE ENERGY KENTUCKY?**

12 A. The allocation ratios provided in Appendix A of the DEBS Service Agreement are  
13 used to assign charges to Client Companies, including Duke Energy Kentucky,  
14 for activities that cannot be charged directly. For example, costs associated with  
15 the human resources function are allocated to the Client Companies, including  
16 Duke Energy Kentucky, using the Number of Employees Ratio as provided in the  
17 DEBS Service Agreement.

18 **Q. WHAT PROCESSES DO DEBS' EMPLOYEES FOLLOW IN**  
19 **ALLOCATING THEIR TIME AND EXPENSES?**

20 A. All source documents (*e.g.*, time records, expense accounts, and journal entries)  
21 applicable to DEBS require a special input code, "Operating Unit" (OU), to be  
22 used. The initiating department determines the appropriate OU for each  
23 transaction. The specific OU indicates whether the cost should be assigned

1 directly, distributed, or allocated, and it also determines the appropriate  
2 percentage allocation to be used. Using the OU, the accounting system will  
3 process each transaction and assign the appropriate costs to each respective Client  
4 Company. For the allocable OUs, the percentage allocated to each Client  
5 Company is determined periodically, at a minimum on an annual basis, by way of  
6 a cost study.

7 **Q. PLEASE DESCRIBE FURTHER THE COST STUDY USED TO**  
8 **DETERMINE THE OU ALLOCATION PERCENTAGES.**

9 A. On a periodic basis, but no less than annually, DEBS conducts a cost study,  
10 applying the applicable data to the allocation ratios described in Appendix A to  
11 the DEBS Service Agreement. From these cost studies, DEBS updates the  
12 allocation percentages of each allocable OU to reflect the current underlying  
13 foundation of the allocation ratios. For example, annually, the OU based on the  
14 number of employees, which is primarily utilized by the human resources  
15 function within DEBS, is updated to reflect the number of employees of each of  
16 DEBS' affiliate companies.

17 **Q. WERE ANY AUDITS CONDUCTED OF DEBS?**

18 A. Yes. Duke Energy has conducted an internal audit of DEBS' cost allocations on a  
19 regular basis. In addition, Duke Energy Kentucky agreed to a series of bi-annual  
20 audits of its affiliate transactions as part of various merger commitments. The  
21 final and most recently completed audit was submitted to the Commission on June  
22 20, 2017. To date, these audit reports support that Duke Energy has adequate



1 processes in place for allocating costs and have not found any material or  
2 significant deficiencies.

C. **COST ALLOCATIONS FOR COMMON COSTS SHARED BY DUKE  
ENERGY KENTUCKY AND DUKE ENERGY OHIO**

3 **Q. PLEASE EXPLAIN THE DIRECT CHARGES FROM DUKE ENERGY**  
4 **OHIO TO DUKE ENERGY KENTUCKY?**

5 A. Direct charges from Duke Energy Ohio to Duke Energy Kentucky are for costs  
6 such as employee labor, employee expenses, and inventory (material) transactions  
7 which are specifically incurred for Duke Energy Kentucky's gas and/or electric  
8 operations.

9 **Q. WHAT TYPES OF CHARGES ARE ALLOCATED TO DUKE ENERGY**  
10 **KENTUCKY FROM DUKE ENERGY OHIO?**

11 A. Charges allocated to Duke Energy Kentucky from Duke Energy Ohio represent a  
12 portion of costs originating on Duke Energy Ohio's books that apply to gas and/or  
13 electric activities which cannot be charged directly and which apply to both Duke  
14 Energy Kentucky and Duke Energy Ohio.

15 **Q. WHAT TYPES OF EXPENDITURES ARE CHARGED DIRECTLY**  
16 **VERSUS ALLOCATED TO DUKE ENERGY KENTUCKY?**

17 A. The majority of common costs for Duke Energy Kentucky and Duke Energy Ohio  
18 are direct charged to the appropriate affiliate. Expenditures incurred directly for a  
19 specific project can be charged directly to Duke Energy Kentucky. A small  
20 portion of common costs may be allocated to Duke Energy Kentucky from Duke  
21 Energy Ohio. These costs include certain metering and customer related costs.

**D. COST ALLOCATIONS FOR COMMON COSTS  
SHARED BY DUKE ENERGY KENTUCKY  
AND DUKE ENERGY'S CAROLINA UTILITIES**

1 **Q. PLEASE EXPLAIN THE AFFILIATE CHARGES FROM DUKE ENERGY**  
2 **CAROLINAS AND DUKE ENERGY PROGRESS TO DUKE ENERGY**  
3 **KENTUCKY?**

4 A. As part of the Duke Energy Progress Energy merger certain employees who were  
5 engaged in core utility functions that primarily supported the Carolina utilities  
6 were transferred in 2013 from DEBS into one of the Carolina utilities. While  
7 these employees primarily support the Carolinas, they also provide support to  
8 other jurisdictions including Duke Energy Kentucky. As a result of the transfer of  
9 employees there was an increase in charges from the Carolinas that was  
10 previously incurred from DEBS.

11 **Q. WHAT TYPES OF CHARGES ARE ALLOCATED TO DUKE ENERGY**  
12 **KENTUCKY FROM DUKE ENERGY'S CAROLINA UTILITIES?**

13 A. Charges allocated to Duke Energy Kentucky from Duke Energy's Carolina  
14 utilities represent a portion of costs originating on the Carolina Utilities books that  
15 apply to electric and/or gas activities which cannot be charged directly and apply  
16 to multiple Duke Energy jurisdictions including Duke Energy Kentucky.

17 **Q. WHAT TYPES OF EXPENDITURES ARE CHARGED DIRECTLY**  
18 **VERSUS ALLOCATED TO DUKE ENERGY KENTUCKY?**

19 A. The majority of common costs for Duke Energy Kentucky and Duke Energy's  
20 Carolina utilities are direct charged to the appropriate affiliate. Expenditures  
21 incurred directly for a specific project can be charged directly to Duke Energy



1 Kentucky. A small portion of common costs are allocated to Duke Energy's  
2 utilities from the Carolina's including Duke Energy Kentucky. These costs are  
3 primarily customer operations related, but also include smaller amounts for  
4 engineering, construction, operation, maintenance and fuel purchasing related  
5 costs.

E. **A&G COST ALLOCATIONS BETWEEN DUKE ENERGY KENTUCKY'S  
NATURAL GAS AND ELECTRIC OPERATIONS**

6 **Q. WHAT TYPES OF EXPENDITURES ARE CHARGED DIRECTLY**  
7 **VERSUS ALLOCATED TO DUKE ENERGY KENTUCKY NATURAL**  
8 **GAS OR ELECTRIC OPERATIONS?**

9 A. Most expenditures incurred directly for a specific project can be charged directly  
10 to a gas or an electric account. Certain administrative costs for general support  
11 functions, such as Accounts Payable and Accounting, are common to both gas and  
12 electric operations, and must be allocated. In addition, a portion of those costs is  
13 also capitalized.

14 **Q. HOW HAVE THE ALLOCATION BASES FOR A&G EXPENDITURES**  
15 **BEEN DETERMINED?**

16 A. To the extent that costs cannot be directly charged to gas and/or electric expense,  
17 they are allocated using a subset of the bases specified in the Operating Company  
18 Service Agreement. Annually, a cost study is conducted, applying the applicable  
19 data to this subset of allocation. From these cost studies, the allocation  
20 percentages of each allocable OU is updated to reflect the current underlying  
21 foundation of the allocation ratios. For example, annually, the OU based on the  
22 labor dollars ratio, which is primarily utilized for employee related costs, is

1 updated to reflect the labor dollars in both the gas and electric functions of Duke  
2 Energy Kentucky.

3 **Q. HOW IS THIS INFORMATION USED TO DETERMINE ASSIGNMENT**  
4 **OF COMMON A&G COSTS?**

5 A. The cost allocation process for common A&G expenditures allocates costs based  
6 on statistical data that best relates to the specific activity to be allocated. For  
7 example employee related costs to be allocated are distributed based on the labor  
8 dollars ratio.

9 **Q. WERE THE CURRENT ALLOCATION PROCESSES YOU DESCRIBED**  
10 **REFLECTED IN THE FORECASTED TEST PERIOD OF THIS CASE?**

11 A. Yes.

12 **Q. DO YOU ANTICIPATE THE COST ALLOCATION PROCESSES TO**  
13 **HAVE A MATERIAL IMPACT TO THE AMOUNT OF EXPENDITURES**  
14 **ALLOCATED TO DUKE ENERGY KENTUCKY'S NATURAL GAS**  
15 **OPERATIONS ON AN ONGOING BASIS?**

16 A. No. Many of the allocation factors are the same as the previous allocation factors.  
17 All of the allocation factors have been developed with the intent of assigning  
18 costs consistent with cost causation. Given that objective, I do not anticipate a  
19 material impact to the amount of expenditures allocated to Duke Energy  
20 Kentucky's natural gas operations.



**IV. SCHEDULES AND FILING REQUIREMENTS**  
**SPONSORED BY WITNESS**

1 **Q. PLEASE BRIEFLY DESCRIBE THE CAM.**

2 A. Duke Energy Kentucky maintains its CAM in accordance with KRS 278.2205.  
3 The CAM documents the guidelines and procedures for allocating costs between  
4 Duke Energy Kentucky and its utility and non-utility affiliates.

5 **Q. PLEASE DESCRIBE FR 16(7)(u).**

6 A. FR 16(7)(u) contains the affiliate allocations during the base year, forecasted test  
7 year and previous three calendar years.

8 **Q. PLEASE DESCRIBE FR 16(7)(u), PAGES 1 AND 2 OF 5.**

9 A. FR 16(7)(u), pages 1 and 2 of 5, outline the service functions and methods used  
10 during the test year according to the Operating Company Service and Cost-based  
11 Non-Utility Service Agreements to allocate costs that could not be charged  
12 directly by DEBS to the regulated and non-regulated Duke Energy affiliates,  
13 including Duke Energy Kentucky. FR 16(7)(u), page 2(a) of 5, summarizes the  
14 total amount of expenditures charged from DEBS to Duke Energy Kentucky for  
15 the three years ended December 31, 2018, 2019, and 2020, and for the base period  
16 and the forecasted test period which include the twelve-month periods ending  
17 August 30, 2021, and December 31, 2022, respectively.

18 **Q. ARE THE ALLOCATION METHODS LISTED IN FR 16(7)(u), PAGE 2**  
19 **OF 5 THE SAME COST ALLOCATION METHODS CONTAINED IN**  
20 **THE UTILITY SERVICE AGREEMENT APPROVED FOR USE IN 2010?**

21 A. The allocation methods listed in FR 16(7)(u), page 2 of 5, are the 20 allocation  
22 methods contained in the current Utility Service Agreement.

1 **Q. PLEASE BRIEFLY DESCRIBE FR 16(7)(u), PAGES 2(a) OF 5.**

2 A. FR 16(7)(u), page 2(a) of 5, provides the bases used to allocate common charges  
3 between DEBS and Duke Energy Kentucky. FR 16(7)(u), page 2(a) identifies 12  
4 allocation methods used during the test period to allocate to Duke Energy  
5 Kentucky Gas which are either specifically identified or a combination of the  
6 allocation methods identified on FR 16(7)(u) 2 of 5. FR 16(7)(u), page 2(a) of 5,  
7 provides the amount of these costs allocated to Duke Energy Kentucky Gas for  
8 the three years ended December 31, 2018, 2019 and 2020, for the base period, and  
9 for the forecasted test period ending August 30, 2021, and December 31, 2022,  
10 respectively.

11 **Q. PLEASE BRIEFLY DESCRIBE FR 16(7)(u), PAGES 3 AND 3(a) OF 5.**

12 A. FR 16(7)(u), page 3 of 5, describes the process for assigning costs between Duke  
13 Energy Ohio and Duke Energy Kentucky which originate on Duke Energy Ohio's  
14 books and are directly assigned or allocated to Duke Energy Kentucky. FR  
15 16(7)(u), page 3(a) of 5, provides the bases used to allocate charges and the  
16 amount of these costs allocated to Duke Energy Kentucky for the three years  
17 ended December 31, 2018, 2019 and 2020, for the base period, and for the  
18 forecasted test period ending August 30, 2021, and December 31, 2022,  
19 respectively.

20 **Q. PLEASE BRIEFLY DESCRIBE FR 16(7)(u), PAGES 4 AND 4(a) OF 5.**

21 A. FR 16(7)(u), page 4 of 5, describes the purpose and process for assigning costs  
22 between Duke Energy Carolina, Duke Energy Progress and Duke Energy  
23 Kentucky, which originate on Duke Energy's Carolina utilities books and are  
24 directly assigned or allocated to Duke Energy Kentucky. FR 16(7)(u), page 4(a)



1 of 5, provides the bases used to allocate charges and the amount of these costs  
2 allocated to Duke Energy Kentucky for the three years ended December 31, 2018,  
3 2019 and 2020, for the base period, and for the forecasted test period ending  
4 August 30, 2021, and December 31, 2022, respectively.

5 **Q. PLEASE BRIEFLY DESCRIBE FR 16(7)(u), PAGES 5 AND 5(a) OF 5.**

6 A. FR 16(7)(u), page 5 of 5, provides the bases used to allocate A&G charges  
7 between gas and electric operations for those items that cannot be directly  
8 charged. FR 16(7)(u), page 5(a) of 5, summarizes the total amount of A&G  
9 expenditures allocated between gas and electric A&G expense accounts for the  
10 three years ended December 31, 2018, 2019 and 2020, for the base period, and the  
11 forecasted test period ending August 30, 2021, and December 31, 2022,  
12 respectively.

13 **Q. ARE THE ALLOCATIONS INDICATED ON FR 16(7)(u), PAGE 5 OF 5**  
14 **USED TO DETERMINE ALL CHARGES THAT SHOULD BE**  
15 **RECORDED TO GAS AND ELECTRIC OPERATIONS FOR BOTH**  
16 **CAPITAL AND EXPENSE ACCOUNTS?**

17 A. No. Expenditures applicable to gas or electric operations are charged directly  
18 whenever possible. For example, employees performing work on a specific  
19 project will charge directly to the appropriate gas and/or electric expense or  
20 capital account.

1 **Q. IN YOUR OPINION, ARE THE ALLOCATION FACTORS AND COSTS**  
2 **ASSIGNED TO DUKE ENERGY KENTUCKY REASONABLE?**

3 A. Yes. These costs are reasonable. All costs are assigned and allocated in  
4 compliance with these agreements. The Duke Energy and the Company's  
5 accounting processes are audited and verified to ensure that costs are properly  
6 assigned and allocated. The amount of costs that are being allocated to Duke  
7 Energy Kentucky are consistent with what the Company would otherwise  
8 experience if it did not have the benefit of being a part of a larger family of  
9 utilities. In fact, based upon the Duke Energy market research for determining  
10 salaries for shared and utility employees, the costs of common business functions  
11 that are allocated to Duke Energy Kentucky and shared among all affiliated  
12 companies result in a lower overall cost to the individual companies than if they  
13 had to maintain separate and duplicative individual functions.

14 **Q. DID YOU PROVIDE ANY INFORMATION TO OTHER WITNESSES**  
15 **FOR THEIR USE IN THIS PROCEEDING?**

16 A. Yes, I supplied Ms. Motsinger with the allocation factors in effect for his use in  
17 developing the forecasted financial data.

V. CONCLUSION

1 Q. WERE ATTACHMENTS JRS-1, JRS-2, JRS-3, JRS-4, JRS-5, THE  
2 INFORMATION YOU PREPARED FOR MS. MOTSINGER, THE CAM,  
3 AND FR 16(7)(u) PREPARED BY YOU OR UNDER YOUR  
4 SUPERVISION?

5 A. Yes.

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

7 A. Yes.



**SERVICE COMPANY  
UTILITY SERVICE AGREEMENT**

This Service Company Utility Service Agreement (this "Agreement") is by and among Duke Energy Carolinas, LLC ("DEC"), a North Carolina limited liability company, Duke Energy Ohio, Inc., an Ohio corporation ("DEO"), Duke Energy Indiana, LLC an Indiana limited liability company ("DEI"), Duke Energy Kentucky, Inc., a Kentucky corporation ("DEK"), Duke Energy Progress, LLC, a North Carolina limited liability company ("DEP"), Piedmont Natural Gas Company, Inc., a North Carolina corporation ("Piedmont"), Duke Energy Florida, LLC ("DEF"), a Florida limited liability company, and Duke Energy Business Services LLC ("DEBS"), a Delaware limited liability company. DEBS is sometimes hereinafter referred to as a "Service Company." DEC, DEO, DEI, DEK, DEP, DEF, and Piedmont are sometimes hereinafter referred to individually as a "Client Company" and collectively as the "Client Companies". The Effective Date as stated herein is the date on which this Agreement is executed or, as may be required, submitted to the appropriate regulatory body for approval, whichever occurs last. This Agreement supersedes and replaces in its entirety all previous Service Company Utility Service Agreements dated before the Effective Date of this Agreement.

**WITNESSETH**

WHEREAS, each of the Client Companies and the Service Company are direct or indirect subsidiaries of Duke Energy Corporation;

WHEREAS, the Service Company and the Client Companies have entered into this Agreement whereby the Service Company agrees to provide and the Client Companies agree to accept and pay for various services as provided herein at cost, except to the extent otherwise required by Section 482 of the Internal Revenue Code; and

WHEREAS, economies and efficiencies benefiting the Client Companies will result from the performance by the Service Company of services as herein provided;

NOW, THEREFORE, in consideration of the premises and the mutual agreements herein contained, the parties to this Agreement covenant and agree as follows:

## ARTICLE I – SERVICES

Section 1.1 The Service Company shall furnish to the Client Companies, upon the terms and conditions hereinafter set forth, such of the services described in Appendix A hereto, at such times, for such periods and in such manner as the Client Companies may from time to time request and which the Service Company concludes it is equipped to perform. The Service Company shall also provide Client Companies with such special services, including without limitation cost management services, in addition to those services described in Appendix A hereto, as may be requested by a Client Company and which the Service Company concludes it is equipped to perform. In supplying such services, the Service Company may (i) arrange, where it deems appropriate, for the services of such experts, consultants, advisers and other persons with necessary qualifications as are required for or pertinent to the rendition of such services, and (ii) tender payments to third parties as agent for and on behalf of Client Companies, with such charges being passed through to the appropriate Client Companies.

Section 1.2 Each of the Client Companies shall take from the Service Company such of the services described in Section 1.1 and such additional general or special services, whether or not now contemplated, as are requested from time to time by the Client Companies and which the Service Company concludes it is equipped to perform.



Section 1.3 The services described herein shall be directly assigned, distributed or allocated by activity, process, project, responsibility center, work order or other appropriate basis. A Client Company shall have the right from time to time to amend, alter or rescind any activity, process, project, responsibility center or work order, provided that (i) any such amendment or alteration which results in a material change in the scope of the services to be performed or equipment to be provided is agreed to by the Service Company, (ii) the cost for the services covered by the activity, process, project, responsibility center or work order shall include any expense incurred by the Service Company as a direct result of such amendment, alteration or rescission of the activity, process, project, responsibility center or work order, and (iii) no amendment, alteration or rescission of an activity, process, project, responsibility center or work order shall release a Client Company from liability for all costs already incurred by or contracted for by the Service Company pursuant to the activity, process, project, responsibility center or work order, regardless of whether the services associated with such costs have been completed.

Section 1.4 The Service Company shall maintain a staff trained and experienced in the design, construction, operation, maintenance and management of public utility properties.

## **ARTICLE II - COMPENSATION**

Section 2.1 Except to the extent otherwise required by Section 482 of the Internal Revenue Code, as compensation for the services to be rendered hereunder, each of the Client Companies shall pay to the Service Company all costs which reasonably can be identified and related to particular services performed by the Service Company for or on its behalf. Where more than one Client Company is involved in or has received benefits from a service performed, costs will be directly assigned, distributed or allocated, as set forth in Appendix A hereto, between or among such companies on a basis reasonably related to the service performed to the extent reasonably practicable.

Section 2.2 The method of assignment, distribution or allocation of costs described in Appendix A shall be subject to review annually, or more frequently if appropriate. Such method of assignment, distribution or allocation of costs may be modified or changed by the Service Company without the necessity of an amendment to this Agreement, provided that in each instance, all services rendered hereunder shall be at actual cost thereof, fairly and equitably assigned, distributed or allocated, except to the extent otherwise required by Section 482 of the Internal Revenue Code. The Service Company shall promptly advise the Client Companies of any material changes in such method of assignment, distribution or allocation. As appropriate, the Client Companies shall advise the North Carolina Utilities Commission ("NCUC"), the Public Service Commission of South Carolina, the Florida Public Service Commission; the Indiana Utility Regulatory Commission, the Public Utilities Commission of Ohio, the Kentucky Public Service Commission, and the Tennessee Regulatory Authority ("the "Affected State Commissions") of any such changes. Such notice shall be in compliance with the requirements of applicable state law, regulations and regulatory conditions.

Section 2.3 The Service Company shall render a monthly statement to each Client Company which shall reflect the billing information necessary to identify the costs charged for that month. By the last day of each month, each Client Company shall remit to the Service Company all charges billed to it. For avoidance of doubt, the Service Company and each Client Company may satisfy the foregoing requirement by recording billings and payments required hereunder in their common accounting systems without rendering paper or electronic monthly statements or remitting cash payments.

Section 2.4 Subject to Section 482 of the Internal Revenue Code, it is the intent of this Agreement that the payment for services rendered by the Service Company to the Client Companies shall cover all the costs of its doing business (less the cost of services provided to affiliated companies not a party to



this Agreement and to other non-affiliated companies, and credits for any miscellaneous income items), including, but not limited to, salaries and wages, office supplies and expenses, outside services employed, property insurance, injuries and damages, employee pensions and benefits, miscellaneous general expenses, rents, maintenance of structures and equipment, depreciation and amortization and compensation for use of capital. Without limitation of the foregoing, "cost," as used in this Agreement, means fully embedded cost, namely, the sum of (1) direct costs, (2) indirect costs and (3) costs of capital.

### **ARTICLE III - TERM**

Section 3.1 This Agreement is entered into as of the Effective Date and shall continue in force with respect to a Client Company until terminated by the Service Company and Client Company with respect to such Client Company (provided that no such termination with respect to less than all of the Client Companies shall thereby affect the term of this Agreement or any of the provisions hereof) or until terminated by unanimous agreement of all the parties then signatory to this Agreement.

### **ARTICLE IV – ACCOUNTS AND RECORDS**

Section 4.1 The Service Company shall utilize the Uniform System of Accounts prescribed by the Federal Energy Regulatory Commission.

Section 4.2 The Service Company shall permit each Affected State Commission and applicable statutory utility consumer representative(s), together with other interested parties as required under applicable law, access to its accounts and records, including the basis and computation of allocations, necessary for each Affected State Commission to review a Client Company's operating results.

### **ARTICLE V – MISCELLANEOUS**

Section 5.1 Counterparts. This Agreement may be executed in one or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each party and delivered to the other parties.

Section 5.2 Entire Agreement; No Third Party Beneficiaries. This Agreement (including Appendix A and any other appendices or other exhibits or schedules hereto) (i) constitutes the entire agreement, and supersedes any prior agreements and understandings, both written and oral, among the parties with respect to the subject matter of this Agreement; and (ii) is not intended to confer upon any person other than the parties hereto any rights or remedies.

Section 5.3 Governing Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York, regardless of the laws that might otherwise govern under applicable principles of conflict of laws.

Section 5.4 Assignment. Neither this Agreement nor any of the rights, interests or obligations hereunder shall be assigned, in whole or in part, by operation of law or otherwise by any of the parties hereto without the prior written consent of each of the other parties. Any attempted or purported assignment in violation of the preceding sentence shall be null and void and of no effect whatsoever. Subject to the preceding two sentences, this Agreement shall be binding upon, inure to the benefit of, and be enforceable by, the parties and their respective successors and assigns.

Section 5.5 Amendments. This Agreement may not be amended except by an instrument in writing signed on behalf of each of the parties. To the extent that applicable state law or regulation or other binding obligation requires that any such amendment be filed with any Affected State Commission for its review



or otherwise, each Client Company shall comply in all respects with any such requirements.

Section 5.6 Interpretation. When a reference is made in this Agreement to an Article, Section or Appendix or other Exhibit, such reference shall be to an Article or Section of, or an Appendix or other Exhibit to, this Agreement unless otherwise indicated. The headings contained in this Agreement are for convenience of reference only and shall not affect in any way the meaning or interpretation of this Agreement. Whenever the words "include", "includes" or "including" are used in this Agreement, they shall be deemed to be followed by the words "without limitation". The words "hereof", "herein" and "hereunder" and words of similar import when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The definitions contained in this Agreement are applicable to the singular as well as the plural forms of such terms and to the masculine as well as to the feminine and neuter genders of such term. References to a person are also to its permitted successors and assigns.

Section 5.7 DEC, DEP, and Piedmont Conditions. In addition to the terms and conditions set forth herein, with respect to DEC and DEP, the provisions set out in Appendix B are hereby incorporated herein by reference. In addition, DEC's, DEP's, and Piedmont's participation in this Agreement is explicitly subject to the Regulatory Conditions and Code of Conduct approved by the NCUC in its Order Approving Merger Subject to Regulatory Conditions and Code of Conduct issued, in NCUC Docket Nos. E-2, Sub 1095, E-7, Sub 1100, and G-9, Sub 682. In the event of any conflict between the provisions of this Agreement and the approved Regulatory Conditions and Code of Conduct provisions, the Regulatory Conditions and Code of Conduct shall govern.

IN WITNESS WHEREOF, the parties hereto have caused this Service Agreement to be executed as of \_\_\_\_\_, 201\_.



DUKE ENERGY BUSINESS SERVICES LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

DUKE ENERGY CAROLINAS, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

DUKE ENERGY OHIO, INC.

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

DUKE ENERGY INDIANA, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

DUKE ENERGY KENTUCKY, INC.

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

DUKE ENERGY PROGRESS, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

DUKE ENERGY FLORIDA, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

PIEDMONT NATURAL GAS COMPANY, INC.

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Description of Services and Determination  
of Charges for Services

I. The Service Company will maintain an accounting system for accumulating all costs on an activity, process, project, responsibility center, work order, or other appropriate basis. To the extent practicable, time records of hours worked by Service Company employees will be kept by activity, process, project, responsibility center or work order. Charges for salaries will be determined from such time records and will be computed on the basis of employees' labor costs, including the cost of fringe benefits, indirect labor costs and payroll taxes. Records of employee-related expenses and other indirect costs will be maintained for each functional group within the Service Company (hereinafter referred to as "Function"). Where identifiable to a particular activity, process, project, responsibility center or work order, such indirect costs will be directly assigned to such activity, process, project, responsibility center or work order. Where not identifiable to a particular activity, process, project, responsibility center or work order, such indirect costs within a Function will be distributed in relationship to the directly assigned costs of the Function. For purposes of this Appendix A, any costs not directly assigned or distributed by the Service Company will be allocated monthly.

II. Service Company costs accumulated for each activity, process, project, responsibility center or work order will be directly assigned, distributed, or allocated to the Client Companies or other Functions within the Service Company as follows:

1. Costs accumulated in an activity, process, project, responsibility center or work order for services specifically performed for a single Client Company or Function will be directly assigned and charged to such Client Company or Function.

2. Costs accumulated in an activity, process, project, responsibility center or work order for services specifically performed for two or more Client Companies or Functions will be distributed among and charged to such Client Companies or Functions. The appropriate method of distribution will be determined by the Service Company on a case-by-case basis consistent with the nature of the work performed and will be based on the application of one or more of the methods described in paragraphs IV and V of this



Appendix A. The distribution method will be provided to each such affected Client Company or Function.

3. Costs accumulated in an activity, process, project, responsibility center or work order for services of a general nature which are applicable to all Client Companies or Functions or to a class or classes of Client Companies or Functions will be allocated among and charged to such Client Companies or Functions by application of one or more of the methods described in paragraphs IV and V of this Appendix A.

III. For purposes of this Appendix A, the following definitions or methodologies shall be utilized:

1. Where applicable, the following will be utilized to convert gas sales to equivalent electric sales: 1 cubic foot of gas sales equals 0.303048 kilowatt-hour of electric sales (based on electricity at 3412 Btu/kWh and natural gas at 1034 Btu/cubic foot).

2. "Domestic utility" refers to a utility which operates in the contiguous United States of America.

3. "Gross margin" refers to revenues as defined by Generally Accepted Accounting Principles, less cost of sales, including but not limited to fuel, purchased power, emission allowances and other cost of sales.

4. "Distribution" means electric distribution and local gas distribution as applicable.

5. "Distribution Lines" mean electric power lines at distribution voltages measured in circuit miles, and gas mains and lines, as applicable.

The weights utilized in the weighted average ratios in paragraph V of this Appendix A shall represent the percentage relationship of the activities associated with the function for which costs are to be allocated. For example, if an expense item is to be allocated on the weighted average of the Gross Margin Ratio, the Labor Dollars Ratio and the Total Property, Plant and Equipment ("PP&E") Ratio, and the activity to be allocated is one-third gross margin related, one-third labor related and one-third PP&E related, 33 percent of the Gross Margin Ratio would be utilized, 33 percent of the Labor Dollars Ratio and 34

percent of the PP&E Ratio would be utilized. To illustrate this application, assuming that the Gross Margin Ratio were 53.75 percent for Company A and 46.25 percent for Company B, the Labor Dollars Ratio were 25 percent for Company A and 75 percent for Company B, and the Total PP&E Ratio were 60 percent for Company A and 40 percent for Company B, the following weighted average ratio would be computed:

Activity	Weight	Company A		Company B	
		Ratio	Weighted	Ratio	Weighted
Gross Margin Ratio	33%	53.75%	17.74%	46.25%	15.26%
Labor Dollars Ratio	33%	25.00%	8.25%	75.00%	24.75%
Total Property, Plant and Equipment Ratio	<u>34%</u>	60.00%	<u>20.40%</u>	40.00%	<u>13.60%</u>
	100%		46.39%		53.61%

IV. The following allocation methods will be applied, as specified in paragraph V of this Appendix A, to assign costs for services applicable to two or more clients and/or to allocate costs for services of a general nature.

1. Sales Ratio

A ratio, based on the applicable domestic firm kilowatt-hour electric sales (and/or the equivalent cubic feet of gas sales, where applicable), excluding intra-system sales, for a preceding twelve consecutive calendar month period, the numerator of which is for a Client Company and the denominator of which is for all utility Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable), This ratio will be determined annually, or at such time as may be required due to a significant change.

2. Electric Peak Load Ratio

A ratio, based on the sum of the applicable monthly domestic firm electric maximum system demands for a preceding twelve consecutive calendar month period, the numerator of which is for a Client Company and the denominator of which is for all utility Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where



applicable). This ratio will be determined annually, or at such time as may be required due to a significant change.

3. Number of Customers Ratio

A ratio, based on the sum of the applicable domestic firm electric customers (and/or gas customers, where applicable) at the end of a recent month in the preceding twelve consecutive calendar month period, the numerator of which is for a Client Company and the denominator of which is for all domestic utility Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable). This ratio will be determined annually, or at such time as may be required due to a significant change.

4. Number of Employees Ratio

A ratio, based on the applicable number of employees at the end of a recent month in the preceding twelve consecutive month period, the numerator of which is for a Client Company or Service Company Function and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable) and/or the Service Company. This ratio will be determined annually, or at such time as may be required due to a significant change.

5. Construction-Expenditures Ratio

A ratio, based on the applicable projected construction expenditures for the following twelve consecutive calendar month period, the numerator of which is for a Client Company and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable). Separate ratios will be computed for total construction expenditures and appropriate functional plant (i.e., production, transmission, Distribution, and general) classifications. This ratio will be



determined annually, or at such time as may be required due to a significant change.

6. Miles of Distribution Lines Ratio

In the case of electric Distribution, a ratio, based on the applicable installed circuit miles of domestic electric Distribution Lines, and in the case of gas Distribution, a ratio, based on the applicable installed miles of domestic gas Distribution Lines, in either case at the end of the preceding calendar year, the numerator of which is for a Client Company and the denominator of which is for all domestic utility Client Companies. This ratio will be determined annually, or at such time as may be required due to a significant change.

7. Circuit Miles of Electric Transmission Lines Ratio

A ratio, based on the applicable installed circuit miles of domestic electric transmission lines at the end of the preceding calendar year, the numerator of which is for a Client Company and the denominator of which is for all domestic utility Client Companies. This ratio will be determined annually, or at such time as may be required due to a significant change.

8. Millions of Instructions Per Second Ratio

A ratio, based on the sum of the applicable number of millions of instructions per second (MIPS) used to execute mainframe computer software applications for a preceding twelve consecutive calendar month period, the numerator of which is for a Client Company or Service Company Function, and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable) and/or the Service Company. This ratio will be determined annually, or at such time as may be required due to a significant change.

9. Revenues Ratio

A ratio, based on the total applicable revenues for a preceding twelve consecutive calendar month period, the numerator of which is for a Client Company and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable). This ratio will be determined annually or at such time as may be required due to a significant change.

10. Inventory Ratio

A ratio, based on the total applicable inventory balance for the preceding year, the numerator of which is for a Client Company and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable). Separate ratios will be computed for total inventory and the appropriate functional plant (i.e., production, transmission, Distribution, and general) classifications. This ratio will be determined annually or at such time as may be required due to a significant change.

11. Procurement Spending Ratio

A ratio, based on the total amount of applicable procurement spending for the preceding year, the numerator of which is for a Client Company or Service Company Function and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable) and/or the Service Company. Separate ratios will be computed for total procurement spending and appropriate functional plant (i.e., production, transmission, Distribution, and general) classifications. This ratio will be determined annually or at such time as may be required due to a significant change.

12. Square Footage Ratio



A ratio, based on the total amount of applicable square footage occupied in a recent month in the preceding twelve consecutive month period, the numerator of which is for a Client Company or Service Company Function and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable) and/or the Service Company. This ratio will be determined annually or at such time as may be required due to a significant change.

13. Gross Margin Ratio

A ratio, based on the total applicable gross margin for a preceding twelve consecutive calendar month period, the numerator of which is for a Client Company and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable). This ratio will be determined annually or at such time as may be required due to a significant change.

14. Labor Dollars Ratio

A ratio, based on the total applicable labor dollars for a preceding twelve consecutive calendar month period, the numerator of which is for a Client Company or Service Company Function and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable) and/or the Service Company. This ratio will be determined annually or at such time as may be required due to a significant change.

15. Number of Personal Computer Work Stations Ratio

A ratio, based on the total number of applicable personal computer work stations at the end of a recent month in the preceding twelve consecutive month period, the numerator of which is for a Client Company or Service Company Function and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable) and/or the Service Company. This ratio will be



determined annually or at such time as may be required due to a significant change.

16. Number of Information Systems Servers Ratio

A ratio, based on the total number of applicable servers at the end of a recent month in the preceding twelve consecutive month period, the numerator of which is for a Client Company or Service Company Function and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable) and/or the Service Company. This ratio will be determined annually or at such time as may be required due to a significant change.

17. Total Property, Plant and Equipment Ratio

A ratio, based on the total applicable Property, Plant and Equipment balance (net of accumulated depreciation and amortization) for the preceding year, the numerator of which is for a Client Company and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable). This ratio will be determined annually or at such time as may be required due to a significant change.

18. Generating Unit MW Capability / Maximum Dependable Capacity (MDC) Ratio

A ratio, based on the total applicable installed megawatt capability for the preceding year, the numerator of which is for a Client Company and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable). This ratio will be determined annually or at such time as may be required due to a significant change.

19. Number of Meters Ratio

A ratio, based on the number of electric and/or gas meters, as applicable, the numerator of which is for a Client Company and the denominator of

which is for all domestic utility Client Companies. Separate ratios will be computed for appropriate meter classifications (e.g., type of metering technology). This ratio will be determined annually, or at such time as may be required due to a significant change.

20. O&M Expenditures Ratio

A ratio, based on the operation and maintenance (O&M) expenditures for a prior twelve month period, the numerator of which is for a Client Company and the denominator of which is for all Client Companies (and Duke Energy Corporation's non-utility and non-domestic utility affiliates, where applicable). Separate ratios will be computed for total O&M expenditures and appropriate functional plant (i.e., production, transmission, Distribution, and general) classifications. This ratio will be determined annually.

V. A description of each Function's activities, which may be modified from time to time by the Service Company, is set forth below in paragraph "a" under each Function. As described in paragraph II, "1" and "2" of this Appendix A, where identifiable, costs will be directly assigned or distributed to Client Companies or to other Functions of the Service Company. For costs accumulated in activities, processes, projects, responsibility centers, or work orders which are for services of a general nature that cannot be directly assigned or distributed, as described in paragraph II, "3" of this Appendix A, the method or methods of allocation are set forth below in paragraph "b" under each Function. For any of the functions set forth below other than Information Systems, Transportation, Human Resources or Facilities, costs of a general nature to be allocated pursuant to this Agreement shall exclude costs of a general nature which have been allocated to affiliated companies not a party to this Agreement. Substitution or changes may be made in the methods of allocation hereinafter specified, as may be appropriate, and will be provided to state regulatory agencies and to each Client Company. Any such substitution or changes shall be in compliance with the requirements of applicable state law, regulations and regulatory conditions.



1. Information Systems

a. Description of Function

Provides communications and electronic data processing services. The activities of the Function include:

- (1) Development and support of mainframe computer software applications.
- (2) Procurement and support of personal computers and related network and software applications.
- (3) Development and support of distributed computer software applications (e.g., servers).
- (4) Installation and operation of communications systems.
- (5) Information systems management and support services.

b. Method of Allocation

- (1) Development and support of mainframe computer software applications - allocated between the Client Companies and other Functions of the Service Company based on the number of Millions of Instructions per Second Ratio (MIPS).
- (2) Procurement and support of personal computers and related network and software applications - allocated to the Client Companies and to other Functions of the Service Company based on the Number of Personal Computer Work Stations Ratio.
- (3) Development and support of distributed computer software applications - allocated to the Client Companies and to other Functions of the Service Company based on the Number of Information Systems Servers Ratio.
- (4) Installation and operation of communications systems - allocated to the Client Companies and to other Functions of the Service Company based on the Number of Employees Ratio.
- (5) Information systems management and support services – allocated to the Client Companies and to other Functions of the Service Company based on the Number of Personal Computer Work Stations Ratio.



2. Meters

a. Description of Function

Procures, tests and maintains meters.

b. Method of Allocation

Allocated to the Client Companies based on the Number of Customers Ratio.

3. Transportation

a. Description of Function

(1) Procures and maintains vehicles and equipment.

(2) Procures and maintains aircraft and equipment.

b. Method of Allocation

(1) The costs of maintaining vehicles and equipment are allocated to the Client Companies and to other Functions of the Service Company based on the Number of Employees Ratio.

(2) The costs of maintaining aircraft and equipment are allocated to the Client Companies and to other Functions of the Service Company based on a weighted average of the Gross Margin Ratio, the Labor Dollars Ratio and the PP&E Ratio.

4. System Maintenance

a. Description of Function

Coordinates maintenance and support of electric transmission systems and Distribution systems.

b. Method of Allocation

(1) Services related to electric transmission systems - allocated to the Client Companies based on the Circuit Miles of Electric Transmission Lines Ratio.

(2) Services related to electric Distribution systems - allocated to the Client Companies based on the Miles of Distribution Lines Ratio.

(3) Services related to gas Distribution systems – allocated to the Client Companies based on the Labor Dollars Ratio.

5. Marketing and Customer Relations

a. Description of Function

Advises the Client Companies in relations with domestic utility customers.

The activities of the Function include:

- (1) Design and administration of sales and demand-side management programs.
- (2) Customer meter reading, billing and payment processing.
- (3) Customer services including the operation of call center.

b. Method of Allocation

- (1) Design and administration of sales and demand-side management programs - allocated to the Client Companies based on the Number of Customers Ratio.
- (2) Customer billing and payment processing - allocated to the Client Companies based on the Number of Customers Ratio.
- (3) Customer Services - allocated to the Client Companies based on the Number of Customers Ratio.

6. Transmission and Distribution Engineering and Construction

a. Description of Function

Designs and monitors construction of electric transmission and Distribution Lines and associated facilities. Prepares cost and schedule estimates, visits construction sites to ensure that construction activities coincide with plans, and administers construction contracts.

b. Method of Allocation

- (1) Transmission engineering and construction allocated to the Client Companies based on the Electric Transmission Plant's Construction-Expenditures Ratio.
- (2) Distribution engineering and construction allocated to the Client Companies based on the Distribution plant's Construction-Expenditures Ratio.



7. Power Engineering and Construction

a. Description of Function

Designs, monitors and supports the construction and retirement of electric generation facilities. Prepares specifications and administers contracts for construction of new electric generating units, improvements to existing electric generating units, and the retirement of existing electric generating equipment, including developing associated operating processes with operations personnel. Prepares cost and schedule estimates and visits construction sites to ensure that construction and retirement activities meet schedules and plans.

b. Method of Allocation

Allocated to the Client Companies based on the Electric Production Plant's Construction-Expenditures Ratio.

8. Human Resources

a. Description of Function

Establishes and administers policies and supervises compliance with legal requirements in the areas of employment, compensation, benefits and employee health and safety. Processes payroll and employee benefit payments. Supervises contract negotiations and relations with labor unions.

b. Method of Allocation

Allocated to the Client Companies and to other Functions of the Service Company based on the Number of Employees Ratio.

9. Supply Chain

a. Description of Function

Provides services in connection with the procurement of materials and contract services, processes payments to vendors, and provides management of material and supplies inventories.

b. Method of Allocation

(1) Procurement of materials and contract services and vendor payment processing - allocated to the Client Companies and to other Functions of the Service Company based on the Procurement Spending Ratio.



- (2) Management of materials and supplies inventory – allocated to the Client Companies on the Inventory Ratio.

10. Facilities

a. Description of Function

Operates and maintains office and service buildings. Provides security and housekeeping services for such buildings and procures office furniture and equipment.

b. Method of Allocation

Allocated to the Client Companies and to other Functions of the Service Company based on the Square Footage Ratio.

11. Accounting

a. Description of Function

Maintains the books and records of Duke Energy Corporation and its affiliates, prepares financial and statistical reports, prepares tax filings and supervises compliance with the laws and regulations.

b. Method of Allocation

- (1) Allocated to the Client Companies based on a weighted average of the Gross Margin Ratio, the Labor Dollar Ratio and the PP&E Ratio.
- (2) Certain merger related costs are allocated based on Generating Unit MW Capability/ MDC Ratio.

12. Power and Gas Planning and Operations

a. Description of Function

Coordinate the planning, management and operation of Duke Energy Corporation's power generation, transmission and Distribution systems. The activities of the Function include:

- (1) System Planning - planning of additions and retirements to the electric generation units and transmission and Distribution systems belonging to the regulated utilities owned by Duke Energy Corporation.

- (2) System Operations - coordination of the dispatch and operation of the electric generating units and transmission and Distribution systems belonging to the regulated utilities owned by Duke Energy Corporation.
  - (3) Power Operations – provides management and support services for the electric generation units owned or operated by subsidiaries of Duke Energy Corporation.
  - (4) Wholesale Power Operations – coordination of Duke Energy Corporation's wholesale power operations.
- b. Method of Allocation
- (1) System Planning
    - (a) Generation planning - allocated to the Client Companies based on the Electric Peak Load Ratio.
    - (b) Transmission planning – allocated to the Client Companies based on the Electric Peak Load Ratio.
    - (c) Electric Distribution planning - allocated to the Client Companies based on a weighted average of the Miles of Distribution Lines Ratio and the Electric Peak Load Ratio.
    - (d) Gas Distribution planning – allocated to the Client Companies based on the Construction-Expenditures Ratio.
  - (2) System Operations –
    - (a) Generation Dispatch - allocated to the Client Companies based on the Sales Ratio.
    - (b) Transmission Operations - allocated to the Client Companies based on a weighted average of the Circuit Miles of Electric Transmission Lines Ratio and the Electric Peak Load Ratio.
    - (c) Electric Distribution Operations - allocated to the Client Companies based on a weighted average of the Miles of Distribution Lines Ratio and the Electric Peak Load Ratio.
    - (d) Gas Distribution Operations – allocated to the Client Companies based on the Construction-Expenditures Ratio.



- (3) Power Operations – allocated to the Client Companies based on the Generating Unit MW Capability / Maximum Dependable Capacity (MDC) Ratio.
- (4) Wholesale Power Operations – allocated to the Client Companies based on the Sales Ratio.

13. Public Affairs

a. Description of Function

Prepares and disseminates information to employees, customers, government officials, communities and the media. Provides graphics, reproduction lithography, photography and video services.

b. Method of Allocation

- (1) Services related to corporate governance, public policy, management and support services - allocated to the Client Companies based on a weighted average of the Gross Margin Ratio, the Labor Dollar Ratio and the PP&E Ratio.
- (2) Services related to utility specific activities - allocated to the Client Companies based on a weighted average of the Number of Customers Ratio and the Number of Employees Ratio.

14. Legal

a. Description of Function

Renders services relating to labor and employment law, litigation, contracts, rates and regulatory affairs, environmental matters, financing, financial reporting, real estate and other legal matters.

b. Method of Allocation

Allocated to the Client Companies based on a weighted average of the Gross Margin Ratio, the Labor Dollar Ratio and the PP&E Ratio.

15. Rates

a. Description of Function



Determines the Client Companies' revenue requirements and rates to electric and gas requirements customers. Administers interconnection and joint ownership agreements. Researches and forecasts customers' usage.

b. Method of Allocation

Allocated to the Client Companies based on the Sales Ratio.

16. Finance

a. Description of Function

Renders services to Client Companies with respect to investments, financing, cash management, risk management, claims and fire prevention. Prepares budgets, financial forecasts and economic analyses.

b. Method of Allocation

Allocated to the Client Companies based on a weighted average of the Gross Margin Ratio, the Labor Dollar Ratio and the PP&E Ratio.

17. Rights of Way

a. Description of Function

Purchases, surveys, records, and sells real estate interests for Client Companies.

b. Method of Allocation

- (1) Services related to Distribution system - allocated to the Client Companies based on the Miles of Distribution Lines Ratio.
- (2) Services related to electric generation system- allocated to the Client Companies based on the Electric Peak Load Ratio.
- (3) Services related to electric transmission system – allocated to the Client Companies based on the Circuit Miles of Electric Transmission Lines Ratio.

18. Internal Auditing

a. Description of Function

Reviews internal controls and procedures to ensure that assets are safeguarded and that transactions are properly authorized and recorded.

- b. Method of Allocation  
Allocated to the Client Companies based on a weighted average of the Gross Margin Ratio, the Labor Dollar Ratio and the PP&E Ratio.

19. Environmental, Health and Safety

- a. Description of Function  
Establishes policies and procedures and governance framework for compliance with environmental, health and safety (“EHS”) issues, monitors compliance with EHS requirements and provides EHS compliance support to the Client Companies’ personnel.
- b. Method of Allocation
  - (1) Services related to corporate governance, environmental policy, management and support services - allocated to the Client Companies based on a weighted average of the Gross Margin Ratio, the Labor Dollar Ratio and the PP&E Ratio.
  - (2) Services related to utility specific activities – allocated to the Client Companies based on the Sales Ratio.

20. Fuels

- a. Description of Function  
Procures coal, gas and oil for the Client Companies. Ensures compliance with price and quality provisions of fuel contracts and arranges for transportation of the fuel to the generating stations.
- b. Method of Allocation  
Allocated to the Client Companies based on the Sales Ratio.

21. Investor Relations

- a. Description of Function  
Provides communications to investors and the financial community, performs transfer agent and shareholder record keeping functions, administers stock plans and performs stock-related regulatory reporting.
- b. Method of Allocation

Allocated to the Client Companies based on a weighted average of the Gross Margin Ratio, the Labor Dollars Ratio and the PP&E Ratio.

22. Planning

a. Description of Function

Facilitates preparation of strategic and operating plans, monitors trends and evaluates business opportunities.

b. Method of Allocation

Allocated to the Client Companies based on a weighted average of the Gross Margin Ratio, the Labor Dollars Ratio and the PP&E Ratio.

23. Executive

a. Description of Function

Provides general administrative and executive management services.

b. Method of Allocation

Allocated to the Client Companies based on a weighted average of the Gross Margin Ratio, the Labor Dollars Ratio and the PP&E Ratio.

24. Nuclear Development

a. Description of Function

Provides design, engineering, project management and licensing for potentially proposed new operating units.

b. Method of Allocation

Directly assigned/charged to participating jurisdictions.



Duke Energy Carolinas, LLC, Duke Energy Progress, LLC and Piedmont Natural Gas Company, Inc. Conditions

In connection with the NCUC approval of the Merger in NCUC Docket No. E-2, Sub 1095, Docket No. E-7, Sub 1100, and Docket No. G-5, Sub 682, the NCUC adopted certain Regulatory Conditions and a revised Code of Conduct governing transactions between DEC, DEP, Piedmont, and their affiliates. Pursuant to the Regulatory Conditions, the following provisions are applicable to DEC, DEP, and Piedmont:

- (a) DEC's, DEP's and Piedmont's participation in this Agreement is voluntary. DEC, DEP, or Piedmont is not obligated to take or provide services or make any purchases or sales pursuant to this Agreement, and DEC, DEP, or Piedmont may elect to discontinue its participation in this Agreement at its election after giving any required notice;
- (b) DEC, DEP or Piedmont may not make or incur a charge under this Agreement except in accordance with North Carolina law and the rules, regulations and orders of the NCUC promulgated thereunder.
- (c) DEC, DEP or Piedmont may not seek to reflect in rates any (A) costs incurred under this Agreement exceeding the amount allowed by the NCUC or (B) revenue level earned under this Agreement less than the amount imputed by the NCUC; and
- (d) DEC, DEP or Piedmont shall not assert in any forum – whether judicial, administrative, federal, state, local or otherwise – either on its own initiative or in support of other entity's assertions, that the NCUC's authority to assign, allocate, make pro-forma adjustments to or disallow revenues and costs for retail ratemaking and regulatory accounting and reporting purposes is, in whole or in part, (A) preempted by Federal Law or (B) not within the Commission's power, authority, or jurisdiction; DEC, DEP, and Piedmont will bear the full risk of any preemptive effects of Federal Law with respect to this Agreement.

## OPERATING COMPANIES SERVICE AGREEMENT

This Operating Companies Service Agreement (this "Agreement") by and among Duke Energy Carolinas, LLC ("DEC"), a North Carolina limited liability company, Duke Energy Ohio, Inc. ("DEO"), an Ohio corporation, Duke Energy Indiana, LLC ("DEI"), an Indiana limited liability company, Duke Energy Kentucky, Inc. ("DEK"), a Kentucky corporation, Duke Energy Progress, LLC ("DEP"), a North Carolina limited liability company, and Duke Energy Florida, LLC ("DEF"), a Florida limited liability company and Piedmont Natural Gas Company, Inc., a North Carolina corporation ("Piedmont"), supersedes and replaces in its entirety all previous Operating Company Service Agreements dated before the Effective Date of this Agreement. The Effective date as stated herein is the date on which this agreement is signed or, as may be required, submitted to the appropriate regulatory body for approval, whichever occurs last. DEC, DEO, DEI, DEK, DEP, DEF and Piedmont are referred to collectively as the "Operating Companies" and, individually, an "Operating Company."

### WITNESSETH:

**WHEREAS**, Duke Energy Corporation ("Duke Energy") is a Delaware corporation;

**WHEREAS**, each Operating Company is a subsidiary of Duke Energy and a public utility company;

**WHEREAS**, in the ordinary course of their businesses, Operating Companies maintain organizations of employees with technical expertise in matters affecting public utility companies and related businesses and own or acquire related equipment, facilities, properties and other resources; and

**WHEREAS**, subject to the terms and conditions herein set forth, and taking into consideration the parties' utility responsibilities or primary business operations, as the case may be, the parties hereto are willing, upon request from time to time, to perform such services, and in connection therewith to make available such equipment, facilities, properties and other resources, as they shall request from each other;

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants herein contained, the parties agree as follows:

### ARTICLE 1. PROVISION OF SERVICES; LOANED EMPLOYEES

#### Section 1.1 Provision of Services.

(a) Except as hereinafter provided with respect to DEC, DEP, and Piedmont providing services for each other, upon receipt by a party hereto (in such capacity, a "Service Provider") of a written request in substantially the same form attached hereto as Exhibit A (a "Service Request") from another party hereto (in such capacity, a "Client Company") for the provision to such Client



Company of such services as are specified therein, including if applicable use of any related equipment, facilities, properties or other resources (collectively, "Services"), the Service Provider, if in its sole discretion it has available the personnel or other resources needed to perform the Service Request without impairment of its utility responsibilities or business operations, as the case may be, shall furnish such Services to the Client Company at such times, for such periods and in such manner as the Client Company shall have so requested and otherwise in accordance with the provisions hereof.

(b) For purposes of this Agreement, "Services" may include, but shall not be limited to, services in such areas as engineering and construction; operations and maintenance; installation services; equipment testing; generation technical support; environmental, health and safety; and procurement services (including, but not limited to, fuel procurement).

(c) "Services" may also include the use of assets, equipment and facilities, provided the Client Company compensates the Service Provider for such use in accordance with Article 3.

(d) For the avoidance of doubt, affiliate transactions involving sales or other transfers of assets, goods, energy commodities (including electricity, natural gas, coal and other combustible fuels) or thermal energy products are outside the scope of this Agreement.

#### Section 1.2 Loaned Employees.

(a) If specifically requested in connection with the provision of Services, Service Provider shall loan one or more of its employees to such Client Company, provided that such loan shall not, in the sole discretion of Service Provider, interfere with or impair Service Provider's utility responsibilities or business operations, as the case may be. After the commencement thereof, any such loaned employees may be withdrawn by Service Provider from tasks duly assigned by Client Company, prior to completion thereof as contemplated in the associated Service Request, only with the consent of Client Company (which shall not be unreasonably withheld or delayed), except in the event of a demonstrable emergency requiring the use of any such employees in another capacity for Service Provider.

(b) While performing work on behalf of Client Company, any such loaned employees shall be under its supervision and control, and Client Company shall be responsible for their actions to the same extent as though such persons were its employees (it being understood that such persons shall nevertheless remain employees of Service Provider and nothing herein shall be construed as creating an employer-employee relationship between any Client Company and any loaned employees). Accordingly, for the duration of any such loan, Service Provider shall continue to provide its loaned employees with the same payroll, pension, savings, tax withholding, unemployment, bookkeeping and other personnel support services then being provided by Service Provider to its other employees.

### ARTICLE 2. SERVICE REQUESTS

Section 2.1 Procedure. All Services (including any loans of employees) (i) shall be performed in accordance with Service Requests issued by or on behalf of Client Company and



accepted by Service Provider and (ii) shall be assigned to applicable activities, processes, projects, responsibility centers or on other appropriate bases to enable specific work to be properly assigned. Service Requests shall be as specific as practicable in defining the Services requested. Client Company shall have the right from time to time to amend or rescind any Service Request, *provided* that (a) Service Provider consents to any amendment that results in a material change in the scope of Services to be provided, (b) the costs associated with an amended or rescinded Service Request shall include the costs incurred by Service Provider as a result of such amendment or rescission, and (c) no amendment or rescission of a Service Request shall release Client Company from any liability for costs already incurred or contracted for by Service Provider pursuant to the original Service Request, regardless of whether any labor or the furnishing of any property or other resources has been commenced or completed.

### ARTICLE 3. COMPENSATION FOR SERVICES

Section 3.1 Cost of Services. As compensation for any Services rendered to it pursuant to this Agreement, Client Company shall pay to Service Provider the Cost thereof, except to the extent otherwise required by Section 482 of the Internal Revenue Code. "Costs" means the sum of (i) direct costs, (ii) indirect costs and (iii) costs of capital. As soon as practicable after the close of each month, Service Provider shall render to each Client Company a statement reflecting the billing information necessary to identify the costs charged for that month. By the last day of each month, Client Company shall remit to Service Provider all charges billed to it. For avoidance of doubt, the Service Provider and each Client Company may satisfy the foregoing requirement by recording billings and payments required hereunder in their common accounting systems without rendering paper or electronic monthly statements or remitting cash payments.

Section 3.2 Exception. In the event any Services to be rendered under this Agreement are to be provided to or from DEC, DEP, and Piedmont in accordance with DEC's, DEP's, and Piedmont's North Carolina Code of Conduct at anything other than fully embedded cost as described above, then prior to entering into the transaction, DEI, DEK, DEF or DEO, whichever is applicable, shall provide 30 days written notice to the respective state commission staffs and state consumer representatives explaining the proposed transaction, including the benefits of the transaction. If no objection is received within 30 days, then the transaction may proceed. If one or more third parties object to the transaction in writing within 30 days, then DEI, DEK, DEF or DEO, whichever is applicable, must seek specific state commission approval of the transaction prior to entering into the transaction.

### ARTICLE 4. LIMITATION OF LIABILITY; INDEMNIFICATION

Section 4.1 Limitation of Liability/Services. In performing Services pursuant to Section 1.1 hereof, Service Provider will exercise due care to assure that the Services are performed in a workmanlike manner in accordance with the specifications set forth in the applicable Service Request and consistent with any applicable legal standards. The sole and exclusive responsibility of Service Provider for any deficiency therein shall be promptly to correct or repair such deficiency or to re-perform such Services, in either case at no additional cost to Client Company, so that the Services fully conform to the standards described in the first sentence of this Section 4.1. No Service Provider makes any other warranty with respect to the provision of Services, and each Client Company agrees to accept any Services without further warranty of any nature.



Section 4.2 Limitation of Liability/Loaned Employees. In furnishing Services under Section 1.2 hereof (*i.e.*, involving loaned employees), neither the Service Provider, nor any officer, director, employee or agent thereof, shall have any responsibility whatsoever to any Client Company receiving such Services, and Client Company specifically releases Service Provider and such persons, on account of any claims, liabilities, injuries, damages or other consequences arising in connection with the provision of such Services under any theory of liability, whether in contract, tort (including negligence or strict liability) or otherwise, it being understood and agreed that any such loaned employees are made available without warranty as to their suitability or expertise.

Section 4.3 Disclaimer. WITH RESPECT TO ANY SERVICES PROVIDED UNDER THIS AGREEMENT, THE SERVICE PROVIDER THEREOF MAKES NO WARRANTY OR REPRESENTATION OTHER THAN AS SET FORTH IN SECTION 4.1, AND THE PARTIES HERETO HEREBY AGREE THAT NO OTHER WARRANTY, WHETHER STATUTORY, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE), SHALL BE APPLICABLE TO THE PROVISION OF ANY SUCH SERVICES. THE PARTIES FURTHER AGREE THAT THE REMEDIES STATED HEREIN ARE EXCLUSIVE AND SHALL CONSTITUTE THE SOLE AND EXCLUSIVE REMEDY OF ANY PARTY HERETO FOR A FAILURE BY ANY OTHER PARTY HERETO TO COMPLY WITH ITS WARRANTY OBLIGATIONS.

Section 4.4 Indemnification.

(a) Subject to subparagraph (b) of this Section 4.4, Service Provider shall release, defend, indemnify and hold harmless each Client Company, including any officer, director, employee or agent thereof, from and against, and shall pay the full amount of, any loss, liability, claim, damage, expense (including costs of investigation and defense and reasonable attorneys' fees), whether or not involving a third-party claim, incurred or sustained by or against any such Client Company arising, directly or indirectly, from or in connection with Service Provider's negligence or willful misconduct in the performance of the Services.

(b) Notwithstanding any other provision hereof, Service Provider's total liability hereunder with respect to any specific Services shall be limited to the amount actually paid to Service Provider for its performance of the specific Services for which the liability arises, and under no circumstances shall Service Provider be liable for consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages, by statute, in tort or contract, under any indemnity provision or otherwise (it being the intent of the parties that the indemnification obligations in this Agreement shall cover only actual damages and accordingly, without limitation of the foregoing, shall be net of any insurance proceeds actually received in respect of any such damages).

Section 4.5 Procedure for Indemnification. Within 15 business days after receipt by any Client Company of notice of any claim or the commencement of any action, suit, litigation or other proceeding against it (a "Proceeding") with respect to which it is eligible for indemnification hereunder, such Client Company shall notify Service Provider thereof in writing (it being understood that failure to so notify Service Provider shall not relieve the latter of its indemnification obligation, unless Service Provider establishes that defense thereof has been prejudiced by such



failure). Thereafter, Service Provider shall be entitled to participate in such Proceeding and, at its election upon notice to such Client Company and at its expense, to assume the defense of such Proceeding. Without the prior written consent of such Client Company, Service Provider shall not enter into any settlement of any third-party claim that would lead to liability or create any financial or other obligation on the part of such Client Company for which such Client Company is not entitled to indemnification hereunder. If such Client Company has given timely notice to Service Provider of the commencement of such Proceeding, but Service Provider has not, within 15 business days after receipt of such notice, given notice to Client Company of its election to assume the defense thereof, Service Provider shall be bound by any determination made in such Proceeding or any compromise or settlement made by Client Company. A claim for indemnification for any matter not involving a third-party claim may be asserted by notice from the applicable Client Company to Service Provider.

## ARTICLE 5. MISCELLANEOUS

Section 5.1 Amendments. Any amendments to this Agreement shall be in writing executed by each of the parties hereto. To the extent that applicable state law or regulation or other binding obligation requires that any such amendment be filed with any affected state public utility commission for its review or otherwise, each Operating Company shall comply in all respects with any such requirements.

Section 5.2 Effective Date; Term. This Agreement shall become effective on the Effective Date and shall continue in full force and effect as to each party until terminated by any party, as to itself only, upon not less than 30 days prior written notice to the other parties hereto. Any such termination of parties shall not be deemed an amendment hereto. This Agreement may be terminated and thereafter be of no further force and effect upon the mutual consent of all of the parties hereto.

Section 5.3 Entire Agreement. This Agreement contains the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes any prior or contemporaneous contracts, agreements, understandings or arrangements, whether written or oral, with respect thereto. Any oral or written statements, representations, promises, negotiations or agreements, whether prior hereto or concurrently herewith, are superseded by and merged into this Agreement.

Section 5.4 Severability. If any provision of this Agreement or any application thereof shall be determined to be invalid or unenforceable, the remainder of this Agreement and any other application thereof shall not be affected thereby.

Section 5.5 Assignment. Neither this Agreement nor any of the rights, interests or obligations hereunder shall be assigned, in whole or in part, by operation of law or otherwise by any of the parties hereto without the prior written consent of each of the other parties. Any attempted or purported assignment in violation of the preceding sentence shall be null and void and of no effect whatsoever. Subject to the preceding two sentences, this Agreement shall be binding upon, inure to the benefit of, and be enforceable by, the parties and their respective successors and assigns.



Section 5.6 Governing Law. This Agreement shall be construed and enforced under and in accordance with the laws of the State of New York, without regard to conflicts of laws principles.

Section 5.7 Captions, Headings. The captions and headings used in this Agreement are for convenience of reference only and shall not affect the construction to be accorded any of the provisions hereof. As used in this Agreement, “hereof,” “hereunder,” “herein,” “hereto,” and words of like import refer to this Agreement as a whole and not to any particular section or other paragraph or subparagraph thereof.

Section 5.8 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed a duplicate original hereof, but all of which shall be deemed one and the same Agreement.

Section 5.9 DEC, DEP, and Piedmont Conditions. In addition to the terms and conditions set forth herein, with respect to DEC, DEP, and Piedmont, the provisions set out in Appendix B are hereby incorporated herein by reference. In addition, except with respect to the pricing of Services as set forth herein, DEC’s, DEP’s and Piedmont’s participation in this Agreement is explicitly subject to the Regulatory Conditions and Code of Conduct approved by the North Carolina Utilities Commission (“NCUC”) in its *Order Approving Merger Subject to Regulatory Conditions and Code of Conduct* issued, in Docket Nos. E-2, Sub 1095 and E-7, Sub 1100, and G-9, Sub 682, and applicable to South Carolina, as such Regulatory Conditions and Code of Conduct may be amended from time to time. In the event of any conflict between the provisions of this Agreement and the approved Regulatory Conditions and Code of Conduct provisions, the Regulatory Conditions and Code of Conduct shall govern.

**IN WITNESS WHEREOF**, each of the parties hereto has caused this Agreement to be executed on \_\_\_\_\_, 201\_, on its behalf by an appropriate officer thereunto duly authorized.

Duke Energy Carolinas, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Duke Energy Ohio, Inc.

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Duke Energy Indiana, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Duke Energy Kentucky, Inc.

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Duke Energy Progress, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Duke Energy Florida, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Piedmont Natural Gas Company, Inc.

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary



Folder Name: efr148v1-003818  
Status: New

## Service Request for Affiliates

\* Red Asterisk indicates required fields \* Functional Area (for the Service Provider):

### Service Provider

\* Service Provider    
\* Legal Approval Representative

### Proposed Service

\* Description of Proposed Service

Please Provide Basis for Estimated Costs, include # of employees requested and amount of time requested.

\* Estimated Costs

(Numbers only, no commas or decimals)

\$0

\* Scheduled Start Date

\* Scheduled Completion Date

### Client Company

\* Client Company

### PeopleSoft Accounting Codes for the Services Provided

\*\*\* Process OR Project & Activities OR GL Account for Client Company must be entered

* Client Company Operating Unit	* Service Provider Resp. Center	* Process
<input type="text"/>	<input type="text"/>	<input type="text"/>
* Project	* Activity	* GL Account
<input type="text"/>	<input type="text"/>	<input type="text"/>

### Confirmation of Service Provider Utility Responsibilities by Service Provider Approver

\*  Check this box to confirm that this Service Request will not result in impairment of Service Provider's utility responsibilities or business operations.



**Confirmation of Service Provider Utility Responsibilities by Service Provider Approver**

- \*  Check this box to confirm that this Service Request will not result in impairment of Service Provider's utility responsibilities or business operations.

**Miscellaneous Comments**

Comments

Comments Log

**Attachments**

[Help](#)

Filename	Size

**Approver Selection**  
The approvers should be appropriate according to the [Delegation of Authority \(DOA\) matrix](#).

Route To:	Name	Phone	Status
* Client Company	<input type="text"/> <input type="button" value="Select"/>	<input type="text"/>	<input type="text"/>
* Service Provider	<input type="text"/> <input type="button" value="Select"/>	<input type="text"/>	<input type="text"/>
* Legal	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Submitter Details**

Created by	<input type="text"/>	Created on	11/10/2015 1:19:43 PM
* Phone	<input type="text"/>		
Last Modified by	<input type="text"/>	Last Modified	<input type="text"/>

**Exhibit B****DUKE ENERGY CAROLINAS, LLC DUKE ENERGY PROGRESS, LLC, AND  
PIEDMONT NATURAL GAS COMPANY, INC. CONDITIONS**

1. In connection with the NCUC approval of the Merger in NCUC Docket No. E-2, Sub 1095, Docket No. E-7, Sub 1100, and Docket No. G-5, Sub 682, the NCUC adopted certain Regulatory Conditions and a revised Code of Conduct governing transactions between DEC, DEP, Piedmont, and their affiliates. Pursuant to the Regulatory Conditions, the following provisions are applicable to DEC, DEP, and Piedmont:

(a) DEC's, DEP's and Piedmont's participation in this Agreement is voluntary. DEC, DEP, or Piedmont is not obligated to take or provide services or make any purchases or sales pursuant to this Agreement, and DEC, DEP, or Piedmont may elect to discontinue its participation in this Agreement at its election after giving any required notice;

(b) DEC, DEP or Piedmont may not make or incur a charge under this Agreement except in accordance with North Carolina law and the rules, regulations and orders of the NCUC promulgated thereunder.

(c) DEC, DEP or Piedmont may not seek to reflect in rates any (A) costs incurred under this Agreement exceeding the amount allowed by the NCUC or (B) revenue level earned under this Agreement less than the amount imputed by the NCUC; and

(d) DEC, DEP or Piedmont shall not assert in any forum – whether judicial, administrative, federal, state, local or otherwise – either on its own initiative or in support of other entity's assertions, that the NCUC's authority to assign, allocate, make pro-forma adjustments to or disallow revenues and costs for retail ratemaking and regulatory accounting and reporting purposes is, in whole or in part, (A) preempted by Federal Law or (B) not within the Commission's power, authority, or jurisdiction; DEC, DEP, and Piedmont will bear the full risk of any preemptive effects of Federal Law with respect to this Agreement.

2. Transfers by DEC, DEP, or Piedmont. With respect to the transfer by DEC, DEP, or Piedmont under this Agreement of the control of, operational responsibility for, or ownership of any DEC, DEP, or Piedmont assets used for the generation, transmission or distribution of electric power to its North Carolina retail customers with a gross book value in excess of ten million dollars, the following shall apply: (a) neither DEC, DEP nor Piedmont may commit to or carry out the transfer except in accordance with all applicable law, and the rules, regulations and orders of the NCUC promulgated thereunder; and (b) neither DEC, DEP, or Piedmont may include in its North Carolina cost of service or rates the value of the transfer, whether or not subject to federal law, except as allowed by the NCUC in accordance with North Carolina law.

3. Access to DEC, DEP or Piedmont Information. Any Operating Company providing Services to DEC or DEP pursuant to this Agreement, including any loaned employees under Section 1.2 of the Agreement, shall be permitted to have access to DEC's, DEP's or Piedmont's Customer Information and Confidential Systems Operation Information, as those terms are defined in the Code of Conduct, to the extent necessary for the performance of such Services; provided that such Operating Company shall take reasonable steps to protect the confidentiality of such Information.



4. Procedures for Services Received By DEC DEP, or Piedmont from each other or the other Operating Companies and for Services Provided by DEC, DEP or Piedmont to each other or the other Operating Companies. DEC, DEP, and Piedmont shall receive from each other and the other Operating Companies, upon the terms and conditions set forth in this agreement, such of the services listed in the Operating Companies Service Agreement List on file with the NCUC, at such times, for such periods and in such manner as DEC DEP, or Piedmont may from time to time request of each other or another Operating Company. DEC, DEP, or Piedmont may provide to each other and the other Operating Companies, upon the terms and conditions set forth in this Agreement, at such times for such periods, and in such a manner as DEC, DEP or Piedmont concludes it is equipped to perform for each other or another Operating Company. DEC, DEP, or Piedmont may perform these services for each other as described in this paragraph without the requirement of a written request in substantially the form attached to this Agreement as Exhibit A.



**AMENDED AND RESTATED OPERATING COMPANY/NONUTILITY COMPANIES  
SERVICE AGREEMENT**

This Amended and Restated Operating Company/Nonutility Companies Service Agreement (this "Agreement") dated September 1, 2008 (the "Effective Date") by and among Duke Energy Kentucky, Inc., a Kentucky corporation ("Operating Company"), and the respective associate nonutility companies listed on the signature pages hereto (each, a "Nonutility Company") supersedes and restates in its entirety the Operating Company/Nonutility Service Agreement entered into between the Operating Company and each Nonutility Company dated January 2, 2007.

**WITNESSETH:**

**WHEREAS**, Duke Energy Corporation ("Duke Energy") is a Delaware corporation;

**WHEREAS**, Operating Company is a subsidiary of Duke Energy and a public utility company;

**WHEREAS**, each Nonutility Company is a subsidiary of Duke Energy that is or was formed to engage in any one or more non-regulated businesses;

**WHEREAS**, certain non-regulated public utilities were added in error to the Operating Company/Nonutility Companies Service Agreement dated January 2, 2007 and are being removed in this Agreement;

**WHEREAS**, in the ordinary course of their businesses, Operating Company and each Nonutility Company maintain organizations of employees with technical expertise in matters affecting public utility companies and related businesses and own or acquire related equipment, facilities, properties and other resources; and

**WHEREAS**, subject to the terms and conditions herein set forth, and taking into consideration the parties' utility responsibilities or primary business operations, as the case may be, the parties hereto are willing, upon request from time to time, to perform such services, and in connection therewith to make available such equipment, facilities, properties and other resources, as they shall request from each other;

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants herein contained, the parties agree as follows:

**ARTICLE 1. PROVISION OF SERVICES; LOANED EMPLOYEES**

Section 1.1 Provision of Services.

(a) Upon receipt by a party hereto (in such capacity, a "Service Provider") of a written request in substantially the form attached hereto as Exhibit A (a "Service Request") from another party hereto (in such capacity, a "Client Company") for the provision to such Client Company of such services as are specified therein, including if applicable use of any related equipment, facilities,



properties or other resources (collectively, "Services"), the Service Provider, if in its sole discretion it has available the personnel or other resources needed to perform the Service Request without impairment of its utility responsibilities or business operations, as the case may be, shall furnish such Services to the Client Company at such times, for such periods and in such manner as the Client Company shall have so requested and otherwise in accordance with the provisions hereof.

(b) For purposes of this Agreement, "Services" may include, but shall not be limited to: (i) in the case of Services that may be provided by Operating Company hereunder, services in such areas as engineering and construction; operations and maintenance; installation services; equipment testing; generation technical support; environmental, health and safety; and procurement services;<sup>1</sup> and (ii) in the case of Services that may be provided by Nonutility Companies hereunder, services in such areas as information technology services; monitoring, surveying, inspecting, constructing, locating and marking of overhead and underground utility facilities; meter reading; materials management; vegetation management; and marketing and customer relations.

(c) For the avoidance of doubt, affiliate transactions involving sales or other transfers of assets, goods, energy commodities (including electricity, natural gas, coal and other combustible fuels) or thermal energy products are outside the scope of this Agreement.

#### Section 1.2 Loaned Employees.

(a) If specifically requested in connection with the provision of Services, Service Provider shall loan one or more of its employees to such Client Company, provided that such loan shall not, in the sole discretion of Service Provider, interfere with or impair Service Provider's utility responsibilities or business operations, as the case may be. After the commencement thereof, any such loaned employees may be withdrawn by Service Provider from tasks duly assigned by Client Company, prior to completion thereof as contemplated in the associated Service Request, only with the consent of Client Company (which shall not be unreasonably withheld or delayed), except in the event of a demonstrable emergency requiring the use of any such employees in another capacity for Service Provider.

(b) While performing work on behalf of Client Company, any such loaned employees shall be under its supervision and control, and Client Company shall be responsible for their actions to the same extent as though such persons were its employees (it being understood that such persons shall nevertheless remain employees of Service Provider and nothing herein shall be construed as creating an employer-employee relationship between any Client Company and any loaned employees). Accordingly, for the duration of any such loan, Service Provider shall continue to provide its loaned employees with the same payroll, pension, savings, tax withholding, unemployment, bookkeeping and other personnel support services then being provided by Service Provider to its other employees.



## ARTICLE 2. SERVICE REQUESTS

Section 2.1 Procedure. All Services (including any loans of employees) (i) shall be performed in accordance with Service Requests issued by or on behalf of Client Company and accepted by Service Provider and (ii) shall be assigned to applicable activities, processes, projects, responsibility centers or on other appropriate bases to enable specific work to be properly assigned. Service Requests shall be as specific as practicable in defining the Services requested. Client Company shall have the right from time to time to amend or rescind any Service Request, *provided* that (a) Service Provider consents to any amendment that results in a material change in the scope of Services to be provided, (b) the costs associated with an amended or rescinded Service Request shall include the costs incurred by Service Provider as a result of such amendment or rescission, and (c) no amendment or rescission of a Service Request shall release Client Company from any liability for costs already incurred or contracted for by Service Provider pursuant to the original Service Request, regardless of whether any labor or the furnishing of any property or other resources has been commenced or completed.

## ARTICLE 3. COMPENSATION FOR SERVICES

Section 3.1 Cost of Services. As compensation for any Services rendered to it pursuant to this Agreement, Client Company shall pay to Service Provider the fully embedded cost thereof (i.e., the sum of (i) direct costs, (ii) indirect costs and (iii) costs of capital), except to the extent otherwise required by Section 482 of the Internal Revenue Code. As soon as practicable after the close of each month, Service Provider shall render to each Client Company a statement reflecting the billing information necessary to identify the costs charged for that month. By the last day of each month, Client Company shall remit to Service Provider all charged billed to it.

## ARTICLE 4. LIMITATION OF LIABILITY; INDEMNIFICATION

Section 4.1 Limitation of Liability/Services. In performing Services pursuant to Section 1.1 hereof, Service Provider will exercise due care to assure that the Services are performed in a workmanlike manner in accordance with the specifications set forth in the applicable Service Request and consistent with any applicable legal standards. The sole and exclusive responsibility of Service Provider for any deficiency therein shall be promptly to correct or repair such deficiency or to re-perform such Services, in either case at no additional cost to Client Company, so that the Services fully conform to the standards described in the first sentence of this Section 4.1. No Service Provider makes any other warranty with respect to the provision of Services, and each Client Company agrees to accept any Services without further warranty of any nature.

Section 4.2 Limitation of Liability/Loaned Employees. In furnishing Services under Section 1.2 hereof (i.e., involving loaned employees), neither the Service Provider, nor any officer, director, employee or agent thereof, shall have any responsibility whatever to any Client Company receiving such Services, and Client Company specifically releases Service Provider and such persons, on account of any claims, liabilities, injuries, damages or other consequences arising in connection with the provision of such Services under any theory of liability, whether in contract, tort (including negligence or strict liability) or otherwise, it being understood and agreed that any such loaned employees are made available without warranty as to their suitability or expertise.



Section 4.3 Disclaimer. WITH RESPECT TO ANY SERVICES PROVIDED UNDER THIS AGREEMENT, THE SERVICE PROVIDER THEREOF MAKES NO WARRANTY OR REPRESENTATION OTHER THAN AS SET FORTH IN SECTION 4.1, AND THE PARTIES HERETO HEREBY AGREE THAT NO OTHER WARRANTY, WHETHER STATUTORY, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE), SHALL BE APPLICABLE TO THE PROVISION OF ANY SUCH SERVICES. THE PARTIES FURTHER AGREE THAT THE REMEDIES STATED HEREIN ARE EXCLUSIVE AND SHALL CONSTITUTE THE SOLE AND EXCLUSIVE REMEDY OF ANY PARTY HERETO FOR A FAILURE BY ANY OTHER PARTY HERETO TO COMPLY WITH ITS WARRANTY OBLIGATIONS.

Section 4.4 Indemnification.

(a) Indemnification In Respect of Services Provided by Operating Company.

(i) In circumstances where Operating Company is a Service Provider: (x) subject to subparagraph (ii) of this Section 4.4(a), Service Provider shall release, defend, indemnify and hold harmless each Client Company, including any officer, director, employee or agent thereof, from and against, and shall pay the full amount of, any loss, liability, claim, damage, expense (including costs of investigation and defense and reasonable attorneys' fees), whether or not involving a third-party claim (collectively, "Damages"), incurred or sustained by or against Service Provider or any such Client Company arising, directly or indirectly, from or in connection with Service Provider's negligence or willful misconduct in the performance of the Services, and (y) each Nonutility Company that is a Client Company with respect to such Services shall release, defend, indemnify and hold harmless Service Provider, including any officer, director, employee or agent thereof, from and against, and shall pay the full amount of, any Damages incurred or sustained by or against Service Provider or any such Client Company arising, directly or indirectly, from or in connection with Service Provider's negligence or willful misconduct in the performance of the Services, to the extent such Damages are not covered by Service Provider's indemnification obligation as provided in the preceding clause (x) or exceed the liability limits provided in subparagraph (ii) of this Section 4.4(a).

(ii) Notwithstanding any other provision hereof, in circumstances where Operating Company is a Service Provider: (x) Service Provider's total liability hereunder with respect to any specific Services shall be limited to the amount actually paid to Service Provider for its performance of the specific Services for which the liability arises, and (y) under no circumstances shall Service Provider be liable for consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages, by statute, in tort or contract, under any indemnity provision or otherwise (it being the intent of the parties that the indemnification obligations in this Agreement shall cover only actual damages and accordingly, without limitation of the foregoing, shall be net of any insurance proceeds actually received in respect of any such damages).

(b) Indemnification In Respect of Services Provided by Any Nonutility Company.

(i) In circumstances where a Nonutility Company is a Service Provider (*i.e.*, where Operating Company is the Client Company): (x) subject to subparagraph (ii) of this Section 4.4(b),



Service Provider shall release, defend, indemnify and hold harmless the Client Company, including any officer, director, employee or agent thereof, from and against, and shall pay the full amount of, any Damages incurred or sustained by or against Client Company arising, directly or indirectly, from or in connection with Service Provider's negligence or willful misconduct in the performance of the Services.

(ii) Notwithstanding any other provision hereof, in circumstances where a Nonutility Company is a Service Provider (*i.e.*, where Operating Company is the Client Company), under no circumstances shall Service Provider be liable for consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages, by statute, in tort or contract, under any indemnity provision or otherwise (it being the intent of the parties that the indemnification obligations in this Agreement shall cover only actual damages and accordingly, without limitation of the foregoing, shall be net of any insurance proceeds actually received in respect of any such damages).

Section 4.5 Procedure for Indemnification. Within 15 business days after receipt by any Client Company of notice of any claim or the commencement of any action, suit, litigation or other proceeding against it (a "Proceeding") with respect to which it is eligible for indemnification hereunder, such Client Company shall notify Service Provider thereof in writing (it being understood that failure so to notify Service Provider shall not relieve the latter of its indemnification obligation, unless Service Provider establishes that defense thereof has been prejudiced by such failure). Thereafter, Service Provider shall be entitled to participate in such Proceeding and, at its election upon notice to such Client Company and at its expense, to assume the defense of such Proceeding. Without the prior written consent of such Client Company, Service Provider shall not enter into any settlement of any third-party claim that would lead to liability or create any financial or other obligation on the part of such Client Company for which it such Client Company is not entitled to indemnification hereunder. If such Client Company has given timely notice to Service Provider of the commencement of such Proceeding, but Service Provider has not, within 15 business days after receipt of such notice, given notice to Client Company of its election to assume the defense thereof, Service Provider shall be bound by any determination made in such Proceeding or any compromise or settlement made by Client Company. A claim for indemnification for any matter not involving a third-party claim may be asserted by notice from the applicable Client Company to Service Provider.

## ARTICLE 5. MISCELLANEOUS

Section 5.1 Amendments. Any amendments to this Agreement shall be in writing executed by each of the parties hereto. To the extent that applicable state law or regulation or other binding obligation requires that any such amendment be filed with the Kentucky Public Service Commission for its review or otherwise, Operating Company shall comply in all respects with any such requirements.

Section 5.2 Effective Date; Term. This Agreement shall become effective on the Effective Date and shall continue in full force and effect as to each party until terminated by any party, as to itself only, upon not less than 30 days prior written notice to the other parties hereto. Any such



Any such termination of parties shall not be deemed an amendment hereto. This Agreement may be terminated and thereafter be of no further force and effect upon the mutual consent of all of the parties hereto.

Section 5.3 Additional Parties. After the effective date of this Agreement, additional Nonutility Companies may become parties to this Agreement by executing appropriate signature pages, whereupon any such additional signatory shall be deemed a "party" hereto all purposes hereof and shall thereupon become bound by the terms and conditions of this Agreement as if an original party hereto. The addition of any such further signatories, in the absence of any changes to the terms of this Agreement, shall not be deemed an amendment hereto.

Section 5.4 Entire Agreement. This Agreement contains the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes any prior or contemporaneous contracts, agreements, understandings or arrangements, whether written or oral, with respect thereto (including that certain Services Agreement between Operating Company and certain nonutility subsidiaries of Duke Energy dated April 3, 2006). Any oral or written statements, representations, promises, negotiations or agreements, whether prior hereto or concurrently herewith, are superseded by and merged into this Agreement.

Section 5.5 Severability. If any provision of this Agreement or any application thereof shall be determined to be invalid or unenforceable, the remainder of this Agreement and any other application thereof shall not be affected thereby.

Section 5.6 Assignment. Neither this Agreement nor any of the rights, interests or obligations hereunder shall be assigned, in whole or in part, by operation of law or otherwise by any of the parties hereto without the prior written consent of each of the other parties. Any attempted or purported assignment in violation of the preceding sentence shall be null and void and of no effect whatsoever. Subject to the preceding two sentences, this Agreement shall be binding upon, inure to the benefit of, and be enforceable by, the parties and their respective successors and assigns.

Section 5.7 Governing Law. This Agreement shall be construed and enforced under and in accordance with the laws of the State of Kentucky, without regard to conflicts of laws principles.

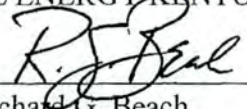
Section 5.8 Captions, etc. The captions and headings used in this Agreement are for convenience of reference only and shall not affect the construction to be accorded any of the provisions hereof. As used in this Agreement, "hereof," "hereunder," "herein," "hereto," and words of like import refer to this Agreement as a whole and not to any particular section or other paragraph or subparagraph thereof.

Section 5.9 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed a duplicate original hereof, but all of which shall be deemed one and the same Agreement.

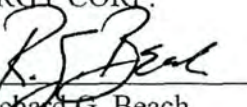
[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be executed on its behalf by an appropriate officer thereunto duly authorized.

DUKE ENERGY KENTUCKY, INC.

By:   
Richard G. Beach  
Assistant Secretary

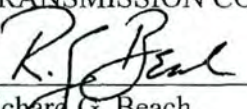
CINERGY CORP.

By:   
Richard G. Beach  
Assistant Secretary

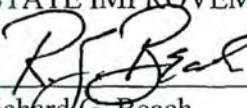
CINERGY INVESTMENTS, INC.

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

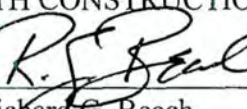
KO TRANSMISSION COMPANY

By:   
Richard G. Beach  
Assistant Secretary

TRI-STATE IMPROVEMENT COMPANY

By:   
Richard G. Beach  
Assistant Secretary

SOUTH CONSTRUCTION COMPANY, INC.

By:   
Richard G. Beach  
Assistant Secretary



IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be executed on its behalf by an appropriate officer thereunto duly authorized.

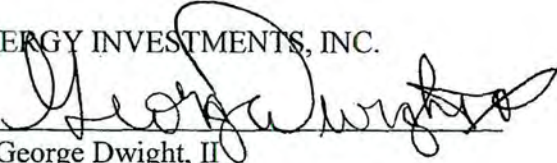
DUKE ENERGY KENTUCKY, INC.

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

CINERGY CORP.

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Richard G. Beach  
Assistant Secretary

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Richard G. Beach  
Assistant Secretary

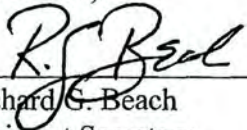
TRI-STATE IMPROVEMENT COMPANY

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

SOUTH CONSTRUCTION COMPANY, INC.

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

CINPOWER I, LLC

By:   
Richard G. Beach  
Assistant Secretary

DUKE ENERGY ENGINEERING, INC.

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

DUKE ENERGY GENERATION SERVICES  
HOLDING COMPANY, INC.

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

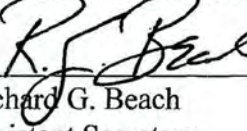
SUEZ-DEGS, LLC

By: \_\_\_\_\_  
David A. Ledonne  
Vice President

SUEZ-DEGS OF ORLANDO, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

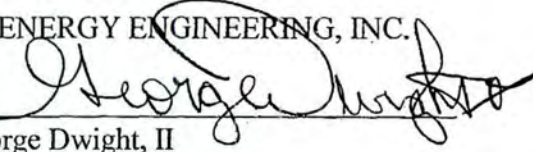
DUKE-RELIANT RESOURCES, INC.


By:   
Richard G. Beach  
Assistant Secretary



CINPOWER I, LLC


By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

DUKE ENERGY ENGINEERING, INC.  
By:   
George Dwight, II  
Assistant Secretary

DUKE ENERGY GENERATION SERVICES  
HOLDING COMPANY, INC.  
By:   
George Dwight, II  
Assistant Secretary

SUEZ-DEGS, LLC

By: \_\_\_\_\_  
David A. Ledonne  
Vice President

SUEZ-DEGS OF ORLANDO, LLC  
By:   
George Dwight, II  
Assistant Secretary

DUKE-RELIANT RESOURCES, INC.

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Richard G. Beach  
Assistant Secretary

CINPOWER I, LLC

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Richard G. Beach  
Assistant Secretary

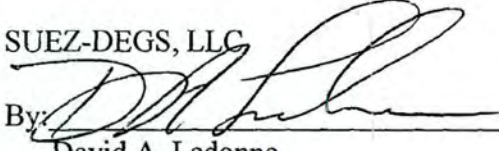
DUKE ENERGY ENGINEERING, INC.

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

DUKE ENERGY GENERATION SERVICES  
HOLDING COMPANY, INC.

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Vice President

SUEZ-DEGS OF ORLANDO, LLC

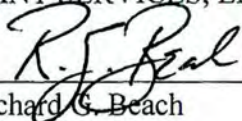
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George Dwight, II  
Assistant Secretary

DUKE-RELIANT RESOURCES, INC.

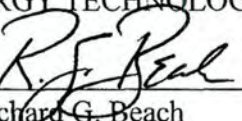
By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary



RELIANT SERVICES, LLC

By:   
Richard G. Beach  
Assistant Secretary

CINERGY TECHNOLOGY, INC.

By:   
Richard G. Beach  
Assistant Secretary

DEGS OF TUSCOLA, INC.

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

ENERGY EQUIPMENT LEASING LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

DEGS OF BOCA RATON, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

DEGS OF CINCINNATI, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary


RELIANT SERVICES, LLC

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

CINERGY TECHNOLOGY, INC.

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Richard G. Beach  
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DEGS OF TUSCOLA, INC

By:  \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

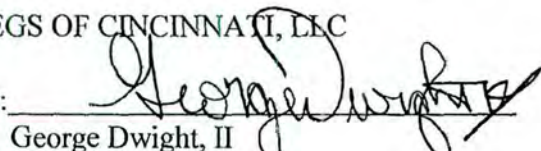
ENERGY EQUIPMENT LEASING LLC

By:  \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

DEGS OF BOCA RATON, LLC

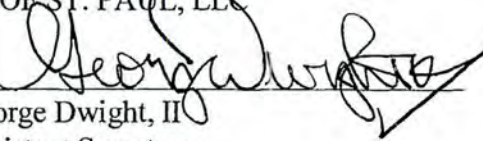
By:  \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

DEGS OF CINCINNATI, LLC

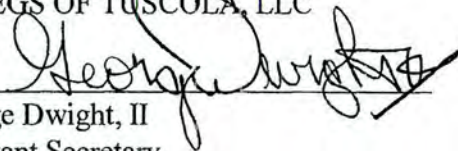
By:  \_\_\_\_\_  
George Dwight, II  
Assistant Secretary



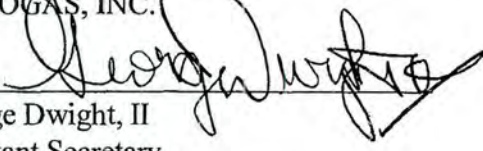
DEGS OF ST. PAUL, LLC

By:   
George Dwight, II  
Assistant Secretary

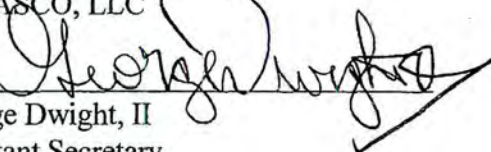
SUEZ-DEGS OF TUSCOLA, LLC

By:   
George Dwight, II  
Assistant Secretary

DEGS BIOGAS, INC.

By:   
George Dwight, II  
Assistant Secretary

DEGS GASCO, LLC

By:   
George Dwight, II  
Assistant Secretary

DUKE ENERGY ONE, INC.

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

CINERGY POWER GENERATION SERVICES, LLC

By: \_\_\_\_\_  
Joseph E. Lentz, Jr.  
Vice President

DEGS OF ST. PAUL, LLC

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Assistant Secretary

SUEZ-DEGS OF TUSCOLA, LLC

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George Dwight, II  
Assistant Secretary

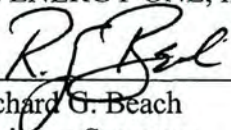
DEGS BIOGAS, INC.

By: \_\_\_\_\_  
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Assistant Secretary

DEGS GASCO, LLC

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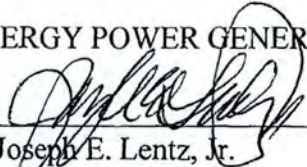
DEGS GASCO, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

DUKE ENERGY ONE, INC.

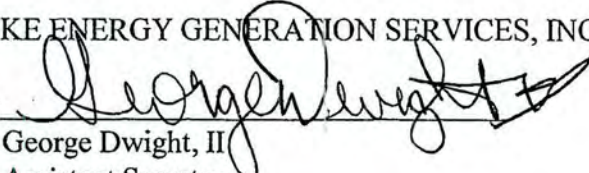
By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

CINERGY POWER GENERATION SERVICES, LLC

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Vice President

DUKE ENERGY GENERATION SERVICES, INC.

By: \_\_\_\_\_

  
George Dwight, II  
Assistant Secretary

DUKE TECHNOLOGIES, INC.

By: \_\_\_\_\_

Richard G. Beach  
Assistant Secretary

DUKE VENTURES II, LLC

By: \_\_\_\_\_

Richard G. Beach  
Assistant Secretary

CINERGY WHOLESALE ENERGY, INC.

By: \_\_\_\_\_

Joseph E. Lentz, Jr.  
Vice President

DUKETEC, LLC

By: \_\_\_\_\_

Richard G. Beach  
Assistant Secretary

DUKETEC I, LLC

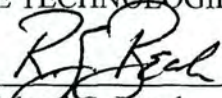
By: \_\_\_\_\_

Richard G. Beach  
Assistant Secretary

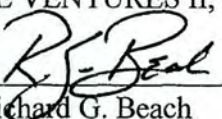
DUKE ENERGY GENERATION SERVICES, INC.

By: \_\_\_\_\_  
George Dwight, II  
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DUKE TECHNOLOGIES, INC.

By:  \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

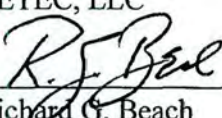
DUKE VENTURES II, LLC

By:  \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

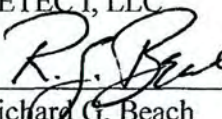
CINERGY WHOLESALE ENERGY, INC.

By: \_\_\_\_\_  
Joseph E. Lentz, Jr.  
Vice President

DUKETEC, LLC

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Richard G. Beach  
Assistant Secretary

DUKETEC I, LLC

By:  \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary



DUKE ENERGY GENERATION SERVICES, INC.

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George Dwight, II  
Assistant Secretary

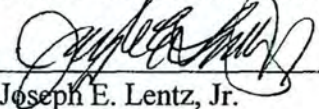
DUKE TECHNOLOGIES, INC.

By: \_\_\_\_\_  
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Assistant Secretary

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CINERGY WHOLESALE ENERGY, INC.

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Vice President

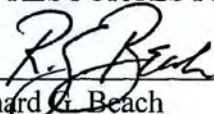
DUKETEC, LLC

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

DUKETEC I, LLC

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

EVENT RESOURCES I LLC

By:   
Richard G. Beach  
Assistant Secretary

LANSING GRAND RIVER UTILITIES, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

OKLAHOMA ARCADIAN UTILITIES, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

SHREVEPORT RED RIVER UTILITIES, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

SYNCAP II, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

SUEZ/VWNA/DEGS OF LANSING, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

EVENT RESOURCES I LLC

By: \_\_\_\_\_  
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Assistant Secretary

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George Dwight, II  
Assistant Secretary

SUEZ/VWNA/DEGS OF LANSING, LLC


By: George Dwight, II  
George Dwight, II  
Assistant Secretary




BSPE, L.P.

By:   
Wouter T. van Kempen  
Authorized Representative


BSPE GENERAL, LLC

By:   
Wouter T. van Kempen  
Authorized Representative

BSPE HOLDINGS, LLC

By:   
Wouter T. van Kempen  
Authorized Representative

BSPE LIMITED, LLC

By:   
Wouter T. van Kempen  
Authorized Representative

CSGP OF SOUTHEAST TEXAS, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

OWINGS MILLS ENERGY EQUIPMENT LEASING LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

BSPE, L.P.

By: \_\_\_\_\_  
Wouter T. van Kempen  
Authorized Representative

BSPE GENERAL, LLC

By: \_\_\_\_\_  
Wouter T. van Kempen  
Authorized Representative

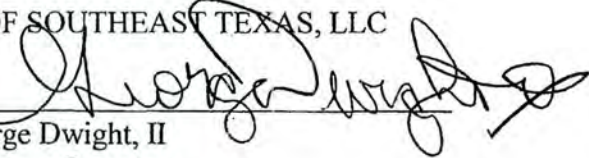
BSPE HOLDINGS, LLC

By: \_\_\_\_\_  
Wouter T. van Kempen  
Authorized Representative

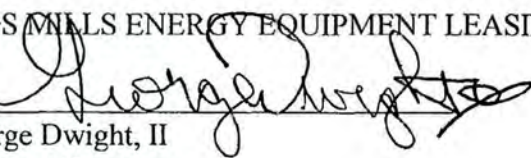
BSPE LIMITED, LLC

By: \_\_\_\_\_  
Wouter T. van Kempen  
Authorized Representative

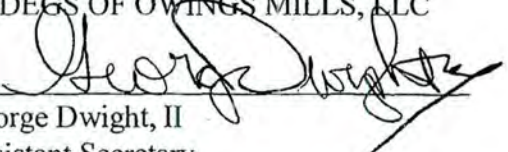
CSGP OF SOUTHEAST TEXAS, LLC

By:   
George Dwight, II  
Assistant Secretary


OWINGS MILLS ENERGY EQUIPMENT LEASING LLC

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George Dwight, II  
Assistant Secretary

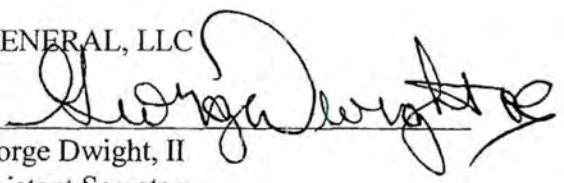
SUEZ-DEGS OF OWINGS MILLS, LLC

By:   
George Dwight, II  
Assistant Secretary

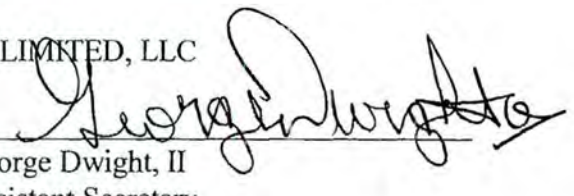
CST LIMITED, LLC

By:   
George Dwight, II  
Assistant Secretary

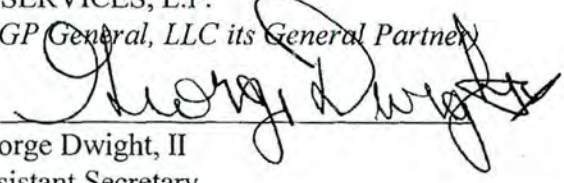
CST GENERAL, LLC

By:   
George Dwight, II  
Assistant Secretary

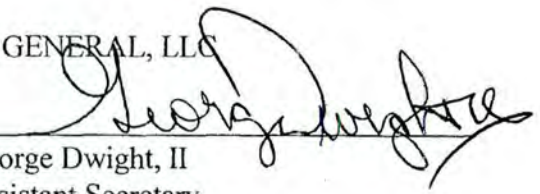
CSGP LIMITED, LLC

By:   
George Dwight, II  
Assistant Secretary

CSGP SERVICES, L.P.  
*(by CSGP General, LLC its General Partner)*


By:   
George Dwight, II  
Assistant Secretary

CSGP GENERAL, LLC

By:   
George Dwight, II  
Assistant Secretary



CINERGY GLOBAL TRADING LIMITED

By:   
\_\_\_\_\_  
Julia S. Janson  
Secretary

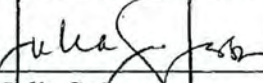
CINERGY ORIGINATION & TRADE, LLC

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

DEGS OF PHILADELPHIA, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

OHIO RIVER VALLEY PROPANE, LLC

By:   
\_\_\_\_\_  
Julia S. Janson  
Secretary

CINERGY RETAIL POWER LIMITED, INC.

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

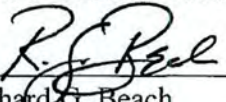
CINERGY RETAIL POWER GENERAL, INC.

By: \_\_\_\_\_  
Joseph E. Lentz, Jr.  
Vice President

CINERGY GLOBAL TRADING LIMITED

By: \_\_\_\_\_  
Julia S. Janson  
Secretary

CINERGY ORIGINATION & TRADE, LLC

By:  \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary


DEGS OF PHILADELPHIA, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

OHIO RIVER VALLEY PROPANE, LLC

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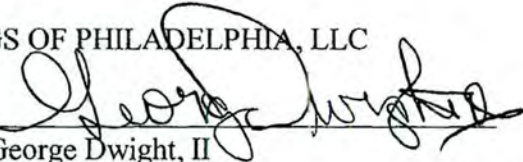
CINERGY GLOBAL TRADING LIMITED

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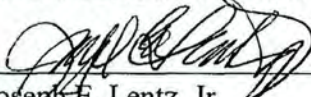
OHIO RIVER VALLEY PROPANE, LLC

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Secretary

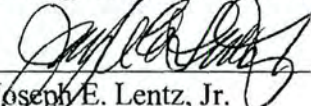
CINERGY RETAIL POWER LIMITED, INC.

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

CINERGY RETAIL POWER GENERAL, INC.

By:  \_\_\_\_\_  
Joseph E. Lentz, Jr.  
Vice President

CINERGY RETAIL POWER, L.P.  
(by Cinergy Retail Power General, Inc. its General Partner)

By:   
Joseph E. Lentz, Jr.  
Vice President

DELTA TOWNSHIP UTILITIES, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

CINERGY LIMITED HOLDINGS, LLC

By: \_\_\_\_\_  
Greer E. Mendelow  
Assistant Secretary

CINERGY GENERAL HOLDINGS, LLC

By: \_\_\_\_\_  
Julia S. Janson  
Secretary

CINERGY RECEIVABLES COMPANY LLC

By: \_\_\_\_\_  
Richard G. Beach  
Secretary

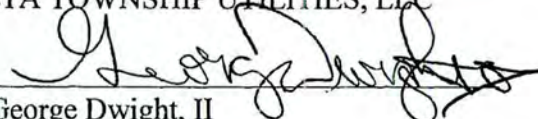
CINFUEL RESOURCES, INC.

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

CINERGY RETAIL POWER, L.P.  
(by *Cinergy Retail Power General, Inc. its General Partner*)

By: \_\_\_\_\_  
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DELTA TOWNSHIP UTILITIES, LLC

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Assistant Secretary

CINERGY LIMITED HOLDINGS, LLC

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Greer E. Mendelow  
Assistant Secretary

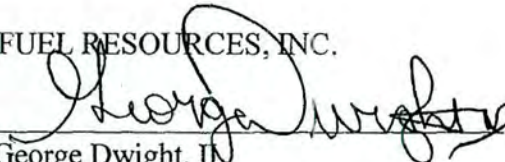
CINERGY GENERAL HOLDINGS, LLC

By: \_\_\_\_\_  
Julia S. Janson  
Secretary

CINERGY RECEIVABLES COMPANY LLC

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Secretary

CINFUEL RESOURCES, INC.

By:   
George Dwight, II  
Assistant Secretary



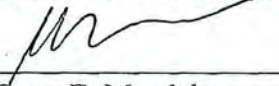
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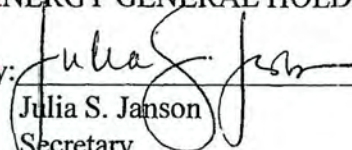
DELTA TOWNSHIP UTILITIES, LLC

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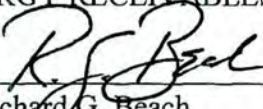
CINERGY LIMITED HOLDINGS, LLC

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Assistant Secretary

CINERGY GENERAL HOLDINGS, LLC

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Secretary

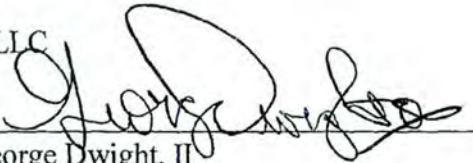
CINERGY RECEIVABLES COMPANY LLC

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Richard G. Beach  
Secretary

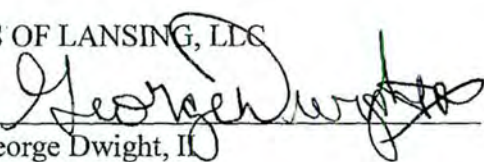
CINFUEL RESOURCES, INC.

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

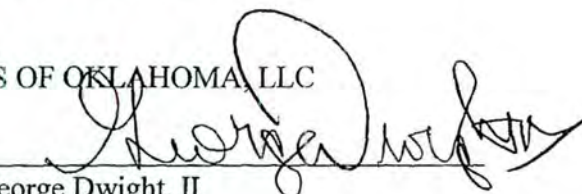


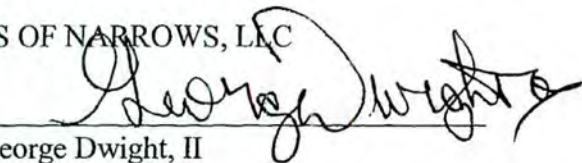
LH1, LLC  
By:   
George Dwight, II  
Assistant Secretary

OAK MOUNTAIN PRODUCTS, LLC  
By:   
George Dwight, II  
Assistant Secretary


DEGS OF LANSING, LLC  
By:   
George Dwight, II  
Assistant Secretary

DEGS OF SHREVEPORT, LLC  
By:   
George Dwight, II  
Assistant Secretary

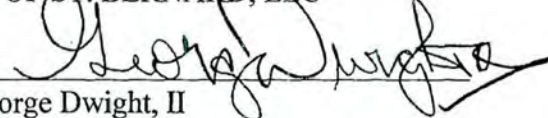
DEGS OF OKLAHOMA, LLC  
By:   
George Dwight, II  
Assistant Secretary

DEGS OF NARROWS, LLC  
By:   
George Dwight, II  
Assistant Secretary

DEGS OF ROCK HILL, LLC

By:   
George Dwight, II  
Assistant Secretary


DEGS OF ST. BERNARD, LLC

By:   
George Dwight, II  
Assistant Secretary

CINERGY CLIMATE CHANGE INVESTMENTS, LLC

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary


DEGS OF MONACA, LLC

By:   
George Dwight, II  
Assistant Secretary

DUKETEC II, LLC

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

DEGS OF SAN DIEGO, INC.

By:   
George Dwight, II  
Assistant Secretary

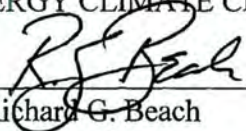
DEGS OF ROCK HILL, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

DEGS OF ST. BERNARD, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

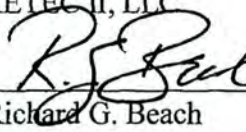
CINERGY CLIMATE CHANGE INVESTMENTS, LLC

By:  \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

DEGS OF MONACA, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

DUKETEC II, LLC

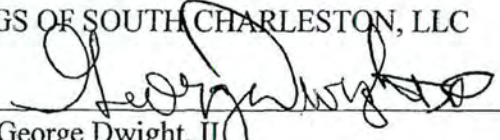
By:  \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

DEGS OF SAN DIEGO, INC.

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George Dwight, II  
Assistant Secretary




DEGS OF SOUTH CHARLESTON, LLC

By:   
George Dwight, II  
Assistant Secretary

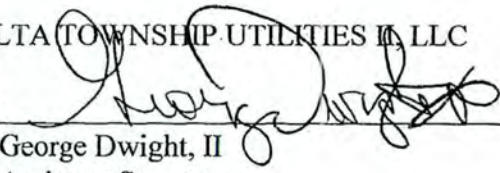
CINERGY SOLUTIONS – UTILITY, INC.

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

DEGS O&M, LLC

By:   
George Dwight, II  
Assistant Secretary

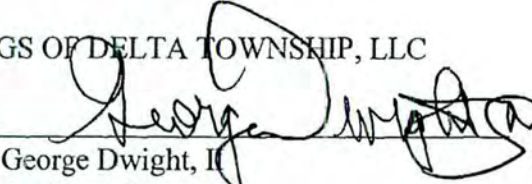
DELTA TOWNSHIP UTILITIES II, LLC

By:   
George Dwight, II  
Assistant Secretary

ENVIRONMENTAL WOOD SUPPLY, LLC

By: \_\_\_\_\_  
David A. Ledonne  
Vice President

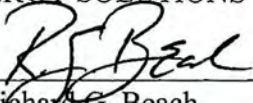
DEGS OF DELTA TOWNSHIP, LLC

By:   
George Dwight, II  
Assistant Secretary

DEGS OF SOUTH CHARLESTON, LLC

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George Dwight, II  
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CINERGY SOLUTIONS – UTILITY, INC.

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ENVIRONMENTAL WOOD SUPPLY, LLC

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David A. Ledonne  
Vice President

DEGS OF DELTA TOWNSHIP, LLC

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George Dwight, II  
Assistant Secretary

DEGS OF SOUTH CHARLESTON, LLC

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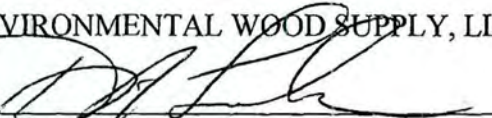
DEGS O&M, LLC

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ENVIRONMENTAL WOOD SUPPLY, LLC

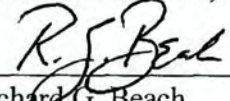
By:   
David A. Ledonne  
Vice President

DEGS OF DELTA TOWNSHIP, LLC

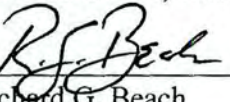
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George Dwight, II  
Assistant Secretary



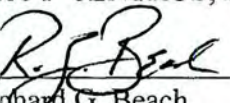
DUKE BROADBAND, LLC

By:   
Richard G. Beach  
Assistant Secretary

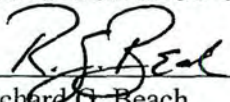
DUKE-CADENCE, INC.

By:   
Richard G. Beach  
Assistant Secretary

CINERGY-CENTRUS, INC.

By:   
Richard G. Beach  
Assistant Secretary

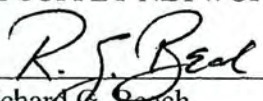
CINERGY-CENTRUS COMMUNICATIONS, INC.

By:   
Richard G. Beach  
Assistant Secretary

DEGS EPCOM COLLEGE PARK, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

DUKE SUPPLY NETWORK, LLC

By:   
Richard G. Beach  
Assistant Secretary

DUKE BROADBAND, LLC

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Assistant Secretary

DUKE-CADENCE, INC.

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Richard G. Beach  
Assistant Secretary

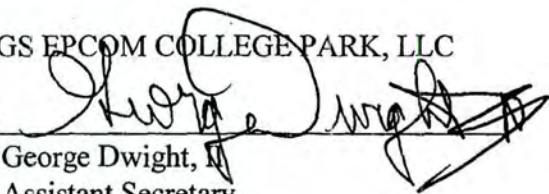
CINERGY-CENTRUS, INC.

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Assistant Secretary

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Assistant Secretary


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George Dwight,  
Assistant Secretary

DUKE SUPPLY NETWORK, LLC

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

CINERGY SOLUTIONS PARTNERS, LLC  
(by Duke Energy Generation Services, Inc. its Managing Member)

By:   
George Dwight, II  
Assistant Secretary

DUKE COMMUNICATIONS HOLDINGS, INC.

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

CINERGY TWO, INC.

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

GREEN POWER G.P., LLC

By: \_\_\_\_\_  
Wouter T. van Kempen  
Authorized Representative

GREEN POWER HOLDINGS, LLC

By: \_\_\_\_\_  
Wouter T. van Kempen  
Authorized Representative

GREEN POWER LIMITED, LLC

By: \_\_\_\_\_  
Wouter T. van Kempen  
Authorized Representative



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George Dwight, II  
Assistant Secretary

DUKE COMMUNICATIONS HOLDINGS, INC.

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Richard G. Beach  
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GREEN POWER LIMITED, LLC

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Authorized Representative

SUEZ-DEGS OF ASHTABULA, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

SUEZ-DEGS OF LANSING, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

SUEZ-DEGS OF ROCHESTER, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

SUEZ-DEGS OF SILVER GROVE, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

DUKE ENERGY CORPORATION

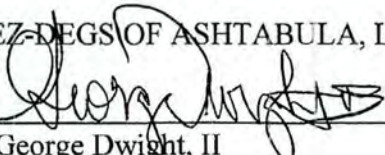
By:  \_\_\_\_\_  
Richard G. Beach  
Assistant Corporate Secretary

BISON INSURANCE COMPANY LIMITED

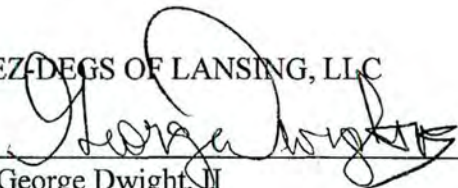
By: \_\_\_\_\_  
Edwin Keith Bone  
Senior Vice President



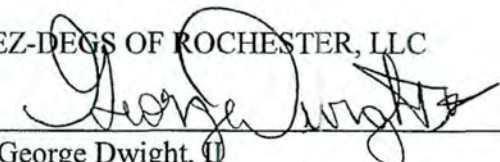
SUEZ-DEGS OF ASHTABULA, LLC

By:   
George Dwight, II  
Assistant Secretary

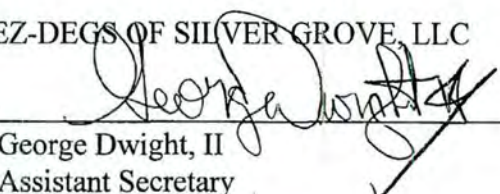
SUEZ-DEGS OF LANSING, LLC

By:   
George Dwight, II  
Assistant Secretary

SUEZ-DEGS OF ROCHESTER, LLC

By:   
George Dwight, II  
Assistant Secretary

SUEZ-DEGS OF SILVER GROVE, LLC

By:   
George Dwight, II  
Assistant Secretary

DUKE ENERGY CORPORATION

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Corporate Secretary

BISON INSURANCE COMPANY LIMITED

By: \_\_\_\_\_  
George V. Brown  
President and Chief Executive Officer

SUEZ-DEGS OF ASHTABULA, LLC

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George Dwight, II  
Assistant Secretary

SUEZ-DEGS OF LANSING, LLC

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Assistant Secretary

SUEZ-DEGS OF ROCHESTER, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

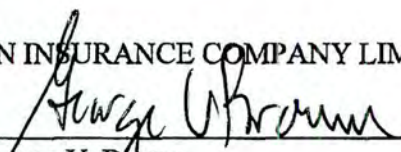
SUEZ-DEGS OF SILVER GROVE, LLC

By: \_\_\_\_\_  
George Dwight, II  
Assistant Secretary

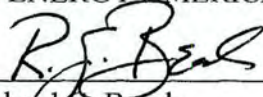
DUKE ENERGY CORPORATION

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Richard G. Beach  
Assistant Corporate Secretary


BISON INSURANCE COMPANY LIMITED

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George V. Brown  
President and Chief Executive Officer

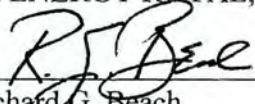
DUKE ENERGY AMERICAS, LLC

By:   
Richard G. Beach  
Assistant Secretary

DUKE ENERGY GLOBAL MARKETS, INC.

By:   
Richard G. Beach  
Assistant Secretary

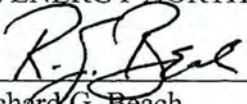
DUKE ENERGY ROYAL, LLC

By:   
Richard G. Beach  
Assistant Secretary

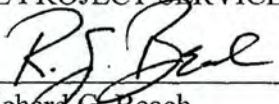
DUKE ENERGY INTERNATIONAL, LLC

By: \_\_\_\_\_  
Javier Gonzalez  
Assistant Secretary

DUKE ENERGY NORTH AMERICA, LLC

By:   
Richard G. Beach  
Assistant Secretary

DUKE PROJECT SERVICES, INC.

By:   
Richard G. Beach  
Assistant Secretary



DUKE ENERGY AMERICAS, LLC

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

DUKE ENERGY GLOBAL MARKETS, INC.

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

DUKE ENERGY ROYAL, LLC

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

DUKE ENERGY INTERNATIONAL, LLC

By: Javier Gonzalez  
Javier Gonzalez  
Assistant Secretary

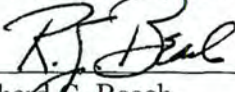
DUKE ENERGY NORTH AMERICA, LLC

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary

DUKE PROJECT SERVICES, INC.

By: \_\_\_\_\_  
Richard G. Beach  
Assistant Secretary


DUKE VENTURES, LLC

By:   
Richard G. Beach  
Assistant Secretary

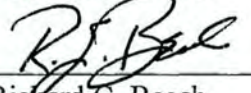
CRESCENT RESOURCES, LLC

By: \_\_\_\_\_  
Kay H. Arnette  
Assistant Secretary

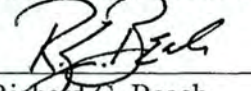
DUKENET COMMUNICATIONS, LLC

By:   
Richard G. Beach  
Assistant Secretary

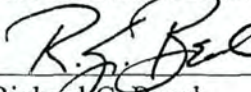
PANENERGY CORP

By:   
Richard G. Beach  
Assistant Secretary

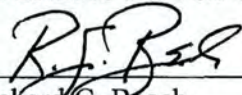
DUKE ENERGY SERVICES, INC.

By:   
Richard G. Beach  
Assistant Secretary


DETMi MANAGEMENT, INC.

By:   
Richard G. Beach  
Assistant Secretary

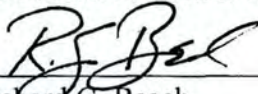
DUKE ENERGY BUSINESS SERVICES LLC

By:   
Richard G. Beach  
Assistant Secretary


DUKE ENERGY MERCHANTS, LLC

By:   
Richard G. Beach  
Assistant Secretary

DUKE ENERGY RECEIVABLES FINANCE COMPANY, LLC

By:   
Richard G. Beach  
Assistant Secretary

DUKENET COMMUNICATION SERVICES, LLC

By:   
Richard G. Beach  
Assistant Secretary



Service Request Form

Please use this form for all service requests. All data fields are required.

Facilitator/Contact Information:

First Name:

Last Name:

Phone:

Email:

Service Provider:

- Pull Down List to Select -

Or Other:

- Pull Down List to Select -

Service Provider Contact Information:

First Name:

Last Name:

Phone:

email Address of Service Provider Approver:

The approver should be appropriate according to the Expenditures, Divestitures & Terminations Category of the Delegation of Authority (DOA) matrix.

Description of Proposed Service and Please Provide Basis for Estimated Costs:

Client Company:

- Pull Down List to Select -

Or Other:

- Pull Down List to Select -

Client Company Contact Information:

First Name:

Last Name:

Phone:

(this e-mail address must be filled in properly for form to send automatically to the Client Approver)

email Address of Client Company

The approver should be appropriate

Approver: according to the Expenditures,  
Divestitures & Terminations Category of  
the Delegation of Authority (DOA) matrix.

Estimated Costs: \$   
Format Numbers Only - do not include commas or periods

Scheduled Start Date:   
MM/DD/YYYY

Scheduled  
Completion Date:   
MM/DD/YYYY

Legal Approval  
Representative:

**Accounting codes (FMIS / BDMS) of Duke Energy  
Company receiving the services:**

Process / Work Code(s):

n/a / Corp. Number:

RCTo / Line of Business:

RCEfrom / Center:

Project:

Activity:



**ASSYMMETRICALLY-PROCEED DUKE ENERGY KENTUCKY, INC. /NONUTILITY  
COMPANIES  
SERVICE AGREEMENT**

This **Operating Company/Nonutility Companies Service Agreement** (this "Agreement") is made and entered into as of October 1, 2009 (the "Effective Date") by and among Duke Energy Kentucky, Inc., a Kentucky corporation ("**Operating Company**"), and the respective **associate nonutility companies** listed on the signature pages hereto (each, a "Nonutility Company").

**WITNESSETH:**

**WHEREAS**, Duke Energy Corporation ("**Duke Energy**") is a Delaware corporation;

**WHEREAS**, Operating Company is a subsidiary of Duke Energy and a public utility company;

**WHEREAS**, each Nonutility Company is a subsidiary of Duke Energy that is or was formed to engage in any one or more non-regulated businesses;

**WHEREAS**, in the ordinary course of their businesses, Operating Company and each Nonutility Company maintain **organizations** of employees with technical expertise in matters affecting public utility companies and related businesses and own or **acquire related** equipment, facilities, properties and other **resources**; and

**WHEREAS**, **subject** to the **terms** and conditions herein set forth, and taking into consideration the parties' utility responsibilities or **primary** business operations, as the **case** may be, the parties hereto are willing, upon request from time to time, to perform such services, and in connection therewith to make available such equipment, facilities, properties **and** other resources, **as** they shall request from each other;

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants herein contained, the parties agree as follows:

**ARTICLE 1. PROVISION OF SERVICES; LOANED EMPLOYEES**

Section 1.1 **Provision of Services.**

(a) Upon receipt by a party hereto (in **such** capacity, a "Service Provider") of a written request in substantially the form attached hereto as Exhibit A (a "Service Request") from another party hereto (in such capacity, a "Client Company") for the provision to such Client Company of such services as are specified therein, including if applicable use of any related equipment, facilities, properties or other **resources** (collectively, "Services"), the Service Provider, if in its sole discretion it has available the **personnel** or other resources **needed** to perform the Service Request without impairment of its utility **responsibilities** or **business** operations, as the **case** may be, shall furnish such Services to the Client Company at such times, for such periods and in such **manner** as the Client Company shall have so requested and **otherwise** in accordance with the provisions **hereof**.



(b) For purposes of this Agreement, "Services" may include, but shall not be limited to: (i) in the case of Services that may be provided by Operating Company hereunder, services in such areas as engineering and construction; operations and maintenance; installation services; equipment testing; generation technical support; environmental, health and safety; and procurement services; and (ii) in the case of Services that may be provided by Nonutility Companies hereunder, services in such areas as information technology services; monitoring, surveying, inspecting, constructing, locating and marking of overhead and underground utility facilities; meter reading; materials management; vegetation management; and marketing and customer relations.

(c) For the avoidance of doubt, affiliate transactions involving sales or other transfers of assets, goods, energy commodities (including electricity, natural gas, coal and other combustible fuels) or thermal energy products are outside the scope of this Agreement.

#### Section 1.2 Loaned Employees

(a) If specifically requested in connection with the provision of Services, Service Provider shall loan one or more of its employees to such Client Company, provided that such loan shall not, in the sole discretion of Service Provider, interfere with or impair Service Provider's utility responsibilities or business operations, as the case may be. After the commencement thereof, any such loaned employees may be withdrawn by Service Provider from tasks duly assigned by Client Company, prior to completion thereof as contemplated in the associated Service Request, only with the consent of Client Company (which shall not be unreasonably withheld or delayed), except in the event of a demonstrable emergency requiring the use of any such employees in another capacity for Service Provider.

(b) While performing work on behalf of Client Company, any such loaned employees shall be under its supervision and control, and Client Company shall be responsible for their actions to the same extent as though such persons were its employees (it being understood that such persons shall nevertheless remain employees of Service Provider and nothing herein shall be construed as creating an employer-employee relationship between any Client Company and any loaned employees). Accordingly, for the duration of any such loan, Service Provider shall continue to provide its loaned employees with the same payroll, pension, savings, tax withholding, unemployment, bookkeeping and other personnel support services then being provided by Service Provider to its other employees.

### ARTICLE 2. SERVICE REQUESTS

Section 2.1 Procedure. All Services (including any loans of employees) (i) shall be performed in accordance with Service Requests issued by or on behalf of Client Company and accepted by Service Provider and (ii) shall be assigned to applicable activities, processes, projects, responsibility centers or on other appropriate bases to enable specific work to be properly assigned. Service Requests shall be as specific as practicable in defining the Services requested. Client Company shall have the right from time to time to amend or rescind any Service Request, provided that (a) Service Provider consents to any amendment that results in a material change in the scope of Services to be provided, (b) the costs associated with an amended or rescinded Service Request shall include the costs incurred by Service Provider as a result of such amendment or rescission, and (c) no



amendment or rescission of a Service Request shall release Client Company from any liability for costs already incurred or contracted for by Service Provider pursuant to the original Service Request, regardless of whether any labor or the furnishing of any property or other resources has been commenced or completed.

### ARTICLE 3. COMPENSATION FOR SERVICES

Section 3.1 **Cost of Services.** Except to the extent otherwise required by Section 482 of the Internal Revenue Code or analogous state tax law, as compensation for any Services rendered to it pursuant to this Agreement, Client Company shall pay to Service Provider an amount consistent with the Commonwealth of Kentucky's affiliate transaction pricing requirements, KRS 278.2207. Accordingly (i) Services provided by the Operating Company to a Nonutility Company shall be priced at the greater of Cost or market, and (ii) Services provided by a Nonutility Company to the Operating Company shall be priced at the lesser of Cost or market. "Cost" means the sum of (i) direct costs, (ii) indirect costs and (iii) costs of capital. As soon as practicable after the close of each month, Service Provider shall render to each Client Company a statement reflecting the billing information necessary to identify the costs charged for that month. By the last day of each month, Client Company shall remit to Service Provider all charges billed to it. For avoidance of doubt, the Service Provider and each Client Company may satisfy the foregoing requirement by recording billings and payments required hereunder in their common accounting systems without rendering paper or electronic monthly statements or remitting cash payments.

### ARTICLE 4. LIMITATION OF LIABILITY; INDEMNIFICATION

Section 4.1 **Limitation of Liability/Services.** In performing Services pursuant to Section 1.1 hereof, Service Provider will exercise due care to assure that the Services are performed in a workmanlike manner in accordance with the specifications set forth in the applicable Service Request and consistent with any applicable legal standards. The sole and exclusive responsibility of Service Provider for any deficiency therein shall be promptly to correct or repair such deficiency or to re-perform such Services, in either case at no additional cost to Client Company, so that the Services fully conform to the standards described in the first sentence of this Section 4.1. No Service Provider makes any other warranty with respect to the provision of Services, and each Client Company agrees to accept any Services without further warranty of any nature.

Section 4.2 **Limitation of Liability/Loaned Employees.** In furnishing Services under Section 1.2 hereof (i.e., involving loaned employees), neither the Service Provider, nor any officer, director, employee or agent thereof, shall have any responsibility whatever to any Client Company receiving such Services, and Client Company specifically releases Service Provider and such persons, on account of any claims, liabilities, injuries, damages or other consequences arising in connection with the provision of such Services under any theory of liability, whether in contract, tort (including negligence or strict liability) or otherwise, it being understood and agreed that any such loaned employees are made available without warranty as to their suitability or expertise.

Section 4.3 **Disclaimer.** WITH RESPECT TO ANY SERVICES PROVIDED UNDER THIS AGREEMENT, THE SERVICE PROVIDER THEREOF MAKES NO WARRANTY OR REPRESENTATION OTHER THAN AS SET FORTH IN SECTION 4.1, AND THE PARTIES



HERETO HEREBY AGREE THAT NO OTHER WARRANTY, WHETHER STATUTORY, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE), SHALL BE APPLICABLE TO THE PROVISION OF ANY SUCH SERVICES. THE PARTIES FURTHER AGREE THAT THE REMEDIES STATED HEREIN ARE EXCLUSIVE AND SHALL CONSTITUTE THE SOLE AND EXCLUSIVE REMEDY OF ANY PARTY HERETO FOR A FAILURE BY ANY OTHER PARTY HERETO TO COMPLY WITH ITS WARRANTY OBLIGATIONS.

Section 4.4 Indemnification.

(a) Indemnification In Respect of Services Provided by Operating Company.

(i) In circumstances where Operating Company is a Service Provider: (x) subject to subparagraph (ii) of this Section 4.4(a), Service Provider shall release, defend, indemnify and hold harmless each Client Company, including any officer, director, employee or agent thereof, from and against, and shall pay the full amount of, any loss, liability, claim, damage, expense (including costs of investigation and defense and reasonable attorneys' fees), whether or not involving a third-party claim (collectively, "Damages"), incurred or sustained by or against Service Provider or any such Client Company arising, directly or indirectly, from or in connection with Service Provider's negligence or willful misconduct in the performance of the Services, and (y) each Nonutility Company that is a Client Company with respect to such Services shall release, defend, indemnify and hold harmless Service Provider, including any officer, director, employee or agent thereof, from and against, and shall pay the full amount of, any Damages incurred or sustained by or against Service Provider or any such Client Company arising, directly or indirectly, from or in connection with Service Provider's negligence or willful misconduct in the performance of the Services, to the extent such Damages are not covered by Service Provider's indemnification obligation as provided in the preceding clause (x) or exceed the liability limits provided in subparagraph (ii) of this Section 4.4(a).

(ii) Notwithstanding any other provision hereof, in circumstances where Operating Company is a Service Provider: (x) Service Provider's total liability hereunder with respect to any specific Services shall be limited to the amount actually paid to Service Provider for its performance of the specific Services for which the liability arises, and (y) under no circumstances shall Service Provider be liable for consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages, by statute, in tort or contract, under any indemnity provision or otherwise (it being the intent of the parties that the indemnification obligations in this Agreement shall cover only actual damages and accordingly, without limitation of the foregoing, shall be net of any insurance proceeds actually received in respect of any such damages).

(b) Indemnification In Respect of Services Provided by Any Nonutility Company.

(i) In circumstances where a Nonutility Company is a Service Provider (i.e., where Operating Company is the Client Company): (x) subject to subparagraph (ii) of this Section 4.4(b), Service Provider shall release, defend, indemnify and hold harmless the Client Company, including any officer, director, employee or agent thereof, from and against, and shall pay the full amount of, any Damages incurred or sustained by or against Client Company arising, directly or indirectly, from



or in connection with Service Provider's negligence or willful misconduct in the performance of the Services.

(ii) Notwithstanding any other provision hereof, in circumstances where a Nonutility Company is a Service Provider (i.e., where Operating Company is the Client Company), under no circumstances shall Service Provider be liable for consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages, by statute, in tort or contract, under any indemnity provision or otherwise (it being the intent of the parties that the indemnification obligations in this Agreement shall cover only actual damages and accordingly, without limitation of the foregoing, shall be net of any insurance proceeds actually received in respect of any such damages).

**Section 4.5 Procedure for Indemnification.** Within 15 business days after receipt by any Client Company of notice of any claim or the commencement of any action, suit, litigation or other proceeding against it (a "Proceeding") with respect to which it is eligible for indemnification hereunder, such Client Company shall notify Service Provider thereof in writing (it being understood that failure so to notify Service Provider shall not relieve the latter of its indemnification obligation, unless Service Provider establishes that defense thereof has been prejudiced by such failure). Thereafter, Service Provider shall be entitled to participate in such Proceeding and, at its election upon notice to such Client Company and at its expense, to assume the defense of such Proceeding. Without the prior written consent of such Client Company, Service Provider shall not enter into any settlement of any third-party claim that would lead to liability or create any financial or other obligation on the part of such Client Company for which it such Client Company is not entitled to indemnification hereunder. If such Client Company has given timely notice to Service Provider of the commencement of such Proceeding, but Service Provider has not, within 15 business days after receipt of such notice, given notice to Client Company of its election to assume the defense thereof, Service Provider shall be bound by any determination made in such Proceeding or any compromise or settlement made by Client Company. A claim for indemnification for any matter not involving a third-party claim may be asserted by notice from the applicable Client Company to Service Provider.

## ARTICLE 5. MISCELLANEOUS

**Section 5.1 Amendments.** Any amendments to this Agreement shall be in writing executed by each of the parties hereto. To the extent that applicable state law or regulation or other binding obligation requires that any such amendment be filed with the Kentucky Public Service Commission for its review or otherwise, Operating Company shall comply in all respects with any such requirements.

**Section 5.2 Effective Date; Term.** This Agreement shall become effective on the Effective Date and shall continue in full force and effect as to each party until terminated by any party, as to itself only, upon not less than 30 days prior written notice to the other parties hereto. Any such termination of parties shall not be deemed an amendment hereto. This Agreement may be terminated and thereafter be of no further force and effect upon the mutual consent of all of the parties hereto.



Section 5.3 **Additional Parties.** After the Effective Date of this Agreement, additional Nonutility Companies may become parties to this Agreement by executing appropriate signature pages, whereupon any such additional signatory shall be deemed a "party" hereto all purposes hereof and shall thereupon become bound by the terms and conditions of this Agreement as if an original party hereto. The addition of any such further signatories, in the absence of any changes to the terms of this Agreement, shall not be deemed an amendment hereto.

Section 5.4 **Entire Agreement.** This Agreement contains the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes any prior or contemporaneous contracts, agreements, understandings or arrangements, whether written or oral, with respect thereto. Any oral or written statements, representations, promises, negotiations or agreements, whether prior hereto or concurrently herewith, are superseded by and merged into this Agreement.

Section 5.5 **Severability.** If any provision of this Agreement or any application thereof shall be determined to be invalid or unenforceable, the remainder of this Agreement and any other application thereof shall not be affected thereby.

Section 5.6 **Assignment.** Neither this Agreement nor any of the rights, interests or obligations hereunder shall be assigned, in whole or in part, by operation of law or otherwise by any of the parties hereto without the prior written consent of each of the other parties. Any attempted or purported assignment in violation of the preceding sentence shall be null and void and of no effect whatsoever. Subject to the preceding two sentences, this Agreement shall be binding upon, inure to the benefit of, and be enforceable by, the parties and their respective successors and assigns.

Section 5.7 **Governing Law.** This Agreement shall be construed and enforced under and in accordance with the laws of the State of Kentucky, without regard to conflicts of laws principles.

Section 5.8 **Captions, etc.** The captions and headings used in this Agreement are for convenience of reference only and shall not affect the construction to be accorded any of the provisions hereof. As used in this Agreement, "hereof," "hereunder," "herein," "hereto," and words of like import refer to this Agreement as a whole and not to any particular section or other paragraph or subparagraph thereof.

Section 5.9 **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be deemed a duplicate original hereof, but all of which shall be deemed one and the same Agreement.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be executed on its behalf by an appropriate officer thereunto duly authorized.

DUKE ENERGY KENTUCKY, INC.

By: Nancy M Wright  
Nancy M. Wright  
Assistant Corporate Secretary

DUKE-AMERICAN TRANSMISSION COMPANY, LLC

(by Duke Energy Transmission Holding Company, LLC, its Parent)

By: Nancy M Wright  
Nancy M. Wright  
Assistant Corporate Secretary

CINCAP V, LLC

(by Duke Energy Commercial Enterprises, Inc., its Managing Member)

By: Nancy M Wright  
Nancy M. Wright  
Assistant Corporate Secretary

DEG BIOMASS, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

DEGS WIND SUPPLY, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

DEGS WIND SUPPLY II, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary



DUKE ENERGY COMMERCIAL ENTERPRISES, INC.

By: Nancy M Wright  
Nancy M. Wright  
Assistant Corporate Secretary

DUKE ENERGY INDUSTRIAL SALES, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

DUKE ENERGY MARKETING AMERICA, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

DUKE VENTURES REAL ESTATE, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

HAPPY JACK WINDPOWER, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

KIT CARSON WINDPOWER, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

NORTH ALLEGHENY WIND, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

NOTRESS WINDPOWER, LLC  
(by TE Notrees, LLC its General Partner)

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

OCOTILLO WINDPOWER, LLC  
(by TE Ocotillo, LLC its General Partner)

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

SILVER SAGE WINDPOWER, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

THREE BUTTES WINDPOWER, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

TOP OF THE WORLD WIND ENERGY, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary

LAUREL HILL WIND ENERGY, LLC

By: Nancy M Wright  
Nancy M. Wright  
Assistant Secretary



## INTERCOMPANY ASSET TRANSFER AGREEMENT

This **Intercompany Asset Transfer Agreement** (this “Agreement”) is made and entered into by and among Duke Energy Carolinas, LLC (“DEC”), a North Carolina limited liability company, Duke Energy Ohio, Inc. (“DEO”), an Ohio corporation, Duke Energy Indiana, LLC (“DEI”), an Indiana limited liability company, Duke Energy Progress, LLC (“DEP”), a North Carolina limited liability company, Duke Energy Florida, LLC (“DEF”), a Florida limited liability company, Duke Energy Kentucky, Inc. (“DEK”), a Kentucky corporation, and Piedmont Natural Gas Company, Inc., a North Carolina corporation (collectively the “Operating Companies” and, individually, an “Operating Company”). The Effective Date as stated herein is the date on which this Agreement is executed or, as may be required, submitted to the appropriate regulatory body for approval, whichever occurs last. This Agreement supersedes and replaces in its entirety all previous Intercompany Asset Transfer Agreements dated before the Effective Date of this Agreement.

### WITNESSETH:

**WHEREAS**, Duke Energy Corporation (“Duke Energy”) is a Delaware corporation;

**WHEREAS**, each Operating Company is a subsidiary of Duke Energy and a public utility company;

**WHEREAS**, in the ordinary course of their businesses, the Operating Companies maintain inventory and other assets for the operation and maintenance of their respective electric utility, and with respect to DEO DEK, and Piedmont, gas utility, businesses; and

**WHEREAS**, subject to the terms and conditions herein set forth, and taking into consideration the Operating Companies’ utility responsibilities, each Operating Company is willing, upon request from time to time, to transfer Assets, as defined herein, to each other Operating Company, as each shall request from each other.

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants herein contained, the parties agree as follows:

### ARTICLE 1. TRANSFER OF ASSETS

Section 1.1 Transfer. Upon request from one party (“Recipient”), the other party (“Transferor”) shall transfer to the Recipient those Assets requested by Recipient, provided that (i) Transferor believes, in its reasonable judgment, that such transfer will not jeopardize Transferor’s ability to render electric utility service or natural gas utility service to its customers consistent with Good Utility Practice; (ii) the Cost of any shipment of transmission- or generation-related item(s) does not exceed \$10,000,000; (iii) DEC and DEP shall not transfer any Asset hereunder in contravention of S.C. Code Ann. § 58-27-1300; (iii) DEK shall not transfer any Asset hereunder in contravention of KRS 278.218. and (iv) DEC and DEP may transfer or take receipt of any transmission transformers or other transmission-related equipment under this



Agreement to or from DEC, DEP or DEF. DEC and DEP shall not, however, transfer or take receipt of any transmission transformers or transmission-related equipment to or from DEO, DEI, and DEK, other than transmission-related equipment that may be used on/with transformers within a range of voltages or regardless of voltage. "Assets" means parts inventory, capital spares, equipment and other goods except for the following: coal; natural gas; fuel oil used for electric power generation; emission allowances; electric power; and environmental control reagents. "Good Utility Practice" means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry in the United States during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather includes all acceptable practices, methods, or acts generally accepted in the region.

Section 1.2 Compensation. Except to the extent otherwise required by Section 482 of the Internal Revenue Code or analogous state tax law, Recipient shall compensate Transferor for any Assets transferred hereunder at Cost. "Cost" means (i) for items of inventory accounted for in the FERC Uniform System of Accounts account 154 ("Inventory Items"), the average unit price of such Inventory Items as recorded on the books of the Transferor, plus stores, freight, handling, and other applicable costs, and (ii) for assets other than Inventory Items, net book value.

Alternatively, to the extent that an Asset may be transferred under this Agreement, the Transferor and Recipient may agree that the Asset transferred to the Recipient be replaced in kind. In this event, Transferor and Recipient shall agree to the timing of such replacement, and other necessary terms and conditions, and such in-kind replacement shall be deemed a transferred Asset for all purposes hereunder.

Section 1.3 Payment. Each Operating Company shall reasonably cooperate with each other Operating Company to record billings and payments required hereunder in their common accounting systems.

Section 1.4 Delivery: Title and Risk of Loss. The parties shall cooperate in providing transportation equipment necessary to deliver the Assets to the Recipient. Assets will be delivered FOB transportation equipment at the Transferor's location where such Assets reside ("Shipping Point"). All costs of transportation, including the cost of transporting in-kind replacement Assets to Transferor, shall be borne by the Recipient. Title to and risk of loss of the transferred Assets shall pass from the Transferor to the Recipient at the Shipping Point.

## ARTICLE 2. WARRANTIES

Section 2.1 Warranties. Each Operating Company, as Transferor, warrants that it will have good and marketable title to the Assets transferred hereunder. Further, each Operating Company, as Transferor, warrants that it shall obtain release of any liens or other encumbrances on the transferred Assets within a reasonable time. ALL ASSETS TRANSFERRED



HEREUNDER ARE BEING SOLD "AS IS, WHERE IS" AND WITHOUT ANY WARRANTY AS TO ITS CONDITION, INCLUDING WITHOUT ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Section 2.2 Disclaimer. WITH RESPECT TO ANY ASSETS TRANSFERRED HEREUNDER, EACH OPERATING COMPANY AS TRANSFEROR MAKES NO WARRANTY OR REPRESENTATION OTHER THAN AS SET FORTH IN SECTION 2.1, AND THE PARTIES HERETO HEREBY AGREE THAT NO OTHER WARRANTY, WHETHER STATUTORY, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE), SHALL BE APPLICABLE TO SUCH ASSETS. THE PARTIES FURTHER AGREE THAT THE REMEDIES STATED HEREIN ARE EXCLUSIVE AND SHALL CONSTITUTE THE SOLE AND EXCLUSIVE REMEDY OF ANY PARTY HERETO FOR A FAILURE BY ANY OTHER PARTY HERETO TO COMPLY WITH ITS WARRANTY OBLIGATIONS.

### ARTICLE 3. INDEMNIFICATION

#### Section 3.1 Indemnification: Limitation of Liability.

(a) Subject to subparagraph (b) of this Section 3.1, each party (the "Indemnifying Party") shall release, defend, indemnify and hold harmless the other party (the "Indemnified Party"), including any officer, director, employee or agent thereof, from and against, and shall pay the full amount of, any loss, liability, claim, damage, expense (including costs of investigation and defense and reasonable attorneys' fees), whether or not involving a third-party claim, incurred or sustained by or against any such Indemnified Party arising, directly or indirectly, from or in connection with Indemnifying Party's negligence or willful misconduct in the performance of its obligations hereunder.

(b) Notwithstanding any other provision hereof, each party's total liability hereunder with respect to any Assets shall be limited to the amount actually paid to Transferor for such Assets for which the liability arises, and under no circumstances shall Transferor be liable for consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages, by statute, in tort or contract, under any indemnity provision or otherwise (it being the intent of the parties that the indemnification obligations in this Agreement shall cover only actual damages and accordingly, without limitation of the foregoing, shall be net of any insurance proceeds actually received in respect of any such damages).

Section 3.2 Procedure for Indemnification. Within 15 business days after receipt by an Indemnified Party of notice of any claim or the commencement of any action, suit, litigation or other proceeding against it (a "Proceeding") with respect to which it is eligible for indemnification hereunder, the Indemnified Party shall notify the Indemnifying Party thereof in writing (it being understood that failure so to notify the Indemnifying Party shall not relieve the latter of its indemnification obligation, unless the Indemnifying Party establishes that defense thereof has been prejudiced by such failure). Thereafter, the Indemnifying Party shall be entitled



to participate in such Proceeding and, at its election upon notice to such Indemnified Party and at its expense, to assume the defense of such Proceeding. Without the prior written consent of such Indemnified Party, Indemnifying Party shall not enter into any settlement of any third-party claim that would lead to liability or create any financial or other obligation on the part of such Indemnified Party for which such Indemnified Party is not entitled to indemnification hereunder. If such Indemnified Party has given timely notice to Indemnifying Party of the commencement of such Proceeding, but Indemnifying Party has not, within 15 business days after receipt of such notice, given notice to Indemnified Party of its election to assume the defense thereof, Indemnifying Party shall be bound by any determination made in such Proceeding or any compromise or settlement made by Indemnified Party. A claim for indemnification for any matter not involving a third-party claim may be asserted by notice from the applicable Indemnified Party to Indemnifying Party.

#### ARTICLE 4. MISCELLANEOUS

Section 4.1 Amendments. Any amendments to this Agreement shall be in writing executed by each of the parties hereto. To the extent that applicable state law or regulation or other binding obligation requires that any such amendment be filed with any affected state public utility commission for its review or otherwise, each Operating Company shall comply in all respects with any such requirements.

Section 4.2 Effective Date; Term. This Agreement shall become effective on the Effective Date and shall continue in full force and effect until terminated by either party upon not less than 30 days prior written notice to the other party. This Agreement may be terminated and thereafter be of no further force and effect upon the mutual consent of the parties hereto.

Section 4.3 Entire Agreement. This Agreement contains the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes any prior or contemporaneous contracts, agreements, understandings or arrangements, whether written or oral, with respect thereto. Any oral or written statements, representations, promises, negotiations or agreements, whether prior hereto or concurrently herewith, are superseded by and merged into this Agreement.

Section 4.4 Severability. If any provision of this Agreement or any application thereof shall be determined to be invalid or unenforceable, the remainder of this Agreement and any other application thereof shall not be affected thereby.

Section 4.5 Assignment. Neither this Agreement nor any of the rights, interests or obligations hereunder shall be assigned, in whole or in part, by operation of law or otherwise by any party hereto without the prior written consent of the other party. Any attempted or purported assignment in violation of the preceding sentence shall be null and void and of no effect whatsoever. Subject to the preceding two sentences, this Agreement shall be binding upon, inure to the benefit of, and be enforceable by, the parties and their respective successors and assigns.



Section 4.6 Governing Law. This Agreement shall be construed and enforced under and in accordance with the laws of the State of New York, without regard to conflicts of laws principles.

Section 4.7 Captions, etc. The captions and headings used in this Agreement are for convenience of reference only and shall not affect the construction to be accorded any of the provisions hereof. As used in this Agreement, "hereof," "hereunder," "herein," "hereto," and words of like import refer to this Agreement as a whole and not to any particular section or other paragraph or subparagraph thereof.

Section 4.8 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed a duplicate original hereof, but all of which shall be deemed one and the same Agreement.

Section 4.9 DEC, DEP, and Piedmont Conditions. In addition to the terms and conditions set forth herein, with respect to DEC, DEP, and Piedmont, the provisions set out in Exhibit A are hereby incorporated herein by reference. In addition, except with respect to the pricing of Asset transfers as set forth herein, DEC's, DEP's and Piedmont's participation in this Agreement is explicitly subject to the Regulatory Conditions and Code of Conduct approved by the NCUC in its Order Approving Merger Subject to Regulatory Conditions and Code of Conduct issued in Docket No. E-2, Sub 1095, Docket No. E-7, Sub 1100, and Docket No. G-9, Sub 682 ("Merger Order"), as such Regulatory Conditions and Code of Conduct may be amended from time to time. In accordance with Regulatory Condition 3.9 as approved in the Merger Order, nothing in this Agreement shall be construed or interpreted so as to commit DEC or DEP, or to involve DEC or DEP in, joint planning, coordination, or operation of generation, transmission, or distribution facilities with one or more affiliates nor shall it be interpreted as otherwise altering DEC's or DEP's obligations with respect to the Regulatory Conditions approved in the Merger Order. In the event of a conflict between the provisions of this Agreement and the Regulatory Conditions and Code, the Regulatory Conditions and Code shall govern, except as altered by the Commission by Order for this Agreement.

Section 4.10 DEI Conditions. DEI agrees and acknowledges that in accordance with its Affiliate Standards, Section II O (i) it will make Assets available to non-affiliated wholesale power marketers under the same terms, conditions and prices, and at the same time, as it makes Assets available to a DEO's wholesale power marketing function, and (ii) it will process all requests for Assets from DEO's wholesale power marketing function and non-affiliated wholesale power marketers on a non-discriminatory basis.

Section 4.11 Regulatory Approvals. This Agreement is expressly contingent on the receipt of all regulatory approvals or waivers deemed necessary by the parties.

**IN WITNESS WHEREOF**, each of the parties hereto has caused this Agreement to be executed on \_\_\_\_\_, 201\_\_, on its behalf by an appropriate officer thereunto duly authorized.

Duke Energy Carolinas, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Duke Energy Indiana, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Duke Energy Ohio, Inc.

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Duke Energy Kentucky, Inc.

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Duke Energy Progress, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Duke Energy Florida, LLC

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary

Piedmont Natural Gas Company, Inc.

By: \_\_\_\_\_  
Nancy M. Wright  
Assistant Corporate Secretary



**EXHIBIT A****Duke Energy Carolinas, LLC, Duke Energy Progress, LLC and Piedmont Natural Gas Company, Inc. Conditions**

In connection with the NCUC approval of the Merger in NCUC Docket No. E-2, Sub 1095, Docket No. E-7, Sub 1100, and Docket No. G-5, Sub 682, the NCUC adopted certain Regulatory Conditions and a revised Code of Conduct governing transactions between DEC, DEP, Piedmont, and their affiliates. Pursuant to the Regulatory Conditions, the following provisions are applicable to DEC, DEP, and Piedmont:

- (a) DEC's, DEP's and Piedmont's participation in this Agreement is voluntary. DEC, DEP, or Piedmont is not obligated to take or provide services or make any purchases or sales pursuant to this Agreement, and DEC, DEP, or Piedmont may elect to discontinue its participation in this Agreement at its election after giving any required notice;
- (b) DEC, DEP or Piedmont may not make or incur a charge under this Agreement except in accordance with North Carolina law and the rules, regulations and orders of the NCUC promulgated thereunder.
- (c) DEC, DEP or Piedmont may not seek to reflect in rates any (A) costs incurred under this Agreement exceeding the amount allowed by the NCUC or (B) revenue level earned under this Agreement less than the amount imputed by the NCUC; and
- (d) DEC, DEP or Piedmont shall not assert in any forum – whether judicial, administrative, federal, state, local or otherwise – either on its own initiative or in support of other entity's assertions, that the NCUC's authority to assign, allocate, make pro-forma adjustments to or disallow revenues and costs for retail ratemaking and regulatory accounting and reporting purposes is, in whole or in part, (A) preempted by Federal Law or (B) not within the Commission's power, authority, or jurisdiction; DEC, DEP, and Piedmont will bear the full risk of any preemptive effects of Federal Law with respect to this Agreement.



**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 Natural Gas Rates; 2) ) Case No. 2021-00190  
Approval of New Tariffs; and 3) All Other )  
Required Approvals, Waivers, and Relief. )

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**DIRECT TESTIMONY**

**OF**

**JOHN J. SPANOS**

**ON BEHALF OF**

**DUKE ENERGY KENTUCKY**

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June 1, 2021

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Attachments:

JS-1 – 2017 Depreciation Study – Calculated Annual Depreciation Accruals Related to Gas Plant as of December 31, 2017

Appendix:

JS-Appendix A – Qualification Statement

## 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 34 years of depreciation experience which includes giving expert  
17 testimony in over 360 cases before 41 regulatory commissions in the United States  
18 and Canada, including this Commission. The cases include depreciation studies in  
19 the electric, gas, water, wastewater and pipeline industries. In addition to the cases  
20 where I have submitted testimony, I have supervised in over 700 other depreciation  
21 or valuation assignments. Please refer to Appendix A for additional information on  
22 my qualifications, which includes further information with respect to my work



1 history, case experience, and my leadership in the Society of Depreciation  
2 Professionals.

3 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
4 **PROCEEDING?**

5 A. My testimony will support the continued use and reasonableness of the currently  
6 approved depreciation rates established in Case No. 2018-00261 for natural gas  
7 utility plant of Duke Energy Kentucky

## **II. DISCUSSION**

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

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

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

17 A. Attachment JS-1 is a report entitled, "2017 Depreciation Study - Calculated Annual  
18 Depreciation Accruals Related to Gas Plant as of December 31, 2017." This report  
19 sets forth the results of my depreciation study for Duke Energy Kentucky which  
20 was filed in Case No. 2018-00261.

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 THE DEPRECIATION STUDY AS OF DECEMBER 31, 2017?**

6 A. Yes.

7 **Q. WHAT WAS THE PURPOSE OF THE DEPRECIATION STUDY?**

8 A. The purpose of the depreciation study was to estimate the annual depreciation  
9 accruals related to natural gas plant in service for ratemaking purposes and  
10 determine appropriate average service lives and net salvage percents for each plant  
11 account.

12 **Q. PLEASE DESCRIBE THE CONTENTS OF THE 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 and VI-5 of the Depreciation Study  
3 presents the estimated survivor curve, the net salvage percent, the original cost as  
4 of December 31, 2017, 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, 2017.

11 **Q. PLEASE EXPLAIN HOW THE DEPRECIATION STUDY WAS**  
12 **CONDUCTED.**

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 General Plant Accounts 2910, 2911, 2940, 2970 and 2980, I used the  
19 straight line remaining life method of amortization. The annual amortization is  
20 based on amortization accounting that distributes the unrecovered cost of fixed  
21 capital assets over the remaining amortization period selected for each account and  
22 vintage.



1 **Q. HOW WERE THE RECOMMENDED ANNUAL DEPRECIATION**  
2 **ACCRUAL RATES DETERMINED?**

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 the 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 gas utilities to form judgments of  
17 average service life and net salvage characteristics.

18 **Q. ARE THE FACTORS CONSIDERED IN THE ESTIMATES OF SERVICE**  
19 **LIFE AND NET SALVAGE PERCENTS PRESENTED IN ATTACHMENT**  
20 **JS-1?**

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

1 **Q. PLEASE DESCRIBE THE SECOND PHASE OF THE PROCESS THAT**  
2 **YOU USED IN THE DEPRECIATION STUDY IN WHICH YOU**  
3 **CALCULATED COMPOSITE REMAINING LIVES AND ANNUAL**  
4 **DEPRECIATION ACCRUAL RATES.**

5 A. After I estimated the service life and net salvage characteristics for each depreciable  
6 property group, I calculated the annual depreciation accrual rates for each  
7 depreciable group based on the straight line remaining life method, using remaining  
8 lives weighted consistent with the average service life procedure. The calculation  
9 of annual depreciation accrual rates were developed as of December 31, 2017.

10 **Q. PLEASE DESCRIBE THE STRAIGHT LINE REMAINING LIFE**  
11 **METHOD OF DEPRECIATION.**

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

15 **Q. PLEASE DESCRIBE THE AVERAGE SERVICE LIFE PROCEDURE FOR**  
16 **CALCULATING REMAINING LIFE ACCRUAL RATES.**

17 A. The average service life procedure defines the group or account for which the  
18 remaining life annual accrual is determined. Under this procedure, the annual  
19 accrual rate is determined for the entire group or account based on its average  
20 remaining life and the rate is then applied to the surviving balance of the group's  
21 cost. The average remaining life of the group is calculated by first dividing the  
22 future book accruals (original cost less allocated book reserve less future net  
23 salvage) by the average remaining life for each vintage. The average remaining life



1 for each vintage is derived from the area under the survivor curve between the  
2 attained age of the vintage and the maximum age. The sum of the future book  
3 accruals is then divided by the sum of the annual accruals to determine the average  
4 remaining life of the entire group for use in calculating the annual depreciation  
5 accrual rate.

6 **Q. ARE THE LIFE AND NET SALVAGE PARAMETERS STILL**  
7 **APPROPRIATE FOR ALL ASSET CLASSES.**

8 A. Yes. The life characteristics and net salvage parameters established in Case No.  
9 2018-00261 are still appropriate for matching asset utilization to asset recovery.

10 **Q. HAD RATES BEEN DEVELOPED FOR FUTURE ASSETS?**

11 A. Yes. At the time of the last case, there were plans to add new assets to Account  
12 2910, Office Furniture and Equipment and Account 2921, Transportation  
13 Equipment – Trailers. The existing assets were fully depreciated. The rates for these  
14 assets will be based on the amortization period or interim survivor curve for each  
15 account presented on page VI-4 of Attachment JS-1. Additionally, new rates were  
16 developed for assets in Account 2920 and Account 2960 which currently do not  
17 have existing assets. The assets will be based on the interim survivor curve and net  
18 salvage percent.

19 The interim survivor curve and net salvage percent for Account 2920 is 12-  
20 S3 and 0%, respectively. For Account 2960, the interim survivor curve is 14-R1.5  
21 and the net salvage percent is positive 5%.



### III. CONCLUSION

1   **Q.    IN MY OPINION, THE DEPRECIATION AND AMORTIZATION RATES**  
2       **SET FORTH IN ATTACHMENT JS-1 ARE APPROPRIATE RATES FOR**  
3       **THE COMMISSION TO MAINTAIN IN THIS PROCEEDING FOR DUKE**  
4       **ENERGY KENTUCKY?**

5    A.    These rates appropriately reflect the rates at which the costs of Duke Energy  
6        Kentucky's assets are being consumed over their useful lives. The rates for all the  
7        assets are still reasonable given the assets have not experienced major changes in  
8        life characteristics or net salvage percentages and there have been no significant  
9        changes in company plans.

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

11   A.    Yes.

JS-Appendix A

**JOHN SPANOS**

**DEPRECIATION EXPERIENCE**

**Q. Please state your name.**

A. My name is John J. Spanos.

**Q. What is your educational background?**

A. I have Bachelor of Science degrees in Industrial Management and Mathematics from Carnegie-Mellon University and a Master of Business Administration from York College.

**Q. Do you belong to any professional societies?**

A. Yes. I am a member and past President of the Society of Depreciation Professionals and a member of the American Gas Association/Edison Electric Institute Industry Accounting Committee.

**Q. Do you hold any special certification as a depreciation expert?**

A. Yes. The Society of Depreciation Professionals has established national standards for depreciation professionals. The Society administers an examination to become certified in this field. I passed the certification exam in September 1997 and was recertified in August 2003, February 2008, January 2013 and February 2018.

**Q. Please outline your experience in the field of depreciation.**

A. In June 1986, I was employed by Gannett Fleming Valuation and Rate Consultants, Inc. as a Depreciation Analyst. During the period from June 1986 through December 1995, I helped prepare numerous depreciation and original cost studies for utility companies in various industries. I helped perform depreciation studies for the following telephone companies: United Telephone of Pennsylvania, United Telephone of New Jersey, and Anchorage Telephone Utility. I helped perform depreciation studies for the following



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

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

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

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

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

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

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

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

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



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



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

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

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

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

Utility Regulatory Commission; the California Public Utilities Commission; the Federal Energy Regulatory Commission (“FERC”); the Arkansas Public Service Commission; the Public Utility Commission of Texas; Maryland Public Service Commission; Washington Utilities and Transportation Commission; The Tennessee Regulatory Commission; the Regulatory Commission of Alaska; Minnesota Public Utility Commission; Utah Public Service Commission; District of Columbia Public Service Commission; the Mississippi Public Service Commission; Delaware Public Service Commission; Virginia State Corporation Commission; Colorado Public Utility Commission; Oregon Public Utility Commission; South Dakota Public Utilities Commission; Wisconsin Public Service Commission; Wyoming Public Service Commission; 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>	
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	Integrays – 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



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



	<u>Year</u>	<u>Jurisdiction</u>	<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	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	UE 388	Northwest Natural Gas Company	Depreciation
356.	2021	KY PSC	Case No. 2021-00103	East Kentucky Power Cooperative	Depreciation
357.	2021	MPUC	Docket No. 2021-00024	Bangor Natural Gas	Depreciation
358.	2021	PA PUC	Docket No. R-2021-3024296	Columbia Gas of Pennsylvania, Inc.	Depreciation
359.	2021	NC Util. Com.	Doc. No. G-5, Sub 632	Public Service of North Carolina	Depreciation
360.	2021	MO PSC	ER-2021-0240	Ameren Missouri	Depreciation
361.	2021	PA PUC	Docket No. R-2021-3024750	Duquesne Light Company	Depreciation
362.	2021	KS PSC	21-BHCG-418-RTS	Black Hills Kansas Gas	Depreciation
363.	2021	TX PUC		El Paso Electric	Depreciation



## 2017 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION  
ACCRUALS RELATED TO GAS PLANT  
AS OF DECEMBER 31, 2017

Prepared by:



*Excellence Delivered **As Promised***

DUKE ENERGY KENTUCKY, INC.

Cincinnati, Ohio

2017 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION  
ACCRUALS RELATED TO GAS PLANT  
AS OF DECEMBER 31, 2017

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC  
Harrisburg, Pennsylvania



*Excellence Delivered **As Promised***

August 2, 2018

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

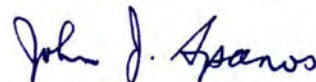
Attention Cynthia Lee  
Director, Asset Accounting

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the gas plant of Duke Energy Kentucky, Inc. as of December 31, 2017. The attached report presents a description of the methods used in the estimation of depreciation, the summary of annual depreciation accrual rates, the statistical support for the life and net salvage estimates and the detailed tabulations of annual and accrued depreciation.

Respectfully submitted,

**GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC**



**JOHN J. SPANOS**  
Senior Vice President

JJS:mle

063648.000

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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 the gas plant as of December 31, 2017. 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 has been a change in depreciation procedure, and a change in plans of assets, particularly at the production facility. Also, the service lives for many transmission and distribution plant assets have become slightly longer.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to gas plant in service as of December 31, 2017 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 \$11.6 million when applied to depreciable plant balances as of December 31, 2017. The results are summarized at the functional level as follows:

**SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS**

<b><u>FUNCTION</u></b>	<b><u>ORIGINAL COST AS OF DECEMBER 31, 2017</u></b>	<b><u>PROPOSED RATE</u></b>	<b><u>PROPOSED EXPENSE</u></b>
Gas Plant			
Production Plant	\$ 7,702,420.76	7.90	\$ 608,516
Distribution Plant	476,079,197.73	2.24	10,652,190
General Plant	<u>4,583,184.72</u>	7.29	<u>333,939</u>
<b>Total</b>	<b><u>\$488,364,803.21</u></b>	<b>2.37</b>	<b><u>\$11,594,645</u></b>

---

## 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 gas plant as of December 31, 2017. 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 gas plant in service as of December 31, 2017.

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 2017, a review of Company practice and outlook as they relate to plant operation and retirement, and consideration of current practice in the gas industry, including knowledge of service lives and net salvage estimates used for other gas 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 throughout the United States, including 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-8 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 gas utility industry, and comparisons of the service life and net salvage estimates from our studies of other gas utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for gas 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 in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family.

The 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.



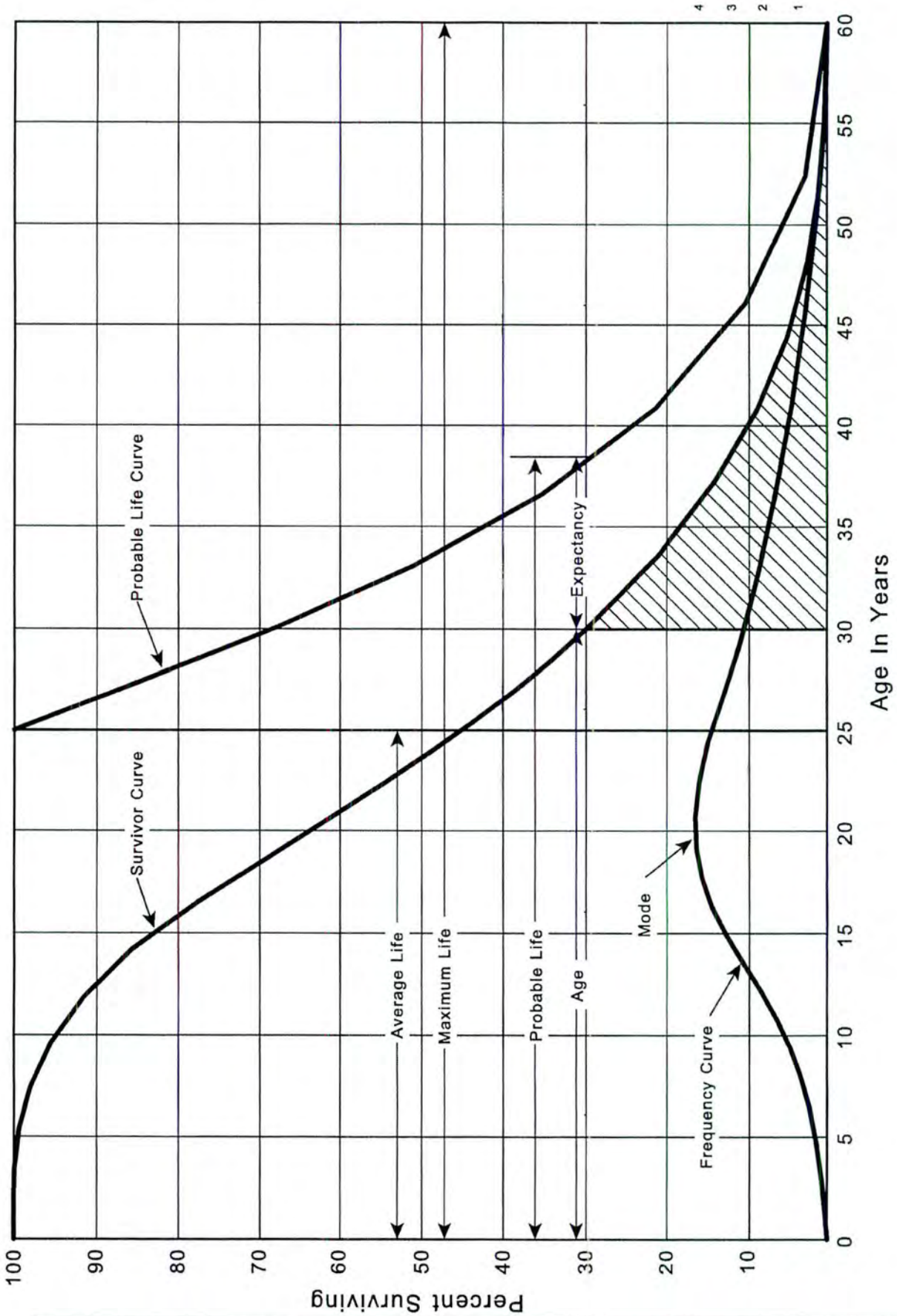


Figure 1. A Typical Survivor Curve and Derived Curves

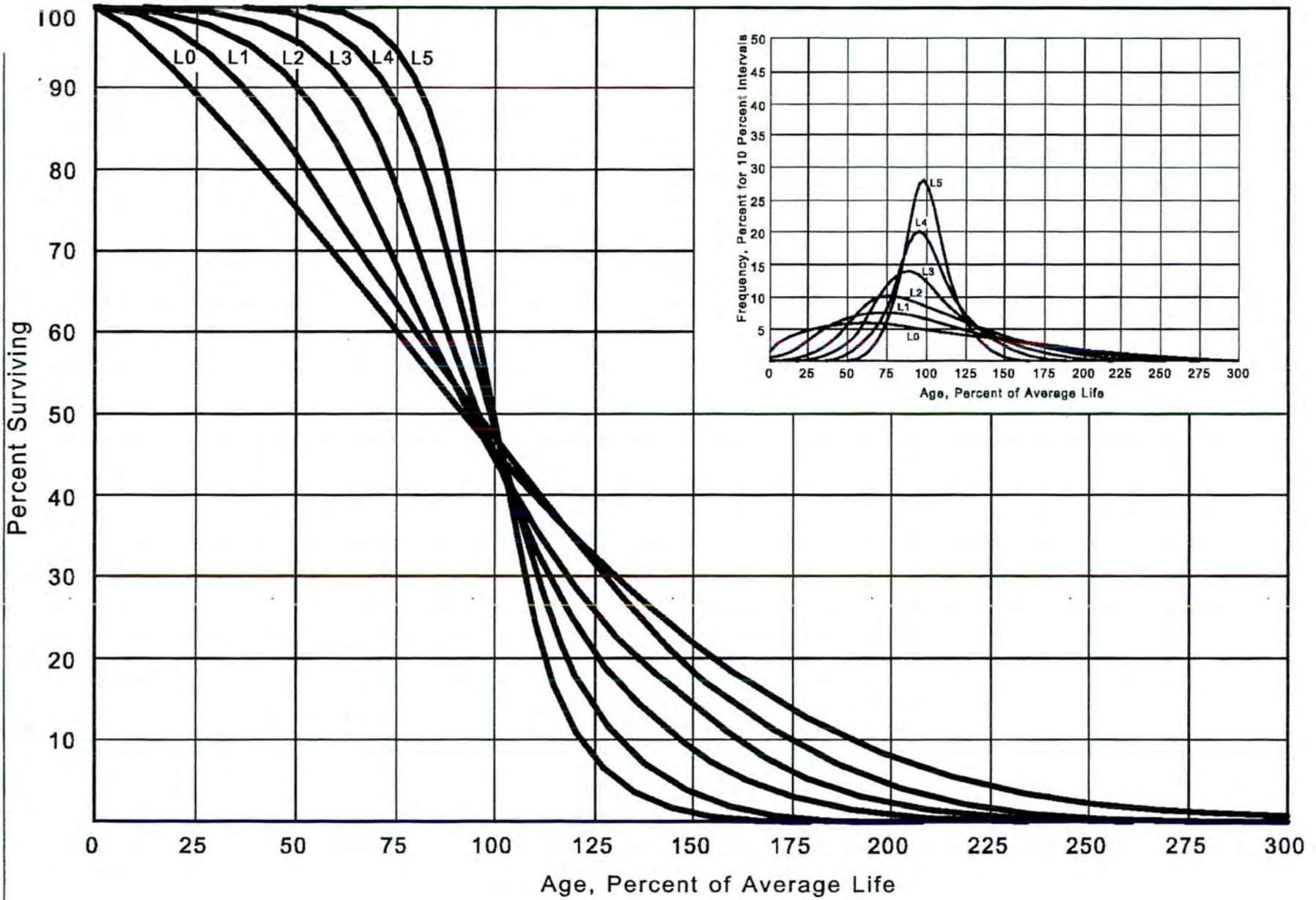


Figure 2. Left Modal or "L" Iowa Type Survivor Curves



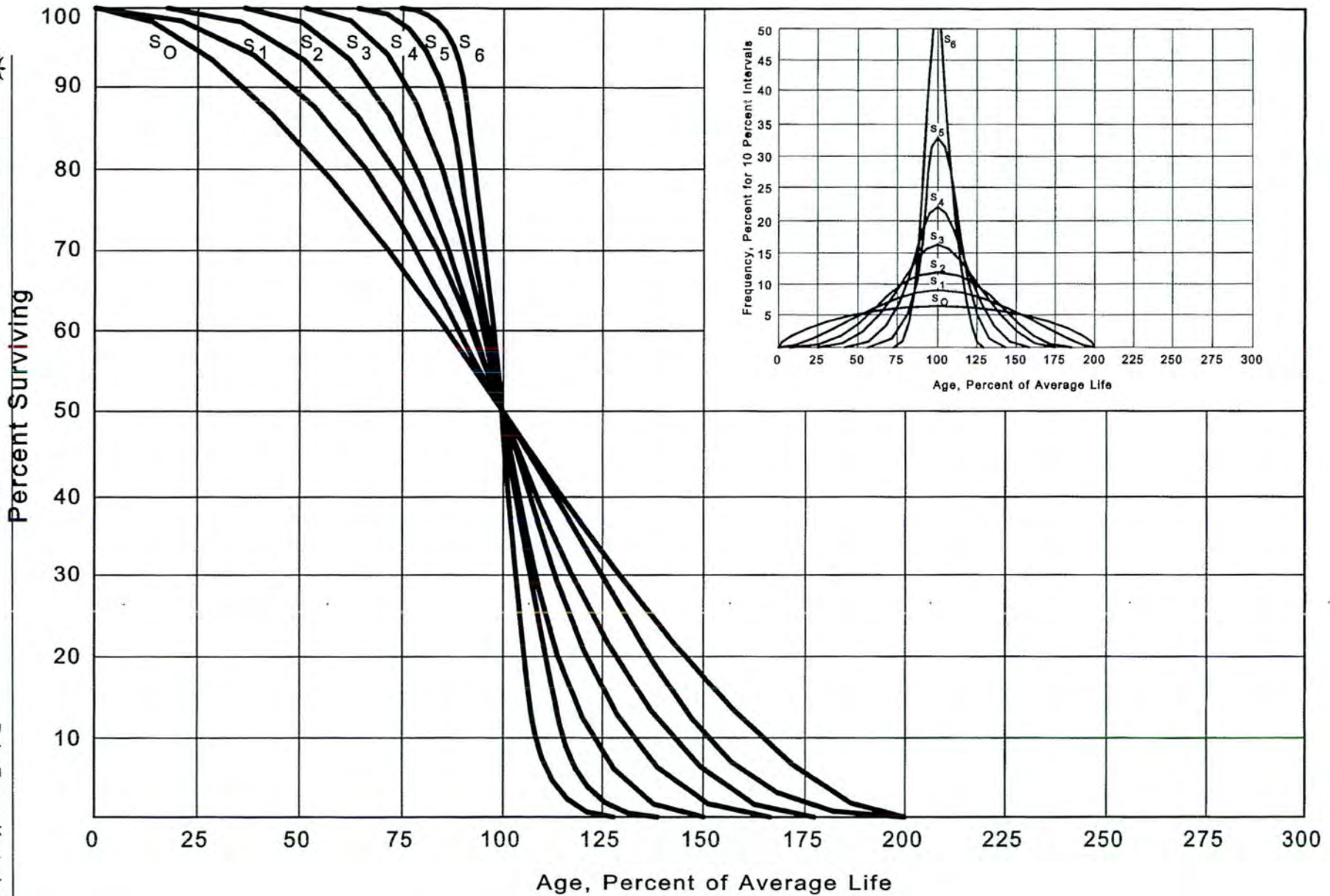


Figure 3. Symmetrical or "S" Iowa Type Survivor Curves



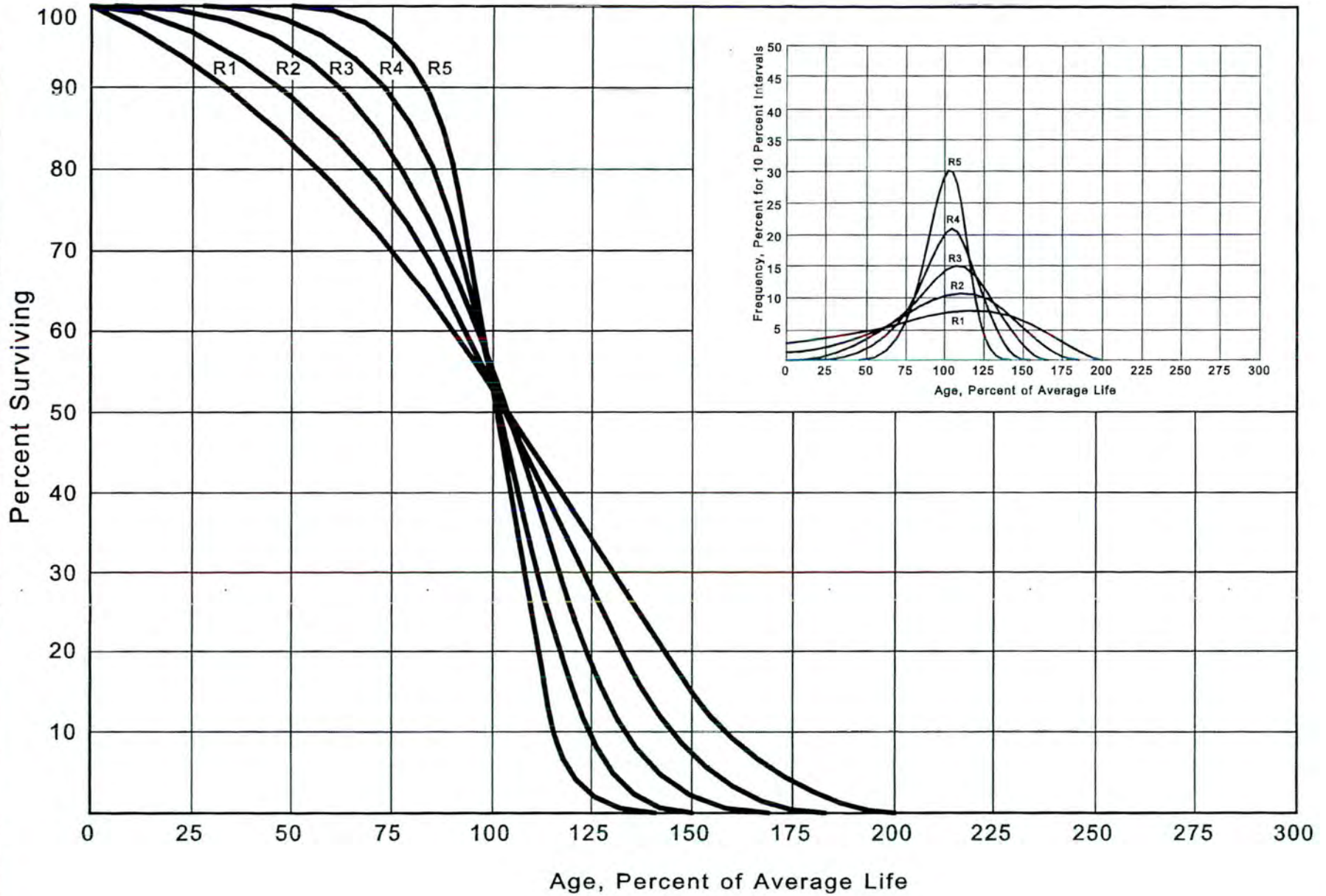


Figure 4. Right Modal or "R" Iowa Type Survivor Curves

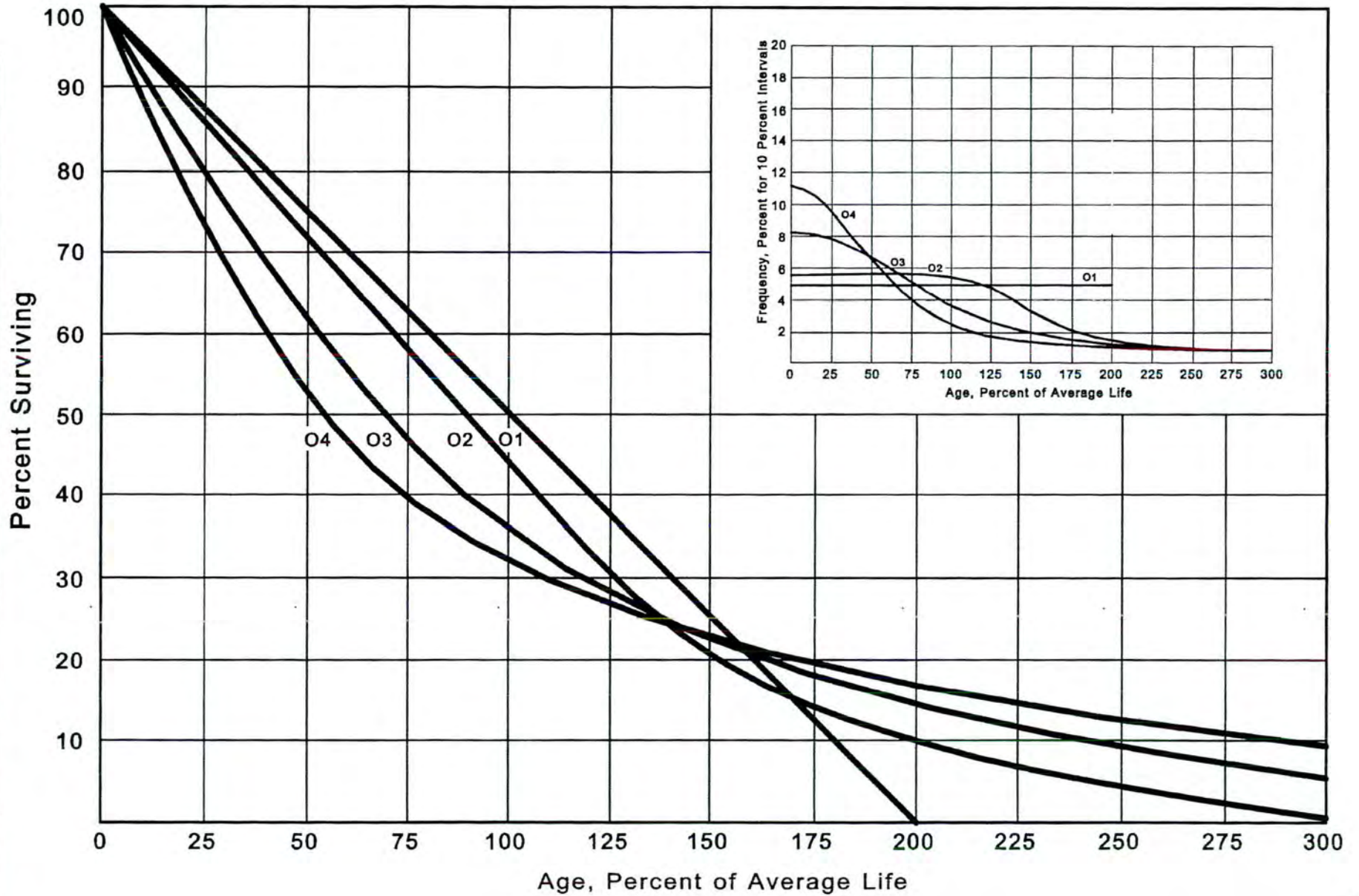


Figure 5. Origin Modal or "O" Iowa Type Survivor Curves



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

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

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

<sup>2</sup>Winfrey, Robley, Supra Note 1.

<sup>3</sup>Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 2.

<sup>4</sup>Wolf, 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 2008-2017 during which there were placements during the years 2003-2017. 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 2003 were retired in 2008. 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 2008 retirements of 2003 installations and ending with the 2017 retirements of the 2012 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 2008-2017  
SUMMARIZED BY AGE INTERVAL

Experience Band 2008-2017

Placement Band 2003-2017

Year Placed (1)	Retirements, Thousands of Dollars										Total During Age Interval (12)	Age Interval (13)
	During Year											
	2008 (2)	2009 (3)	2010 (4)	2011 (5)	2012 (6)	2013 (7)	2014 (8)	2015 (9)	2016 (10)	2017 (11)		
2003	10	11	12	13	14	16	23	24	25	26	26	13½-14½
2004	11	12	13	15	16	18	20	21	22	19	44	12½-13½
2005	11	12	13	14	16	17	19	21	22	18	64	11½-12½
2006	8	9	10	11	11	13	14	15	16	17	83	10½-11½
2007	9	10	11	12	13	14	16	17	19	20	93	9½-10½
2008	4	9	10	11	12	13	14	15	16	20	105	8½-9½
2009		5	11	12	13	14	15	16	18	20	113	7½-8½
2010			6	12	13	15	16	17	19	19	124	6½-7½
2011				6	13	15	16	17	19	19	131	5½-6½
2012					7	14	16	17	19	20	143	4½-5½
2013						8	18	20	22	23	146	3½-4½
2014							9	20	22	25	150	2½-3½
2015								11	23	25	151	1½-2½
2016									11	24	153	½-1½
2017										13	80	0-½
<b>Total</b>	<b>53</b>	<b>68</b>	<b>86</b>	<b>106</b>	<b>128</b>	<b>157</b>	<b>196</b>	<b>231</b>	<b>273</b>	<b>308</b>	<b>1,606</b>	



SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2008-2017  
SUMMARIZED BY AGE INTERVAL

Experience Band 2008-2017

Placement Band 2003-2017

Year Placed	Acquisitions, Transfers and Sales, Thousands of Dollars										Total During Age Interval	Age Interval
	During Year											
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2003	-	-	-	-	-	-	60 <sup>a</sup>	-	-	-	-	13½-14½
2004	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2005	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2006	-	-	-	-	-	-	-	(5) <sup>b</sup>	-	-	60	10½-11½
2007	-	-	-	-	-	-	-	6 <sup>a</sup>	-	-	-	9½-10½
2008	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
2009	-	-	-	-	-	-	-	-	-	-	6	7½-8½
2010	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2011	-	-	-	-	-	-	-	(12) <sup>b</sup>	-	-	-	5½-6½
2012	-	-	-	-	-	-	-	-	22 <sup>a</sup>	-	-	4½-5½
2013	-	-	-	-	-	-	-	(19) <sup>b</sup>	-	-	10	3½-4½
2014	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2015	-	-	-	-	-	-	-	-	-	(102) <sup>c</sup>	(121)	1½-2½
2016	-	-	-	-	-	-	-	-	-	-	-	½-1½
2017	-	-	-	-	-	-	-	-	-	-	-	0-½
Total	-	-	-	-	-	-	60	(30)	22	(102)	(50)	

<sup>a</sup> Transfer Affecting Exposures at Beginning of Year

<sup>b</sup> Transfer Affecting Exposures at End of Year

<sup>c</sup> 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 2008 through 2017 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 2013 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 2008-2017  
SUMMARIZED BY AGE INTERVAL

Experience Band 2008-2017

Placement Band 2003-2017

Year Placed (1)	Exposures, Thousands of Dollars										Total at Beginning of Age Interval (12)	Age Interval (13)
	Annual Survivors at the Beginning of the Year											
	2008 (2)	2009 (3)	2010 (4)	2011 (5)	2012 (6)	2013 (7)	2014 (8)	2015 (9)	2016 (10)	2017 (11)		
2003	255	245	234	222	209	195	239	216	192	167	167	13½-14½
2004	279	268	256	243	228	212	194	174	153	131	323	12½-13½
2005	307	296	284	271	257	241	224	205	184	162	531	11½-12½
2006	338	330	321	311	300	289	276	262	242	226	823	10½-11½
2007	376	367	357	346	334	321	307	297	280	261	1,097	9½-10½
2008	420 <sup>a</sup>	416	407	397	386	374	361	347	332	316	1,503	8½-9½
2009		460 <sup>a</sup>	455	444	432	419	405	390	374	356	1,952	7½-8½
2010			510 <sup>a</sup>	504	492	479	464	448	431	412	2,463	6½-7½
2011				580 <sup>a</sup>	574	561	546	530	501	482	3,057	5½-6½
2012					660 <sup>a</sup>	653	639	623	628	609	3,789	4½-5½
2013						750 <sup>a</sup>	742	724	685	663	4,332	3½-4½
2014							850 <sup>a</sup>	841	821	799	4,955	2½-3½
2015								960 <sup>a</sup>	949	926	5,719	1½-2½
2016									1,080 <sup>a</sup>	1,069	6,579	½-1½
2017										1,220 <sup>a</sup>	7,490	0-½
<b>Total</b>	<b>1,975</b>	<b>2,382</b>	<b>2,824</b>	<b>3,318</b>	<b>3,872</b>	<b>4,494</b>	<b>5,247</b>	<b>6,017</b>	<b>6,852</b>	<b>7,799</b>	<b>44,780</b>	

<sup>a</sup>Additions during the year



For the entire experience band 2008-2017, 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 2008-2017

Placement Band 2003-2017

(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
Total	<u>44,780</u>	<u>1,606</u>			35.66

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 Table 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

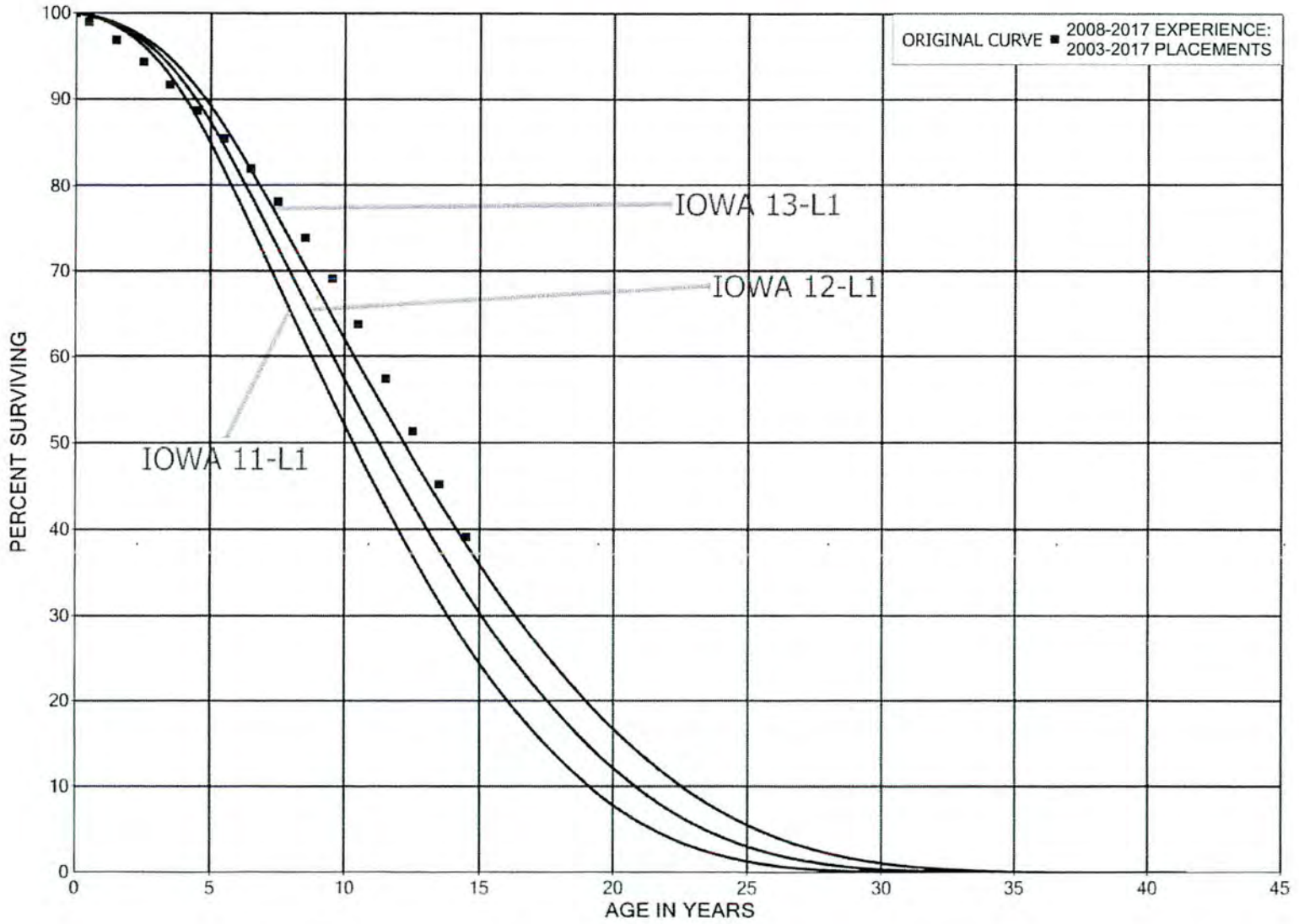






FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE  
ORIGINAL AND SMOOTH SURVIVOR CURVES

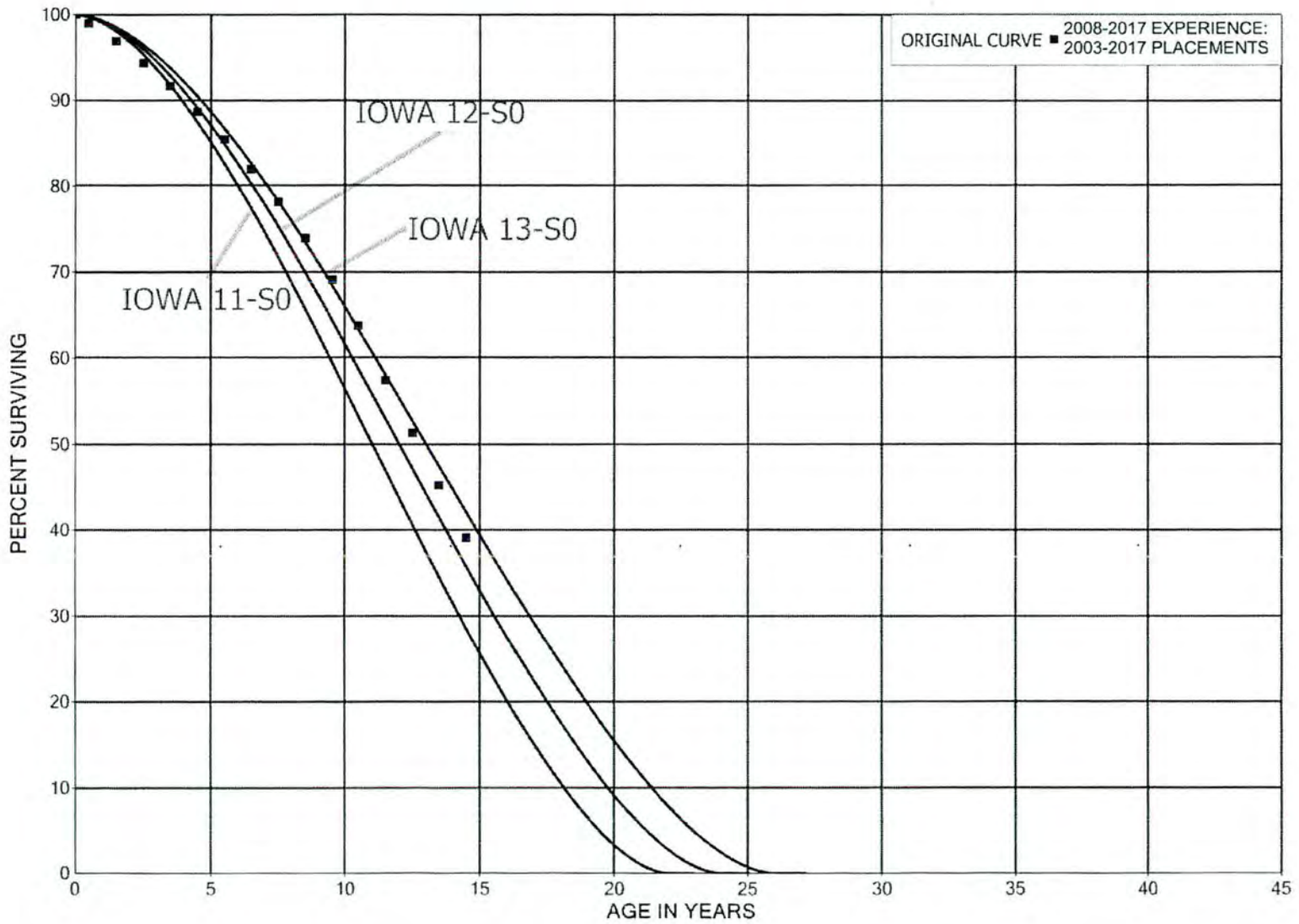




FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE  
ORIGINAL AND SMOOTH SURVIVOR CURVES

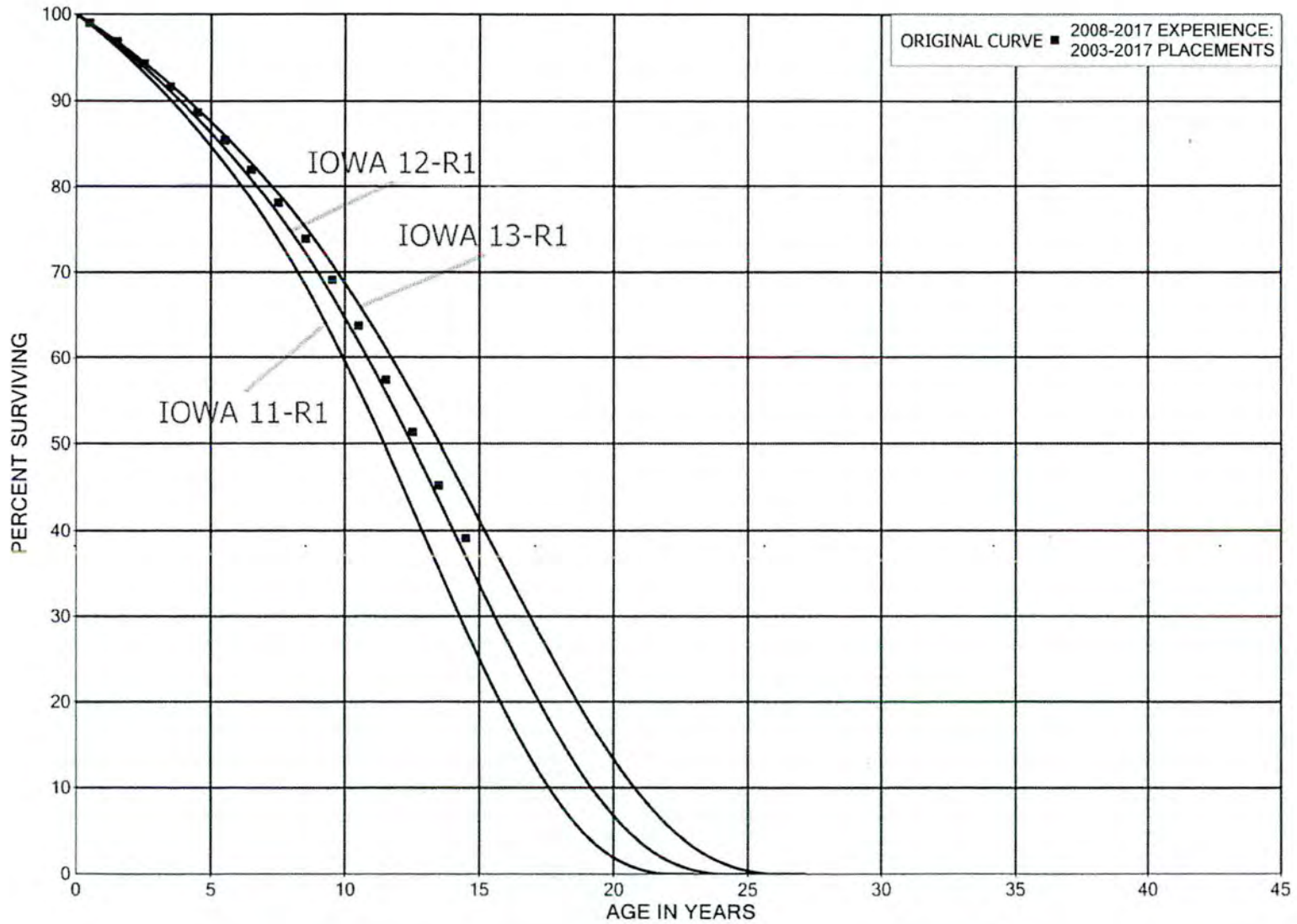
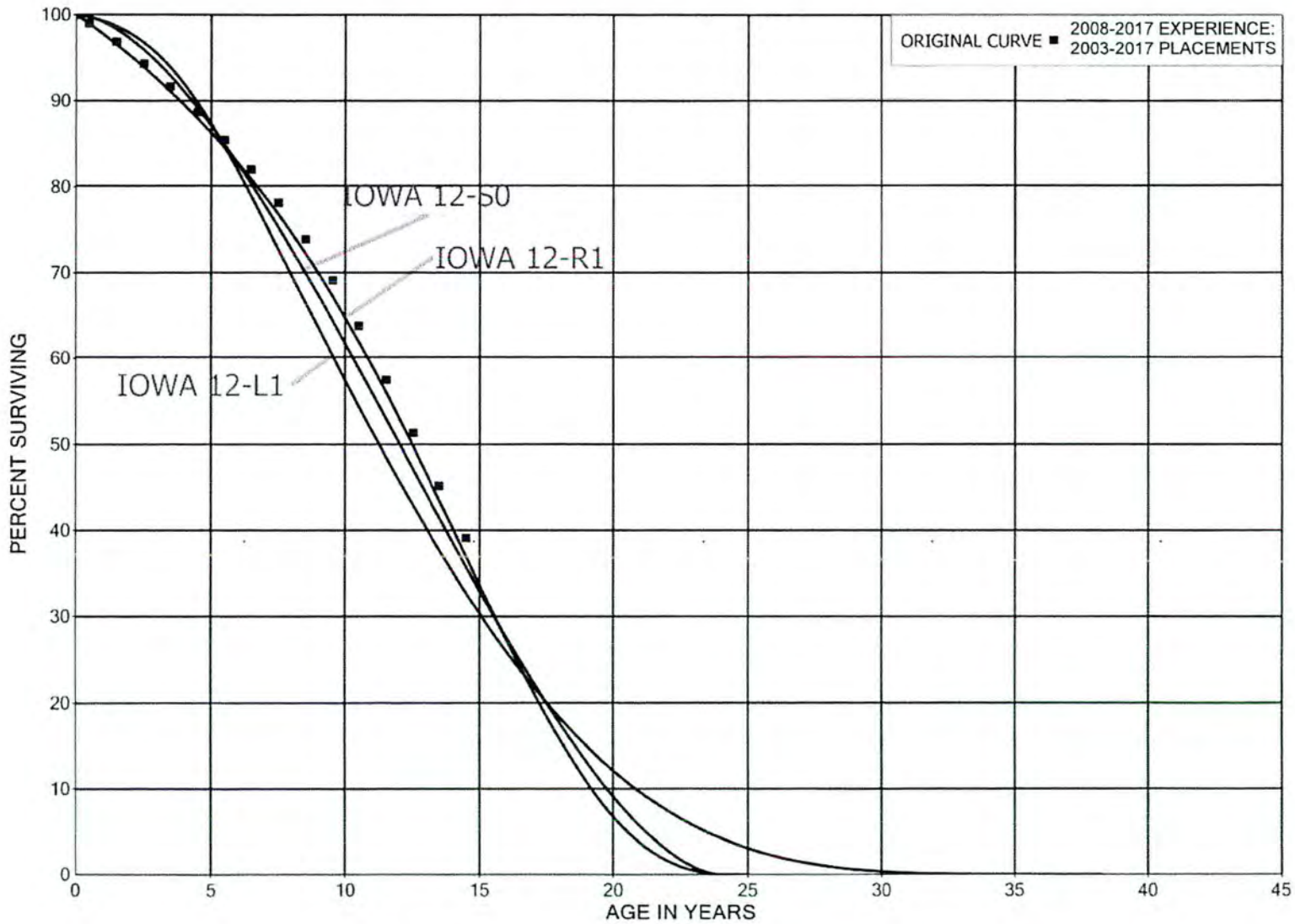




FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE  
ORIGINAL AND SMOOTH SURVIVOR CURVES





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## 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 was conducted for the study. 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 trip.

March 13, 2018

Erlanger Measuring and Regulating Station  
Erlanger Caverns  
Foster City Gate Station  
Bracken Measuring and Regulating Station  
Arcadia District Regulator Station  
Mineola District Regulator Station  
Warsaw District Regulator Station

### 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 gas 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 96 percent of depreciable plant. Generally, the information external to the statistics led to 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.

**PRODUCTION PLANT**

2110 Liquefied Petroleum Gas Equipment

**DISTRIBUTION PLANT**

2750 Structures and Improvements  
2761 Mains – Cast Iron, Copper and All Valves  
2762 Mains – Steel  
2763 Mains – Plastic  
2765 Mains – Steel Feeder Lines  
2780 Measuring and Regulating Station Equipment – General  
2801 Services – Cast Iron, Copper and All Valves  
2802 Services – Steel  
2803 Services – Plastic  
2810 Meters  
2820 Meter Installations  
2840 House Regulator Installations  
2850 Industrial Measuring and Regulating Station Equipment  
2870 Other Equipment  
2871 Street Lighting Equipment

**GENERAL PLANT**

2921 Transportation Equipment – Trailers

The combined analyses for Account 2762, Mains – Steel and Account 2765 – Mains – Steel Feeder Lines, and the analyses for Account 2803, Services – Plastic, are used to illustrate the manner in which the study was conducted for the groups in the preceding list. The combined Accounts 2762 and 2765 represents 24 percent, and Account 2803 represents 33 percent, of the total depreciable plant. Aged plant accounting data have been compiled for the years 1960 through 2017 and 1992 through 2017. 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 gas 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 the combined Account 2762 and 2765 is based on the statistical indications for the period 1960-2017 and 1988-2017. The Iowa 65-R2.5 is an excellent fit of the original survivor curve. The 65 year service life is within the typical service life range of 55 to 70 years for steel mains. The 65-year life reflects the Company's continued practices of heavy retirements after age 60. The previous estimate was the Iowa 55-R2.5.

The survivor curve estimate for Account 2803, Services – Plastic, is the 48-S0.5 and is based on the statistical indication for the periods 1972 through 2017 and 1998 through 2017. The 48-S0.5 is an excellent fit of the significant portion of the original survivor curve as set forth on page VII-59 consistent with management outlook for a continuation of historical experience, and at the upper end of the typical service life range of 40 to 50 years for plastic services.

### **Life Span Estimates**

The life span technique was used for the Company's Production accounts. The life span procedure is appropriate for these accounts since many of the assets within the plant will be retired concurrently. A probable retirement date was estimated for the production facility and cavern. A life span for the Production Plant was the result of considering experienced life spans of similar facilities, the age of surviving units, general operating characteristics of the facility, major refurbishing, and discussions with management personnel concerning the probable long-term outlook for the facility.

The depreciable life span estimate for the Erlanger Gas Plant and Constance Cavern is 63 years. The typical range of life spans for such facilities in the past has been 50 to 70 years. This life span represents the expected depreciable life of the facility based on current company plans.

The life span and probable retirement date used for production facilities is as follows:

<u>Depreciable Group</u>	<u>Major Year in Service</u>	<u>Depreciable Life Date</u>	<u>Depreciable Life Span</u>
Production Plant Erlanger/Constance Cavern	1961	2024	63

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

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

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## PART IV. NET SALVAGE CONSIDERATIONS



## PART IV. NET SALVAGE CONSIDERATIONS

### SALVAGE ANALYSIS

The estimates of net salvage by account were based in part on historical data compiled for the years 1980 through 2017. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates by account are expressed as a percent of the original cost of plant retired.

### Net Salvage Considerations

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

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

Statistical analyses of historical data for the period 1980 through 2017 contributed significantly toward the net salvage estimates for 18 plant accounts, representing 97 percent of the depreciable plant, as follows:

#### PRODUCTION PLANT

- 2050 Structures and Improvements
- 2110 Liquefied Petroleum Gas Equipment

#### DISTRIBUTION PLANT

- 2761 Mains – Cast Iron, Copper and All Valves
- 2762 Mains – Steel
- 2763 Mains – Plastic

2765	Mains – Steel Feeder Lines
2780	Measuring and Regulating Station Equipment – General
2781	Measuring and Regulating Station Equipment – Electronic
2782	Measuring and Regulating Station Equipment – District
2801	Services – Cast Iron, Copper and All Valves
2802	Services – Steel
2803	Services – Plastic
2810	Meters
2820	Meter Installations
2840	House Regulator Installations
2850	Industrial Measuring and Regulating Station Equipment
2851	Industrial Measuring and Regulating Station Equipment - Electronic

#### GENERAL PLANT

2921	Transportation Equipment - Trailers
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The combined analyses of all subaccounts in Account 2760, Mains, 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 1980 through 2017 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 1980-1982 through 2015-2017 periods were computed to smooth the annual amounts.

Cost of removal was high during the early 1990s and in the years 1998, 2006, 2013 and 2014. The high removal cost in the early 1990s related to practices during that time. The high removal in 2006, 2013 and 2014 related to the location of the mains which required additional labor hours. Cost of removal for the most recent five years averaged 39 percent.

Gross salvage has diminished drastically since 1999. The most recent five-year average of 0 percent gross salvage reflects recent trends of minimal salvage value for mains.



The net salvage percent based on the overall period 1980 through 2017 is 14 percent negative net salvage. The range of estimates made by other gas companies for mains is negative 15 to negative 40 percent. The net salvage estimate for mains is negative 20 percent, is within the range of estimates for other gas companies and reflects the overall experience for negative net salvage.

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 9 percent was used for 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 net salvage percents for the remaining accounts were based on judgment incorporating estimates of previous studies of this and other gas utilities.



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

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**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, 2017, 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, 2017, 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 gas plant in service. The accounts and their amortization periods are as follows:

	<u>Account</u>	<u>Amortization Period, Years</u>
2910	Office Furniture and Equipment	20
2911	Electric Data Processing	5
2940	Tools, Shop and Garage Equipment	25
2970	Communication Equipment	15
2980	Miscellaneous Equipment	20

For the purpose of calculating annual amortization amounts as of December 31, 2017, 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.



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**PART VI. RESULTS OF STUDY**

## PART VI. RESULTS OF STUDY

### QUALIFICATION OF RESULTS

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

The annual depreciation accrual rates are applicable specifically to the gas plant in service as of December 31, 2017. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to December 31, 2017, 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 gas plant at December 31, 2017. These results are presented on pages VI-4 and VI-5 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 gas 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 gas 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 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, 2017 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  
GAS PLANT

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2017

ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST AS OF DECEMBER 31, 2017 (4)	BOOK DEPRECIATION RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL AMOUNT (7)	RATE (8)=(7)/(4)	COMPOSITE REMAINING LIFE (9)=(6)/(7)
<b>PRODUCTION PLANT</b>								
2041 RIGHTS OF WAY	50-SQ	0	24,458.90	24,439	20	4	0.02	5.0
2050 STRUCTURES AND IMPROVEMENTS	55-R4	(10)	1,722,763.66	1,419,183	475,857	80,887	4.70	5.9
2110 LIQUEFIED PETROLEUM GAS EQUIPMENT	55-R2.5	(10)	5,955,198.20	2,977,438	3,573,280	527,625	8.86	6.8
<b>TOTAL PRODUCTION PLANT</b>			<b>7,702,420.76</b>	<b>4,421,060</b>	<b>4,049,157</b>	<b>608,516</b>	<b>7.90</b>	<b>6.7</b>
<b>DISTRIBUTION PLANT</b>								
2741 RIGHTS OF WAY	70-R4	0	1,095,119.18	642,232	452,887	11,381	1.04	39.8
2750 STRUCTURES AND IMPROVEMENTS	60-R2	(5)	555,988.27	145,936	437,851	7,995	1.44	54.8
<b>MAINS</b>								
2761 CAST IRON, COPPER AND ALL VALVES	47-R2.5	(20)	982,749.37	(122,219)	1,301,518	85,500	8.70	15.2
2762 STEEL	65-R2.5	(20)	83,504,429.58	39,512,552	60,692,763	1,373,621	1.64	44.2
2763 PLASTIC	70-R3	(20)	149,291,612.99	47,525,256	131,624,679	2,279,170	1.53	57.8
2765 STEEL FEEDER LINES	65-R2.5	(20)	34,279,326.54	15,918,386	25,216,805	509,068	1.49	49.5
<b>TOTAL MAINS</b>			<b>268,058,118.48</b>	<b>102,833,976</b>	<b>218,835,765</b>	<b>4,247,359</b>	<b>1.58</b>	
2780 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL	52-R1.5	(25)	6,402,913.06	2,338,883	5,664,759	130,926	2.04	43.3
2781 MEASURING AND REGULATING STATION EQUIPMENT - ELECTRONIC	25-S2	(25)	1,136,972.88	495,731	925,485	72,375	6.37	12.8
2782 MEASURING AND REGULATING STATION EQUIPMENT - DISTRICT	55-R2	(25)	2,302,852.69	1,014,222	1,864,343	37,922	1.65	49.2
<b>SERVICES</b>								
2801 CAST IRON, COPPER AND ALL VALVES	40-R2	(25)	3,529,256.01	515,332	3,866,238	186,127	5.27	20.9
2802 STEEL	42-R2	(25)	8,822,095.39	2,270,659	8,756,960	294,302	3.34	29.8
2803 PLASTIC	48-S0.5	(25)	146,553,942.78	46,265,684	137,926,864	3,500,301	2.39	39.4
<b>TOTAL SERVICES</b>			<b>158,905,294.18</b>	<b>48,051,556</b>	<b>150,580,062</b>	<b>3,980,730</b>	<b>2.51</b>	
2810 METERS	17-L0	0	14,160,599.88	(4,098,109)	18,258,709	1,524,720	10.77	12.0
2820 METER INSTALLATIONS	30-S0	0	10,424,840.45	2,316,474	8,108,367	398,018	3.82	20.4
2830 HOUSE REGULATORS	42-R1.5	0	6,650,479.43	2,104,614	4,545,865	142,834	2.15	31.8
2840 HOUSE REGULATOR INSTALLATIONS	50-R3	0	5,816,407.30	2,351,040	3,465,368	92,360	1.59	37.5
2850 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT	42-R2	(10)	455,084.24	425,708	74,885	2,712	0.60	27.6
2851 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT - ELECTRONIC	25-R2.5	(10)	64,790.82	47,089	24,181	2,361	3.64	10.2
2870 OTHER EQUIPMENT	17-R3	0	21,446.76	22,692	(1,245)	0	-	-
2871 STREET LIGHTING EQUIPMENT	35-S2.5	0	28,290.11	20,415	7,875	497	1.76	15.8
<b>TOTAL DISTRIBUTION PLANT</b>			<b>476,079,197.73</b>	<b>158,712,459</b>	<b>413,245,157</b>	<b>10,652,190</b>	<b>2.24</b>	<b>38.8</b>
<b>GENERAL PLANT</b>								
2910 OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	13,861.47	13,921	(60)	0	-	-
2911 OFFICE FURNITURE AND EQUIPMENT - ELECTRONIC DATA PROCESSING	5-SQ	0	310,654.92	75,511	235,144	71,308	22.95	3.3
2921 TRANSPORTATION EQUIPMENT - TRAILERS	14-R1.5	5	65,845.27	64,371	(1,818)	0	-	-
2940 TOOLS, SHOP AND GARAGE EQUIPMENT	25-SQ	0	1,278,772.08	724,896	553,876	60,153	4.70	9.2
2970 COMMUNICATION EQUIPMENT	15-SQ	0	2,830,460.27	60,972	2,769,488	191,441	6.76	14.5
2980 MISCELLANEOUS EQUIPMENT	20-SQ	0	83,590.71	22,886	60,704	11,037	13.20	5.5
<b>TOTAL GENERAL PLANT</b>			<b>4,583,184.72</b>	<b>962,558</b>	<b>3,617,334</b>	<b>333,939</b>	<b>7.29</b>	<b>10.8</b>
<b>TOTAL DEPRECIABLE PLANT</b>			<b>488,364,803.21</b>	<b>164,096,076</b>	<b>420,911,648</b>	<b>11,594,645</b>	<b>2.37</b>	<b>36.3</b>



DUKE ENERGY KENTUCKY  
GAS PLANT

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2017

ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST AS OF DECEMBER 31, 2017 (4)	BOOK DEPRECIATION RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL AMOUNT (7)	CALCULATED ANNUAL ACCRUAL RATE (8)=(7)/(4)	COMPOSITE REMAINING LIFE (9)=(6)/(7)
NONDEPRECIABLE AND ACCOUNTS NOT STUDIED								
2030			8,728,213.74	4,717,583				
2031			2,551,238.23	82,444				
2040			117,711.07					
2740			43,358.14	4				
TOTAL NONDEPRECIABLE AND ACCOUNTS NOT STUDIED			11,440,521.18	4,800,031				
TOTAL GAS PLANT			499,805,324.39	168,896,107	420,911,648	11,594,645		

\* LIFE SPAN PROCEDURE WAS USED. CURVE SHOWN IS INTERIM SURVIVOR CURVE.  
\*\* NEW ADDITIONS AFTER JANUARY 1, 2018 WILL HAVE THE FOLLOWING RATES:

ACCOUNT	RATE
2910 OFFICE FURNITURE AND EQUIPMENT	5.00
2921 TRANSPORTATION EQUIPMENT - TRAILERS	6.99

NOTE: ADDITIONS FOR NEW ACCOUNTS AFTER JANUARY 1, 2018 SHOULD USE THE FOLLOWING RATES:

ACCOUNT	RATE
2920 TRANSPORTATION EQUIPMENT	8.70
2960 POWER OPERATED EQUIPMENT	6.90

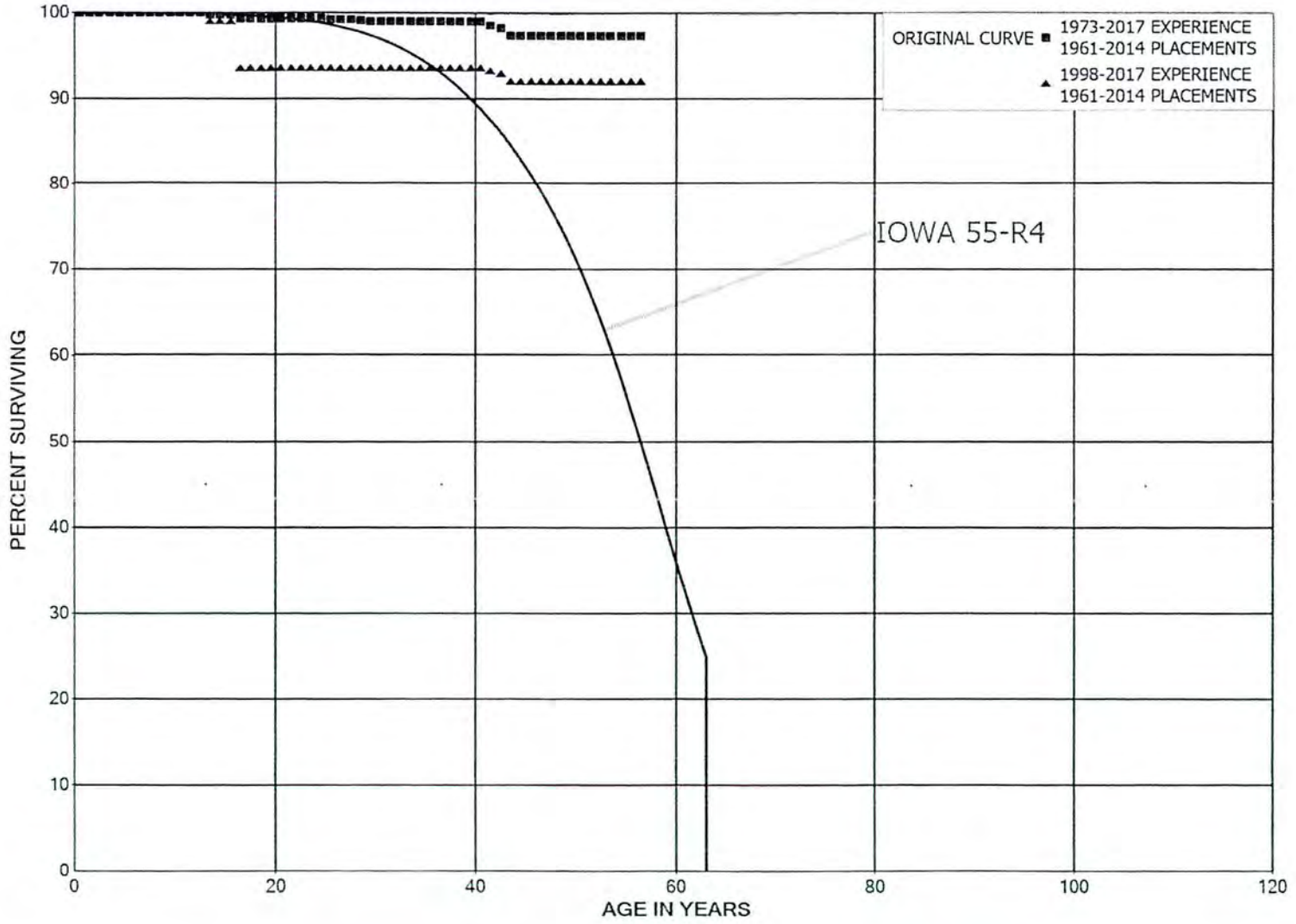
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## PART VII. SERVICE LIFE STATISTICS





DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2050 STRUCTURES AND IMPROVEMENTS  
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2050 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1961-2014		EXPERIENCE BAND 1973-2017			
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	642,440		0.0000	1.0000	100.00
0.5	649,082		0.0000	1.0000	100.00
1.5	672,745		0.0000	1.0000	100.00
2.5	680,084		0.0000	1.0000	100.00
3.5	622,084		0.0000	1.0000	100.00
4.5	622,084		0.0000	1.0000	100.00
5.5	524,799		0.0000	1.0000	100.00
6.5	378,423		0.0000	1.0000	100.00
7.5	378,423		0.0000	1.0000	100.00
8.5	378,423		0.0000	1.0000	100.00
9.5	380,532		0.0000	1.0000	100.00
10.5	380,532		0.0000	1.0000	100.00
11.5	1,601,531	610	0.0004	0.9996	100.00
12.5	1,600,921	3,739	0.0023	0.9977	99.96
13.5	1,597,183		0.0000	1.0000	99.73
14.5	1,464,923		0.0000	1.0000	99.73
15.5	1,413,433	6,368	0.0045	0.9955	99.73
16.5	1,399,233		0.0000	1.0000	99.28
17.5	1,372,766	368	0.0003	0.9997	99.28
18.5	1,361,191		0.0000	1.0000	99.25
19.5	1,356,684		0.0000	1.0000	99.25
20.5	1,356,684		0.0000	1.0000	99.25
21.5	1,356,684		0.0000	1.0000	99.25
22.5	1,356,684		0.0000	1.0000	99.25
23.5	1,356,684		0.0000	1.0000	99.25
24.5	1,356,684	1,479	0.0011	0.9989	99.25
25.5	1,355,205		0.0000	1.0000	99.14
26.5	1,351,881		0.0000	1.0000	99.14
27.5	1,302,869	524	0.0004	0.9996	99.14
28.5	1,301,019	1,958	0.0015	0.9985	99.10
29.5	1,299,060		0.0000	1.0000	98.96
30.5	1,299,060		0.0000	1.0000	98.96
31.5	1,292,831		0.0000	1.0000	98.96
32.5	1,292,831		0.0000	1.0000	98.96
33.5	1,292,831		0.0000	1.0000	98.96
34.5	1,292,831		0.0000	1.0000	98.96
35.5	1,292,831		0.0000	1.0000	98.96
36.5	1,292,451		0.0000	1.0000	98.96
37.5	1,292,451		0.0000	1.0000	98.96
38.5	1,288,879		0.0000	1.0000	98.96

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2050 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1961-2014			EXPERIENCE BAND 1973-2017		
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	1,288,879		0.0000	1.0000	98.96
40.5	1,273,217	5,862	0.0046	0.9954	98.96
41.5	1,267,355	4,143	0.0033	0.9967	98.50
42.5	1,261,485	12,100	0.0096	0.9904	98.18
43.5	1,244,705		0.0000	1.0000	97.24
44.5	1,236,516		0.0000	1.0000	97.24
45.5	1,229,873		0.0000	1.0000	97.24
46.5	1,206,210		0.0000	1.0000	97.24
47.5	1,195,774		0.0000	1.0000	97.24
48.5	1,195,774		0.0000	1.0000	97.24
49.5	1,195,774		0.0000	1.0000	97.24
50.5	1,195,774		0.0000	1.0000	97.24
51.5	1,195,774		0.0000	1.0000	97.24
52.5	1,195,774		0.0000	1.0000	97.24
53.5	1,195,774		0.0000	1.0000	97.24
54.5	1,194,033		0.0000	1.0000	97.24
55.5	1,194,033		0.0000	1.0000	97.24
56.5					97.24



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2050 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1961-2014		EXPERIENCE BAND 1998-2017			
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	538,521		0.0000	1.0000	100.00
0.5	538,521		0.0000	1.0000	100.00
1.5	538,521		0.0000	1.0000	100.00
2.5	538,521		0.0000	1.0000	100.00
3.5	480,521		0.0000	1.0000	100.00
4.5	480,521		0.0000	1.0000	100.00
5.5	380,139		0.0000	1.0000	100.00
6.5	237,087		0.0000	1.0000	100.00
7.5	289,547		0.0000	1.0000	100.00
8.5	290,873		0.0000	1.0000	100.00
9.5	290,873		0.0000	1.0000	100.00
10.5	290,873		0.0000	1.0000	100.00
11.5	303,471		0.0000	1.0000	100.00
12.5	303,471	3,448	0.0114	0.9886	100.00
13.5	300,023		0.0000	1.0000	98.86
14.5	167,763		0.0000	1.0000	98.86
15.5	116,273	6,368	0.0548	0.9452	98.86
16.5	102,453		0.0000	1.0000	93.45
17.5	75,986		0.0000	1.0000	93.45
18.5	68,351		0.0000	1.0000	93.45
19.5	63,844		0.0000	1.0000	93.45
20.5	79,506		0.0000	1.0000	93.45
21.5	79,506		0.0000	1.0000	93.45
22.5	81,233		0.0000	1.0000	93.45
23.5	85,913		0.0000	1.0000	93.45
24.5	94,102		0.0000	1.0000	93.45
25.5	100,745		0.0000	1.0000	93.45
26.5	121,084		0.0000	1.0000	93.45
27.5	82,508		0.0000	1.0000	93.45
28.5	81,182		0.0000	1.0000	93.45
29.5	81,182		0.0000	1.0000	93.45
30.5	81,182		0.0000	1.0000	93.45
31.5	74,952		0.0000	1.0000	93.45
32.5	74,952		0.0000	1.0000	93.45
33.5	74,952		0.0000	1.0000	93.45
34.5	76,693		0.0000	1.0000	93.45
35.5	76,693		0.0000	1.0000	93.45
36.5	1,292,451		0.0000	1.0000	93.45
37.5	1,292,451		0.0000	1.0000	93.45
38.5	1,288,879		0.0000	1.0000	93.45

DUKE ENERGY KENTUCKY  
GAS PLANT

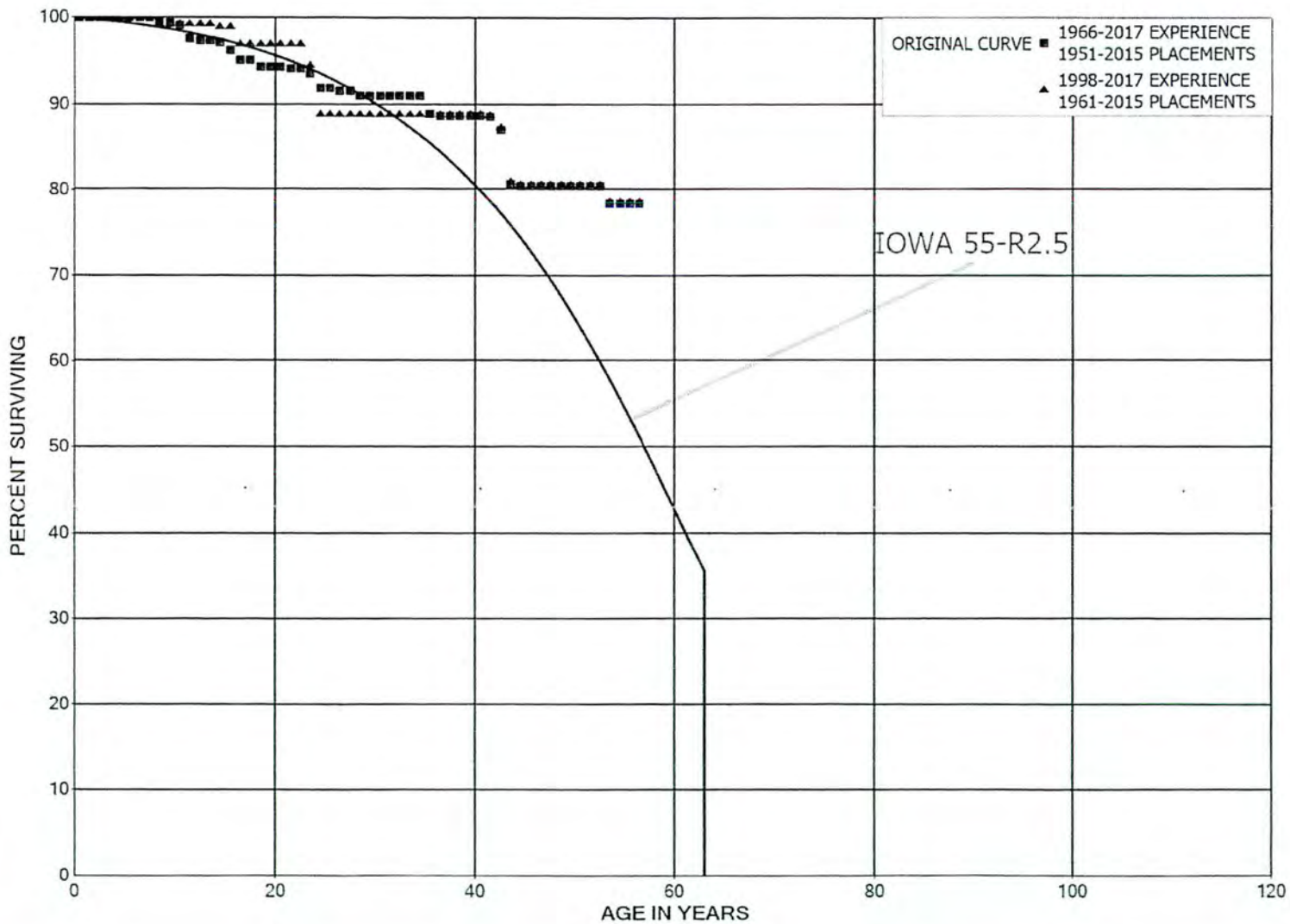
ACCOUNT 2050 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1961-2014			EXPERIENCE BAND 1998-2017		
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	1,288,879		0.0000	1.0000	93.45
40.5	1,273,217	5,862	0.0046	0.9954	93.45
41.5	1,267,355	4,143	0.0033	0.9967	93.02
42.5	1,261,485	12,100	0.0096	0.9904	92.71
43.5	1,244,705		0.0000	1.0000	91.83
44.5	1,236,516		0.0000	1.0000	91.83
45.5	1,229,873		0.0000	1.0000	91.83
46.5	1,206,210		0.0000	1.0000	91.83
47.5	1,195,774		0.0000	1.0000	91.83
48.5	1,195,774		0.0000	1.0000	91.83
49.5	1,195,774		0.0000	1.0000	91.83
50.5	1,195,774		0.0000	1.0000	91.83
51.5	1,195,774		0.0000	1.0000	91.83
52.5	1,195,774		0.0000	1.0000	91.83
53.5	1,195,774		0.0000	1.0000	91.83
54.5	1,194,033		0.0000	1.0000	91.83
55.5	1,194,033		0.0000	1.0000	91.83
56.5					91.83



DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2110 LIQUEFIED PETROLEUM GAS EQUIPMENT  
ORIGINAL AND SMOOTH SURVIVOR CURVES





DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2110 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1951-2015		EXPERIENCE BAND 1966-2017			
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	5,392,494		0.0000	1.0000	100.00
0.5	5,394,514		0.0000	1.0000	100.00
1.5	5,396,541		0.0000	1.0000	100.00
2.5	5,173,206		0.0000	1.0000	100.00
3.5	4,721,700		0.0000	1.0000	100.00
4.5	5,806,668	3,235	0.0006	0.9994	100.00
5.5	5,423,706	644	0.0001	0.9999	99.94
6.5	4,742,498		0.0000	1.0000	99.93
7.5	4,737,552	23,060	0.0049	0.9951	99.93
8.5	4,659,401	5,075	0.0011	0.9989	99.45
9.5	4,580,187	13,904	0.0030	0.9970	99.34
10.5	4,485,106	71,731	0.0160	0.9840	99.04
11.5	3,957,703	7,838	0.0020	0.9980	97.45
12.5	3,827,483		0.0000	1.0000	97.26
13.5	3,301,037	5,511	0.0017	0.9983	97.26
14.5	2,862,506	28,691	0.0100	0.9900	97.10
15.5	2,331,607	25,272	0.0108	0.9892	96.12
16.5	2,306,334		0.0000	1.0000	95.08
17.5	1,948,358	15,248	0.0078	0.9922	95.08
18.5	1,887,347	1,767	0.0009	0.9991	94.34
19.5	1,844,430		0.0000	1.0000	94.25
20.5	1,814,023	3,155	0.0017	0.9983	94.25
21.5	1,737,497		0.0000	1.0000	94.09
22.5	1,736,347	10,907	0.0063	0.9937	94.09
23.5	1,725,441	29,612	0.0172	0.9828	93.49
24.5	1,684,948		0.0000	1.0000	91.89
25.5	1,659,308	7,716	0.0047	0.9953	91.89
26.5	1,651,592		0.0000	1.0000	91.46
27.5	1,651,592	8,627	0.0052	0.9948	91.46
28.5	1,582,865		0.0000	1.0000	90.98
29.5	1,582,865		0.0000	1.0000	90.98
30.5	1,555,677	925	0.0006	0.9994	90.98
31.5	1,554,752		0.0000	1.0000	90.93
32.5	1,554,752		0.0000	1.0000	90.93
33.5	1,543,720		0.0000	1.0000	90.93
34.5	1,543,720	34,828	0.0226	0.9774	90.93
35.5	1,508,893	5,162	0.0034	0.9966	88.88
36.5	1,496,569		0.0000	1.0000	88.58
37.5	1,438,216		0.0000	1.0000	88.58
38.5	1,372,661		0.0000	1.0000	88.58

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2110 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1951-2015			EXPERIENCE BAND 1966-2017		
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	1,367,681		0.0000	1.0000	88.58
40.5	1,360,055	1,722	0.0013	0.9987	88.58
41.5	1,343,950	22,398	0.0167	0.9833	88.46
42.5	1,215,446	88,343	0.0727	0.9273	86.99
43.5	1,105,216	4,430	0.0040	0.9960	80.67
44.5	1,100,786		0.0000	1.0000	80.34
45.5	1,073,759		0.0000	1.0000	80.34
46.5	995,026		0.0000	1.0000	80.34
47.5	995,026		0.0000	1.0000	80.34
48.5	995,026		0.0000	1.0000	80.34
49.5	991,564		0.0000	1.0000	80.34
50.5	991,564		0.0000	1.0000	80.34
51.5	981,041		0.0000	1.0000	80.34
52.5	979,021	24,865	0.0254	0.9746	80.34
53.5	952,129		0.0000	1.0000	78.30
54.5	952,129		0.0000	1.0000	78.30
55.5	952,129		0.0000	1.0000	78.30
56.5					78.30

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2110 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1961-2015		EXPERIENCE BAND 1998-2017			
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	4,655,549		0.0000	1.0000	100.00
0.5	4,685,956		0.0000	1.0000	100.00
1.5	4,759,326		0.0000	1.0000	100.00
2.5	4,537,142		0.0000	1.0000	100.00
3.5	4,087,121		0.0000	1.0000	100.00
4.5	3,903,256		0.0000	1.0000	100.00
5.5	3,549,170		0.0000	1.0000	100.00
6.5	2,868,606		0.0000	1.0000	100.00
7.5	2,863,659	22,545	0.0079	0.9921	100.00
8.5	2,851,080		0.0000	1.0000	99.21
9.5	2,776,941	1,485	0.0005	0.9995	99.21
10.5	2,735,592		0.0000	1.0000	99.16
11.5	2,279,920		0.0000	1.0000	99.16
12.5	2,157,538		0.0000	1.0000	99.16
13.5	1,642,124	4,958	0.0030	0.9970	99.16
14.5	1,200,991		0.0000	1.0000	98.86
15.5	698,783	14,125	0.0202	0.9798	98.86
16.5	691,820		0.0000	1.0000	96.86
17.5	403,103		0.0000	1.0000	96.86
18.5	449,935		0.0000	1.0000	96.86
19.5	413,765		0.0000	1.0000	96.86
20.5	390,984		0.0000	1.0000	96.86
21.5	331,998		0.0000	1.0000	96.86
22.5	436,953	10,907	0.0250	0.9750	96.86
23.5	447,934	27,041	0.0604	0.9396	94.44
24.5	410,012		0.0000	1.0000	88.74
25.5	411,398		0.0000	1.0000	88.74
26.5	490,131		0.0000	1.0000	88.74
27.5	490,131		0.0000	1.0000	88.74
28.5	430,032		0.0000	1.0000	88.74
29.5	433,494		0.0000	1.0000	88.74
30.5	406,307		0.0000	1.0000	88.74
31.5	416,829		0.0000	1.0000	88.74
32.5	418,849		0.0000	1.0000	88.74
33.5	409,844		0.0000	1.0000	88.74
34.5	409,844		0.0000	1.0000	88.74
35.5	409,844		0.0000	1.0000	88.74
36.5	1,496,569		0.0000	1.0000	88.74
37.5	1,438,216		0.0000	1.0000	88.74
38.5	1,372,661		0.0000	1.0000	88.74



DUKE ENERGY KENTUCKY  
GAS PLANT

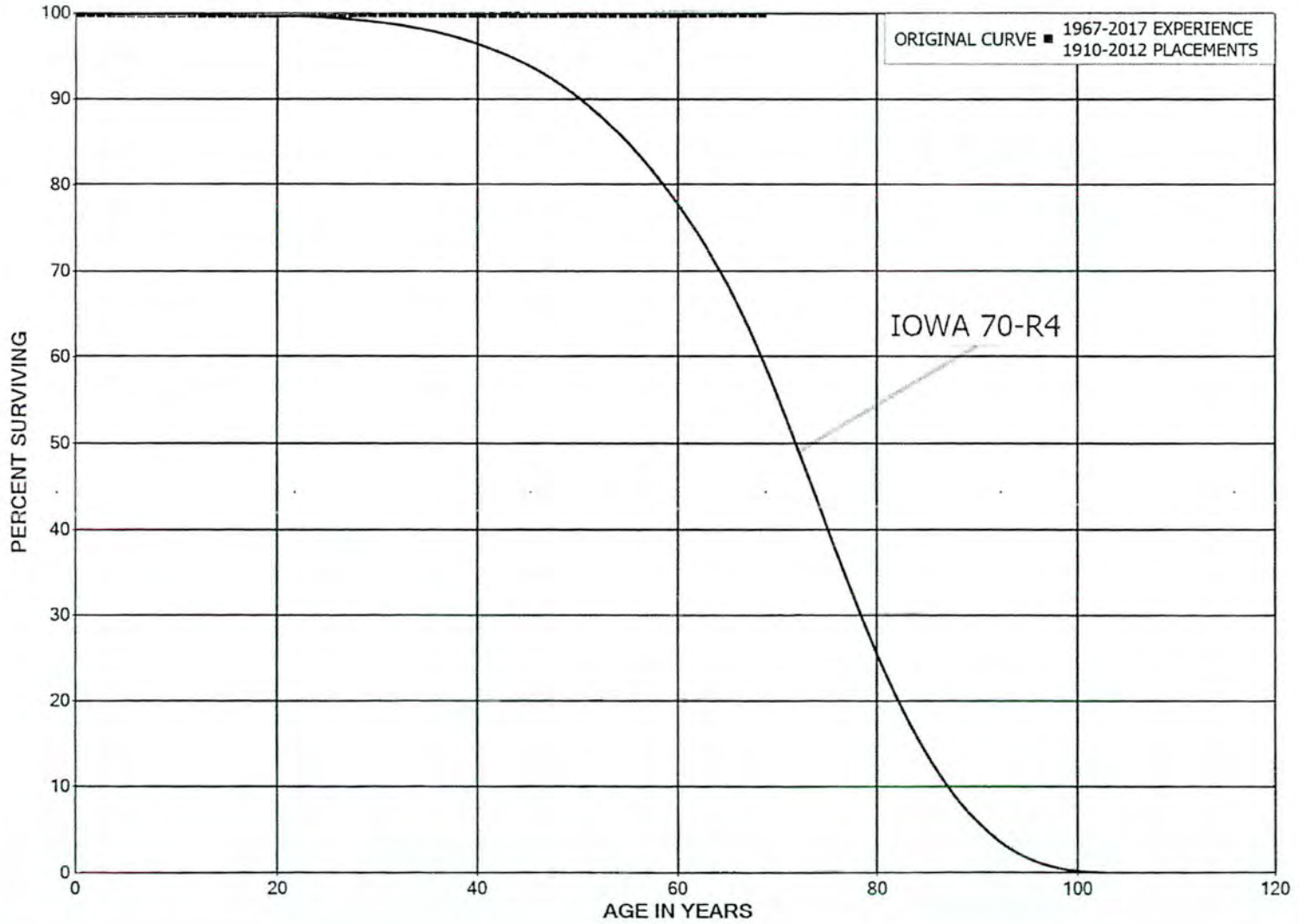
ACCOUNT 2110 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1961-2015			EXPERIENCE BAND 1998-2017		
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	1,367,681		0.0000	1.0000	88.74
40.5	1,360,055	1,722	0.0013	0.9987	88.74
41.5	1,343,950	22,398	0.0167	0.9833	88.63
42.5	1,215,446	88,343	0.0727	0.9273	87.15
43.5	1,105,216	4,430	0.0040	0.9960	80.82
44.5	1,100,786		0.0000	1.0000	80.49
45.5	1,073,759		0.0000	1.0000	80.49
46.5	995,026		0.0000	1.0000	80.49
47.5	995,026		0.0000	1.0000	80.49
48.5	995,026		0.0000	1.0000	80.49
49.5	991,564		0.0000	1.0000	80.49
50.5	991,564		0.0000	1.0000	80.49
51.5	981,041		0.0000	1.0000	80.49
52.5	979,021	24,865	0.0254	0.9746	80.49
53.5	952,129		0.0000	1.0000	78.45
54.5	952,129		0.0000	1.0000	78.45
55.5	952,129		0.0000	1.0000	78.45
56.5					78.45



DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2741 RIGHTS OF WAY  
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2741 RIGHTS OF WAY

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2012			EXPERIENCE BAND 1967-2017		
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	852,323		0.0000	1.0000	100.00
0.5	853,394		0.0000	1.0000	100.00
1.5	988,010	152	0.0002	0.9998	100.00
2.5	989,849		0.0000	1.0000	99.98
3.5	991,664		0.0000	1.0000	99.98
4.5	1,010,737		0.0000	1.0000	99.98
5.5	1,017,604		0.0000	1.0000	99.98
6.5	1,018,713		0.0000	1.0000	99.98
7.5	1,020,659		0.0000	1.0000	99.98
8.5	1,020,967		0.0000	1.0000	99.98
9.5	1,025,935		0.0000	1.0000	99.98
10.5	1,015,502		0.0000	1.0000	99.98
11.5	991,784		0.0000	1.0000	99.98
12.5	989,134		0.0000	1.0000	99.98
13.5	990,961		0.0000	1.0000	99.98
14.5	992,304		0.0000	1.0000	99.98
15.5	992,304		0.0000	1.0000	99.98
16.5	992,304		0.0000	1.0000	99.98
17.5	992,304		0.0000	1.0000	99.98
18.5	992,304		0.0000	1.0000	99.98
19.5	992,304		0.0000	1.0000	99.98
20.5	992,304		0.0000	1.0000	99.98
21.5	967,637		0.0000	1.0000	99.98
22.5	966,728		0.0000	1.0000	99.98
23.5	861,629		0.0000	1.0000	99.98
24.5	851,864		0.0000	1.0000	99.98
25.5	670,867		0.0000	1.0000	99.98
26.5	641,376		0.0000	1.0000	99.98
27.5	604,281		0.0000	1.0000	99.98
28.5	534,367		0.0000	1.0000	99.98
29.5	519,022		0.0000	1.0000	99.98
30.5	497,452		0.0000	1.0000	99.98
31.5	473,093		0.0000	1.0000	99.98
32.5	463,054		0.0000	1.0000	99.98
33.5	465,598		0.0000	1.0000	99.98
34.5	458,638		0.0000	1.0000	99.98
35.5	414,184		0.0000	1.0000	99.98
36.5	409,072		0.0000	1.0000	99.98
37.5	393,186		0.0000	1.0000	99.98
38.5	414,003		0.0000	1.0000	99.98



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2741 RIGHTS OF WAY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2012			EXPERIENCE BAND 1967-2017		
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	410,272		0.0000	1.0000	99.98
40.5	388,164		0.0000	1.0000	99.98
41.5	379,582		0.0000	1.0000	99.98
42.5	351,162		0.0000	1.0000	99.98
43.5	334,201		0.0000	1.0000	99.98
44.5	327,267		0.0000	1.0000	99.98
45.5	291,658		0.0000	1.0000	99.98
46.5	273,707		0.0000	1.0000	99.98
47.5	264,087		0.0000	1.0000	99.98
48.5	260,606		0.0000	1.0000	99.98
49.5	255,519		0.0000	1.0000	99.98
50.5	242,796		0.0000	1.0000	99.98
51.5	241,725		0.0000	1.0000	99.98
52.5	106,736		0.0000	1.0000	99.98
53.5	104,745		0.0000	1.0000	99.98
54.5	102,930		0.0000	1.0000	99.98
55.5	83,857		0.0000	1.0000	99.98
56.5	76,838		0.0000	1.0000	99.98
57.5	75,729		0.0000	1.0000	99.98
58.5	73,783		0.0000	1.0000	99.98
59.5	73,475		0.0000	1.0000	99.98
60.5	58,344		0.0000	1.0000	99.98
61.5	58,163		0.0000	1.0000	99.98
62.5	30,522		0.0000	1.0000	99.98
63.5	30,497		0.0000	1.0000	99.98
64.5	28,670		0.0000	1.0000	99.98
65.5	27,328		0.0000	1.0000	99.98
66.5	27,328		0.0000	1.0000	99.98
67.5	27,328		0.0000	1.0000	99.98
68.5	27,328		0.0000	1.0000	99.98
69.5	27,328		0.0000	1.0000	99.98
70.5	5,569		0.0000	1.0000	99.98
71.5	5,569		0.0000	1.0000	99.98
72.5	5,569		0.0000	1.0000	99.98
73.5	6,247		0.0000	1.0000	99.98
74.5	15,071		0.0000	1.0000	99.98
75.5	15,071		0.0000	1.0000	99.98
76.5	15,071		0.0000	1.0000	99.98
77.5	15,071		0.0000	1.0000	99.98
78.5	15,071		0.0000	1.0000	99.98

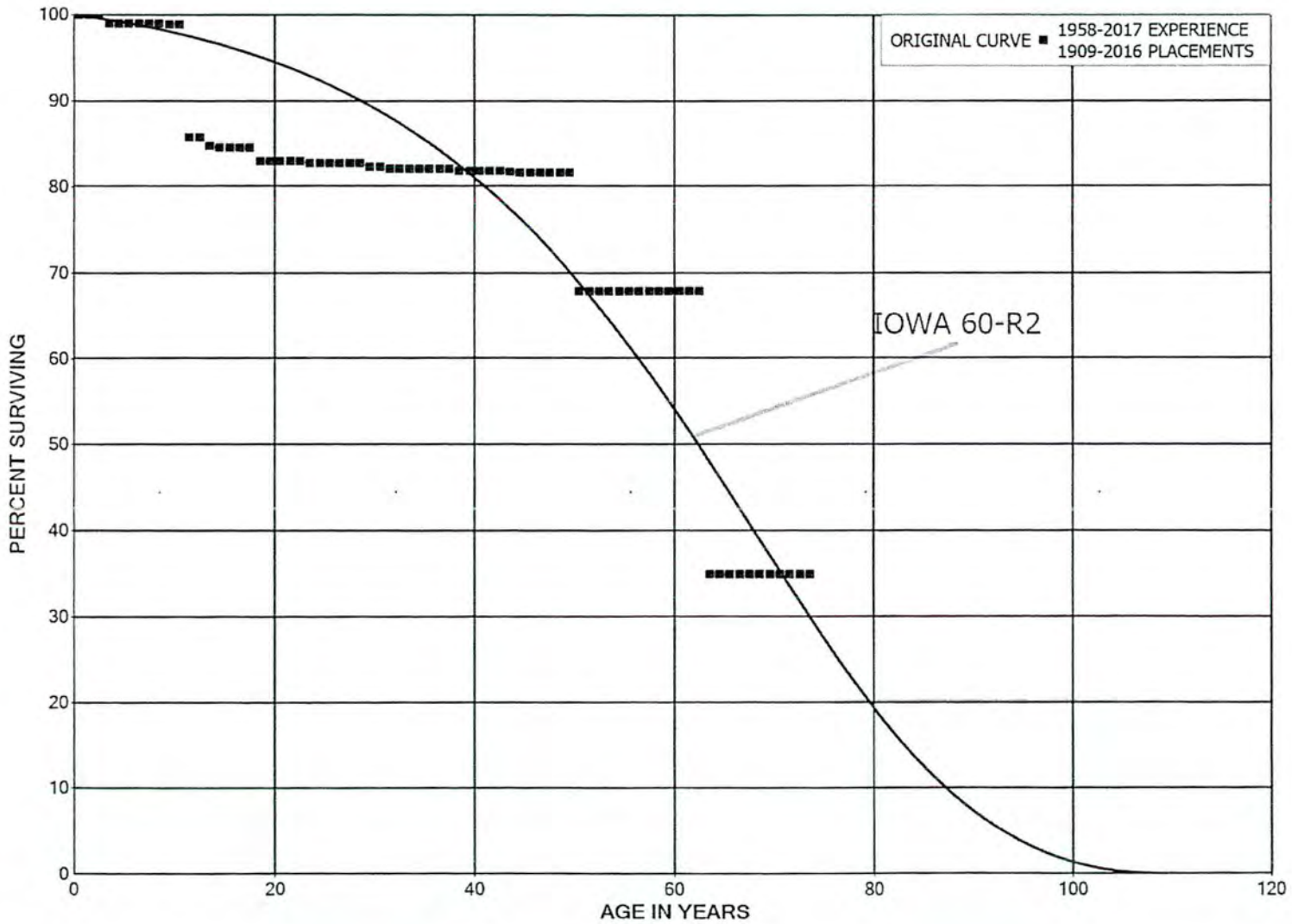
DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2741 RIGHTS OF WAY

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2012			EXPERIENCE BAND 1967-2017		
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	16,692		0.0000	1.0000	99.98
80.5	16,692		0.0000	1.0000	99.98
81.5	16,692		0.0000	1.0000	99.98
82.5	16,692		0.0000	1.0000	99.98
83.5	16,692		0.0000	1.0000	99.98
84.5	11,123		0.0000	1.0000	99.98
85.5	11,123		0.0000	1.0000	99.98
86.5	11,123		0.0000	1.0000	99.98
87.5	11,123		0.0000	1.0000	99.98
88.5	21,759		0.0000	1.0000	99.98
89.5	21,759		0.0000	1.0000	99.98
90.5	21,759		0.0000	1.0000	99.98
91.5	21,759		0.0000	1.0000	99.98
92.5	21,080		0.0000	1.0000	99.98
93.5	12,257		0.0000	1.0000	99.98
94.5	12,257		0.0000	1.0000	99.98
95.5	12,257		0.0000	1.0000	99.98
96.5	12,257		0.0000	1.0000	99.98
97.5	12,257		0.0000	1.0000	99.98
98.5	10,635		0.0000	1.0000	99.98
99.5	10,635		0.0000	1.0000	99.98
100.5	10,635		0.0000	1.0000	99.98
101.5	10,635		0.0000	1.0000	99.98
102.5	10,635		0.0000	1.0000	99.98
103.5	10,635		0.0000	1.0000	99.98
104.5	10,635		0.0000	1.0000	99.98
105.5	10,635		0.0000	1.0000	99.98
106.5	10,635		0.0000	1.0000	99.98
107.5					99.98

DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2750 STRUCTURES AND IMPROVEMENTS  
ORIGINAL AND SMOOTH SURVIVOR CURVES





DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2750 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1909-2016			EXPERIENCE BAND 1958-2017		
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	768,624		0.0000	1.0000	100.00
0.5	768,624		0.0000	1.0000	100.00
1.5	606,831		0.0000	1.0000	100.00
2.5	385,110	3,870	0.0100	0.9900	100.00
3.5	381,240		0.0000	1.0000	99.00
4.5	320,208		0.0000	1.0000	99.00
5.5	184,042		0.0000	1.0000	99.00
6.5	184,042		0.0000	1.0000	99.00
7.5	184,042		0.0000	1.0000	99.00
8.5	184,411	246	0.0013	0.9987	99.00
9.5	184,165		0.0000	1.0000	98.86
10.5	184,165	24,504	0.1331	0.8669	98.86
11.5	159,662		0.0000	1.0000	85.71
12.5	159,662	1,847	0.0116	0.9884	85.71
13.5	157,815	323	0.0020	0.9980	84.72
14.5	153,617		0.0000	1.0000	84.54
15.5	153,617		0.0000	1.0000	84.54
16.5	153,900		0.0000	1.0000	84.54
17.5	123,872	2,372	0.0192	0.9808	84.54
18.5	117,815		0.0000	1.0000	82.92
19.5	117,815		0.0000	1.0000	82.92
20.5	117,815		0.0000	1.0000	82.92
21.5	118,140		0.0000	1.0000	82.92
22.5	118,247	325	0.0027	0.9973	82.92
23.5	118,121		0.0000	1.0000	82.70
24.5	118,121		0.0000	1.0000	82.70
25.5	118,121		0.0000	1.0000	82.70
26.5	118,121		0.0000	1.0000	82.70
27.5	118,121		0.0000	1.0000	82.70
28.5	118,905	661	0.0056	0.9944	82.70
29.5	118,398		0.0000	1.0000	82.24
30.5	120,849	283	0.0023	0.9977	82.24
31.5	111,002		0.0000	1.0000	82.04
32.5	111,002		0.0000	1.0000	82.04
33.5	111,002		0.0000	1.0000	82.04
34.5	111,002		0.0000	1.0000	82.04
35.5	111,002		0.0000	1.0000	82.04
36.5	110,148		0.0000	1.0000	82.04
37.5	88,065	199	0.0023	0.9977	82.04
38.5	87,865		0.0000	1.0000	81.86

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2750 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1909-2016			EXPERIENCE BAND 1958-2017		
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	87,496		0.0000	1.0000	81.86
40.5	87,496		0.0000	1.0000	81.86
41.5	87,496		0.0000	1.0000	81.86
42.5	87,496	123	0.0014	0.9986	81.86
43.5	83,951	155	0.0018	0.9982	81.74
44.5	56,894		0.0000	1.0000	81.59
45.5	43,554		0.0000	1.0000	81.59
46.5	3,220		0.0000	1.0000	81.59
47.5	3,220		0.0000	1.0000	81.59
48.5	8,955		0.0000	1.0000	81.59
49.5	8,955	1,510	0.1686	0.8314	81.59
50.5	7,445		0.0000	1.0000	67.84
51.5	7,445		0.0000	1.0000	67.84
52.5	7,445		0.0000	1.0000	67.84
53.5	7,445		0.0000	1.0000	67.84
54.5	7,445		0.0000	1.0000	67.84
55.5	7,445		0.0000	1.0000	67.84
56.5	7,445		0.0000	1.0000	67.84
57.5	6,963		0.0000	1.0000	67.84
58.5	6,963		0.0000	1.0000	67.84
59.5	6,963		0.0000	1.0000	67.84
60.5	6,963		0.0000	1.0000	67.84
61.5	6,963		0.0000	1.0000	67.84
62.5	6,963	3,387	0.4864	0.5136	67.84
63.5	3,576		0.0000	1.0000	34.84
64.5	3,395		0.0000	1.0000	34.84
65.5	3,395		0.0000	1.0000	34.84
66.5	3,395		0.0000	1.0000	34.84
67.5	3,395		0.0000	1.0000	34.84
68.5	3,395		0.0000	1.0000	34.84
69.5	3,395		0.0000	1.0000	34.84
70.5	3,395		0.0000	1.0000	34.84
71.5	3,395		0.0000	1.0000	34.84
72.5	3,395		0.0000	1.0000	34.84
73.5	3,395		0.0000	1.0000	34.84
74.5	3,395		0.0000	1.0000	34.84
75.5	3,395		0.0000	1.0000	34.84
76.5	3,395		0.0000	1.0000	34.84
77.5	3,395		0.0000	1.0000	34.84
78.5	3,395		0.0000	1.0000	34.84

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2750 STRUCTURES AND IMPROVEMENTS

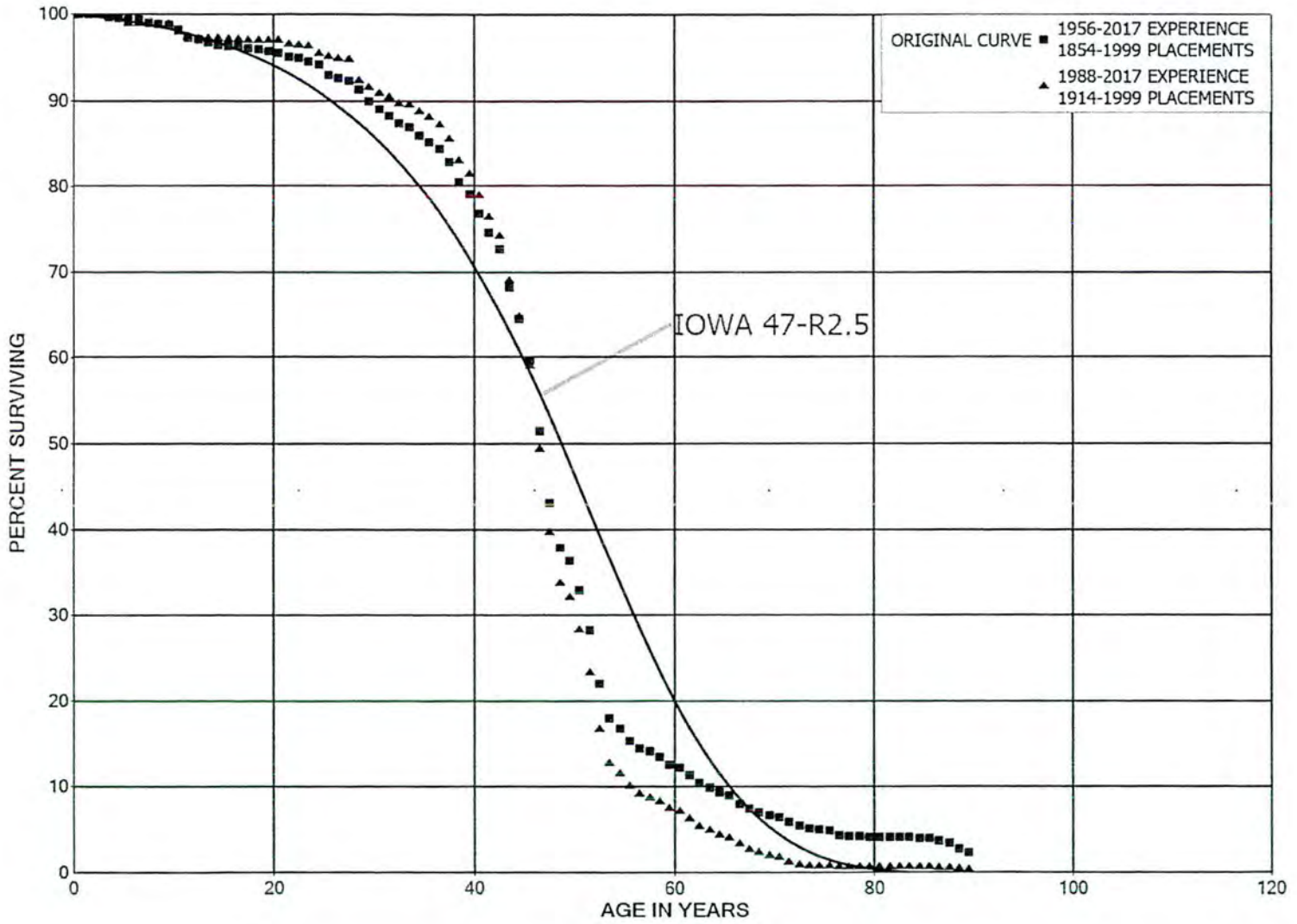
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1909-2016			EXPERIENCE BAND 1958-2017		
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	3,395		0.0000	1.0000	34.84
80.5	3,395		0.0000	1.0000	34.84
81.5	3,395		0.0000	1.0000	34.84
82.5	3,288		0.0000	1.0000	34.84
83.5	3,288		0.0000	1.0000	34.84
84.5	3,288		0.0000	1.0000	34.84
85.5	3,288		0.0000	1.0000	34.84
86.5	3,288		0.0000	1.0000	34.84
87.5	3,288		0.0000	1.0000	34.84
88.5	3,288		0.0000	1.0000	34.84
89.5	3,288		0.0000	1.0000	34.84
90.5	838		0.0000	1.0000	34.84
91.5	838		0.0000	1.0000	34.84
92.5	838		0.0000	1.0000	34.84
93.5	838		0.0000	1.0000	34.84
94.5	838		0.0000	1.0000	34.84
95.5	838		0.0000	1.0000	34.84
96.5	838		0.0000	1.0000	34.84
97.5	838		0.0000	1.0000	34.84
98.5	838		0.0000	1.0000	34.84
99.5	838		0.0000	1.0000	34.84
100.5	838		0.0000	1.0000	34.84
101.5	838		0.0000	1.0000	34.84
102.5	838		0.0000	1.0000	34.84
103.5	838		0.0000	1.0000	34.84
104.5	838		0.0000	1.0000	34.84
105.5	838		0.0000	1.0000	34.84
106.5	838		0.0000	1.0000	34.84
107.5	838		0.0000	1.0000	34.84
108.5					





DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2761 MAINS - CAST IRON, COPPER AND ALL VALVES  
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2761 MAINS - CAST IRON, COPPER AND ALL VALVES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1854-1999			EXPERIENCE BAND 1956-2017		
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	3,116,462		0.0000	1.0000	100.00
0.5	3,549,979		0.0000	1.0000	100.00
1.5	3,835,807	4,021	0.0010	0.9990	100.00
2.5	3,997,732	9,029	0.0023	0.9977	99.90
3.5	4,101,219	4,888	0.0012	0.9988	99.67
4.5	4,337,744	11,877	0.0027	0.9973	99.55
5.5	4,464,430	736	0.0002	0.9998	99.28
6.5	4,518,302	12,478	0.0028	0.9972	99.26
7.5	4,573,311	4,556	0.0010	0.9990	98.99
8.5	4,632,202	8,052	0.0017	0.9983	98.89
9.5	4,547,832	26,078	0.0057	0.9943	98.72
10.5	4,526,356	40,713	0.0090	0.9910	98.15
11.5	4,447,858	9,982	0.0022	0.9978	97.27
12.5	4,430,493	13,964	0.0032	0.9968	97.05
13.5	4,425,433	14,185	0.0032	0.9968	96.74
14.5	4,428,825	5,330	0.0012	0.9988	96.43
15.5	4,444,647	3,171	0.0007	0.9993	96.32
16.5	4,439,775	7,087	0.0016	0.9984	96.25
17.5	4,455,142	4,058	0.0009	0.9991	96.10
18.5	4,432,604	14,480	0.0033	0.9967	96.01
19.5	4,374,103	9,135	0.0021	0.9979	95.69
20.5	4,308,046	17,355	0.0040	0.9960	95.49
21.5	4,276,221	9,289	0.0022	0.9978	95.11
22.5	4,254,598	18,585	0.0044	0.9956	94.90
23.5	4,198,965	16,145	0.0038	0.9962	94.49
24.5	4,162,078	50,400	0.0121	0.9879	94.13
25.5	4,107,788	16,253	0.0040	0.9960	92.99
26.5	4,042,487	16,065	0.0040	0.9960	92.62
27.5	3,927,644	38,985	0.0099	0.9901	92.25
28.5	3,838,171	60,238	0.0157	0.9843	91.33
29.5	3,738,027	33,033	0.0088	0.9912	89.90
30.5	3,638,974	35,325	0.0097	0.9903	89.11
31.5	3,560,505	33,735	0.0095	0.9905	88.24
32.5	3,496,929	20,447	0.0058	0.9942	87.41
33.5	3,411,669	38,322	0.0112	0.9888	86.89
34.5	3,347,315	30,306	0.0091	0.9909	85.92
35.5	3,277,378	30,409	0.0093	0.9907	85.14
36.5	3,200,547	58,364	0.0182	0.9818	84.35
37.5	3,064,259	86,551	0.0282	0.9718	82.81
38.5	2,934,851	50,864	0.0173	0.9827	80.47



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ACCOUNT 2761 MAINS - CAST IRON, COPPER AND ALL VALVES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1854-1999			EXPERIENCE BAND 1956-2017		
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	2,835,611	85,269	0.0301	0.9699	79.08
40.5	2,840,929	80,955	0.0285	0.9715	76.70
41.5	2,800,057	71,829	0.0257	0.9743	74.51
42.5	2,702,976	166,870	0.0617	0.9383	72.60
43.5	2,458,607	129,644	0.0527	0.9473	68.12
44.5	2,314,779	175,768	0.0759	0.9241	64.53
45.5	2,127,362	294,362	0.1384	0.8616	59.63
46.5	1,826,749	295,868	0.1620	0.8380	51.38
47.5	1,524,548	184,764	0.1212	0.8788	43.06
48.5	1,334,997	55,788	0.0418	0.9582	37.84
49.5	1,274,629	119,563	0.0938	0.9062	36.26
50.5	1,152,825	163,758	0.1420	0.8580	32.86
51.5	983,354	218,727	0.2224	0.7776	28.19
52.5	761,239	137,396	0.1805	0.8195	21.92
53.5	621,181	42,270	0.0680	0.9320	17.96
54.5	569,314	48,184	0.0846	0.9154	16.74
55.5	513,933	30,322	0.0590	0.9410	15.32
56.5	474,373	12,959	0.0273	0.9727	14.42
57.5	449,873	20,701	0.0460	0.9540	14.03
58.5	404,822	25,172	0.0622	0.9378	13.38
59.5	371,936	11,215	0.0302	0.9698	12.55
60.5	340,733	24,964	0.0733	0.9267	12.17
61.5	314,165	23,319	0.0742	0.9258	11.28
62.5	288,382	17,238	0.0598	0.9402	10.44
63.5	267,860	15,569	0.0581	0.9419	9.82
64.5	250,925	8,749	0.0349	0.9651	9.25
65.5	239,987	25,236	0.1052	0.8948	8.92
66.5	211,664	16,878	0.0797	0.9203	7.99
67.5	193,290	9,852	0.0510	0.9490	7.35
68.5	182,718	9,823	0.0538	0.9462	6.97
69.5	172,838	6,321	0.0366	0.9634	6.60
70.5	164,388	13,366	0.0813	0.9187	6.36
71.5	151,022	10,302	0.0682	0.9318	5.84
72.5	140,721	10,044	0.0714	0.9286	5.44
73.5	130,584	2,695	0.0206	0.9794	5.05
74.5	127,684	1,973	0.0154	0.9846	4.95
75.5	125,166	16,118	0.1288	0.8712	4.87
76.5	108,998	443	0.0041	0.9959	4.25
77.5	108,353	2,445	0.0226	0.9774	4.23
78.5	105,859	1,720	0.0162	0.9838	4.13



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ACCOUNT 2761 MAINS - CAST IRON, COPPER AND ALL VALVES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1854-1999			EXPERIENCE BAND 1956-2017		
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	103,974	287	0.0028	0.9972	4.07
80.5	103,360	8	0.0001	0.9999	4.05
81.5	103,293	13	0.0001	0.9999	4.05
82.5	103,053	1,058	0.0103	0.9897	4.05
83.5	101,970	98	0.0010	0.9990	4.01
84.5	101,872	1,548	0.0152	0.9848	4.01
85.5	100,324	8,323	0.0830	0.9170	3.95
86.5	91,922	5,664	0.0616	0.9384	3.62
87.5	86,216	15,698	0.1821	0.8179	3.40
88.5	70,518	12,580	0.1784	0.8216	2.78
89.5	57,730		0.0000	1.0000	2.28
90.5	57,664		0.0000	1.0000	2.28
91.5	57,664		0.0000	1.0000	2.28
92.5	57,664		0.0000	1.0000	2.28
93.5	57,664	44,790	0.7768	0.2232	2.28
94.5	13,512	5,909	0.4373	0.5627	0.51
95.5	8,306		0.0000	1.0000	0.29
96.5	9,258	823	0.0888	0.9112	0.29
97.5	9,642		0.0000	1.0000	0.26
98.5	10,848		0.0000	1.0000	0.26
99.5	12,104		0.0000	1.0000	0.26
100.5	13,410		0.0000	1.0000	0.26
101.5	14,615	639	0.0437	0.9563	0.26
102.5	7,834	2,319	0.2960	0.7040	0.25
103.5	5,515	3,297	0.5978	0.4022	0.18
104.5	2,218	1,206	0.5437	0.4563	0.07
105.5	1,012	1,012	1.0000		0.03
106.5					

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ACCOUNT 2761 MAINS - CAST IRON, COPPER AND ALL VALVES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1914-1999			EXPERIENCE BAND 1988-2017		
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	567,774		0.0000	1.0000	100.00
0.5	638,666		0.0000	1.0000	100.00
1.5	695,370		0.0000	1.0000	100.00
2.5	733,537	676	0.0009	0.9991	100.00
3.5	779,333	2,502	0.0032	0.9968	99.91
4.5	802,863	5,988	0.0075	0.9925	99.59
5.5	850,926		0.0000	1.0000	98.84
6.5	786,270		0.0000	1.0000	98.84
7.5	894,874		0.0000	1.0000	98.84
8.5	950,406		0.0000	1.0000	98.84
9.5	958,683	10,184	0.0106	0.9894	98.84
10.5	968,705	4,037	0.0042	0.9958	97.79
11.5	922,564	1,569	0.0017	0.9983	97.39
12.5	967,252		0.0000	1.0000	97.22
13.5	1,016,638		0.0000	1.0000	97.22
14.5	1,018,717	1,697	0.0017	0.9983	97.22
15.5	1,049,435		0.0000	1.0000	97.06
16.5	1,072,264	1,176	0.0011	0.9989	97.06
17.5	1,110,586		0.0000	1.0000	96.95
18.5	1,061,763		0.0000	1.0000	96.95
19.5	1,052,534		0.0000	1.0000	96.95
20.5	991,986	4,540	0.0046	0.9954	96.95
21.5	972,596	986	0.0010	0.9990	96.51
22.5	984,155	838	0.0009	0.9991	96.41
23.5	954,151	8,828	0.0093	0.9907	96.33
24.5	995,334	3,850	0.0039	0.9961	95.44
25.5	1,018,201	1,934	0.0019	0.9981	95.07
26.5	1,018,149	2,283	0.0022	0.9978	94.89
27.5	927,807	23,388	0.0252	0.9748	94.68
28.5	984,116	8,611	0.0087	0.9913	92.29
29.5	1,257,218	8,610	0.0068	0.9932	91.48
30.5	1,602,026	7,313	0.0046	0.9954	90.85
31.5	1,877,470	17,699	0.0094	0.9906	90.44
32.5	2,217,235	1,426	0.0006	0.9994	89.59
33.5	2,389,906	21,035	0.0088	0.9912	89.53
34.5	2,463,387	20,161	0.0082	0.9918	88.74
35.5	2,504,232	22,905	0.0091	0.9909	88.02
36.5	2,600,878	51,721	0.0199	0.9801	87.21
37.5	2,575,223	76,053	0.0295	0.9705	85.48
38.5	2,591,448	47,156	0.0182	0.9818	82.95



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ACCOUNT 2761 MAINS - CAST IRON, COPPER AND ALL VALVES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1914-1999			EXPERIENCE BAND 1988-2017		
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	2,545,813	81,361	0.0320	0.9680	81.44
40.5	2,490,858	79,356	0.0319	0.9681	78.84
41.5	2,415,866	70,502	0.0292	0.9708	76.33
42.5	2,328,112	162,207	0.0697	0.9303	74.10
43.5	2,101,152	127,846	0.0608	0.9392	68.94
44.5	1,959,813	173,809	0.0887	0.9113	64.74
45.5	1,781,999	293,863	0.1649	0.8351	59.00
46.5	1,505,454	295,429	0.1962	0.8038	49.27
47.5	1,222,591	184,038	0.1505	0.8495	39.60
48.5	1,044,431	52,969	0.0507	0.9493	33.64
49.5	1,008,533	118,596	0.1176	0.8824	31.94
50.5	916,967	162,346	0.1770	0.8230	28.18
51.5	769,969	216,674	0.2814	0.7186	23.19
52.5	555,608	136,563	0.2458	0.7542	16.66
53.5	422,332	41,163	0.0975	0.9025	12.57
54.5	377,608	46,876	0.1241	0.8759	11.34
55.5	325,051	30,131	0.0927	0.9073	9.94
56.5	296,702	11,935	0.0402	0.9598	9.01
57.5	277,825	14,590	0.0525	0.9475	8.65
58.5	241,265	24,575	0.1019	0.8981	8.20
59.5	220,323	10,492	0.0476	0.9524	7.36
60.5	191,062	22,364	0.1170	0.8830	7.01
61.5	167,229	23,224	0.1389	0.8611	6.19
62.5	141,627	14,272	0.1008	0.8992	5.33
63.5	124,072	14,519	0.1170	0.8830	4.79
64.5	108,222	6,848	0.0633	0.9367	4.23
65.5	99,185	18,175	0.1832	0.8168	3.97
66.5	77,924	15,415	0.1978	0.8022	3.24
67.5	61,013	7,325	0.1201	0.8799	2.60
68.5	52,968	7,881	0.1488	0.8512	2.29
69.5	45,030	5,647	0.1254	0.8746	1.95
70.5	37,829	11,796	0.3118	0.6882	1.70
71.5	26,064	8,574	0.3290	0.6710	1.17
72.5	128,814	5,750	0.0446	0.9554	0.79
73.5	130,584	2,695	0.0206	0.9794	0.75
74.5	127,684	1,973	0.0154	0.9846	0.74
75.5	125,166	16,118	0.1288	0.8712	0.72
76.5	108,998	443	0.0041	0.9959	0.63
77.5	108,353	2,445	0.0226	0.9774	0.63
78.5	105,859	1,720	0.0162	0.9838	0.61



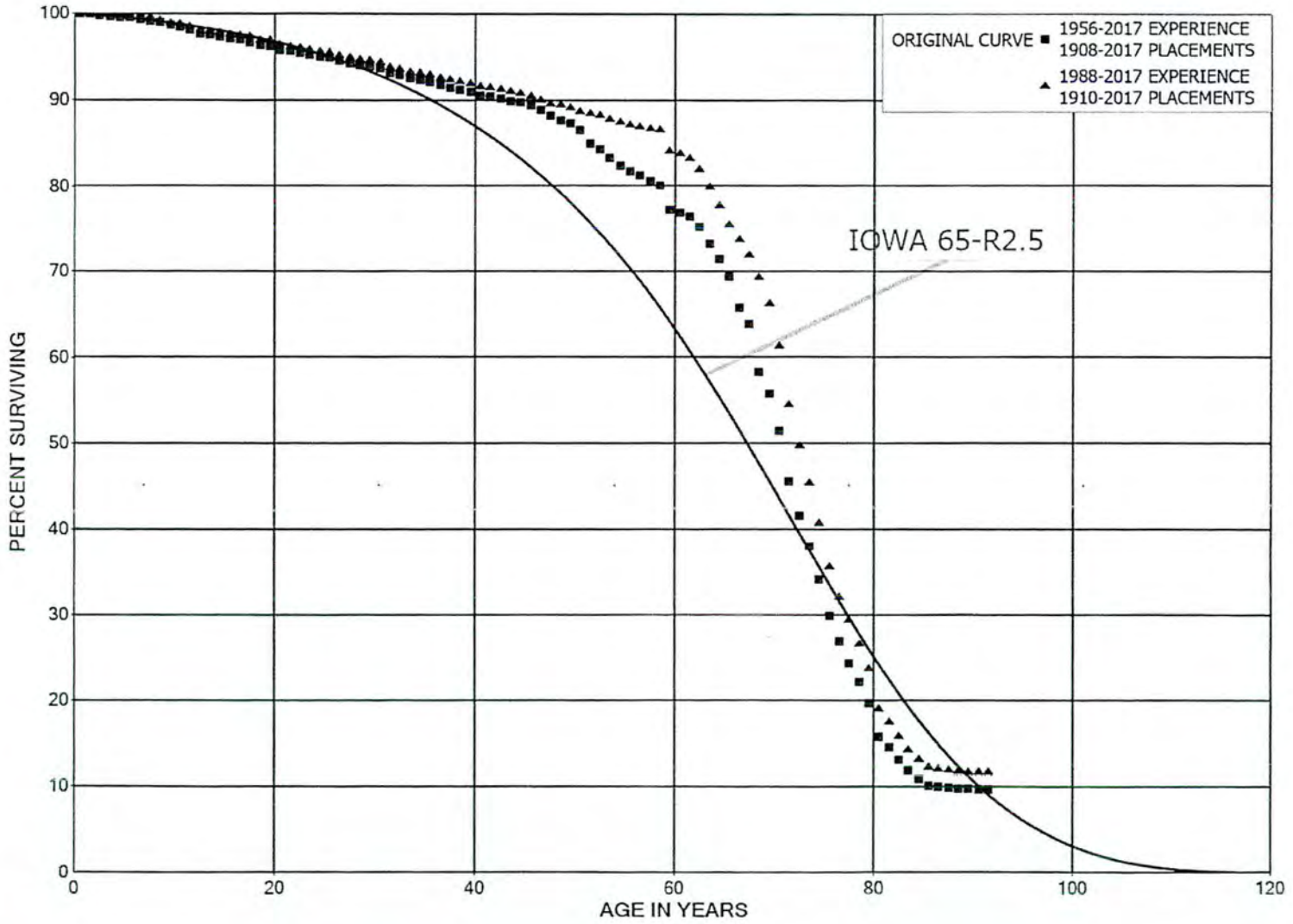
DUKE ENERGY KENTUCKY  
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ACCOUNT 2761 MAINS - CAST IRON, COPPER AND ALL VALVES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1914-1999			EXPERIENCE BAND 1988-2017			
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	103,974	287	0.0028	0.9972	0.60	
80.5	103,360	8	0.0001	0.9999	0.60	
81.5	103,293	13	0.0001	0.9999	0.60	
82.5	103,053	1,058	0.0103	0.9897	0.60	
83.5	101,970	98	0.0010	0.9990	0.60	
84.5	101,872	1,548	0.0152	0.9848	0.60	
85.5	100,324	8,323	0.0830	0.9170	0.59	
86.5	91,922	5,664	0.0616	0.9384	0.54	
87.5	86,216	15,698	0.1821	0.8179	0.50	
88.5	70,518	12,580	0.1784	0.8216	0.41	
89.5	57,730		0.0000	1.0000	0.34	
90.5	57,664		0.0000	1.0000	0.34	
91.5	57,664		0.0000	1.0000	0.34	
92.5	57,664		0.0000	1.0000	0.34	
93.5	57,664	44,790	0.7768	0.2232	0.34	
94.5	12,873	5,909	0.4590	0.5410	0.08	
95.5	6,964		0.0000	1.0000	0.04	
96.5	6,964	823	0.1181	0.8819	0.04	
97.5	6,142		0.0000	1.0000	0.04	
98.5	6,142		0.0000	1.0000	0.04	
99.5	6,142		0.0000	1.0000	0.04	
100.5	6,142		0.0000	1.0000	0.04	
101.5	6,142		0.0000	1.0000	0.04	
102.5					0.04	

DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNTS 2762 AND 2765 MAINS AND FEEDER LINES - STEEL  
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY  
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ACCOUNTS 2762 AND 2765 MAINS AND FEEDER LINES - STEEL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1908-2017			EXPERIENCE BAND 1956-2017		
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	121,037,627		0.0000	1.0000	100.00
0.5	119,373,204	16,845	0.0001	0.9999	100.00
1.5	115,221,860	254,205	0.0022	0.9978	99.99
2.5	113,570,704	127,609	0.0011	0.9989	99.77
3.5	113,210,267	112,609	0.0010	0.9990	99.65
4.5	112,266,391	115,804	0.0010	0.9990	99.55
5.5	108,422,634	159,998	0.0015	0.9985	99.45
6.5	107,932,930	203,365	0.0019	0.9981	99.30
7.5	106,549,142	226,702	0.0021	0.9979	99.12
8.5	102,854,922	312,496	0.0030	0.9970	98.91
9.5	96,287,069	221,863	0.0023	0.9977	98.61
10.5	92,707,273	295,505	0.0032	0.9968	98.38
11.5	90,138,133	393,423	0.0044	0.9956	98.07
12.5	85,966,517	83,465	0.0010	0.9990	97.64
13.5	84,687,903	185,352	0.0022	0.9978	97.54
14.5	81,307,389	212,529	0.0026	0.9974	97.33
15.5	78,810,781	79,079	0.0010	0.9990	97.07
16.5	75,104,348	250,243	0.0033	0.9967	96.98
17.5	74,184,550	256,983	0.0035	0.9965	96.65
18.5	71,394,842	74,324	0.0010	0.9990	96.32
19.5	70,603,186	335,656	0.0048	0.9952	96.22
20.5	70,065,395	147,435	0.0021	0.9979	95.76
21.5	70,141,539	143,018	0.0020	0.9980	95.56
22.5	69,926,718	173,182	0.0025	0.9975	95.37
23.5	69,266,990	105,477	0.0015	0.9985	95.13
24.5	67,794,309	113,600	0.0017	0.9983	94.98
25.5	64,444,581	237,803	0.0037	0.9963	94.83
26.5	58,038,533	180,942	0.0031	0.9969	94.48
27.5	48,986,435	91,041	0.0019	0.9981	94.18
28.5	41,238,084	70,985	0.0017	0.9983	94.01
29.5	36,025,055	96,389	0.0027	0.9973	93.84
30.5	32,094,031	183,314	0.0057	0.9943	93.59
31.5	29,594,003	81,157	0.0027	0.9973	93.06
32.5	27,803,641	97,434	0.0035	0.9965	92.80
33.5	26,834,663	58,133	0.0022	0.9978	92.48
34.5	25,122,637	72,495	0.0029	0.9971	92.28
35.5	23,241,127	71,695	0.0031	0.9969	92.01
36.5	21,938,125	68,535	0.0031	0.9969	91.73
37.5	19,504,940	48,926	0.0025	0.9975	91.44
38.5	18,063,297	60,016	0.0033	0.9967	91.21



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ACCOUNTS 2762 AND 2765 MAINS AND FEEDER LINES - STEEL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1908-2017			EXPERIENCE BAND 1956-2017		
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	17,075,782	66,529	0.0039	0.9961	90.91
40.5	16,462,383	34,090	0.0021	0.9979	90.55
41.5	16,231,816	39,335	0.0024	0.9976	90.37
42.5	15,193,405	44,268	0.0029	0.9971	90.15
43.5	13,726,623	27,757	0.0020	0.9980	89.88
44.5	13,434,874	45,537	0.0034	0.9966	89.70
45.5	12,161,725	80,138	0.0066	0.9934	89.40
46.5	10,898,167	77,076	0.0071	0.9929	88.81
47.5	9,843,440	59,213	0.0060	0.9940	88.18
48.5	8,957,637	42,724	0.0048	0.9952	87.65
49.5	7,569,933	65,292	0.0086	0.9914	87.23
50.5	7,059,589	128,321	0.0182	0.9818	86.48
51.5	6,500,483	44,928	0.0069	0.9931	84.91
52.5	4,489,252	53,155	0.0118	0.9882	84.32
53.5	4,143,660	48,810	0.0118	0.9882	83.32
54.5	3,671,379	25,516	0.0069	0.9931	82.34
55.5	3,476,435	20,529	0.0059	0.9941	81.77
56.5	3,168,641	24,383	0.0077	0.9923	81.29
57.5	2,782,712	21,884	0.0079	0.9921	80.66
58.5	2,485,646	86,885	0.0350	0.9650	80.03
59.5	2,091,802	9,445	0.0045	0.9955	77.23
60.5	1,929,613	12,560	0.0065	0.9935	76.88
61.5	1,868,915	29,162	0.0156	0.9844	76.38
62.5	610,167	16,116	0.0264	0.9736	75.19
63.5	570,895	14,414	0.0252	0.9748	73.20
64.5	342,040	9,843	0.0288	0.9712	71.35
65.5	329,025	17,019	0.0517	0.9483	69.30
66.5	311,192	8,950	0.0288	0.9712	65.72
67.5	240,872	20,818	0.0864	0.9136	63.83
68.5	217,336	9,725	0.0447	0.9553	58.31
69.5	206,755	15,882	0.0768	0.9232	55.70
70.5	191,810	21,898	0.1142	0.8858	51.42
71.5	167,691	14,740	0.0879	0.9121	45.55
72.5	152,935	13,397	0.0876	0.9124	41.55
73.5	139,340	14,166	0.1017	0.8983	37.91
74.5	125,064	15,664	0.1252	0.8748	34.05
75.5	106,867	10,656	0.0997	0.9003	29.79
76.5	95,709	8,877	0.0928	0.9072	26.82
77.5	86,831	8,105	0.0933	0.9067	24.33
78.5	78,727	8,684	0.1103	0.8897	22.06

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNTS 2762 AND 2765 MAINS AND FEEDER LINES - STEEL

ORIGINAL LIFE TABLE, .CONT.

PLACEMENT BAND 1908-2017			EXPERIENCE BAND 1956-2017			
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	70,043	13,842	0.1976	0.8024	19.63	
80.5	56,201	4,621	0.0822	0.9178	15.75	
81.5	51,580	4,874	0.0945	0.9055	14.45	
82.5	46,435	4,573	0.0985	0.9015	13.09	
83.5	41,862	3,397	0.0811	0.9189	11.80	
84.5	37,876	2,595	0.0685	0.9315	10.84	
85.5	35,281	419	0.0119	0.9881	10.10	
86.5	28,876	395	0.0137	0.9863	9.98	
87.5	28,474	314	0.0110	0.9890	9.84	
88.5	18,715	57	0.0031	0.9969	9.73	
89.5	12,537	54	0.0043	0.9957	9.70	
90.5	5,511	22	0.0041	0.9959	9.66	
91.5	3,821	80	0.0208	0.9792	9.62	
92.5	3,608	13	0.0035	0.9965	9.42	
93.5	1,245	21	0.0166	0.9834	9.39	
94.5	1,100	6	0.0059	0.9941	9.23	
95.5	1,093	14	0.0124	0.9876	9.18	
96.5	890	1	0.0012	0.9988	9.07	
97.5	889	2	0.0021	0.9979	9.05	
98.5	857		0.0000	1.0000	9.04	
99.5	857		0.0000	1.0000	9.04	
100.5	281		0.0000	1.0000	9.04	
101.5	281		0.0000	1.0000	9.04	
102.5	281		0.0000	1.0000	9.04	
103.5	281		0.0000	1.0000	9.04	
104.5	281		0.0000	1.0000	9.04	
105.5	281		0.0000	1.0000	9.04	
106.5	281		0.0000	1.0000	9.04	
107.5	281		0.0000	1.0000	9.04	



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNTS 2762 AND 2765 MAINS AND FEEDER LINES - STEEL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2017			EXPERIENCE BAND 1988-2017		
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	84,947,364		0.0000	1.0000	100.00
0.5	86,081,306	8,562	0.0001	0.9999	100.00
1.5	84,490,376	53,717	0.0006	0.9994	99.99
2.5	84,606,887	82,489	0.0010	0.9990	99.93
3.5	85,446,559	39,117	0.0005	0.9995	99.83
4.5	86,313,689	58,048	0.0007	0.9993	99.78
5.5	84,396,291	116,140	0.0014	0.9986	99.72
6.5	85,225,306	108,386	0.0013	0.9987	99.58
7.5	86,467,020	217,899	0.0025	0.9975	99.45
8.5	84,239,331	274,350	0.0033	0.9967	99.20
9.5	78,621,438	144,621	0.0018	0.9982	98.88
10.5	75,700,176	242,317	0.0032	0.9968	98.70
11.5	73,480,585	340,029	0.0046	0.9954	98.38
12.5	70,356,074	42,153	0.0006	0.9994	97.93
13.5	70,546,770	111,135	0.0016	0.9984	97.87
14.5	67,583,733	166,106	0.0025	0.9975	97.71
15.5	66,370,222	28,193	0.0004	0.9996	97.47
16.5	64,206,551	116,439	0.0018	0.9982	97.43
17.5	64,442,304	242,059	0.0038	0.9962	97.25
18.5	62,564,170	47,658	0.0008	0.9992	96.89
19.5	63,241,304	325,260	0.0051	0.9949	96.82
20.5	63,312,447	139,110	0.0022	0.9978	96.32
21.5	63,394,266	123,139	0.0019	0.9981	96.11
22.5	65,286,109	153,987	0.0024	0.9976	95.92
23.5	64,953,426	95,509	0.0015	0.9985	95.69
24.5	63,927,391	111,289	0.0017	0.9983	95.55
25.5	60,806,632	235,734	0.0039	0.9961	95.39
26.5	54,562,572	130,026	0.0024	0.9976	95.02
27.5	45,869,756	86,959	0.0019	0.9981	94.79
28.5	38,391,080	52,698	0.0014	0.9986	94.61
29.5	33,572,432	86,229	0.0026	0.9974	94.48
30.5	29,801,940	174,880	0.0059	0.9941	94.24
31.5	27,168,321	54,932	0.0020	0.9980	93.68
32.5	26,758,638	92,284	0.0034	0.9966	93.50
33.5	25,819,977	43,987	0.0017	0.9983	93.17
34.5	24,339,186	59,535	0.0024	0.9976	93.01
35.5	22,471,921	65,810	0.0029	0.9971	92.79
36.5	21,175,927	47,349	0.0022	0.9978	92.51
37.5	18,774,989	42,073	0.0022	0.9978	92.31
38.5	17,336,637	44,042	0.0025	0.9975	92.10



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNTS 2762 AND 2765 MAINS AND FEEDER LINES - STEEL

ORIGINAL LIFE TABLE, CCNT.

PLACEMENT BAND 1910-2017			EXPERIENCE BAND 1988-2017		
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	16,419,150	63,247	0.0039	0.9961	91.87
40.5	15,792,523	27,896	0.0018	0.9982	91.51
41.5	15,513,066	36,391	0.0023	0.9977	91.35
42.5	14,478,659	38,900	0.0027	0.9973	91.14
43.5	13,017,972	24,947	0.0019	0.9981	90.89
44.5	12,730,049	41,596	0.0033	0.9967	90.72
45.5	11,467,160	55,929	0.0049	0.9951	90.42
46.5	10,149,992	51,567	0.0051	0.9949	89.98
47.5	9,113,606	18,423	0.0020	0.9980	89.52
48.5	8,268,831	24,501	0.0030	0.9970	89.34
49.5	6,899,408	35,726	0.0052	0.9948	89.08
50.5	6,418,648	14,106	0.0022	0.9978	88.62
51.5	5,974,084	15,924	0.0027	0.9973	88.42
52.5	3,992,187	20,375	0.0051	0.9949	88.19
53.5	3,679,403	13,095	0.0036	0.9964	87.74
54.5	3,242,989	14,885	0.0046	0.9954	87.42
55.5	3,058,676	6,174	0.0020	0.9980	87.02
56.5	2,792,537	8,075	0.0029	0.9971	86.85
57.5	2,434,421	3,081	0.0013	0.9987	86.60
58.5	2,241,287	62,781	0.0280	0.9720	86.49
59.5	1,959,279	8,572	0.0044	0.9956	84.06
60.5	1,822,640	11,164	0.0061	0.9939	83.70
61.5	1,768,023	25,692	0.0145	0.9855	83.18
62.5	524,439	13,575	0.0259	0.9741	81.97
63.5	501,260	13,726	0.0274	0.9726	79.85
64.5	283,050	8,161	0.0288	0.9712	77.67
65.5	274,448	6,615	0.0241	0.9759	75.43
66.5	268,862	6,338	0.0236	0.9764	73.61
67.5	203,497	7,730	0.0380	0.9620	71.87
68.5	196,179	8,279	0.0422	0.9578	69.14
69.5	187,044	13,896	0.0743	0.9257	66.23
70.5	178,668	20,182	0.1130	0.8870	61.30
71.5	158,491	13,756	0.0868	0.9132	54.38
72.5	151,258	13,340	0.0882	0.9118	49.66
73.5	138,015	14,166	0.1026	0.8974	45.28
74.5	123,739	15,664	0.1266	0.8734	40.63
75.5	105,542	10,656	0.1010	0.8990	35.49
76.5	94,384	7,833	0.0830	0.9170	31.91
77.5	86,831	8,105	0.0933	0.9067	29.26
78.5	78,727	8,684	0.1103	0.8897	26.53

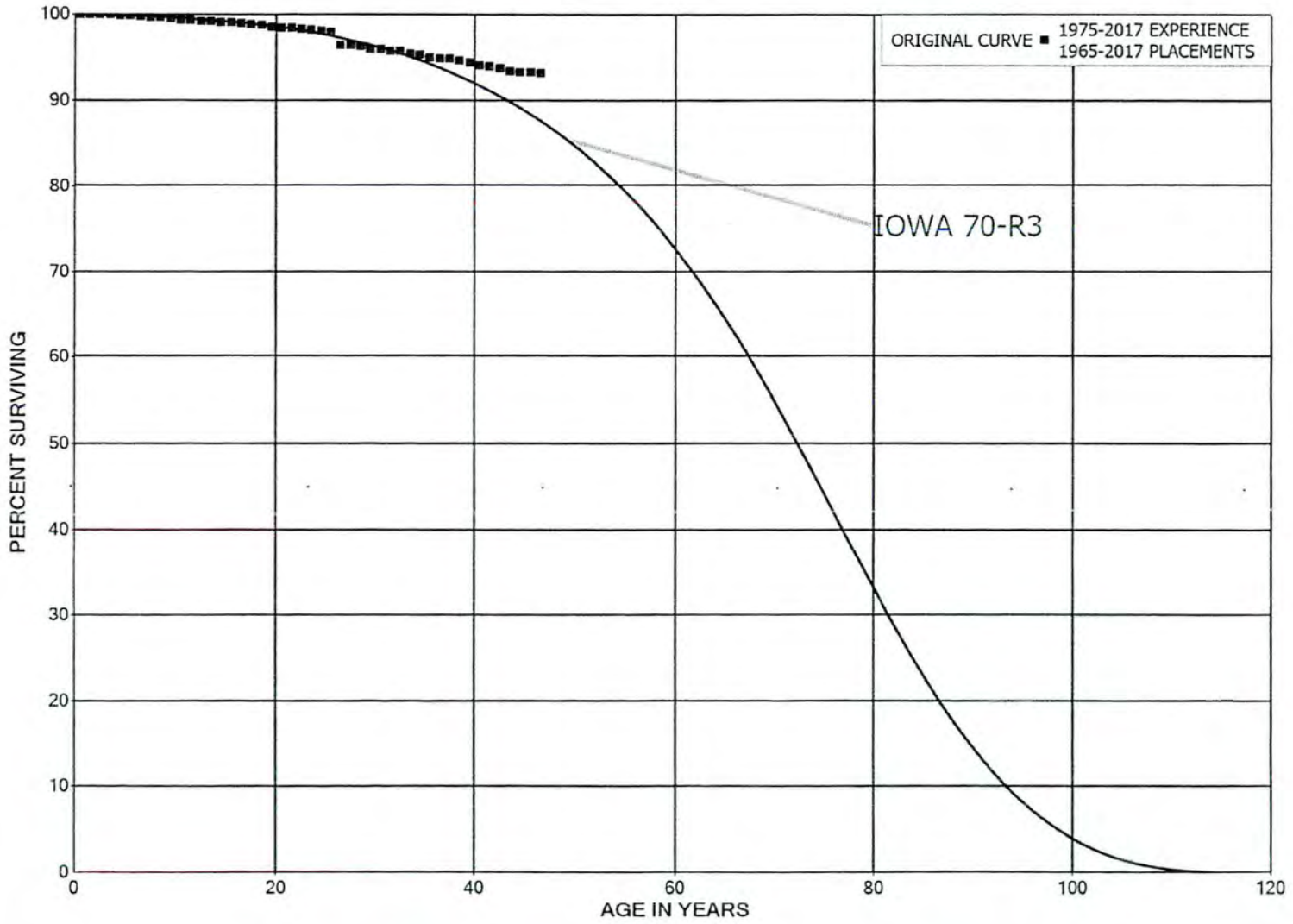
DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNTS 2762 AND 2765 MAINS AND FEEDER LINES - STEEL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2017			EXPERIENCE BAND 1988-2017			
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	70,043	13,842	0.1976	0.8024	23.60	
80.5	56,201	4,621	0.0822	0.9178	18.94	
81.5	51,580	4,874	0.0945	0.9055	17.38	
82.5	46,435	4,573	0.0985	0.9015	15.74	
83.5	41,862	3,397	0.0811	0.9189	14.19	
84.5	37,876	2,595	0.0685	0.9315	13.04	
85.5	35,281	419	0.0119	0.9881	12.14	
86.5	28,876	395	0.0137	0.9863	12.00	
87.5	28,474	314	0.0110	0.9890	11.84	
88.5	18,715	57	0.0031	0.9969	11.70	
89.5	12,537	54	0.0043	0.9957	11.67	
90.5	5,511	22	0.0041	0.9959	11.62	
91.5	3,821	80	0.0208	0.9792	11.57	
92.5	3,608	13	0.0035	0.9965	11.33	
93.5	1,245	21	0.0166	0.9834	11.29	
94.5	1,100	6	0.0059	0.9941	11.10	
95.5	1,093	14	0.0124	0.9876	11.04	
96.5	890	1	0.0012	0.9988	10.90	
97.5	889	2	0.0021	0.9979	10.89	
98.5	857		0.0000	1.0000	10.86	
99.5	857		0.0000	1.0000	10.86	
100.5	281		0.0000	1.0000	10.86	
101.5	281		0.0000	1.0000	10.86	
102.5	281		0.0000	1.0000	10.86	
103.5	281		0.0000	1.0000	10.86	
104.5	281		0.0000	1.0000	10.86	
105.5	281		0.0000	1.0000	10.86	
106.5	281		0.0000	1.0000	10.86	
107.5					10.86	

DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2763 MAINS - PLASTIC  
ORIGINAL AND SMOOTH SURVIVOR CURVES





DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2763 MAINS - PLASTIC

ORIGINAL LIFE TABLE

PLACEMENT BAND 1965-2017

EXPERIENCE BAND 1975-2017

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	149,897,453		0.0000	1.0000	100.00
0.5	149,178,146	15,215	0.0001	0.9999	100.00
1.5	144,836,517	78,088	0.0005	0.9995	99.99
2.5	143,744,032	43,697	0.0003	0.9997	99.94
3.5	141,927,368	22,423	0.0002	0.9998	99.91
4.5	140,279,170	68,930	0.0005	0.9995	99.89
5.5	136,905,086	182,170	0.0013	0.9987	99.84
6.5	134,416,933	59,973	0.0004	0.9996	99.71
7.5	130,069,705	74,280	0.0006	0.9994	99.66
8.5	114,372,636	79,597	0.0007	0.9993	99.61
9.5	102,728,194	235,107	0.0023	0.9977	99.54
10.5	95,042,921	60,165	0.0006	0.9994	99.31
11.5	83,792,540	32,024	0.0004	0.9996	99.25
12.5	72,964,541	35,514	0.0005	0.9995	99.21
13.5	57,443,828	32,535	0.0006	0.9994	99.16
14.5	47,179,249	20,661	0.0004	0.9996	99.10
15.5	36,053,791	40,994	0.0011	0.9989	99.06
16.5	29,500,786	18,822	0.0006	0.9994	98.95
17.5	26,174,723	33,255	0.0013	0.9987	98.88
18.5	23,524,285	55,978	0.0024	0.9976	98.76
19.5	19,971,559	17,916	0.0009	0.9991	98.52
20.5	15,705,602	9,434	0.0006	0.9994	98.44
21.5	12,158,532	9,390	0.0008	0.9992	98.38
22.5	9,085,704	13,154	0.0014	0.9986	98.30
23.5	5,242,135	7,453	0.0014	0.9986	98.16
24.5	2,855,467	327	0.0001	0.9999	98.02
25.5	1,600,942	25,564	0.0160	0.9840	98.01
26.5	1,404,101	1,219	0.0009	0.9991	96.44
27.5	1,343,752	706	0.0005	0.9995	96.36
28.5	1,271,997	3,988	0.0031	0.9969	96.31
29.5	1,255,916	1,390	0.0011	0.9989	96.01
30.5	1,195,766	1,707	0.0014	0.9986	95.90
31.5	1,166,318	933	0.0008	0.9992	95.76
32.5	1,165,385	4,091	0.0035	0.9965	95.69
33.5	1,120,857	679	0.0006	0.9994	95.35
34.5	1,110,937	4,310	0.0039	0.9961	95.29
35.5	1,106,627	711	0.0006	0.9994	94.92
36.5	1,070,362	390	0.0004	0.9996	94.86
37.5	906,753	1,895	0.0021	0.9979	94.83
38.5	805,725	1,762	0.0022	0.9978	94.63

DUKE ENERGY KENTUCKY  
GAS PLANT

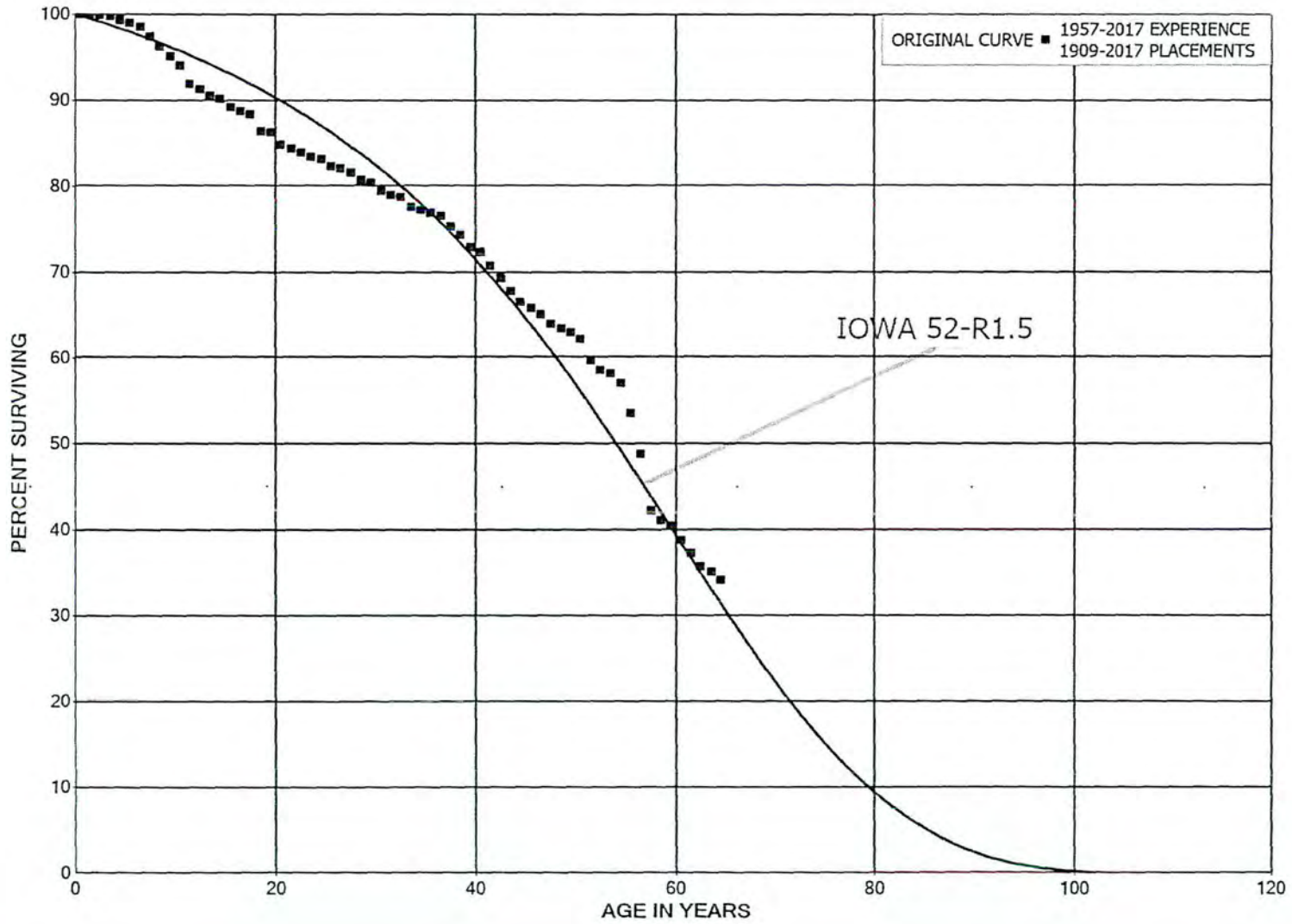
ACCOUNT 2763 MAINS - PLASTIC

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1965-2017			EXPERIENCE BAND 1975-2017			
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	744,420	2,603	0.0035	0.9965	94.42	
40.5	734,325	1,443	0.0020	0.9980	94.09	
41.5	705,018	1,470	0.0021	0.9979	93.91	
42.5	637,018	2,066	0.0032	0.9968	93.71	
43.5	576,734	474	0.0008	0.9992	93.41	
44.5	460,116	263	0.0006	0.9994	93.33	
45.5	281,461	239	0.0008	0.9992	93.28	
46.5	109,399	72	0.0007	0.9993	93.20	
47.5	6,863	2	0.0003	0.9997	93.14	
48.5	6,861	2	0.0003	0.9997	93.11	
49.5	1,072		0.0000	1.0000	93.08	
50.5	1,072	2	0.0019	0.9981	93.08	
51.5	1,070	2	0.0019	0.9981	92.91	
52.5					92.74	



DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2780 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL  
ORIGINAL AND SMOOTH SURVIVOR CURVES





DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2780 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1909-2017

EXPERIENCE BAND 1957-2017

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	7,042,662	1,199	0.0002	0.9998	100.00
0.5	6,766,560	3,456	0.0005	0.9995	99.98
1.5	6,434,906	3,237	0.0005	0.9995	99.93
2.5	5,183,236	9,763	0.0019	0.9981	99.88
3.5	5,162,380	22,494	0.0044	0.9956	99.69
4.5	5,096,263	16,714	0.0033	0.9967	99.26
5.5	5,006,740	21,966	0.0044	0.9956	98.93
6.5	4,645,980	53,027	0.0114	0.9886	98.50
7.5	4,597,002	54,085	0.0118	0.9882	97.38
8.5	4,116,490	49,764	0.0121	0.9879	96.23
9.5	3,777,097	43,189	0.0114	0.9886	95.07
10.5	3,342,046	77,879	0.0233	0.9767	93.98
11.5	2,964,865	14,826	0.0050	0.9950	91.79
12.5	2,859,521	24,663	0.0086	0.9914	91.33
13.5	2,757,249	9,969	0.0036	0.9964	90.54
14.5	2,615,192	28,917	0.0111	0.9889	90.22
15.5	2,551,066	13,556	0.0053	0.9947	89.22
16.5	2,452,074	9,228	0.0038	0.9962	88.74
17.5	1,752,455	40,048	0.0229	0.9771	88.41
18.5	1,667,298	1,245	0.0007	0.9993	86.39
19.5	1,592,101	27,538	0.0173	0.9827	86.32
20.5	1,543,731	8,185	0.0053	0.9947	84.83
21.5	1,538,300	8,012	0.0052	0.9948	84.38
22.5	1,509,447	9,057	0.0060	0.9940	83.94
23.5	1,475,178	3,716	0.0025	0.9975	83.44
24.5	1,422,150	16,478	0.0116	0.9884	83.23
25.5	1,386,432	4,143	0.0030	0.9970	82.26
26.5	1,287,814	5,705	0.0044	0.9956	82.02
27.5	1,274,943	14,151	0.0111	0.9889	81.65
28.5	1,136,215	4,960	0.0044	0.9956	80.75
29.5	1,047,307	12,494	0.0119	0.9881	80.40
30.5	1,017,789	6,057	0.0060	0.9940	79.44
31.5	851,664	2,660	0.0031	0.9969	78.96
32.5	818,279	12,928	0.0158	0.9842	78.72
33.5	706,098	2,765	0.0039	0.9961	77.47
34.5	691,893	2,740	0.0040	0.9960	77.17
35.5	659,222	2,695	0.0041	0.9959	76.86
36.5	641,805	10,629	0.0166	0.9834	76.55
37.5	572,641	7,319	0.0128	0.9872	75.28
38.5	470,142	9,647	0.0205	0.9795	74.32
39.5	427,886	3,073	0.0072	0.9928	72.80

DUKE ENERGY KENTUCKY  
GAS PLANT

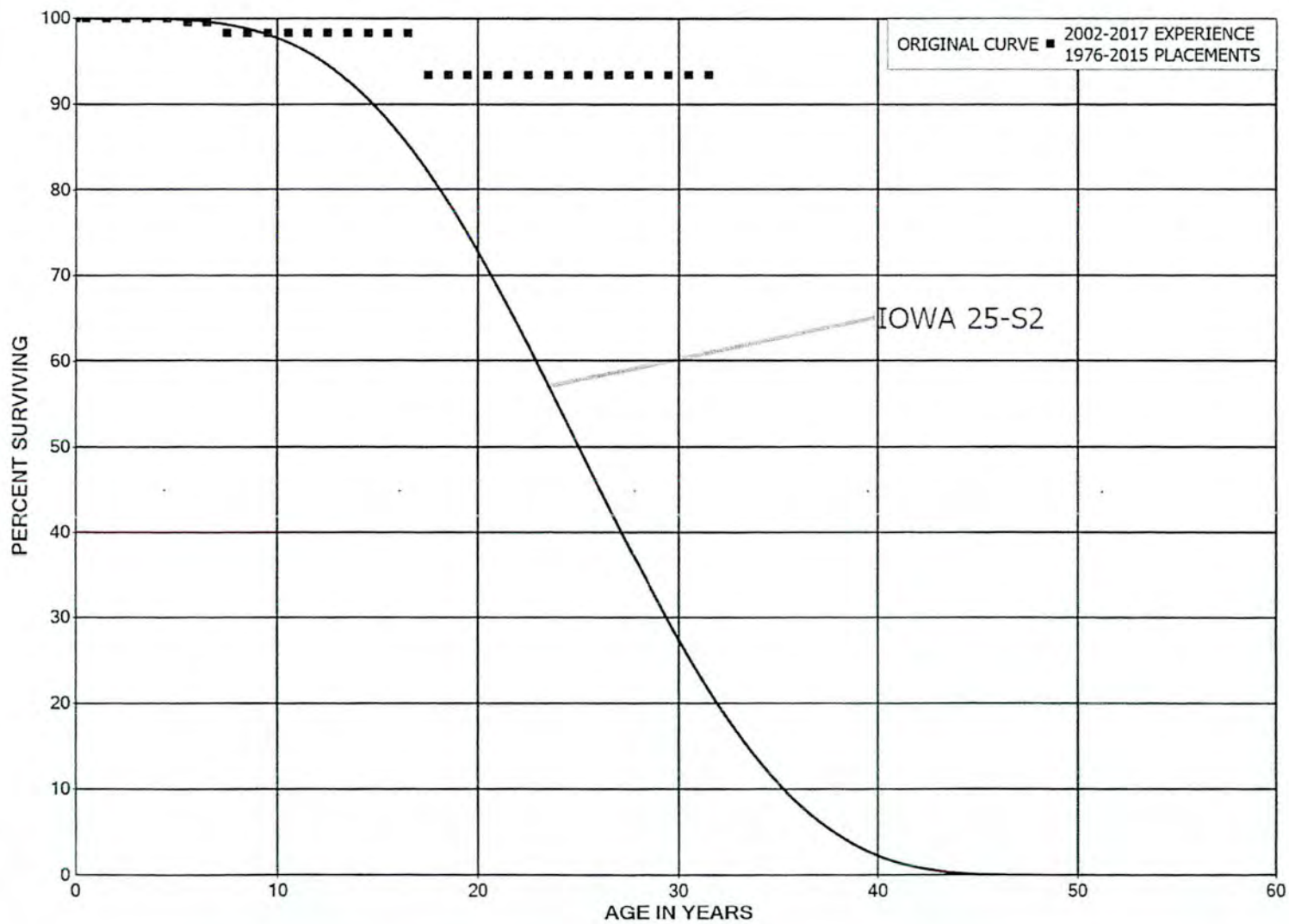
ACCOUNT 2780 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1909-2017			EXPERIENCE BAND 1957-2017			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
40.5	418,654	8,763	0.0209	0.9791	72.27	
41.5	394,908	8,283	0.0210	0.9790	70.76	
42.5	368,322	8,140	0.0221	0.9779	69.28	
43.5	337,993	5,932	0.0175	0.9825	67.75	
44.5	310,153	3,586	0.0116	0.9884	66.56	
45.5	211,729	2,340	0.0111	0.9889	65.79	
46.5	86,143	1,502	0.0174	0.9826	65.06	
47.5	83,654	740	0.0088	0.9912	63.93	
48.5	77,490	564	0.0073	0.9927	63.36	
49.5	70,030	834	0.0119	0.9881	62.90	
50.5	69,196	2,872	0.0415	0.9585	62.15	
51.5	65,822	1,210	0.0184	0.9816	59.57	
52.5	59,720	449	0.0075	0.9925	58.47	
53.5	59,272	1,068	0.0180	0.9820	58.04	
54.5	56,141	3,391	0.0604	0.9396	56.99	
55.5	52,750	4,766	0.0903	0.9097	53.55	
56.5	35,818	4,842	0.1352	0.8648	48.71	
57.5	30,326	770	0.0254	0.9746	42.13	
58.5	16,185	272	0.0168	0.9832	41.06	
59.5	15,133	616	0.0407	0.9593	40.37	
60.5	14,517	597	0.0411	0.9589	38.72	
61.5	13,920	578	0.0415	0.9585	37.13	
62.5	11,156	164	0.0147	0.9853	35.59	
63.5	10,992	320	0.0292	0.9708	35.07	
64.5	5,750	165	0.0286	0.9714	34.04	
65.5	5,585	487	0.0871	0.9129	33.07	
66.5	5,098	153	0.0301	0.9699	30.19	
67.5	4,945	142	0.0287	0.9713	29.28	
68.5	1,001	1	0.0012	0.9988	28.44	
69.5	999	1	0.0011	0.9989	28.40	
70.5	971	131	0.1346	0.8654	28.37	
71.5	840		0.0000	1.0000	24.55	
72.5	840		0.0000	1.0000	24.55	
73.5	840	42	0.0502	0.9498	24.55	
74.5	798	41	0.0513	0.9487	23.32	
75.5	757	323	0.4269	0.5731	22.12	
76.5	434		0.0000	1.0000	12.68	
77.5	434	34	0.0794	0.9206	12.68	
78.5	399	31	0.0774	0.9226	11.67	
79.5	369	27	0.0742	0.9258	10.77	
80.5	341	30	0.0885	0.9115	9.97	
81.5	311	20	0.0641	0.9359	9.09	
82.5					8.50	



DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2781 MEASURING AND REGULATING STATION EQUIPMENT - ELECTRONIC  
ORIGINAL AND SMOOTH SURVIVOR CURVES





DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2781 MEASURING AND REGULATING STATION EQUIPMENT - ELECTRONIC

ORIGINAL LIFE TABLE

PLACEMENT BAND 1976-2015		EXPERIENCE BAND 2002-2017			
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	531,352		0.0000	1.0000	100.00
0.5	531,352		0.0000	1.0000	100.00
1.5	531,352		0.0000	1.0000	100.00
2.5	425,310		0.0000	1.0000	100.00
3.5	653,259		0.0000	1.0000	100.00
4.5	685,289	3,399	0.0050	0.9950	100.00
5.5	405,597		0.0000	1.0000	99.50
6.5	405,658	5,107	0.0126	0.9874	99.50
7.5	434,189		0.0000	1.0000	98.25
8.5	419,400		0.0000	1.0000	98.25
9.5	391,052		0.0000	1.0000	98.25
10.5	317,130		0.0000	1.0000	98.25
11.5	217,919		0.0000	1.0000	98.25
12.5	165,499		0.0000	1.0000	98.25
13.5	181,187		0.0000	1.0000	98.25
14.5	192,700		0.0000	1.0000	98.25
15.5	338,485		0.0000	1.0000	98.25
16.5	338,485	16,626	0.0491	0.9509	98.25
17.5	321,859		0.0000	1.0000	93.43
18.5	321,859		0.0000	1.0000	93.43
19.5	308,730		0.0000	1.0000	93.43
20.5	280,099		0.0000	1.0000	93.43
21.5	252,015		0.0000	1.0000	93.43
22.5	248,215		0.0000	1.0000	93.43
23.5	194,165		0.0000	1.0000	93.43
24.5	194,165		0.0000	1.0000	93.43
25.5	203,487		0.0000	1.0000	93.43
26.5	203,487		0.0000	1.0000	93.43
27.5	203,487		0.0000	1.0000	93.43
28.5	203,487		0.0000	1.0000	93.43
29.5	175,804		0.0000	1.0000	93.43
30.5	144,751		0.0000	1.0000	93.43
31.5	9,322		0.0000	1.0000	93.43
32.5	9,322		0.0000	1.0000	93.43
33.5	9,322		0.0000	1.0000	93.43
34.5	9,322		0.0000	1.0000	93.43
35.5	9,322		0.0000	1.0000	93.43
36.5	9,322		0.0000	1.0000	93.43
37.5	9,322		0.0000	1.0000	93.43
38.5	9,322		0.0000	1.0000	93.43

DUKE ENERGY KENTUCKY  
GAS PLANT

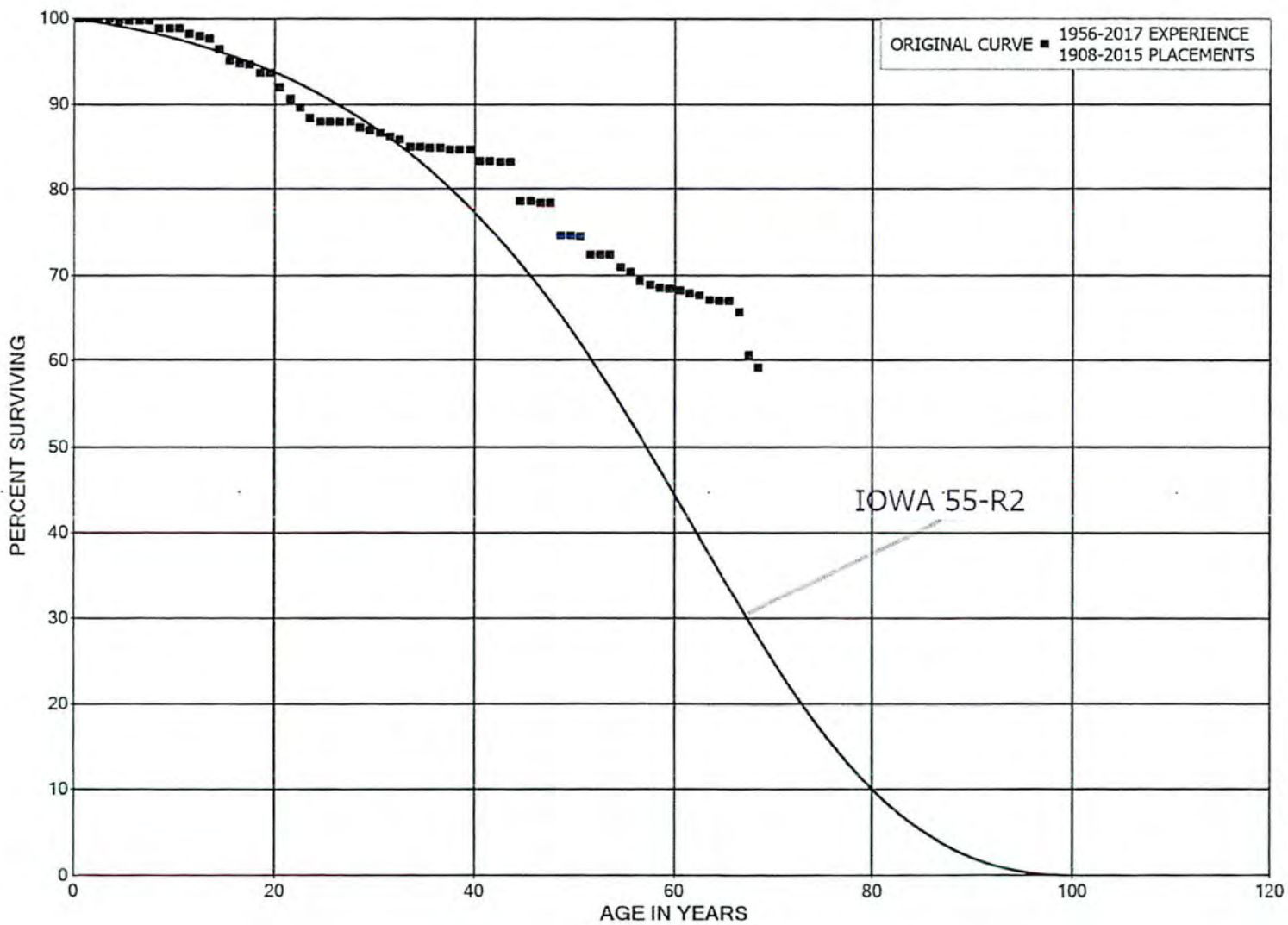
ACCOUNT 2781 MEASURING AND REGULATING STATION EQUIPMENT - ELECTRONIC

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1976-2015			EXPERIENCE BAND 2002-2017		
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	9,322		0.0000	1.0000	93.43
40.5	9,322		0.0000	1.0000	93.43
41.5					93.43



DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2782 MEASURING AND REGULATING STATION EQUIPMENT - DISTRICT  
ORIGINAL AND SMOOTH SURVIVOR CURVES





DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2782 MEASURING AND REGULATING STATION EQUIPMENT - DISTRICT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1908-2015			EXPERIENCE BAND 1956-2017		
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	2,329,511		0.0000	1.0000	100.00
0.5	2,335,201	2,516	0.0011	0.9989	100.00
1.5	2,335,254		0.0000	1.0000	99.89
2.5	2,145,138		0.0000	1.0000	99.89
3.5	2,039,311	3,499	0.0017	0.9983	99.89
4.5	1,648,421	413	0.0003	0.9997	99.72
5.5	1,222,979		0.0000	1.0000	99.70
6.5	1,168,267		0.0000	1.0000	99.70
7.5	1,042,482	8,829	0.0085	0.9915	99.70
8.5	995,691		0.0000	1.0000	98.85
9.5	774,415		0.0000	1.0000	98.85
10.5	648,945	4,590	0.0071	0.9929	98.85
11.5	644,355	982	0.0015	0.9985	98.15
12.5	606,809	2,102	0.0035	0.9965	98.00
13.5	578,509	7,252	0.0125	0.9875	97.66
14.5	526,520	7,361	0.0140	0.9860	96.44
15.5	519,159	1,849	0.0036	0.9964	95.09
16.5	517,312	836	0.0016	0.9984	94.75
17.5	517,894	5,092	0.0098	0.9902	94.60
18.5	518,258	43	0.0001	0.9999	93.67
19.5	518,532	9,603	0.0185	0.9815	93.66
20.5	509,338	6,997	0.0137	0.9863	91.93
21.5	491,100	5,869	0.0120	0.9880	90.66
22.5	485,231	6,135	0.0126	0.9874	89.58
23.5	479,096	2,397	0.0050	0.9950	88.45
24.5	476,839	623	0.0013	0.9987	88.01
25.5	464,523		0.0000	1.0000	87.89
26.5	465,482		0.0000	1.0000	87.89
27.5	441,105	2,931	0.0066	0.9934	87.89
28.5	393,900	1,516	0.0038	0.9962	87.31
29.5	392,384	1,492	0.0038	0.9962	86.97
30.5	391,304	2,194	0.0056	0.9944	86.64
31.5	369,719	1,149	0.0031	0.9969	86.15
32.5	347,217	4,004	0.0115	0.9885	85.89
33.5	325,978		0.0000	1.0000	84.90
34.5	315,267	316	0.0010	0.9990	84.90
35.5	303,272	104	0.0003	0.9997	84.81
36.5	271,811	638	0.0023	0.9977	84.78
37.5	246,460	65	0.0003	0.9997	84.58
38.5	226,425		0.0000	1.0000	84.56

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2782 MEASURING AND REGULATING STATION EQUIPMENT - DISTRICT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1908-2015			EXPERIENCE BAND 1956-2017			
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	176,560	2,661	0.0151	0.9849	84.56	
40.5	172,087	79	0.0005	0.9995	83.29	
41.5	153,508	88	0.0006	0.9994	83.25	
42.5	133,000	83	0.0006	0.9994	83.20	
43.5	122,468	6,659	0.0544	0.9456	83.15	
44.5	89,144		0.0000	1.0000	78.63	
45.5	89,073	217	0.0024	0.9976	78.63	
46.5	86,120	62	0.0007	0.9993	78.44	
47.5	78,184	3,729	0.0477	0.9523	78.38	
48.5	74,283		0.0000	1.0000	74.64	
49.5	74,283	100	0.0013	0.9987	74.64	
50.5	74,183	2,097	0.0283	0.9717	74.54	
51.5	65,114		0.0000	1.0000	72.43	
52.5	62,778		0.0000	1.0000	72.43	
53.5	58,300	1,211	0.0208	0.9792	72.43	
54.5	55,040	410	0.0074	0.9926	70.93	
55.5	54,630	907	0.0166	0.9834	70.40	
56.5	48,971	267	0.0055	0.9945	69.23	
57.5	45,871	212	0.0046	0.9954	68.85	
58.5	43,138	115	0.0027	0.9973	68.54	
59.5	43,023	130	0.0030	0.9970	68.35	
60.5	42,893	211	0.0049	0.9951	68.15	
61.5	42,682	124	0.0029	0.9971	67.81	
62.5	38,342	290	0.0076	0.9924	67.61	
63.5	38,052	107	0.0028	0.9972	67.10	
64.5	25,938		0.0000	1.0000	66.91	
65.5	10,918	217	0.0199	0.9801	66.91	
66.5	10,701	806	0.0753	0.9247	65.58	
67.5	9,895	233	0.0235	0.9765	60.65	
68.5	8,239		0.0000	1.0000	59.22	
69.5	6,836	134	0.0196	0.9804	59.22	
70.5	6,702	39	0.0058	0.9942	58.06	
71.5	6,663		0.0000	1.0000	57.72	
72.5	6,663		0.0000	1.0000	57.72	
73.5	6,663		0.0000	1.0000	57.72	
74.5	6,663		0.0000	1.0000	57.72	
75.5	6,663		0.0000	1.0000	57.72	
76.5	6,663	109	0.0164	0.9836	57.72	
77.5	6,554	273	0.0417	0.9583	56.77	
78.5	6,278		0.0000	1.0000	54.41	



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2782 MEASURING AND REGULATING STATION EQUIPMENT - DISTRICT

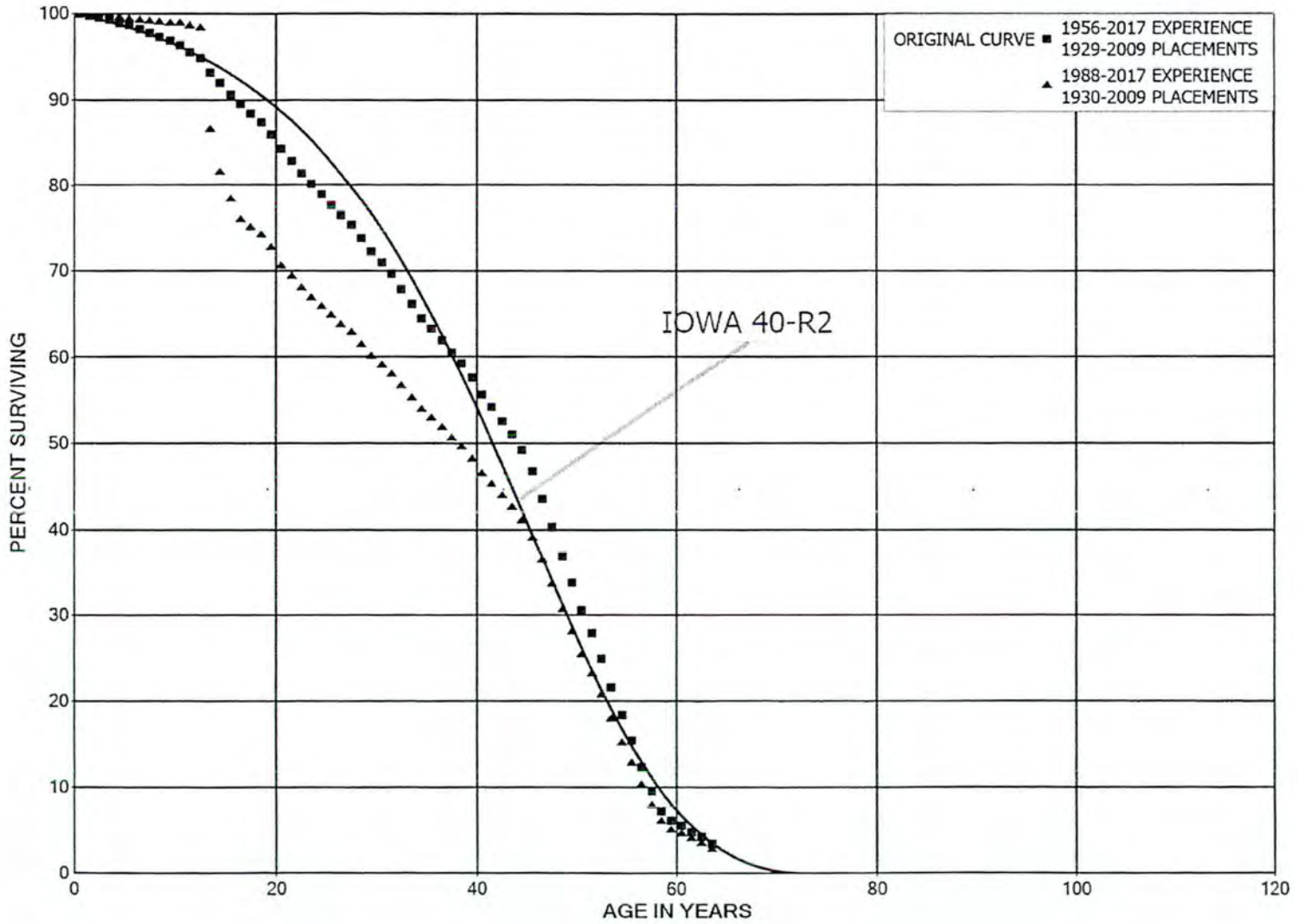
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1908-2015			EXPERIENCE BAND 1956-2017		
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	4,927		0.0000	1.0000	54.41
80.5	2,798		0.0000	1.0000	54.41
81.5	2,798		0.0000	1.0000	54.41
82.5	2,798		0.0000	1.0000	54.41
83.5	2,798		0.0000	1.0000	54.41
84.5	2,798		0.0000	1.0000	54.41
85.5	2,798		0.0000	1.0000	54.41
86.5	2,798		0.0000	1.0000	54.41
87.5	2,115		0.0000	1.0000	54.41
88.5	2,115		0.0000	1.0000	54.41
89.5	2,115		0.0000	1.0000	54.41
90.5	2,115		0.0000	1.0000	54.41
91.5	2,115		0.0000	1.0000	54.41
92.5	2,115		0.0000	1.0000	54.41
93.5	2,115		0.0000	1.0000	54.41
94.5	2,115		0.0000	1.0000	54.41
95.5	2,115		0.0000	1.0000	54.41
96.5	2,115		0.0000	1.0000	54.41
97.5	2,115		0.0000	1.0000	54.41
98.5	2,115		0.0000	1.0000	54.41
99.5	2,115		0.0000	1.0000	54.41
100.5	2,115		0.0000	1.0000	54.41
101.5	2,115		0.0000	1.0000	54.41
102.5	2,115		0.0000	1.0000	54.41
103.5	2,115		0.0000	1.0000	54.41
104.5	2,115		0.0000	1.0000	54.41
105.5	2,115		0.0000	1.0000	54.41
106.5	2,115		0.0000	1.0000	54.41
107.5	1,324		0.0000	1.0000	54.41
108.5					54.41





DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2801 SERVICES - CAST IRON, COPPER AND ALL VALVES  
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2801 SERVICES - CAST IRON, COPPER AND ALL VALVES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1929-2009		EXPERIENCE BAND 1956-2017			
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	8,111,943	3,851	0.0005	0.9995	100.00
0.5	7,317,460	15,671	0.0021	0.9979	99.95
1.5	6,671,211	11,945	0.0018	0.9982	99.74
2.5	6,702,462	17,997	0.0027	0.9973	99.56
3.5	6,709,051	29,967	0.0045	0.9955	99.29
4.5	6,307,312	17,694	0.0028	0.9972	98.85
5.5	6,343,367	26,301	0.0041	0.9959	98.57
6.5	6,366,333	24,899	0.0039	0.9961	98.16
7.5	6,387,043	29,314	0.0046	0.9954	97.78
8.5	6,381,718	30,214	0.0047	0.9953	97.33
9.5	6,116,618	35,285	0.0058	0.9942	96.87
10.5	6,009,266	47,397	0.0079	0.9921	96.31
11.5	5,960,638	47,122	0.0079	0.9921	95.55
12.5	3,249,648	55,055	0.0169	0.9831	94.80
13.5	3,195,059	43,290	0.0135	0.9865	93.19
14.5	3,159,556	43,357	0.0137	0.9863	91.93
15.5	3,128,015	38,234	0.0122	0.9878	90.67
16.5	3,095,754	39,580	0.0128	0.9872	89.56
17.5	3,067,358	34,156	0.0111	0.9889	88.41
18.5	3,050,855	50,373	0.0165	0.9835	87.43
19.5	3,005,961	60,569	0.0201	0.9799	85.98
20.5	2,944,973	48,702	0.0165	0.9835	84.25
21.5	2,904,892	52,158	0.0180	0.9820	82.86
22.5	2,852,509	40,804	0.0143	0.9857	81.37
23.5	2,810,988	43,186	0.0154	0.9846	80.21
24.5	2,767,264	47,193	0.0171	0.9829	78.97
25.5	2,720,420	42,676	0.0157	0.9843	77.63
26.5	2,677,538	39,634	0.0148	0.9852	76.41
27.5	2,636,569	56,065	0.0213	0.9787	75.28
28.5	2,576,935	51,396	0.0199	0.9801	73.68
29.5	2,523,640	44,160	0.0175	0.9825	72.21
30.5	2,478,417	47,814	0.0193	0.9807	70.95
31.5	2,429,030	59,010	0.0243	0.9757	69.58
32.5	2,369,235	60,248	0.0254	0.9746	67.89
33.5	2,307,436	57,070	0.0247	0.9753	66.16
34.5	2,248,152	43,565	0.0194	0.9806	64.52
35.5	2,202,584	46,597	0.0212	0.9788	63.27
36.5	2,151,896	48,742	0.0227	0.9773	61.93
37.5	2,097,638	44,425	0.0212	0.9788	60.53
38.5	2,053,032	58,521	0.0285	0.9715	59.25
39.5	1,989,474	66,631	0.0335	0.9665	57.56



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2801 SERVICES - CAST IRON, COPPER AND ALL VALVES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2009			EXPERIENCE BAND 1956-2017		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
40.5	1,919,859	51,930	0.0270	0.9730	55.63
41.5	1,867,684	54,395	0.0291	0.9709	54.13
42.5	1,810,940	54,010	0.0298	0.9702	52.55
43.5	1,754,735	63,462	0.0362	0.9638	50.98
44.5	1,686,080	84,177	0.0499	0.9501	49.14
45.5	1,585,700	108,398	0.0684	0.9316	46.69
46.5	1,415,322	104,436	0.0738	0.9262	43.50
47.5	1,247,625	109,164	0.0875	0.9125	40.29
48.5	1,070,779	89,143	0.0833	0.9167	36.76
49.5	938,745	88,991	0.0948	0.9052	33.70
50.5	797,860	70,781	0.0887	0.9113	30.51
51.5	696,502	73,120	0.1050	0.8950	27.80
52.5	591,279	80,773	0.1366	0.8634	24.88
53.5	476,165	71,653	0.1505	0.8495	21.48
54.5	385,247	61,260	0.1590	0.8410	18.25
55.5	305,661	60,297	0.1973	0.8027	15.35
56.5	225,237	51,311	0.2278	0.7722	12.32
57.5	162,346	39,488	0.2432	0.7568	9.51
58.5	111,131	18,104	0.1629	0.8371	7.20
59.5	88,404	7,572	0.0857	0.9143	6.03
60.5	79,593	11,466	0.1441	0.8559	5.51
61.5	67,501	8,327	0.1234	0.8766	4.72
62.5	58,781	11,142	0.1896	0.8104	4.13
63.5	47,056	8,240	0.1751	0.8249	3.35
64.5	38,401	4,621	0.1203	0.8797	2.76
65.5	33,647	3,451	0.1026	0.8974	2.43
66.5	29,927	5,994	0.2003	0.7997	2.18
67.5	23,648	4,495	0.1901	0.8099	1.75
68.5	19,064	7,314	0.3837	0.6163	1.41
69.5	11,750	2,879	0.2450	0.7550	0.87
70.5	8,871	979	0.1104	0.8896	0.66
71.5	7,892	1,118	0.1416	0.8584	0.59
72.5	6,774	761	0.1124	0.8876	0.50
73.5	6,013	490	0.0814	0.9186	0.45
74.5	5,523	306	0.0553	0.9447	0.41
75.5	5,218	421	0.0807	0.9193	0.39
76.5	4,797	1,280	0.2669	0.7331	0.36
77.5	3,517	595	0.1692	0.8308	0.26
78.5	2,921	1,169	0.4002	0.5998	0.22
79.5	1,752	1,648	0.9406	0.0594	0.13
80.5	104	50	0.4770	0.5230	0.01
81.5	54	54	1.0000		0.00
82.5					



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2801 SERVICES - CAST IRON, COPPER AND ALL VALVES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1930-2009			EXPERIENCE BAND 1988-2017			
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	4,978,598	531	0.0001	0.9999	100.00	
0.5	4,165,322	2,757	0.0007	0.9993	99.99	
1.5	3,480,248		0.0000	1.0000	99.92	
2.5	3,482,846	4,186	0.0012	0.9988	99.92	
3.5	3,482,878	12,073	0.0035	0.9965	99.80	
4.5	3,074,704	4,248	0.0014	0.9986	99.46	
5.5	3,086,743	4,227	0.0014	0.9986	99.32	
6.5	3,092,011	3,516	0.0011	0.9989	99.18	
7.5	3,098,607	2,562	0.0008	0.9992	99.07	
8.5	3,101,780	3,305	0.0011	0.9989	98.99	
9.5	2,870,442	2,082	0.0007	0.9993	98.88	
10.5	2,798,934	9,272	0.0033	0.9967	98.81	
11.5	2,791,234	7,026	0.0025	0.9975	98.48	
12.5	124,818	14,853	0.1190	0.8810	98.24	
13.5	130,938	7,649	0.0584	0.9416	86.55	
14.5	149,609	5,793	0.0387	0.9613	81.49	
15.5	202,802	6,340	0.0313	0.9687	78.33	
16.5	372,337	4,793	0.0129	0.9871	75.89	
17.5	580,848	6,196	0.0107	0.9893	74.91	
18.5	801,253	16,210	0.0202	0.9798	74.11	
19.5	940,598	27,175	0.0289	0.9711	72.61	
20.5	1,100,559	19,493	0.0177	0.9823	70.51	
21.5	1,234,725	23,335	0.0189	0.9811	69.26	
22.5	1,385,554	23,413	0.0169	0.9831	67.96	
23.5	1,531,119	22,740	0.0149	0.9851	66.81	
24.5	1,681,722	25,743	0.0153	0.9847	65.81	
25.5	1,794,336	28,497	0.0159	0.9841	64.81	
26.5	1,929,948	29,500	0.0153	0.9847	63.78	
27.5	2,015,720	43,813	0.0217	0.9783	62.80	
28.5	2,094,512	45,580	0.0218	0.9782	61.44	
29.5	2,113,739	36,876	0.0174	0.9826	60.10	
30.5	2,112,219	39,415	0.0187	0.9813	59.05	
31.5	2,113,797	49,567	0.0234	0.9766	57.95	
32.5	2,081,653	52,038	0.0250	0.9750	56.59	
33.5	2,066,906	49,717	0.0241	0.9759	55.18	
34.5	2,045,780	38,037	0.0186	0.9814	53.85	
35.5	2,018,325	43,114	0.0214	0.9786	52.85	
36.5	1,985,979	44,682	0.0225	0.9775	51.72	
37.5	1,964,762	41,848	0.0213	0.9787	50.56	
38.5	1,946,832	57,333	0.0294	0.9706	49.48	
39.5	1,911,544	64,914	0.0340	0.9660	48.02	

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2801 SERVICES - CAST IRON, COPPER AND ALL VALVES

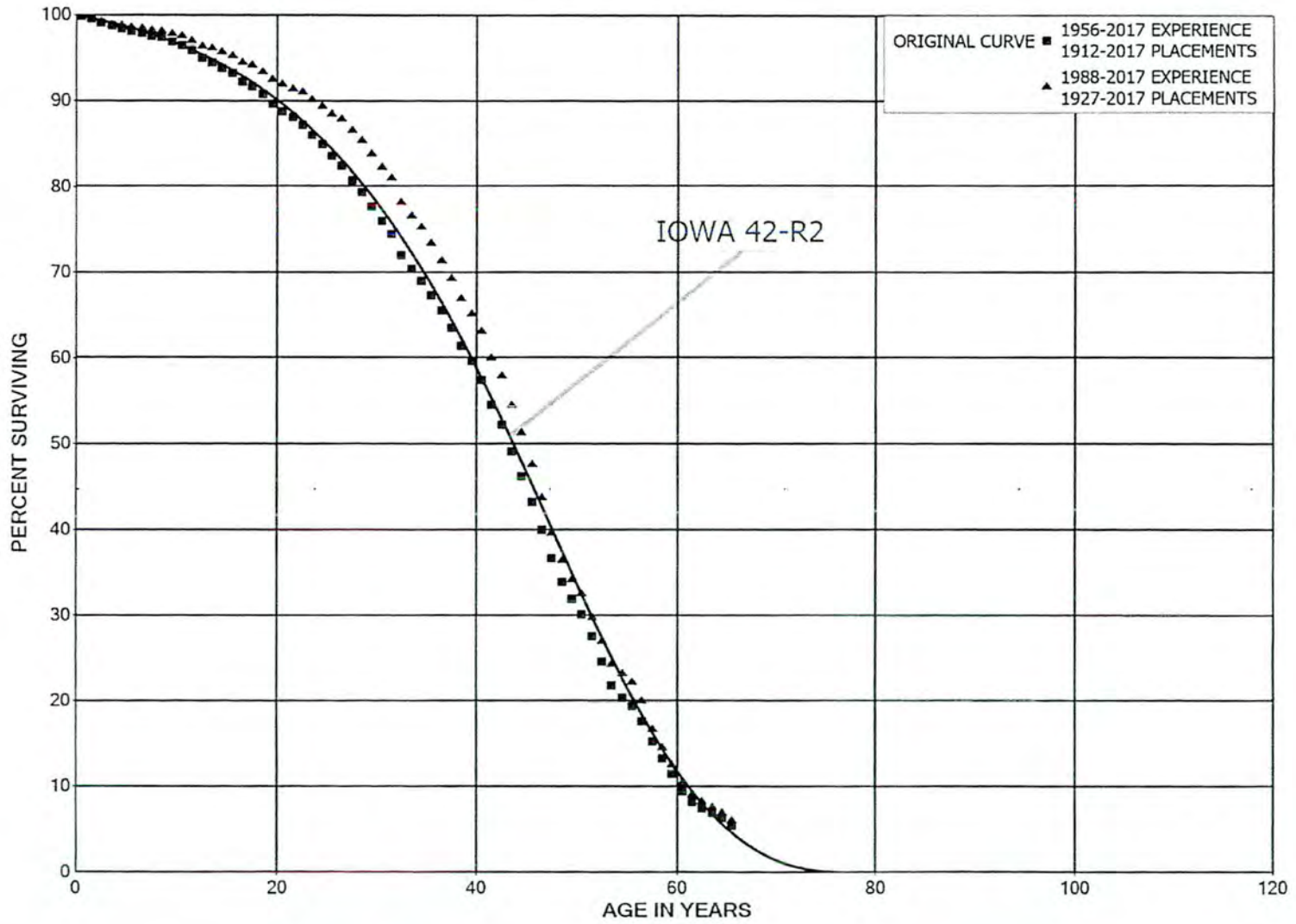
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2009			EXPERIENCE BAND 1988-2017		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
40.5	1,861,406	50,496	0.0271	0.9729	46.39
41.5	1,816,035	53,159	0.0293	0.9707	45.13
42.5	1,761,699	52,161	0.0296	0.9704	43.81
43.5	1,707,900	60,989	0.0357	0.9643	42.51
44.5	1,641,780	82,256	0.0501	0.9499	41.00
45.5	1,543,467	107,135	0.0694	0.9306	38.94
46.5	1,379,285	103,750	0.0752	0.9248	36.24
47.5	1,221,185	108,765	0.0891	0.9109	33.51
48.5	1,048,574	88,785	0.0847	0.9153	30.53
49.5	923,924	88,430	0.0957	0.9043	27.94
50.5	794,078	70,710	0.0890	0.9110	25.27
51.5	696,038	73,120	0.1051	0.8949	23.02
52.5	590,923	80,711	0.1366	0.8634	20.60
53.5	475,871	71,653	0.1506	0.8494	17.79
54.5	384,953	61,260	0.1591	0.8409	15.11
55.5	305,367	60,297	0.1975	0.8025	12.70
56.5	224,943	51,291	0.2280	0.7720	10.20
57.5	162,346	39,488	0.2432	0.7568	7.87
58.5	111,131	18,104	0.1629	0.8371	5.96
59.5	88,404	7,572	0.0857	0.9143	4.99
60.5	79,593	11,466	0.1441	0.8559	4.56
61.5	67,501	8,327	0.1234	0.8766	3.90
62.5	58,781	11,142	0.1896	0.8104	3.42
63.5	47,056	8,240	0.1751	0.8249	2.77
64.5	38,401	4,621	0.1203	0.8797	2.29
65.5	33,647	3,451	0.1026	0.8974	2.01
66.5	29,927	5,994	0.2003	0.7997	1.81
67.5	23,648	4,495	0.1901	0.8099	1.44
68.5	19,064	7,314	0.3837	0.6163	1.17
69.5	11,750	2,879	0.2450	0.7550	0.72
70.5	8,871	979	0.1104	0.8896	0.54
71.5	7,892	1,118	0.1416	0.8584	0.48
72.5	6,774	761	0.1124	0.8876	0.42
73.5	6,013	490	0.0814	0.9186	0.37
74.5	5,523	306	0.0553	0.9447	0.34
75.5	5,218	421	0.0807	0.9193	0.32
76.5	4,797	1,280	0.2669	0.7331	0.29
77.5	3,517	595	0.1692	0.8308	0.22
78.5	2,921	1,169	0.4002	0.5998	0.18
79.5	1,752	1,648	0.9406	0.0594	0.11
80.5	104	50	0.4770	0.5230	0.01
81.5	54	54	1.0000		0.00
82.5					





DUKE ENERGY KENTUCKY  
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ACCOUNT 2802 SERVICES - STEEL  
ORIGINAL AND SMOOTH SURVIVOR CURVES





DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2802 SERVICES - STEEL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1912-2017			EXPERIENCE BAND 1956-2017		
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	9,942,654	16,198	0.0016	0.9984	100.00
0.5	9,891,110	37,659	0.0038	0.9962	99.84
1.5	9,713,689	41,180	0.0042	0.9958	99.46
2.5	9,485,183	33,230	0.0035	0.9965	99.04
3.5	9,350,261	31,154	0.0033	0.9967	98.69
4.5	9,305,751	26,335	0.0028	0.9972	98.36
5.5	9,236,923	22,260	0.0024	0.9976	98.08
6.5	9,054,255	29,921	0.0033	0.9967	97.84
7.5	9,000,786	16,121	0.0018	0.9982	97.52
8.5	4,328,402	22,768	0.0053	0.9947	97.35
9.5	4,282,498	21,008	0.0049	0.9951	96.83
10.5	4,255,484	25,220	0.0059	0.9941	96.36
11.5	3,581,125	30,377	0.0085	0.9915	95.79
12.5	3,557,114	21,803	0.0061	0.9939	94.98
13.5	3,545,680	25,707	0.0073	0.9927	94.39
14.5	3,532,119	22,158	0.0063	0.9937	93.71
15.5	3,520,905	34,203	0.0097	0.9903	93.12
16.5	3,511,457	24,110	0.0069	0.9931	92.22
17.5	3,360,793	32,700	0.0097	0.9903	91.58
18.5	3,258,978	37,884	0.0116	0.9884	90.69
19.5	3,159,276	31,627	0.0100	0.9900	89.64
20.5	3,036,090	24,087	0.0079	0.9921	88.74
21.5	2,942,802	29,428	0.0100	0.9900	88.04
22.5	2,806,339	39,249	0.0140	0.9860	87.16
23.5	2,624,902	33,695	0.0128	0.9872	85.94
24.5	2,326,440	37,015	0.0159	0.9841	84.83
25.5	2,216,092	29,200	0.0132	0.9868	83.48
26.5	1,994,148	39,105	0.0196	0.9804	82.38
27.5	1,744,661	31,732	0.0182	0.9818	80.77
28.5	1,508,312	31,493	0.0209	0.9791	79.30
29.5	1,384,885	30,781	0.0222	0.9778	77.64
30.5	1,268,696	26,154	0.0206	0.9794	75.92
31.5	1,167,266	38,214	0.0327	0.9673	74.35
32.5	1,069,337	22,413	0.0210	0.9790	71.92
33.5	992,486	19,945	0.0201	0.9799	70.41
34.5	936,031	22,722	0.0243	0.9757	69.00
35.5	890,023	24,533	0.0276	0.9724	67.32
36.5	822,253	23,952	0.0291	0.9709	65.47
37.5	746,274	24,970	0.0335	0.9665	63.56
38.5	678,348	20,025	0.0295	0.9705	61.43

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2802 SERVICES - STEEL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1912-2017			EXPERIENCE BAND 1956-2017		
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	654,149	24,245	0.0371	0.9629	59.62
40.5	625,452	31,087	0.0497	0.9503	57.41
41.5	589,888	25,281	0.0429	0.9571	54.56
42.5	562,187	33,459	0.0595	0.9405	52.22
43.5	531,799	31,692	0.0596	0.9404	49.11
44.5	496,275	32,505	0.0655	0.9345	46.18
45.5	449,017	33,319	0.0742	0.9258	43.16
46.5	402,337	33,649	0.0836	0.9164	39.96
47.5	356,330	27,029	0.0759	0.9241	36.61
48.5	313,582	18,400	0.0587	0.9413	33.84
49.5	288,020	15,827	0.0550	0.9450	31.85
50.5	261,725	22,100	0.0844	0.9156	30.10
51.5	231,204	25,197	0.1090	0.8910	27.56
52.5	181,714	20,887	0.1149	0.8851	24.56
53.5	156,259	10,562	0.0676	0.9324	21.73
54.5	145,697	7,338	0.0504	0.9496	20.26
55.5	137,003	12,197	0.0890	0.9110	19.24
56.5	123,421	16,672	0.1351	0.8649	17.53
57.5	104,415	13,620	0.1304	0.8696	15.16
58.5	88,214	12,122	0.1374	0.8626	13.18
59.5	70,717	12,159	0.1719	0.8281	11.37
60.5	58,324	7,508	0.1287	0.8713	9.42
61.5	50,800	4,703	0.0926	0.9074	8.21
62.5	45,935	3,495	0.0761	0.9239	7.45
63.5	42,432	3,785	0.0892	0.9108	6.88
64.5	38,530	5,126	0.1330	0.8670	6.27
65.5	33,250	2,610	0.0785	0.9215	5.43
66.5	30,640	2,424	0.0791	0.9209	5.01
67.5	28,216	3,510	0.1244	0.8756	4.61
68.5	24,690	1,816	0.0735	0.9265	4.04
69.5	23,667	1,027	0.0434	0.9566	3.74
70.5	22,640	1,176	0.0520	0.9480	3.58
71.5	21,463	3,075	0.1433	0.8567	3.39
72.5	18,388	2,581	0.1403	0.8597	2.91
73.5	15,808	5,473	0.3462	0.6538	2.50
74.5	10,334	389	0.0376	0.9624	1.63
75.5	9,936	298	0.0300	0.9700	1.57
76.5	9,638	417	0.0433	0.9567	1.52
77.5	9,221	180	0.0195	0.9805	1.46
78.5	8,975	3,860	0.4301	0.5699	1.43

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2802 SERVICES - STEEL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1912-2017			EXPERIENCE BAND 1956-2017			
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	5,115	1,573	0.3074	0.6926	0.81	
80.5	3,491	275	0.0789	0.9211	0.56	
81.5	3,216	522	0.1624	0.8376	0.52	
82.5	2,694	408	0.1514	0.8486	0.44	
83.5	2,286	115	0.0503	0.9497	0.37	
84.5	2,171	169	0.0779	0.9221	0.35	
85.5	2,002	70	0.0350	0.9650	0.32	
86.5	1,932	203	0.1049	0.8951	0.31	
87.5					0.28	



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2802 SERVICES - STEEL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1927-2017			EXPERIENCE BAND 1988-2017		
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	8,450,907	13,114	0.0016	0.9984	100.00
0.5	8,456,998	27,376	0.0032	0.9968	99.84
1.5	8,368,932	30,074	0.0036	0.9964	99.52
2.5	8,208,049	23,483	0.0029	0.9971	99.16
3.5	8,126,073	16,502	0.0020	0.9980	98.88
4.5	8,116,956	11,185	0.0014	0.9986	98.68
5.5	8,102,559	10,770	0.0013	0.9987	98.54
6.5	7,983,900	20,922	0.0026	0.9974	98.41
7.5	8,017,965	7,907	0.0010	0.9990	98.15
8.5	3,404,526	11,879	0.0035	0.9965	98.06
9.5	3,375,397	8,906	0.0026	0.9974	97.72
10.5	3,364,128	15,562	0.0046	0.9954	97.46
11.5	2,699,856	18,676	0.0069	0.9931	97.01
12.5	2,685,999	8,570	0.0032	0.9968	96.34
13.5	2,684,347	11,685	0.0044	0.9956	96.03
14.5	2,679,176	12,994	0.0049	0.9951	95.61
15.5	2,690,804	21,067	0.0078	0.9922	95.15
16.5	2,689,292	8,296	0.0031	0.9969	94.40
17.5	2,565,629	21,073	0.0082	0.9918	94.11
18.5	2,508,490	23,988	0.0096	0.9904	93.34
19.5	2,412,831	15,031	0.0062	0.9938	92.45
20.5	2,306,748	13,374	0.0058	0.9942	91.87
21.5	2,214,033	10,822	0.0049	0.9951	91.34
22.5	2,145,989	20,177	0.0094	0.9906	90.89
23.5	1,994,387	15,559	0.0078	0.9922	90.04
24.5	1,717,353	18,469	0.0108	0.9892	89.33
25.5	1,578,525	10,346	0.0066	0.9934	88.37
26.5	1,331,231	19,166	0.0144	0.9856	87.79
27.5	1,141,604	15,724	0.0138	0.9862	86.53
28.5	964,082	17,645	0.0183	0.9817	85.34
29.5	910,151	16,891	0.0186	0.9814	83.78
30.5	854,815	13,451	0.0157	0.9843	82.22
31.5	809,037	28,700	0.0355	0.9645	80.93
32.5	750,349	14,577	0.0194	0.9806	78.06
33.5	692,838	12,427	0.0179	0.9821	76.54
34.5	656,114	16,209	0.0247	0.9753	75.17
35.5	635,371	17,538	0.0276	0.9724	73.31
36.5	587,381	17,599	0.0300	0.9700	71.29
37.5	518,246	17,414	0.0336	0.9664	69.15
38.5	457,516	12,049	0.0263	0.9737	66.83

DUKE ENERGY KENTUCKY  
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ACCOUNT 2802 SERVICES - STEEL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2017			EXPERIENCE BAND 1988-2017		
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	440,609	13,830	0.0314	0.9686	65.07
40.5	422,458	20,920	0.0495	0.9505	63.02
41.5	399,289	13,835	0.0346	0.9654	59.90
42.5	386,260	23,096	0.0598	0.9402	57.83
43.5	362,093	21,287	0.0588	0.9412	54.37
44.5	338,703	24,118	0.0712	0.9288	51.17
45.5	302,167	24,699	0.0817	0.9183	47.53
46.5	268,629	25,672	0.0956	0.9044	43.65
47.5	235,291	18,870	0.0802	0.9198	39.47
48.5	208,391	12,750	0.0612	0.9388	36.31
49.5	191,965	9,565	0.0498	0.9502	34.09
50.5	174,108	15,168	0.0871	0.9129	32.39
51.5	156,922	14,228	0.0907	0.9093	29.57
52.5	121,465	12,172	0.1002	0.8998	26.89
53.5	105,852	4,836	0.0457	0.9543	24.19
54.5	101,863	4,710	0.0462	0.9538	23.09
55.5	96,312	9,440	0.0980	0.9020	22.02
56.5	87,368	14,562	0.1667	0.8333	19.86
57.5	104,388	13,620	0.1305	0.8695	16.55
58.5	88,186	12,122	0.1375	0.8625	14.39
59.5	70,689	12,159	0.1720	0.8280	12.41
60.5	58,324	7,508	0.1287	0.8713	10.28
61.5	50,800	4,703	0.0926	0.9074	8.95
62.5	45,935	3,495	0.0761	0.9239	8.13
63.5	42,432	3,785	0.0892	0.9108	7.51
64.5	38,530	5,126	0.1330	0.8670	6.84
65.5	33,250	2,610	0.0785	0.9215	5.93
66.5	30,640	2,424	0.0791	0.9209	5.46
67.5	28,216	3,510	0.1244	0.8756	5.03
68.5	24,690	1,816	0.0735	0.9265	4.40
69.5	23,667	1,027	0.0434	0.9566	4.08
70.5	22,640	1,176	0.0520	0.9480	3.90
71.5	21,463	3,075	0.1433	0.8567	3.70
72.5	18,388	2,581	0.1403	0.8597	3.17
73.5	15,808	5,473	0.3462	0.6538	2.73
74.5	10,334	389	0.0376	0.9624	1.78
75.5	9,936	298	0.0300	0.9700	1.71
76.5	9,638	417	0.0433	0.9567	1.66
77.5	9,221	180	0.0195	0.9805	1.59
78.5	8,975	3,860	0.4301	0.5699	1.56

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2802 SERVICES - STEEL

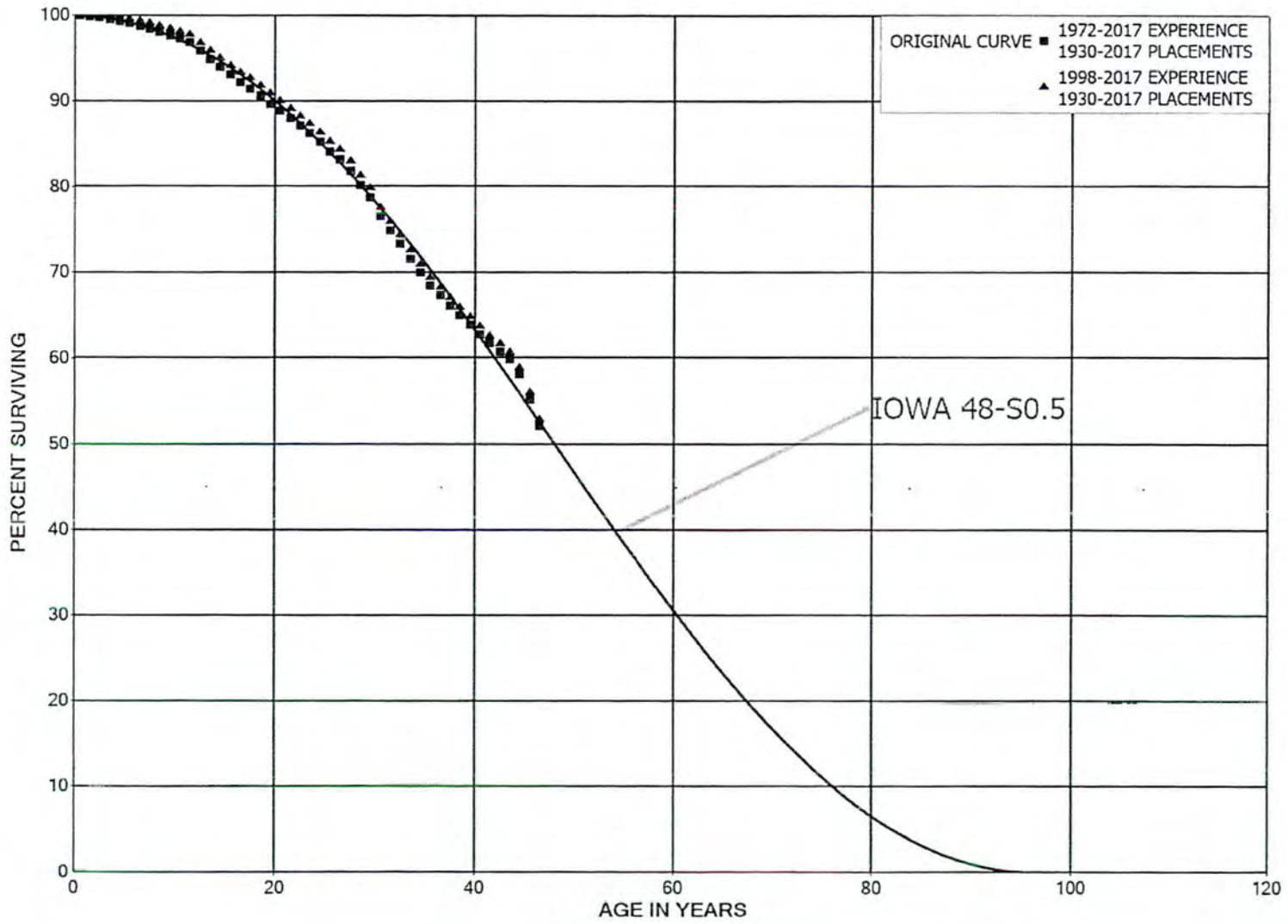
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2017			EXPERIENCE BAND 1988-2017			
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	5,115	1,573	0.3074	0.6926	0.89	
80.5	3,491	275	0.0789	0.9211	0.62	
81.5	3,216	522	0.1624	0.8376	0.57	
82.5	2,694	408	0.1514	0.8486	0.48	
83.5	2,286	115	0.0503	0.9497	0.40	
84.5	2,171	169	0.0779	0.9221	0.38	
85.5	2,002	70	0.0350	0.9650	0.35	
86.5	1,932	203	0.1049	0.8951	0.34	
87.5					0.31	





DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2803 SERVICES - PLASTIC  
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2803 SERVICES - PLASTIC

ORIGINAL LIFE TABLE

PLACEMENT BAND 1930-2017			EXPERIENCE BAND 1972-2017		
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	152,693,381	96,175	0.0006	0.9994	100.00
0.5	136,844,044	163,472	0.0012	0.9988	99.94
1.5	128,172,642	187,935	0.0015	0.9985	99.82
2.5	123,700,890	231,049	0.0019	0.9981	99.67
3.5	120,498,060	250,751	0.0021	0.9979	99.49
4.5	117,851,834	304,227	0.0026	0.9974	99.28
5.5	114,797,586	338,880	0.0030	0.9970	99.02
6.5	111,977,134	381,832	0.0034	0.9966	98.73
7.5	107,629,385	392,008	0.0036	0.9964	98.39
8.5	86,968,220	349,133	0.0040	0.9960	98.03
9.5	82,915,009	338,172	0.0041	0.9959	97.64
10.5	77,340,884	345,436	0.0045	0.9955	97.24
11.5	38,769,699	410,630	0.0106	0.9894	96.81
12.5	35,677,616	341,027	0.0096	0.9904	95.78
13.5	35,148,138	334,103	0.0095	0.9905	94.87
14.5	32,842,834	324,224	0.0099	0.9901	93.97
15.5	29,535,931	267,100	0.0090	0.9910	93.04
16.5	28,689,134	237,820	0.0083	0.9917	92.20
17.5	27,936,549	257,949	0.0092	0.9908	91.43
18.5	26,803,755	273,662	0.0102	0.9898	90.59
19.5	24,065,247	232,398	0.0097	0.9903	89.66
20.5	21,886,562	223,514	0.0102	0.9898	88.80
21.5	20,163,529	196,113	0.0097	0.9903	87.89
22.5	18,504,399	192,108	0.0104	0.9896	87.04
23.5	16,280,228	183,444	0.0113	0.9887	86.13
24.5	14,188,012	191,779	0.0135	0.9865	85.16
25.5	12,339,903	127,680	0.0103	0.9897	84.01
26.5	10,298,575	156,314	0.0152	0.9848	83.14
27.5	8,109,160	167,711	0.0207	0.9793	81.88
28.5	6,601,138	121,085	0.0183	0.9817	80.19
29.5	5,525,385	154,873	0.0280	0.9720	78.72
30.5	4,609,057	101,097	0.0219	0.9781	76.51
31.5	3,997,695	82,204	0.0206	0.9794	74.83
32.5	3,515,680	85,230	0.0242	0.9758	73.29
33.5	3,171,940	70,415	0.0222	0.9778	71.52
34.5	2,835,852	61,327	0.0216	0.9784	69.93
35.5	2,392,579	41,037	0.0172	0.9828	68.42
36.5	1,954,006	33,292	0.0170	0.9830	67.24
37.5	1,420,158	24,431	0.0172	0.9828	66.10
38.5	1,061,680	18,635	0.0176	0.9824	64.96

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2803 SERVICES - PLASTIC

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2017			EXPERIENCE BAND 1972-2017			
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	954,376	16,503	0.0173	0.9827	63.82	
40.5	824,167	13,106	0.0159	0.9841	62.72	
41.5	753,655	11,832	0.0157	0.9843	61.72	
42.5	622,286	9,765	0.0157	0.9843	60.75	
43.5	493,201	14,131	0.0287	0.9713	59.80	
44.5	321,103	16,254	0.0506	0.9494	58.08	
45.5	130,312	7,167	0.0550	0.9450	55.14	
46.5	53,345	1,954	0.0366	0.9634	52.11	
47.5	33,337	1,360	0.0408	0.9592	50.20	
48.5	20,626	1,163	0.0564	0.9436	48.15	
49.5	7,377	101	0.0137	0.9863	45.44	
50.5	6,465	111	0.0171	0.9829	44.81	
51.5	5,581	327	0.0586	0.9414	44.05	
52.5					41.47	
53.5						
54.5						
55.5						
56.5						
57.5						
58.5						
59.5						
60.5						
61.5						
62.5						
63.5						
64.5						
65.5						
66.5						
67.5						
68.5	16		0.0000			
69.5	16		0.0000			
70.5	16	8	0.5000			
71.5	8		0.0000			
72.5	8	8	1.0000			
73.5						



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2803 SERVICES - PLASTIC

ORIGINAL LIFE TABLE

PLACEMENT BAND 1930-2017			EXPERIENCE BAND 1998-2017		
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	125,147,456	40,220	0.0003	0.9997	100.00
0.5	111,292,031	46,990	0.0004	0.9996	99.97
1.5	104,352,777	56,703	0.0005	0.9995	99.93
2.5	101,746,753	79,648	0.0008	0.9992	99.87
3.5	100,880,307	136,047	0.0013	0.9987	99.79
4.5	100,462,834	199,757	0.0020	0.9980	99.66
5.5	99,313,322	190,030	0.0019	0.9981	99.46
6.5	98,773,758	244,895	0.0025	0.9975	99.27
7.5	96,877,349	293,028	0.0030	0.9970	99.02
8.5	77,903,767	257,618	0.0033	0.9967	98.72
9.5	75,105,003	248,572	0.0033	0.9967	98.40
10.5	70,609,086	278,697	0.0039	0.9961	98.07
11.5	32,758,486	311,100	0.0095	0.9905	97.69
12.5	30,301,743	281,949	0.0093	0.9907	96.76
13.5	30,263,844	275,131	0.0091	0.9909	95.86
14.5	28,412,422	272,197	0.0096	0.9904	94.99
15.5	25,705,885	216,241	0.0084	0.9916	94.08
16.5	25,460,355	196,623	0.0077	0.9923	93.28
17.5	25,422,569	221,166	0.0087	0.9913	92.56
18.5	24,834,968	252,306	0.0102	0.9898	91.76
19.5	22,338,636	208,932	0.0094	0.9906	90.83
20.5	20,451,584	204,957	0.0100	0.9900	89.98
21.5	18,939,980	180,862	0.0095	0.9905	89.08
22.5	17,543,714	182,710	0.0104	0.9896	88.22
23.5	15,566,175	176,186	0.0113	0.9887	87.31
24.5	13,730,174	185,296	0.0135	0.9865	86.32
25.5	12,155,969	126,406	0.0104	0.9896	85.15
26.5	10,222,820	155,574	0.0152	0.9848	84.27
27.5	8,061,903	167,289	0.0208	0.9792	82.98
28.5	6,570,927	119,786	0.0182	0.9818	81.26
29.5	5,512,538	154,506	0.0280	0.9720	79.78
30.5	4,600,311	100,986	0.0220	0.9780	77.55
31.5	3,990,675	82,204	0.0206	0.9794	75.84
32.5	3,514,930	85,230	0.0242	0.9758	74.28
33.5	3,171,684	70,415	0.0222	0.9778	72.48
34.5	2,835,596	61,327	0.0216	0.9784	70.87
35.5	2,392,378	41,037	0.0172	0.9828	69.34
36.5	1,953,805	33,292	0.0170	0.9830	68.15
37.5	1,419,957	24,431	0.0172	0.9828	66.99
38.5	1,061,633	18,635	0.0176	0.9824	65.83

DUKE ENERGY KENTUCKY  
GAS PLANT

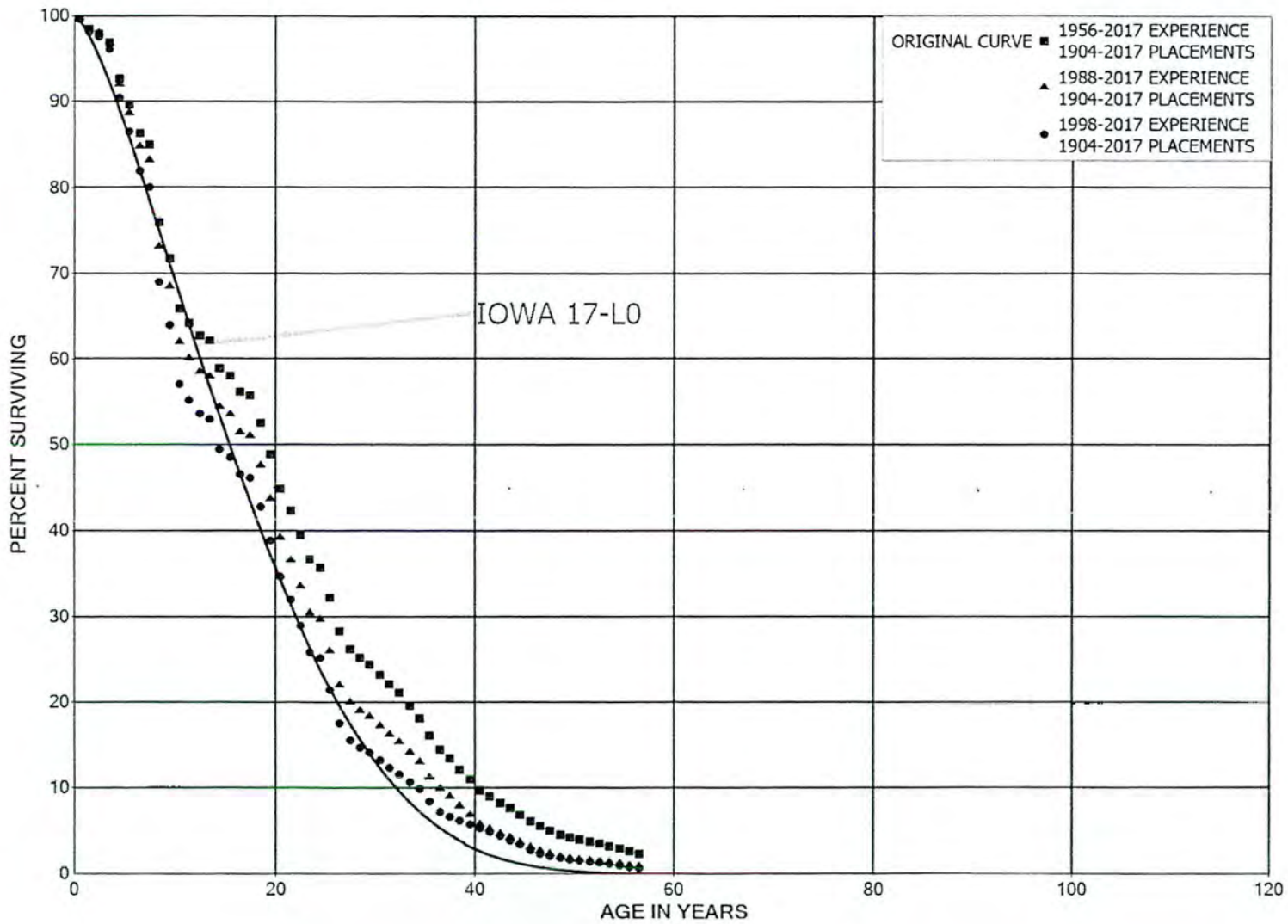
ACCOUNT 2803 SERVICES - PLASTIC

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2017			EXPERIENCE BAND 1998-2017			
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	954,329	16,503	0.0173	0.9827	64.68	
40.5	824,120	13,106	0.0159	0.9841	63.56	
41.5	753,608	11,832	0.0157	0.9843	62.55	
42.5	622,239	9,765	0.0157	0.9843	61.57	
43.5	493,154	14,084	0.0286	0.9714	60.60	
44.5	321,103	16,254	0.0506	0.9494	58.87	
45.5	130,312	7,167	0.0550	0.9450	55.89	
46.5	53,345	1,954	0.0366	0.9634	52.82	
47.5	33,337	1,360	0.0408	0.9592	50.88	
48.5	20,626	1,163	0.0564	0.9436	48.81	
49.5	7,377	101	0.0137	0.9863	46.05	
50.5	6,465	111	0.0171	0.9829	45.42	
51.5	5,581	327	0.0586	0.9414	44.65	
52.5					42.03	
53.5						
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57.5						
58.5						
59.5						
60.5						
61.5						
62.5						
63.5						
64.5						
65.5						
66.5						
67.5						
68.5	16		0.0000			
69.5	16		0.0000			
70.5	16	8	0.5000			
71.5	8		0.0000			
72.5	8	8	1.0000			
73.5						



DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2810 METERS  
ORIGINAL AND SMOOTH SURVIVOR CURVES





DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1904-2017			EXPERIENCE BAND 1956-2017		
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	24,207,349	64,190	0.0027	0.9973	100.00
0.5	20,913,543	284,467	0.0136	0.9864	99.73
1.5	17,266,887	87,706	0.0051	0.9949	98.38
2.5	15,786,766	174,357	0.0110	0.9890	97.88
3.5	14,866,393	648,844	0.0436	0.9564	96.80
4.5	13,571,439	428,232	0.0316	0.9684	92.57
5.5	11,642,197	433,153	0.0372	0.9628	89.65
6.5	11,272,642	185,520	0.0165	0.9835	86.32
7.5	11,629,423	1,220,335	0.1049	0.8951	84.90
8.5	10,420,439	579,121	0.0556	0.9444	75.99
9.5	9,570,024	785,073	0.0820	0.9180	71.76
10.5	8,588,779	221,503	0.0258	0.9742	65.88
11.5	8,231,181	185,245	0.0225	0.9775	64.18
12.5	7,988,969	75,815	0.0095	0.9905	62.73
13.5	7,833,971	404,622	0.0516	0.9484	62.14
14.5	7,413,215	108,981	0.0147	0.9853	58.93
15.5	7,219,081	235,051	0.0326	0.9674	58.06
16.5	6,828,465	57,517	0.0084	0.9916	56.17
17.5	6,513,051	369,530	0.0567	0.9433	55.70
18.5	5,707,407	399,283	0.0700	0.9300	52.54
19.5	5,118,041	422,476	0.0825	0.9175	48.86
20.5	4,470,122	249,145	0.0557	0.9443	44.83
21.5	4,141,215	276,033	0.0667	0.9333	42.33
22.5	3,836,468	283,597	0.0739	0.9261	39.51
23.5	3,489,668	91,330	0.0262	0.9738	36.59
24.5	3,330,350	327,619	0.0984	0.9016	35.63
25.5	2,927,860	349,931	0.1195	0.8805	32.13
26.5	2,537,600	185,114	0.0729	0.9271	28.29
27.5	2,291,818	94,101	0.0411	0.9589	26.22
28.5	2,064,596	62,290	0.0302	0.9698	25.15
29.5	1,970,417	96,498	0.0490	0.9510	24.39
30.5	1,842,854	92,578	0.0502	0.9498	23.19
31.5	1,705,974	78,827	0.0462	0.9538	22.03
32.5	1,594,906	110,544	0.0693	0.9307	21.01
33.5	1,455,423	111,433	0.0766	0.9234	19.55
34.5	1,307,578	140,638	0.1076	0.8924	18.06
35.5	1,163,737	121,482	0.1044	0.8956	16.11
36.5	1,021,289	76,021	0.0744	0.9256	14.43
37.5	918,117	91,141	0.0993	0.9007	13.36
38.5	818,653	77,481	0.0946	0.9054	12.03

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1904-2017			EXPERIENCE BAND 1956-2017			
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	759,834	87,457	0.1151	0.8849	10.89	
40.5	667,905	50,456	0.0755	0.9245	9.64	
41.5	616,818	50,267	0.0815	0.9185	8.91	
42.5	574,242	41,274	0.0719	0.9281	8.19	
43.5	540,838	52,627	0.0973	0.9027	7.60	
44.5	492,233	55,894	0.1136	0.8864	6.86	
45.5	450,425	45,585	0.1012	0.8988	6.08	
46.5	403,442	37,953	0.0941	0.9059	5.46	
47.5	363,143	30,776	0.0847	0.9153	4.95	
48.5	321,167	25,021	0.0779	0.9221	4.53	
49.5	293,416	19,313	0.0658	0.9342	4.18	
50.5	274,696	15,454	0.0563	0.9437	3.90	
51.5	274,045	16,157	0.0590	0.9410	3.68	
52.5	229,524	18,700	0.0815	0.9185	3.47	
53.5	210,731	15,987	0.0759	0.9241	3.18	
54.5	194,590	24,475	0.1258	0.8742	2.94	
55.5	168,912	22,102	0.1308	0.8692	2.57	
56.5	145,974	20,108	0.1377	0.8623	2.24	
57.5	125,585	7,550	0.0601	0.9399	1.93	
58.5	117,322	6,713	0.0572	0.9428	1.81	
59.5	110,481	7,053	0.0638	0.9362	1.71	
60.5	103,427	7,323	0.0708	0.9292	1.60	
61.5	96,105	9,680	0.1007	0.8993	1.49	
62.5	86,444	3,669	0.0424	0.9576	1.34	
63.5	82,775	6,364	0.0769	0.9231	1.28	
64.5	76,411	3,274	0.0428	0.9572	1.18	
65.5	73,137	3,119	0.0426	0.9574	1.13	
66.5	70,018	3,804	0.0543	0.9457	1.08	
67.5	66,197	4,542	0.0686	0.9314	1.02	
68.5	61,669	12,661	0.2053	0.7947	0.95	
69.5	49,016	4,074	0.0831	0.9169	0.76	
70.5	44,925	8,583	0.1911	0.8089	0.69	
71.5	36,341	4,370	0.1203	0.8797	0.56	
72.5	31,971	3,623	0.1133	0.8867	0.49	
73.5	28,347	5,820	0.2053	0.7947	0.44	
74.5	22,527	1,961	0.0871	0.9129	0.35	
75.5	20,566	4,762	0.2315	0.7685	0.32	
76.5	15,804	3,373	0.2134	0.7866	0.24	
77.5	12,432	1,005	0.0808	0.9192	0.19	
78.5	11,427	1,163	0.1018	0.8982	0.18	



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

ORIGINAL LIFE TABLE, CCNT.

PLACEMENT BAND 1904-2017			EXPERIENCE BAND 1956-2017			
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	10,264	803	0.0782	0.9218	0.16	
80.5	9,461	1,186	0.1253	0.8747	0.15	
81.5	8,275	786	0.0950	0.9050	0.13	
82.5	7,489	719	0.0961	0.9039	0.12	
83.5	6,770	198	0.0292	0.9708	0.10	
84.5	6,572	1,035	0.1574	0.8426	0.10	
85.5	5,538	79	0.0143	0.9857	0.09	
86.5	5,458	1,095	0.2007	0.7993	0.08	
87.5	4,363	85	0.0195	0.9805	0.07	
88.5	4,278	118	0.0276	0.9724	0.07	
89.5	4,160	24	0.0057	0.9943	0.06	
90.5	4,136	180	0.0436	0.9564	0.06	
91.5	3,956		0.0000	1.0000	0.06	
92.5	3,956	11	0.0029	0.9971	0.06	
93.5	3,945	52	0.0131	0.9869	0.06	
94.5	3,893	1,217	0.3127	0.6873	0.06	
95.5	2,676	75	0.0279	0.9721	0.04	
96.5	2,601	42	0.0161	0.9839	0.04	
97.5	2,559	38	0.0150	0.9850	0.04	
98.5	2,521		0.0000	1.0000	0.04	
99.5	2,521	265	0.1053	0.8947	0.04	
100.5	2,255	354	0.1568	0.8432	0.03	
101.5	1,902	176	0.0923	0.9077	0.03	
102.5	1,726	191	0.1108	0.8892	0.03	
103.5	1,535	62	0.0407	0.9593	0.02	
104.5	1,472	65	0.0442	0.9558	0.02	
105.5	1,407	254	0.1805	0.8195	0.02	
106.5	1,153	510	0.4425	0.5575	0.02	
107.5	643	36	0.0563	0.9437	0.01	
108.5	607	192	0.3164	0.6836	0.01	
109.5	415	244	0.5894	0.4106	0.01	
110.5	170	32	0.1893	0.8107	0.00	
111.5	138	138	1.0000		0.00	
112.5						



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1904-2017			EXPERIENCE BAND 1988-2017		
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	22,205,796	64,131	0.0029	0.9971	100.00
0.5	18,934,320	251,115	0.0133	0.9867	99.71
1.5	15,347,232	77,011	0.0050	0.9950	98.39
2.5	13,895,461	166,417	0.0120	0.9880	97.90
3.5	12,981,744	644,526	0.0496	0.9504	96.72
4.5	11,729,157	424,921	0.0362	0.9638	91.92
5.5	9,816,126	425,939	0.0434	0.9566	88.59
6.5	9,557,164	180,917	0.0189	0.9811	84.75
7.5	10,087,724	1,216,117	0.1206	0.8794	83.14
8.5	8,951,473	573,289	0.0640	0.9360	73.12
9.5	8,118,479	774,007	0.0953	0.9047	68.44
10.5	7,169,685	208,489	0.0291	0.9709	61.91
11.5	6,839,064	177,176	0.0259	0.9741	60.11
12.5	6,602,543	68,918	0.0104	0.9896	58.55
13.5	6,471,914	397,241	0.0614	0.9386	57.94
14.5	6,082,126	100,995	0.0166	0.9834	54.39
15.5	5,923,676	228,888	0.0386	0.9614	53.48
16.5	5,614,180	49,314	0.0088	0.9912	51.42
17.5	5,354,999	359,059	0.0671	0.9329	50.96
18.5	4,610,504	386,565	0.0838	0.9162	47.55
19.5	4,073,223	411,873	0.1011	0.8989	43.56
20.5	3,469,346	237,223	0.0684	0.9316	39.16
21.5	3,133,690	257,895	0.0823	0.9177	36.48
22.5	2,904,451	266,014	0.0916	0.9084	33.48
23.5	2,632,217	73,332	0.0279	0.9721	30.41
24.5	2,515,435	308,065	0.1225	0.8775	29.56
25.5	2,162,473	331,377	0.1532	0.8468	25.94
26.5	1,802,420	168,152	0.0933	0.9067	21.97
27.5	1,585,425	77,825	0.0491	0.9509	19.92
28.5	1,384,104	45,330	0.0328	0.9672	18.94
29.5	1,333,061	79,750	0.0598	0.9402	18.32
30.5	1,256,736	75,842	0.0603	0.9397	17.22
31.5	1,167,837	64,962	0.0556	0.9444	16.18
32.5	1,104,404	85,807	0.0777	0.9223	15.28
33.5	1,025,165	85,760	0.0837	0.9163	14.10
34.5	940,244	125,654	0.1336	0.8664	12.92
35.5	860,718	101,923	0.1184	0.8816	11.19
36.5	746,095	67,340	0.0903	0.9097	9.87
37.5	671,207	85,226	0.1270	0.8730	8.98
38.5	593,515	73,985	0.1247	0.8753	7.84

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1904-2017			EXPERIENCE BAND 1988-2017			
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	520,048	82,217	0.1581	0.8419	6.86	
40.5	461,657	46,253	0.1002	0.8998	5.77	
41.5	421,528	45,613	0.1082	0.8918	5.20	
42.5	379,466	36,505	0.0962	0.9038	4.63	
43.5	345,303	46,418	0.1344	0.8656	4.19	
44.5	300,267	48,386	0.1611	0.8389	3.63	
45.5	259,851	37,964	0.1461	0.8539	3.04	
46.5	225,298	30,530	0.1355	0.8645	2.60	
47.5	194,638	25,187	0.1294	0.8706	2.24	
48.5	161,670	18,913	0.1170	0.8830	1.95	
49.5	134,285	11,177	0.0832	0.9168	1.73	
50.5	132,010	6,700	0.0508	0.9492	1.58	
51.5	126,665	6,173	0.0487	0.9513	1.50	
52.5	97,296	9,593	0.0986	0.9014	1.43	
53.5	89,398	7,106	0.0795	0.9205	1.29	
54.5	82,772	14,934	0.1804	0.8196	1.19	
55.5	66,848	6,985	0.1045	0.8955	0.97	
56.5	60,570	13,223	0.2183	0.7817	0.87	
57.5	48,393	2,340	0.0484	0.9516	0.68	
58.5	62,406	1,038	0.0166	0.9834	0.65	
59.5	69,087	3,365	0.0487	0.9513	0.64	
60.5	65,771	4,500	0.0684	0.9316	0.61	
61.5	61,570	6,286	0.1021	0.8979	0.56	
62.5	55,383	34	0.0006	0.9994	0.51	
63.5	55,977	3,746	0.0669	0.9331	0.51	
64.5	52,230	955	0.0183	0.9817	0.47	
65.5	51,284	409	0.0080	0.9920	0.46	
66.5	50,885	1,021	0.0201	0.9799	0.46	
67.5	50,059	3,221	0.0643	0.9357	0.45	
68.5	46,875	10,974	0.2341	0.7659	0.42	
69.5	35,910	2,340	0.0652	0.9348	0.32	
70.5	33,615	7,444	0.2214	0.7786	0.30	
71.5	27,531	3,519	0.1278	0.8722	0.24	
72.5	24,012	2,453	0.1021	0.8979	0.21	
73.5	21,565	4,834	0.2241	0.7759	0.18	
74.5	16,796	1,557	0.0927	0.9073	0.14	
75.5	15,239	4,106	0.2694	0.7306	0.13	
76.5	11,466	2,535	0.2211	0.7789	0.09	
77.5	9,369	920	0.0982	0.9018	0.07	
78.5	8,695	760	0.0875	0.9125	0.07	



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1904-2017			EXPERIENCE BAND 1988-2017			
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	8,045	481	0.0598	0.9402	0.06	
80.5	7,602	1,118	0.1470	0.8530	0.06	
81.5	6,797	786	0.1156	0.8844	0.05	
82.5	6,429	705	0.1096	0.8904	0.04	
83.5	6,770	198	0.0292	0.9708	0.04	
84.5	6,572	1,035	0.1574	0.8426	0.04	
85.5	5,538	79	0.0143	0.9857	0.03	
86.5	5,458	1,095	0.2007	0.7993	0.03	
87.5	4,363	85	0.0195	0.9805	0.02	
88.5	4,278	118	0.0276	0.9724	0.02	
89.5	4,160	24	0.0057	0.9943	0.02	
90.5	4,136	180	0.0436	0.9564	0.02	
91.5	3,956		0.0000	1.0000	0.02	
92.5	3,956	11	0.0029	0.9971	0.02	
93.5	3,945	52	0.0131	0.9869	0.02	
94.5	3,893	1,217	0.3127	0.6873	0.02	
95.5	2,676	75	0.0279	0.9721	0.02	
96.5	2,601	42	0.0161	0.9839	0.01	
97.5	2,559	38	0.0150	0.9850	0.01	
98.5	2,521		0.0000	1.0000	0.01	
99.5	2,521	265	0.1053	0.8947	0.01	
100.5	2,255	354	0.1568	0.8432	0.01	
101.5	1,902	176	0.0923	0.9077	0.01	
102.5	1,726	191	0.1108	0.8892	0.01	
103.5	1,535	62	0.0407	0.9593	0.01	
104.5	1,472	65	0.0442	0.9558	0.01	
105.5	1,407	254	0.1805	0.8195	0.01	
106.5	1,153	510	0.4425	0.5575	0.01	
107.5	643	36	0.0563	0.9437	0.00	
108.5	607	192	0.3164	0.6836	0.00	
109.5	415	244	0.5894	0.4106	0.00	
110.5	170	32	0.1893	0.8107	0.00	
111.5	138	138	1.0000		0.00	
112.5						



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1904-2017			EXPERIENCE BAND 1998-2017		
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	17,768,155	63,591	0.0036	0.9964	100.00
0.5	15,953,426	246,581	0.0155	0.9845	99.64
1.5	12,809,943	75,787	0.0059	0.9941	98.10
2.5	11,507,411	165,987	0.0144	0.9856	97.52
3.5	10,856,573	643,951	0.0593	0.9407	96.11
4.5	9,833,707	423,449	0.0431	0.9569	90.41
5.5	7,983,010	425,632	0.0533	0.9467	86.52
6.5	7,966,447	180,709	0.0227	0.9773	81.91
7.5	8,773,529	1,215,740	0.1386	0.8614	80.05
8.5	7,901,102	570,378	0.0722	0.9278	68.96
9.5	7,179,168	771,777	0.1075	0.8925	63.98
10.5	6,295,101	207,757	0.0330	0.9670	57.10
11.5	6,031,114	175,530	0.0291	0.9709	55.22
12.5	5,871,150	66,110	0.0113	0.9887	53.61
13.5	5,776,330	396,443	0.0686	0.9314	53.01
14.5	5,445,678	98,830	0.0181	0.9819	49.37
15.5	5,317,865	220,336	0.0414	0.9586	48.47
16.5	5,093,715	46,276	0.0091	0.9909	46.46
17.5	4,957,745	355,267	0.0717	0.9283	46.04
18.5	4,245,787	384,605	0.0906	0.9094	42.74
19.5	3,688,774	408,583	0.1108	0.8892	38.87
20.5	3,071,652	233,013	0.0759	0.9241	34.57
21.5	2,729,699	255,001	0.0934	0.9066	31.94
22.5	2,447,390	261,539	0.1069	0.8931	28.96
23.5	2,150,524	59,064	0.0275	0.9725	25.86
24.5	2,055,893	302,832	0.1473	0.8527	25.15
25.5	1,707,172	317,497	0.1860	0.8140	21.45
26.5	1,396,151	155,408	0.1113	0.8887	17.46
27.5	1,200,845	67,634	0.0563	0.9437	15.52
28.5	1,046,504	39,195	0.0375	0.9625	14.64
29.5	1,009,067	67,152	0.0665	0.9335	14.09
30.5	929,610	62,294	0.0670	0.9330	13.16
31.5	836,527	49,238	0.0589	0.9411	12.27
32.5	798,881	61,391	0.0768	0.9232	11.55
33.5	728,943	58,694	0.0805	0.9195	10.66
34.5	654,284	96,678	0.1478	0.8522	9.81
35.5	576,491	81,487	0.1413	0.8587	8.36
36.5	489,047	35,569	0.0727	0.9273	7.18
37.5	444,772	30,796	0.0692	0.9308	6.65
38.5	414,056	28,370	0.0685	0.9315	6.19

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1904-2017			EXPERIENCE BAND 1998-2017			
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	395,697	34,240	0.0865	0.9135	5.77	
40.5	366,376	28,425	0.0776	0.9224	5.27	
41.5	347,857	36,040	0.1036	0.8964	4.86	
42.5	315,409	33,936	0.1076	0.8924	4.36	
43.5	284,978	37,396	0.1312	0.8688	3.89	
44.5	246,515	43,910	0.1781	0.8219	3.38	
45.5	206,407	32,444	0.1572	0.8428	2.78	
46.5	165,929	20,628	0.1243	0.8757	2.34	
47.5	142,474	15,133	0.1062	0.8938	2.05	
48.5	116,041	14,302	0.1232	0.8768	1.83	
49.5	88,793	7,720	0.0869	0.9131	1.61	
50.5	80,272	4,141	0.0516	0.9484	1.47	
51.5	75,805	5,543	0.0731	0.9269	1.39	
52.5	41,898	3,439	0.0821	0.9179	1.29	
53.5	38,366	5,704	0.1487	0.8513	1.18	
54.5	32,688	8,917	0.2728	0.7272	1.01	
55.5	23,848	3,983	0.1670	0.8330	0.73	
56.5	27,336	12,753	0.4665	0.5335	0.61	
57.5	18,594	2,111	0.1136	0.8864	0.33	
58.5	21,012	710	0.0338	0.9662	0.29	
59.5	24,247	2,705	0.1115	0.8885	0.28	
60.5	31,169	4,401	0.1412	0.8588	0.25	
61.5	27,838	6,250	0.2245	0.7755	0.21	
62.5	26,146	9	0.0003	0.9997	0.16	
63.5	27,596	967	0.0350	0.9650	0.16	
64.5	27,186	859	0.0316	0.9684	0.16	
65.5	26,504		0.0000	1.0000	0.15	
66.5	27,629	998	0.0361	0.9639	0.15	
67.5	27,546	170	0.0062	0.9938	0.15	
68.5	38,040	9,894	0.2601	0.7399	0.15	
69.5	34,700	2,340	0.0674	0.9326	0.11	
70.5	32,361	7,444	0.2300	0.7700	0.10	
71.5	25,208	3,519	0.1396	0.8604	0.08	
72.5	21,752	2,447	0.1125	0.8875	0.07	
73.5	19,933	4,834	0.2425	0.7575	0.06	
74.5	15,099	1,557	0.1031	0.8969	0.05	
75.5	13,551	4,106	0.3030	0.6970	0.04	
76.5	9,445	2,535	0.2684	0.7316	0.03	
77.5	7,105	920	0.1295	0.8705	0.02	
78.5	6,209	760	0.1225	0.8775	0.02	



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

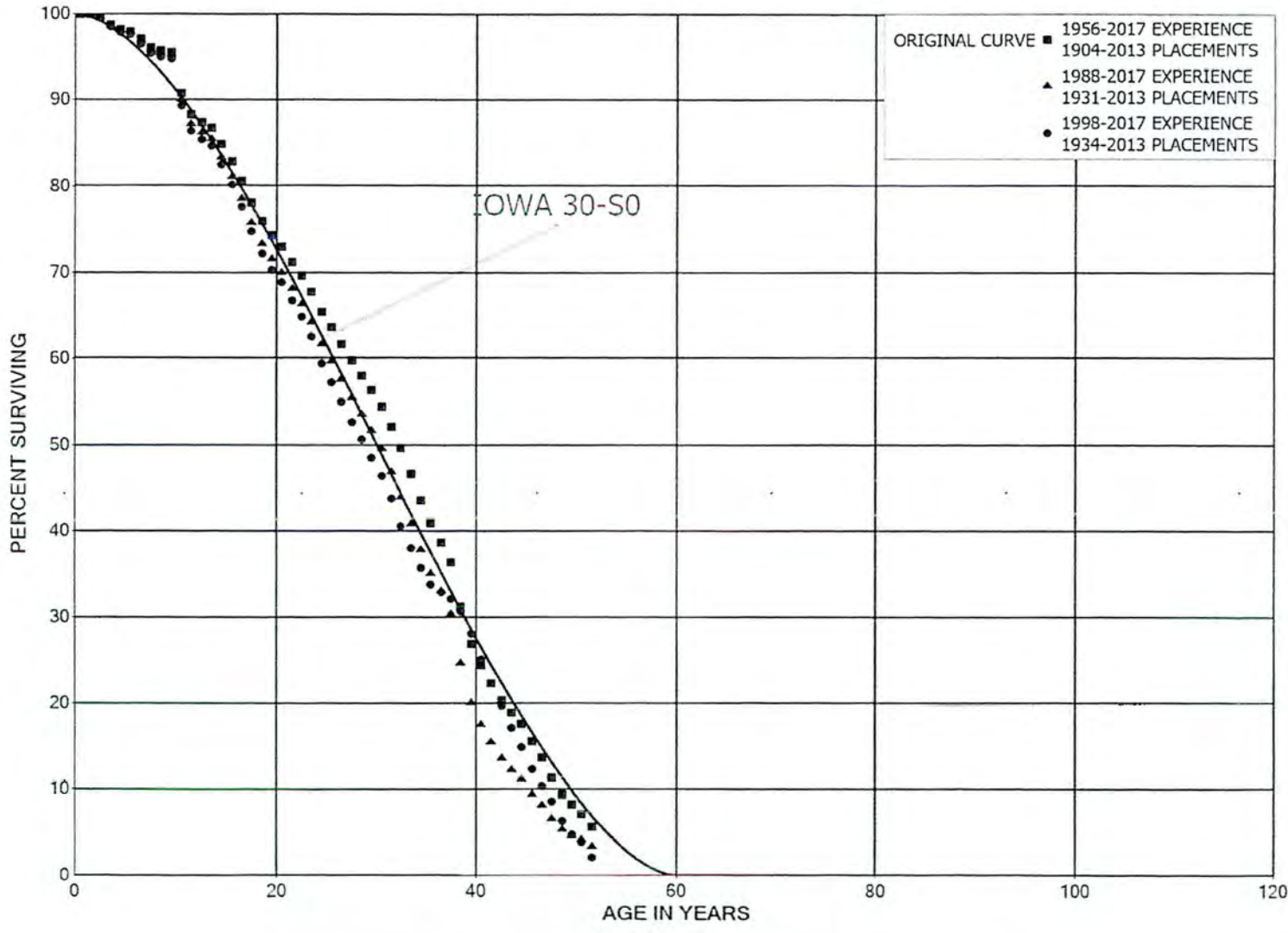
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1904-2017			EXPERIENCE BAND 1998-2017			
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	5,448	481	0.0883	0.9117	0.02	
80.5	5,012	1,100	0.2195	0.7805	0.01	
81.5	5,266	786	0.1493	0.8507	0.01	
82.5	4,480	705	0.1573	0.8427	0.01	
83.5	3,781	147	0.0388	0.9612	0.01	
84.5	3,698	1,011	0.2733	0.7267	0.01	
85.5	2,688	72	0.0269	0.9731	0.01	
86.5	2,949	768	0.2606	0.7394	0.01	
87.5	2,566	76	0.0297	0.9703	0.00	
88.5	2,713	39	0.0142	0.9858	0.00	
89.5	2,785	24	0.0085	0.9915	0.00	
90.5	2,761	180	0.0653	0.9347	0.00	
91.5	2,581		0.0000	1.0000	0.00	
92.5	2,990	11	0.0038	0.9962	0.00	
93.5	3,945	52	0.0131	0.9869	0.00	
94.5	3,893	1,217	0.3127	0.6873	0.00	
95.5	2,676	75	0.0279	0.9721	0.00	
96.5	2,601	42	0.0161	0.9839	0.00	
97.5	2,559	38	0.0150	0.9850	0.00	
98.5	2,521		0.0000	1.0000	0.00	
99.5	2,521	265	0.1053	0.8947	0.00	
100.5	2,255	354	0.1568	0.8432	0.00	
101.5	1,902	176	0.0923	0.9077	0.00	
102.5	1,726	191	0.1108	0.8892	0.00	
103.5	1,535	62	0.0407	0.9593	0.00	
104.5	1,472	65	0.0442	0.9558	0.00	
105.5	1,407	254	0.1805	0.8195	0.00	
106.5	1,153	510	0.4425	0.5575	0.00	
107.5	643	36	0.0563	0.9437	0.00	
108.5	607	192	0.3164	0.6836	0.00	
109.5	415	244	0.5894	0.4106	0.00	
110.5	170	32	0.1893	0.8107	0.00	
111.5	138	138	1.0000		0.00	
112.5						





DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2820 METER INSTALLATIONS  
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2820 METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1904-2013			EXPERIENCE BAND 1956-2017		
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	12,387,647		0.0000	1.0000	100.00
0.5	12,649,237	2,061	0.0002	0.9998	100.00
1.5	13,724,821	50,433	0.0037	0.9963	99.98
2.5	13,677,028	120,585	0.0088	0.9912	99.62
3.5	13,525,088	73,738	0.0055	0.9945	98.74
4.5	13,057,398	32,287	0.0025	0.9975	98.20
5.5	10,548,318	98,337	0.0093	0.9907	97.96
6.5	10,464,021	107,937	0.0103	0.9897	97.04
7.5	9,492,753	32,651	0.0034	0.9966	96.04
8.5	9,028,289	21,239	0.0024	0.9976	95.71
9.5	8,992,689	446,897	0.0497	0.9503	95.49
10.5	8,310,462	229,687	0.0276	0.9724	90.74
11.5	7,202,878	69,742	0.0097	0.9903	88.23
12.5	6,506,729	51,454	0.0079	0.9921	87.38
13.5	6,307,083	135,452	0.0215	0.9785	86.69
14.5	5,961,227	142,127	0.0238	0.9762	84.83
15.5	5,703,851	152,287	0.0267	0.9733	82.80
16.5	5,422,122	169,449	0.0313	0.9687	80.59
17.5	4,696,524	130,657	0.0278	0.9722	78.07
18.5	4,243,542	91,686	0.0216	0.9784	75.90
19.5	3,771,716	66,892	0.0177	0.9823	74.26
20.5	2,991,188	70,765	0.0237	0.9763	72.95
21.5	2,443,347	56,267	0.0230	0.9770	71.22
22.5	2,136,085	56,943	0.0267	0.9733	69.58
23.5	1,880,138	64,061	0.0341	0.9659	67.73
24.5	1,642,054	44,703	0.0272	0.9728	65.42
25.5	1,551,811	48,161	0.0310	0.9690	63.64
26.5	1,411,445	45,563	0.0323	0.9677	61.66
27.5	1,253,898	36,260	0.0289	0.9711	59.67
28.5	1,178,020	33,757	0.0287	0.9713	57.95
29.5	1,088,368	36,142	0.0332	0.9668	56.29
30.5	1,012,624	42,946	0.0424	0.9576	54.42
31.5	948,754	45,160	0.0476	0.9524	52.11
32.5	880,608	52,642	0.0598	0.9402	49.63
33.5	812,002	55,572	0.0684	0.9316	46.66
34.5	745,357	44,904	0.0602	0.9398	43.47
35.5	687,921	36,883	0.0536	0.9464	40.85
36.5	634,611	38,446	0.0606	0.9394	38.66
37.5	576,433	82,146	0.1425	0.8575	36.32
38.5	485,841	67,694	0.1393	0.8607	31.14

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2820 METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1904-2013			EXPERIENCE BAND 1956-2017			
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	421,678	38,427	0.0911	0.9089	26.80	
40.5	382,613	33,070	0.0864	0.9136	24.36	
41.5	349,571	31,194	0.0892	0.9108	22.25	
42.5	319,068	23,361	0.0732	0.9268	20.27	
43.5	295,038	19,951	0.0676	0.9324	18.78	
44.5	269,690	30,955	0.1148	0.8852	17.51	
45.5	236,997	28,288	0.1194	0.8806	15.50	
46.5	206,736	35,266	0.1706	0.8294	13.65	
47.5	168,664	30,110	0.1785	0.8215	11.32	
48.5	135,504	16,557	0.1222	0.8778	9.30	
49.5	119,535	16,501	0.1380	0.8620	8.17	
50.5	102,116	19,872	0.1946	0.8054	7.04	
51.5	84,892	10,175	0.1199	0.8801	5.67	
52.5	74,267	8,352	0.1125	0.8875	4.99	
53.5	65,678	5,022	0.0765	0.9235	4.43	
54.5	60,380	9,930	0.1645	0.8355	4.09	
55.5	50,395	2,899	0.0575	0.9425	3.42	
56.5	47,480	10,483	0.2208	0.7792	3.22	
57.5	36,945	3,032	0.0821	0.9179	2.51	
58.5	33,913	17,031	0.5022	0.4978	2.30	
59.5	16,882	944	0.0559	0.9441	1.15	
60.5	15,939	656	0.0412	0.9588	1.08	
61.5	15,282	2,184	0.1429	0.8571	1.04	
62.5	13,099	2,120	0.1618	0.8382	0.89	
63.5	10,979	918	0.0836	0.9164	0.75	
64.5	10,061	640	0.0637	0.9363	0.68	
65.5	9,421	995	0.1056	0.8944	0.64	
66.5	8,426	1,876	0.2227	0.7773	0.57	
67.5	6,550	1,201	0.1834	0.8166	0.44	
68.5	5,349	637	0.1191	0.8809	0.36	
69.5	4,711	2,101	0.4460	0.5540	0.32	
70.5	2,610	753	0.2884	0.7116	0.18	
71.5	1,857	56	0.0303	0.9697	0.13	
72.5	1,801	700	0.3888	0.6112	0.12	
73.5	1,101	1,051	0.9546	0.0454	0.07	
74.5	50	50	1.0000		0.00	
75.5						



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2820 METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1931-2013			EXPERIENCE BAND 1988-2017		
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	11,414,517		0.0000	1.0000	100.00
0.5	11,712,538	1,824	0.0002	0.9998	100.00
1.5	12,786,249	50,049	0.0039	0.9961	99.98
2.5	12,735,601	120,442	0.0095	0.9905	99.59
3.5	12,582,790	73,290	0.0058	0.9942	98.65
4.5	12,098,910	31,739	0.0026	0.9974	98.08
5.5	9,585,012	97,844	0.0102	0.9898	97.82
6.5	9,512,653	107,550	0.0113	0.9887	96.82
7.5	8,578,508	32,290	0.0038	0.9962	95.73
8.5	8,125,575	20,525	0.0025	0.9975	95.37
9.5	8,086,207	444,485	0.0550	0.9450	95.12
10.5	7,403,869	227,733	0.0308	0.9692	89.90
11.5	6,294,678	68,210	0.0108	0.9892	87.13
12.5	5,599,508	50,439	0.0090	0.9910	86.19
13.5	5,404,851	132,770	0.0246	0.9754	85.41
14.5	5,082,188	139,142	0.0274	0.9726	83.31
15.5	4,851,356	148,846	0.0307	0.9693	81.03
16.5	4,586,592	165,186	0.0360	0.9640	78.55
17.5	3,875,235	125,596	0.0324	0.9676	75.72
18.5	3,449,023	84,945	0.0246	0.9754	73.26
19.5	3,004,143	61,047	0.0203	0.9797	71.46
20.5	2,249,329	63,868	0.0284	0.9716	70.01
21.5	1,730,702	44,656	0.0258	0.9742	68.02
22.5	1,451,121	45,471	0.0313	0.9687	66.26
23.5	1,239,704	50,608	0.0408	0.9592	64.19
24.5	1,039,031	32,735	0.0315	0.9685	61.57
25.5	978,791	34,651	0.0354	0.9646	59.63
26.5	861,057	32,474	0.0377	0.9623	57.52
27.5	737,604	24,478	0.0332	0.9668	55.35
28.5	689,576	25,033	0.0363	0.9637	53.51
29.5	635,330	26,023	0.0410	0.9590	51.57
30.5	602,861	31,760	0.0527	0.9473	49.46
31.5	581,763	37,039	0.0637	0.9363	46.85
32.5	553,746	39,122	0.0706	0.9294	43.87
33.5	526,942	39,691	0.0753	0.9247	40.77
34.5	511,328	37,868	0.0741	0.9259	37.70
35.5	490,522	27,585	0.0562	0.9438	34.91
36.5	459,073	36,453	0.0794	0.9206	32.94
37.5	425,363	79,807	0.1876	0.8124	30.33
38.5	350,086	67,007	0.1914	0.8086	24.64

DUKE ENERGY KENTUCKY  
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ACCOUNT 2820 METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1931-2013			EXPERIENCE BAND 1988-2017			
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	298,305	37,550	0.1259	0.8741	19.92	
40.5	270,305	31,897	0.1180	0.8820	17.41	
41.5	245,626	29,915	0.1218	0.8782	15.36	
42.5	219,472	21,736	0.0990	0.9010	13.49	
43.5	199,151	18,691	0.0939	0.9061	12.15	
44.5	177,285	28,008	0.1580	0.8420	11.01	
45.5	150,542	19,903	0.1322	0.8678	9.27	
46.5	138,588	27,070	0.1953	0.8047	8.05	
47.5	112,830	20,939	0.1856	0.8144	6.47	
48.5	97,517	13,331	0.1367	0.8633	5.27	
49.5	90,663	10,242	0.1130	0.8870	4.55	
50.5	80,176	15,072	0.1880	0.8120	4.04	
51.5	64,046	4,723	0.0737	0.9263	3.28	
52.5	58,872	5,225	0.0888	0.9112	3.04	
53.5	53,797	1,683	0.0313	0.9687	2.77	
54.5	51,933	7,158	0.1378	0.8622	2.68	
55.5	44,890	2,180	0.0486	0.9514	2.31	
56.5	42,789	8,250	0.1928	0.8072	2.20	
57.5	34,487	1,570	0.0455	0.9545	1.78	
58.5	32,917	16,035	0.4871	0.5129	1.69	
59.5	16,882	944	0.0559	0.9441	0.87	
60.5	15,939	656	0.0412	0.9588	0.82	
61.5	15,282	2,184	0.1429	0.8571	0.79	
62.5	13,099	2,120	0.1618	0.8382	0.67	
63.5	10,979	918	0.0836	0.9164	0.57	
64.5	10,061	640	0.0637	0.9363	0.52	
65.5	9,421	995	0.1056	0.8944	0.48	
66.5	8,426	1,876	0.2227	0.7773	0.43	
67.5	6,550	1,201	0.1834	0.8166	0.34	
68.5	5,349	637	0.1191	0.8809	0.28	
69.5	4,711	2,101	0.4460	0.5540	0.24	
70.5	2,610	753	0.2884	0.7116	0.13	
71.5	1,857	56	0.0303	0.9697	0.10	
72.5	1,801	700	0.3888	0.6112	0.09	
73.5	1,101	1,051	0.9546	0.0454	0.06	
74.5	50	50	1.0000		0.00	
75.5						



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2820 METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1934-2013			EXPERIENCE BAND 1998-2017		
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	9,275,775		0.0000	1.0000	100.00
0.5	9,493,177	355	0.0000	1.0000	100.00
1.5	11,178,222	49,864	0.0045	0.9955	100.00
2.5	11,433,974	120,135	0.0105	0.9895	99.55
3.5	11,531,027	73,064	0.0063	0.9937	98.50
4.5	11,279,258	31,173	0.0028	0.9972	97.88
5.5	8,805,770	97,713	0.0111	0.9889	97.61
6.5	8,847,498	107,473	0.0121	0.9879	96.53
7.5	8,045,813	32,119	0.0040	0.9960	95.35
8.5	7,637,917	19,411	0.0025	0.9975	94.97
9.5	7,692,970	442,924	0.0576	0.9424	94.73
10.5	7,094,234	227,503	0.0321	0.9679	89.28
11.5	6,027,293	67,973	0.0113	0.9887	86.41
12.5	5,374,393	50,306	0.0094	0.9906	85.44
13.5	5,205,107	132,653	0.0255	0.9745	84.64
14.5	4,873,327	138,387	0.0284	0.9716	82.48
15.5	4,645,694	148,379	0.0319	0.9681	80.14
16.5	4,395,242	164,275	0.0374	0.9626	77.58
17.5	3,716,173	124,775	0.0336	0.9664	74.68
18.5	3,281,154	84,299	0.0257	0.9743	72.17
19.5	2,820,801	59,967	0.0213	0.9787	70.32
20.5	2,048,350	62,773	0.0306	0.9694	68.83
21.5	1,508,461	43,588	0.0289	0.9711	66.72
22.5	1,217,469	43,605	0.0358	0.9642	64.79
23.5	986,151	48,321	0.0490	0.9510	62.47
24.5	795,463	30,091	0.0378	0.9622	59.41
25.5	747,434	29,334	0.0392	0.9608	57.16
26.5	642,396	26,991	0.0420	0.9580	54.92
27.5	520,435	19,223	0.0369	0.9631	52.61
28.5	490,557	20,734	0.0423	0.9577	50.67
29.5	432,061	19,089	0.0442	0.9558	48.52
30.5	388,831	22,334	0.0574	0.9426	46.38
31.5	363,565	26,345	0.0725	0.9275	43.72
32.5	325,060	20,920	0.0644	0.9356	40.55
33.5	308,045	18,990	0.0616	0.9384	37.94
34.5	298,621	15,998	0.0536	0.9464	35.60
35.5	279,665	7,310	0.0261	0.9739	33.69
36.5	261,822	6,202	0.0237	0.9763	32.81
37.5	246,964	10,902	0.0441	0.9559	32.04
38.5	233,536	19,476	0.0834	0.9166	30.62



DUKE ENERGY KENTUCKY  
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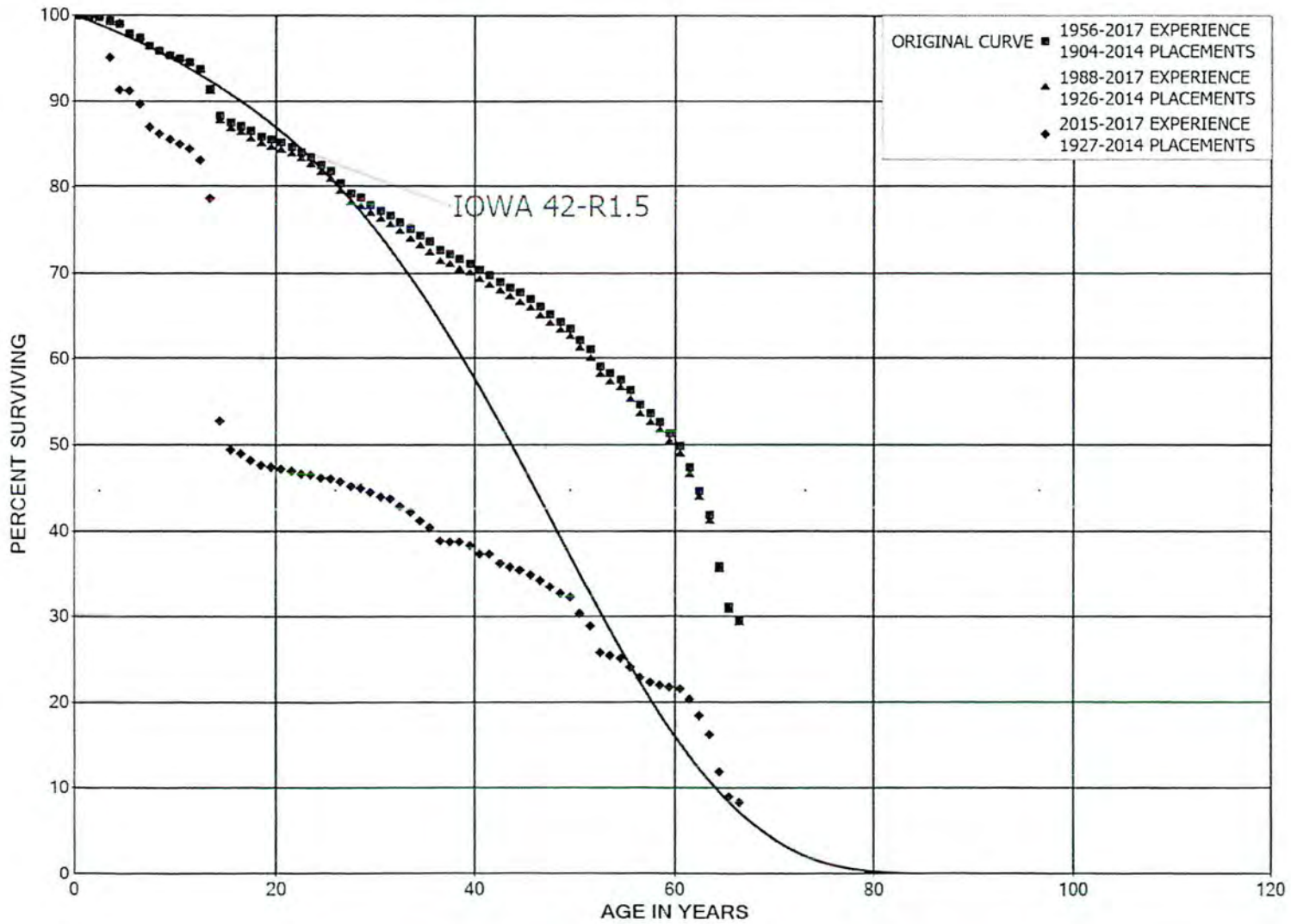
ACCOUNT 2820 METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1934-2013			EXPERIENCE BAND 1998-2017			
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	216,127	23,243	0.1075	0.8925	28.07	
40.5	195,330	21,481	0.1100	0.8900	25.05	
41.5	178,154	21,781	0.1223	0.8777	22.29	
42.5	156,363	20,034	0.1281	0.8719	19.57	
43.5	136,131	17,636	0.1295	0.8705	17.06	
44.5	112,953	19,751	0.1749	0.8251	14.85	
45.5	87,763	13,887	0.1582	0.8418	12.25	
46.5	70,159	12,068	0.1720	0.8280	10.32	
47.5	57,077	14,882	0.2607	0.7393	8.54	
48.5	41,771	10,512	0.2517	0.7483	6.31	
49.5	36,806	7,341	0.1994	0.8006	4.72	
50.5	28,618	12,834	0.4485	0.5515	3.78	
51.5	14,952	3,934	0.2631	0.7369	2.09	
52.5	11,994	1,002	0.0835	0.9165	1.54	
53.5	12,678	1,112	0.0877	0.9123	1.41	
54.5	12,114	45	0.0037	0.9963	1.29	
55.5	12,896	321	0.0249	0.9751	1.28	
56.5	22,271	7,748	0.3479	0.6521	1.25	
57.5	19,058	1,556	0.0816	0.9184	0.81	
58.5	26,449	12,607	0.4766	0.5234	0.75	
59.5	15,569	944	0.0606	0.9394	0.39	
60.5	15,708	656	0.0418	0.9582	0.37	
61.5	15,052	2,184	0.1451	0.8549	0.35	
62.5	12,868	2,120	0.1647	0.8353	0.30	
63.5	10,979	918	0.0836	0.9164	0.25	
64.5	10,061	640	0.0637	0.9363	0.23	
65.5	9,421	995	0.1056	0.8944	0.22	
66.5	8,426	1,876	0.2227	0.7773	0.19	
67.5	6,550	1,201	0.1834	0.8166	0.15	
68.5	5,349	637	0.1191	0.8809	0.12	
69.5	4,711	2,101	0.4460	0.5540	0.11	
70.5	2,610	753	0.2884	0.7116	0.06	
71.5	1,857	56	0.0303	0.9697	0.04	
72.5	1,801	700	0.3888	0.6112	0.04	
73.5	1,101	1,051	0.9546	0.0454	0.03	
74.5	50	50	1.0000		0.00	
75.5						



DUKE ENERGY KENTUCKY  
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ACCOUNT 2830 HOUSE REGULATORS  
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY  
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ACCOUNT 2830 HOUSE REGULATORS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1904-2014			EXPERIENCE BAND 1956-2017			
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	7,418,131	1,298	0.0002	0.9998	100.00	
0.5	7,461,914	10,328	0.0014	0.9986	99.98	
1.5	7,347,595	6,447	0.0009	0.9991	99.84	
2.5	7,345,675	34,939	0.0048	0.9952	99.76	
3.5	7,210,615	23,922	0.0033	0.9967	99.28	
4.5	6,946,067	78,798	0.0113	0.9887	98.95	
5.5	6,701,077	31,808	0.0047	0.9953	97.83	
6.5	6,677,957	70,159	0.0105	0.9895	97.37	
7.5	5,806,911	30,629	0.0053	0.9947	96.34	
8.5	5,133,395	27,196	0.0053	0.9947	95.83	
9.5	4,668,157	15,800	0.0034	0.9966	95.33	
10.5	4,120,853	20,740	0.0050	0.9950	95.00	
11.5	3,715,471	31,643	0.0085	0.9915	94.53	
12.5	3,155,751	79,375	0.0252	0.9748	93.72	
13.5	1,957,233	64,998	0.0332	0.9668	91.36	
14.5	1,891,878	16,848	0.0089	0.9911	88.33	
15.5	1,766,930	8,613	0.0049	0.9951	87.54	
16.5	1,757,867	13,091	0.0074	0.9926	87.12	
17.5	1,745,703	12,108	0.0069	0.9931	86.47	
18.5	1,532,498	6,989	0.0046	0.9954	85.87	
19.5	1,353,671	5,556	0.0041	0.9959	85.48	
20.5	1,264,167	7,471	0.0059	0.9941	85.13	
21.5	1,207,234	9,018	0.0075	0.9925	84.62	
22.5	1,102,748	7,444	0.0068	0.9932	83.99	
23.5	992,217	10,887	0.0110	0.9890	83.42	
24.5	931,247	7,961	0.0085	0.9915	82.51	
25.5	886,358	14,767	0.0167	0.9833	81.80	
26.5	808,338	13,021	0.0161	0.9839	80.44	
27.5	714,928	4,080	0.0057	0.9943	79.14	
28.5	599,549	6,132	0.0102	0.9898	78.69	
29.5	541,247	4,812	0.0089	0.9911	77.89	
30.5	494,537	3,924	0.0079	0.9921	77.20	
31.5	448,801	4,108	0.0092	0.9908	76.58	
32.5	433,349	4,709	0.0109	0.9891	75.88	
33.5	419,975	4,197	0.0100	0.9900	75.06	
34.5	400,513	3,848	0.0096	0.9904	74.31	
35.5	391,136	5,459	0.0140	0.9860	73.59	
36.5	369,695	1,777	0.0048	0.9952	72.57	
37.5	301,219	2,669	0.0089	0.9911	72.22	
38.5	276,613	1,857	0.0067	0.9933	71.58	



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2830 HOUSE REGULATORS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1904-2014			EXPERIENCE BAND 1956-2017			
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	270,996	2,542	0.0094	0.9906	71.10	
40.5	267,854	2,617	0.0098	0.9902	70.43	
41.5	264,291	2,976	0.0113	0.9887	69.74	
42.5	260,187	2,512	0.0097	0.9903	68.96	
43.5	249,141	2,257	0.0091	0.9909	68.29	
44.5	240,319	2,510	0.0104	0.9896	67.67	
45.5	225,787	3,035	0.0134	0.9866	66.96	
46.5	203,308	2,859	0.0141	0.9859	66.06	
47.5	182,864	2,364	0.0129	0.9871	65.14	
48.5	164,015	1,930	0.0118	0.9882	64.29	
49.5	154,941	3,230	0.0208	0.9792	63.54	
50.5	143,295	2,761	0.0193	0.9807	62.21	
51.5	129,332	4,052	0.0313	0.9687	61.01	
52.5	119,688	1,715	0.0143	0.9857	59.10	
53.5	108,904	1,463	0.0134	0.9866	58.26	
54.5	98,601	2,130	0.0216	0.9784	57.47	
55.5	88,055	2,521	0.0286	0.9714	56.23	
56.5	80,691	1,494	0.0185	0.9815	54.62	
57.5	74,846	1,320	0.0176	0.9824	53.61	
58.5	67,868	1,726	0.0254	0.9746	52.67	
59.5	59,288	1,702	0.0287	0.9713	51.33	
60.5	55,234	2,663	0.0482	0.9518	49.85	
61.5	47,848	2,806	0.0586	0.9414	47.45	
62.5	40,384	2,597	0.0643	0.9357	44.67	
63.5	34,996	4,967	0.1419	0.8581	41.79	
64.5	26,948	3,630	0.1347	0.8653	35.86	
65.5	20,212	971	0.0480	0.9520	31.03	
66.5	15,495	751	0.0485	0.9515	29.54	
67.5	12,834	129	0.0101	0.9899	28.11	
68.5	9,760	116	0.0118	0.9882	27.82	
69.5	7,788	103	0.0132	0.9868	27.49	
70.5	7,261	187	0.0258	0.9742	27.13	
71.5	6,711	114	0.0170	0.9830	26.43	
72.5	6,593	123	0.0187	0.9813	25.98	
73.5	6,470	96	0.0148	0.9852	25.50	
74.5	6,374	173	0.0271	0.9729	25.12	
75.5	5,980	66	0.0110	0.9890	24.44	
76.5	5,584	33	0.0059	0.9941	24.17	
77.5	5,455	15	0.0027	0.9973	24.03	
78.5	5,220	23	0.0045	0.9955	23.96	

DUKE ENERGY KENTUCKY  
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ACCOUNT 2830 HOUSE REGULATORS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1904-2014			EXPERIENCE BAND 1956-2017			
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	4,860	51	0.0104	0.9896	23.85	
80.5	4,612	457	0.0990	0.9010	23.60	
81.5	4,047	450	0.1111	0.8889	21.27	
82.5	3,591	411	0.1146	0.8854	18.90	
83.5	3,179	385	0.1211	0.8789	16.74	
84.5	2,794	493	0.1764	0.8236	14.71	
85.5	2,293	520	0.2267	0.7733	12.12	
86.5	1,774	55	0.0312	0.9688	9.37	
87.5	1,641		0.0000	1.0000	9.08	
88.5	3	3	1.0000		9.08	
89.5						

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2830 HOUSE REGULATORS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1926-2014			EXPERIENCE BAND 1988-2017			
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	6,850,060	1,188	0.0002	0.9998	100.00	
0.5	6,933,045	4,990	0.0007	0.9993	99.98	
1.5	6,872,643	4,835	0.0007	0.9993	99.91	
2.5	6,879,391	33,720	0.0049	0.9951	99.84	
3.5	6,748,830	23,046	0.0034	0.9966	99.35	
4.5	6,490,682	76,469	0.0118	0.9882	99.01	
5.5	6,246,085	29,019	0.0046	0.9954	97.85	
6.5	6,237,647	69,423	0.0111	0.9889	97.39	
7.5	5,446,447	27,170	0.0050	0.9950	96.31	
8.5	4,802,492	24,443	0.0051	0.9949	95.83	
9.5	4,344,241	15,267	0.0035	0.9965	95.34	
10.5	3,798,195	19,948	0.0053	0.9947	95.00	
11.5	3,395,080	30,537	0.0090	0.9910	94.50	
12.5	2,838,663	78,563	0.0277	0.9723	93.65	
13.5	1,649,884	63,225	0.0383	0.9617	91.06	
14.5	1,594,677	15,946	0.0100	0.9900	87.57	
15.5	1,485,508	7,572	0.0051	0.9949	86.70	
16.5	1,501,432	12,264	0.0082	0.9918	86.26	
17.5	1,513,431	11,460	0.0076	0.9924	85.55	
18.5	1,322,352	6,222	0.0047	0.9953	84.90	
19.5	1,155,147	4,553	0.0039	0.9961	84.50	
20.5	1,072,447	5,874	0.0055	0.9945	84.17	
21.5	1,025,489	7,095	0.0069	0.9931	83.71	
22.5	931,885	6,709	0.0072	0.9928	83.13	
23.5	858,511	9,823	0.0114	0.9886	82.53	
24.5	810,935	7,193	0.0089	0.9911	81.59	
25.5	778,498	14,374	0.0185	0.9815	80.86	
26.5	703,015	11,812	0.0168	0.9832	79.37	
27.5	617,741	3,242	0.0052	0.9948	78.04	
28.5	510,985	4,998	0.0098	0.9902	77.63	
29.5	463,535	4,330	0.0093	0.9907	76.87	
30.5	420,786	3,601	0.0086	0.9914	76.15	
31.5	382,773	3,868	0.0101	0.9899	75.50	
32.5	374,194	4,366	0.0117	0.9883	74.74	
33.5	366,058	3,894	0.0106	0.9894	73.86	
34.5	352,870	3,646	0.0103	0.9897	73.08	
35.5	349,399	5,141	0.0147	0.9853	72.32	
36.5	340,048	1,560	0.0046	0.9954	71.26	
37.5	279,479	2,300	0.0082	0.9918	70.93	
38.5	260,904	1,690	0.0065	0.9935	70.35	



DUKE ENERGY KENTUCKY  
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ACCOUNT 2830 HOUSE REGULATORS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1926-2014			EXPERIENCE BAND 1988-2017			
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	259,388	2,480	0.0096	0.9904	69.89	
40.5	257,583	2,543	0.0099	0.9901	69.22	
41.5	254,966	2,769	0.0109	0.9891	68.54	
42.5	251,058	2,341	0.0093	0.9907	67.80	
43.5	240,162	2,226	0.0093	0.9907	67.16	
44.5	231,453	2,407	0.0104	0.9896	66.54	
45.5	217,473	2,776	0.0128	0.9872	65.85	
46.5	195,790	2,806	0.0143	0.9857	65.01	
47.5	175,654	2,318	0.0132	0.9868	64.08	
48.5	157,208	1,881	0.0120	0.9880	63.23	
49.5	148,407	3,139	0.0212	0.9788	62.48	
50.5	137,109	2,640	0.0193	0.9807	61.15	
51.5	123,058	3,964	0.0322	0.9678	59.98	
52.5	113,538	1,608	0.0142	0.9858	58.04	
53.5	102,860	1,387	0.0135	0.9865	57.22	
54.5	92,633	2,040	0.0220	0.9780	56.45	
55.5	82,191	2,469	0.0300	0.9700	55.21	
56.5	75,114	1,422	0.0189	0.9811	53.55	
57.5	69,595	1,259	0.0181	0.9819	52.54	
58.5	67,154	1,726	0.0257	0.9743	51.58	
59.5	58,573	1,668	0.0285	0.9715	50.26	
60.5	54,557	2,584	0.0474	0.9526	48.83	
61.5	47,271	2,718	0.0575	0.9425	46.52	
62.5	39,894	2,549	0.0639	0.9361	43.84	
63.5	34,554	4,796	0.1388	0.8612	41.04	
64.5	26,677	3,568	0.1337	0.8663	35.34	
65.5	20,003	971	0.0485	0.9515	30.62	
66.5	15,286	682	0.0446	0.9554	29.13	
67.5	12,695	129	0.0102	0.9898	27.83	
68.5	9,621	116	0.0120	0.9880	27.55	
69.5	7,649	70	0.0092	0.9908	27.21	
70.5	7,155	80	0.0112	0.9888	26.96	
71.5	6,711	114	0.0170	0.9830	26.66	
72.5	6,593	123	0.0187	0.9813	26.21	
73.5	6,470	96	0.0148	0.9852	25.72	
74.5	6,374	173	0.0271	0.9729	25.34	
75.5	5,980	66	0.0110	0.9890	24.65	
76.5	5,584	33	0.0059	0.9941	24.38	
77.5	5,455	15	0.0027	0.9973	24.23	
78.5	5,220	23	0.0045	0.9955	24.17	

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2830 HOUSE REGULATORS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1926-2014			EXPERIENCE BAND 1988-2017			
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	4,860	51	0.0104	0.9896	24.06	
80.5	4,612	457	0.0990	0.9010	23.81	
81.5	4,047	450	0.1111	0.8889	21.45	
82.5	3,591	411	0.1146	0.8854	19.07	
83.5	3,179	385	0.1211	0.8789	16.88	
84.5	2,794	493	0.1764	0.8236	14.84	
85.5	2,293	520	0.2267	0.7733	12.22	
86.5	1,774	55	0.0312	0.9688	9.45	
87.5	1,641		0.0000	1.0000	9.16	
88.5	3	3	1.0000		9.16	
89.5						

DUKE ENERGY KENTUCKY  
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ACCOUNT 2830 HOUSE REGULATORS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1927-2014			EXPERIENCE BAND 2015-2017		
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	107,311		0.0000	1.0000	100.00
1.5	388,557		0.0000	1.0000	100.00
2.5	584,008	28,737	0.0492	0.9508	100.00
3.5	447,960	17,845	0.0398	0.9602	95.08
4.5	815,562	1,442	0.0018	0.9982	91.29
5.5	1,282,821	20,759	0.0162	0.9838	91.13
6.5	1,959,667	59,841	0.0305	0.9695	89.66
7.5	1,886,013	15,856	0.0084	0.9916	86.92
8.5	1,622,005	13,050	0.0080	0.9920	86.19
9.5	1,469,167	9,069	0.0062	0.9938	85.49
10.5	2,075,900	14,465	0.0070	0.9930	84.97
11.5	1,675,719	26,769	0.0160	0.9840	84.37
12.5	1,364,591	72,296	0.0530	0.9470	83.03
13.5	171,279	56,451	0.3296	0.6704	78.63
14.5	114,828	7,244	0.0631	0.9369	52.71
15.5	206,622	1,661	0.0080	0.9920	49.39
16.5	382,470	6,081	0.0159	0.9841	48.99
17.5	470,125	5,500	0.0117	0.9883	48.21
18.5	322,558	1,990	0.0062	0.9938	47.65
19.5	245,320	870	0.0035	0.9965	47.35
20.5	260,711	1,168	0.0045	0.9955	47.19
21.5	252,437	1,849	0.0073	0.9927	46.97
22.5	193,597	596	0.0031	0.9969	46.63
23.5	158,179	964	0.0061	0.9939	46.49
24.5	188,340	355	0.0019	0.9981	46.20
25.5	266,222	2,144	0.0081	0.9919	46.12
26.5	247,544	3,345	0.0135	0.9865	45.74
27.5	206,785	753	0.0036	0.9964	45.13
28.5	138,404	1,288	0.0093	0.9907	44.96
29.5	97,167	1,380	0.0142	0.9858	44.54
30.5	62,890	303	0.0048	0.9952	43.91
31.5	36,536	739	0.0202	0.9798	43.70
32.5	29,977	461	0.0154	0.9846	42.82
33.5	38,877	877	0.0226	0.9774	42.16
34.5	93,491	1,850	0.0198	0.9802	41.21
35.5	109,164	4,149	0.0380	0.9620	40.39
36.5	92,826	300	0.0032	0.9968	38.86
37.5	26,528		0.0000	1.0000	38.73
38.5	5,441	68	0.0125	0.9875	38.73



DUKE ENERGY KENTUCKY  
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ACCOUNT 2830 HOUSE REGULATORS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2014			EXPERIENCE BAND 2015-2017			
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	2,871	68	0.0238	0.9762	38.24	
40.5	10,941	17	0.0016	0.9984	37.33	
41.5	17,064	519	0.0304	0.9696	37.27	
42.5	27,724	315	0.0114	0.9886	36.14	
43.5	38,806	393	0.0101	0.9899	35.73	
44.5	50,484	789	0.0156	0.9844	35.37	
45.5	55,264	1,015	0.0184	0.9816	34.82	
46.5	43,165	1,042	0.0241	0.9759	34.18	
47.5	33,487	711	0.0212	0.9788	33.35	
48.5	29,634	455	0.0154	0.9846	32.64	
49.5	28,734	1,700	0.0592	0.9408	32.14	
50.5	30,405	1,402	0.0461	0.9539	30.24	
51.5	26,616	2,834	0.1065	0.8935	28.85	
52.5	26,872	386	0.0143	0.9857	25.77	
53.5	22,923	314	0.0137	0.9863	25.40	
54.5	18,943	769	0.0406	0.9594	25.06	
55.5	15,842	768	0.0485	0.9515	24.04	
56.5	17,559	462	0.0263	0.9737	22.87	
57.5	15,160	233	0.0154	0.9846	22.27	
58.5	14,166	109	0.0077	0.9923	21.93	
59.5	12,136	128	0.0105	0.9895	21.76	
60.5	13,152	732	0.0557	0.9443	21.53	
61.5	11,888	1,153	0.0970	0.9030	20.33	
62.5	10,278	1,197	0.1165	0.8835	18.36	
63.5	14,651	4,011	0.2738	0.7262	16.22	
64.5	12,964	3,142	0.2423	0.7577	11.78	
65.5	10,235	722	0.0706	0.9294	8.93	
66.5	7,624	589	0.0772	0.9228	8.30	
67.5	5,344	64	0.0119	0.9881	7.66	
68.5	2,698	55	0.0203	0.9797	7.56	
69.5	791		0.0000	1.0000	7.41	
70.5	367		0.0000	1.0000	7.41	
71.5	15		0.0000	1.0000	7.41	
72.5	232	11	0.0468	0.9532	7.41	
73.5	551		0.0000	1.0000	7.06	
74.5	647		0.0000	1.0000	7.06	
75.5	647		0.0000	1.0000	7.06	
76.5	653		0.0000	1.0000	7.06	
77.5	754		0.0000	1.0000	7.06	
78.5	642		0.0000	1.0000	7.06	

DUKE ENERGY KENTUCKY  
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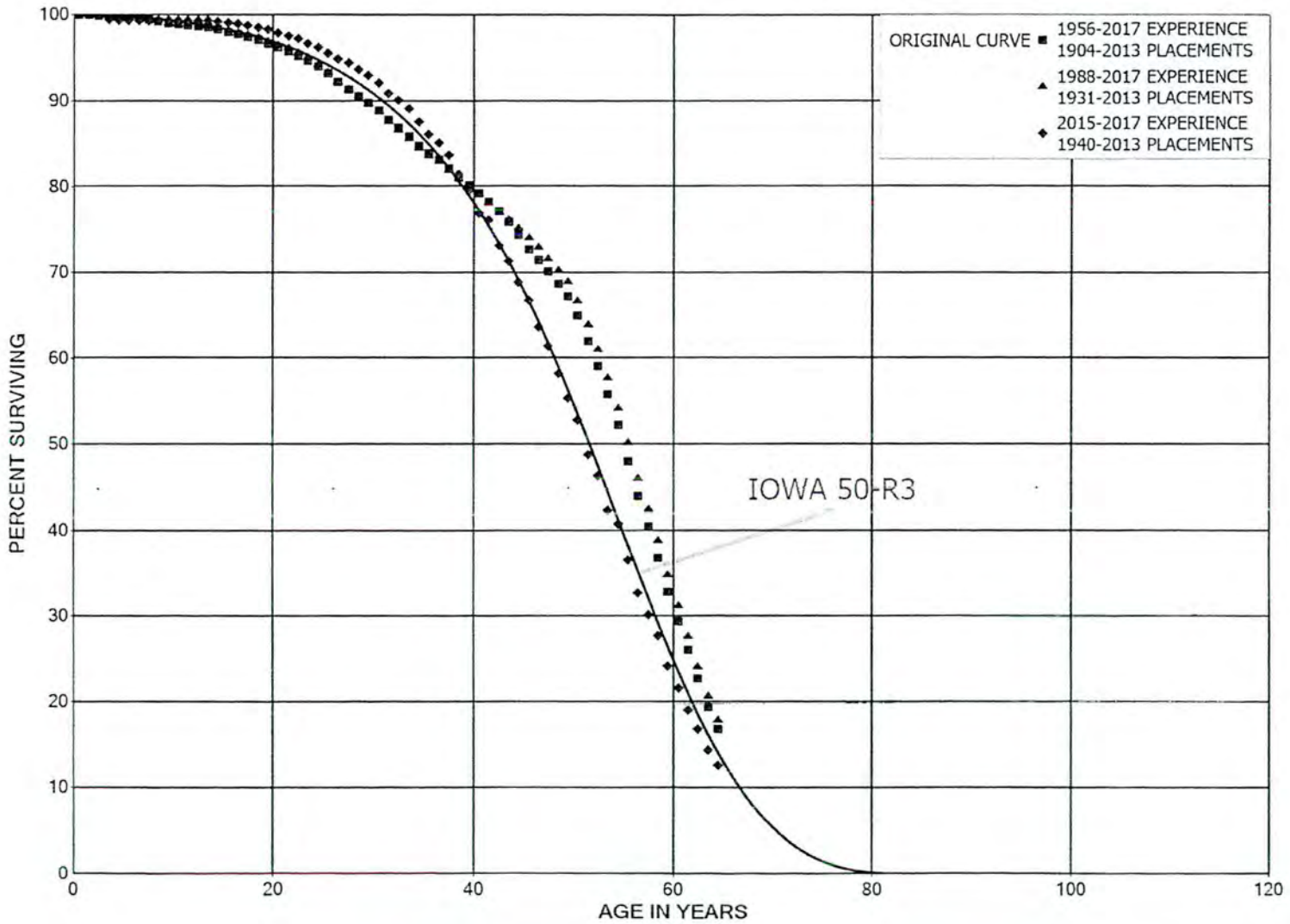
ACCOUNT 2830 HOUSE REGULATORS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1927-2014			EXPERIENCE BAND 2015-2017		
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	328		0.0000	1.0000	7.06
80.5	131	16	0.1217	0.8783	7.06
81.5	6		0.0000	1.0000	6.20
82.5	8		0.0000	1.0000	6.20
83.5	166		0.0000	1.0000	6.20
84.5	251	158	0.6302	0.3698	6.20
85.5	2,290	520	0.2270	0.7730	2.29
86.5	1,770	55	0.0313	0.9687	1.77
87.5	1,641		0.0000	1.0000	1.72
88.5	3	3	1.0000		1.72
89.5					



DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2840 HOUSE REGULATOR INSTALLATIONS  
ORIGINAL AND SMOOTH SURVIVOR CURVES





DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2840 HOUSE REGULATOR INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1904-2013			EXPERIENCE BAND 1956-2017			
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	5,909,566	8	0.0000	1.0000	100.00	
0.5	5,917,379	4,736	0.0008	0.9992	100.00	
1.5	6,018,679	6,389	0.0011	0.9989	99.92	
2.5	6,018,794	5,847	0.0010	0.9990	99.81	
3.5	6,019,323	4,340	0.0007	0.9993	99.72	
4.5	5,977,101	2,972	0.0005	0.9995	99.64	
5.5	5,979,784	7,938	0.0013	0.9987	99.60	
6.5	5,976,637	6,593	0.0011	0.9989	99.46	
7.5	5,247,073	8,596	0.0016	0.9984	99.35	
8.5	4,828,182	12,965	0.0027	0.9973	99.19	
9.5	5,044,602	5,618	0.0011	0.9989	98.92	
10.5	4,323,201	3,377	0.0008	0.9992	98.81	
11.5	4,034,470	3,322	0.0008	0.9992	98.74	
12.5	3,263,809	3,653	0.0011	0.9989	98.66	
13.5	1,811,818	4,213	0.0023	0.9977	98.55	
14.5	1,808,027	6,321	0.0035	0.9965	98.32	
15.5	1,575,088	4,208	0.0027	0.9973	97.97	
16.5	1,490,574	4,871	0.0033	0.9967	97.71	
17.5	1,354,643	4,693	0.0035	0.9965	97.39	
18.5	1,132,620	4,912	0.0043	0.9957	97.05	
19.5	1,012,464	4,578	0.0045	0.9955	96.63	
20.5	918,173	4,057	0.0044	0.9956	96.20	
21.5	845,460	5,038	0.0060	0.9940	95.77	
22.5	723,577	4,141	0.0057	0.9943	95.20	
23.5	599,660	4,532	0.0076	0.9924	94.66	
24.5	544,392	4,507	0.0083	0.9917	93.94	
25.5	453,939	4,816	0.0106	0.9894	93.16	
26.5	417,143	3,868	0.0093	0.9907	92.17	
27.5	372,179	3,277	0.0088	0.9912	91.32	
28.5	277,024	2,586	0.0093	0.9907	90.52	
29.5	244,882	2,358	0.0096	0.9904	89.67	
30.5	211,476	2,569	0.0122	0.9878	88.81	
31.5	194,793	2,063	0.0106	0.9894	87.73	
32.5	190,684	2,213	0.0116	0.9884	86.80	
33.5	183,678	2,269	0.0124	0.9876	85.79	
34.5	178,833	1,999	0.0112	0.9888	84.73	
35.5	175,828	1,537	0.0087	0.9913	83.78	
36.5	169,589	1,973	0.0116	0.9884	83.05	
37.5	154,617	2,009	0.0130	0.9870	82.09	
38.5	146,959	1,603	0.0109	0.9891	81.02	

DUKE ENERGY KENTUCKY  
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ACCOUNT 2840 HOUSE REGULATOR INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1904-2013			EXPERIENCE BAND 1956-2017			
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	145,963	1,805	0.0124	0.9876	80.14	
40.5	144,134	1,773	0.0123	0.9877	79.14	
41.5	142,327	2,048	0.0144	0.9856	78.17	
42.5	139,760	2,158	0.0154	0.9846	77.05	
43.5	137,620	2,893	0.0210	0.9790	75.86	
44.5	131,858	2,853	0.0216	0.9784	74.26	
45.5	126,246	2,273	0.0180	0.9820	72.65	
46.5	120,113	2,238	0.0186	0.9814	71.35	
47.5	116,071	2,375	0.0205	0.9795	70.02	
48.5	110,662	2,324	0.0210	0.9790	68.58	
49.5	107,005	3,508	0.0328	0.9672	67.14	
50.5	101,335	4,696	0.0463	0.9537	64.94	
51.5	94,777	4,365	0.0461	0.9539	61.93	
52.5	89,525	5,101	0.0570	0.9430	59.08	
53.5	82,181	5,234	0.0637	0.9363	55.71	
54.5	75,595	6,025	0.0797	0.9203	52.17	
55.5	64,884	5,501	0.0848	0.9152	48.01	
56.5	58,566	4,664	0.0796	0.9204	43.94	
57.5	52,212	4,752	0.0910	0.9090	40.44	
58.5	40,805	4,423	0.1084	0.8916	36.76	
59.5	30,684	3,236	0.1055	0.8945	32.77	
60.5	25,998	2,988	0.1149	0.8851	29.32	
61.5	21,155	2,753	0.1302	0.8698	25.95	
62.5	16,594	2,403	0.1448	0.8552	22.57	
63.5	12,529	1,707	0.1362	0.8638	19.30	
64.5	9,696	1,412	0.1457	0.8543	16.67	
65.5	6,903	938	0.1359	0.8641	14.24	
66.5	5,243	792	0.1510	0.8490	12.31	
67.5	3,930	584	0.1486	0.8514	10.45	
68.5	2,926	383	0.1308	0.8692	8.90	
69.5	2,296	399	0.1736	0.8264	7.73	
70.5	1,657	468	0.2824	0.7176	6.39	
71.5	1,091	432	0.3957	0.6043	4.59	
72.5	659	323	0.4898	0.5102	2.77	
73.5	336	207	0.6168	0.3832	1.41	
74.5	129	108	0.8381	0.1619	0.54	
75.5	21	21	1.0000		0.09	
76.5						



DUKE ENERGY KENTUCKY  
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ACCOUNT 2840 HOUSE REGULATOR INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1931-2013			EXPERIENCE BAND 1988-2017		
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	5,681,498	8	0.0000	1.0000	100.00
0.5	5,719,632	4,201	0.0007	0.9993	100.00
1.5	5,830,594	5,011	0.0009	0.9991	99.93
2.5	5,829,301	4,950	0.0008	0.9992	99.84
3.5	5,831,114	3,300	0.0006	0.9994	99.76
4.5	5,787,019	2,778	0.0005	0.9995	99.70
5.5	5,786,005	7,762	0.0013	0.9987	99.65
6.5	5,784,210	6,497	0.0011	0.9989	99.52
7.5	5,066,860	8,433	0.0017	0.9983	99.41
8.5	4,652,071	12,852	0.0028	0.9972	99.24
9.5	4,867,048	5,148	0.0011	0.9989	98.97
10.5	4,146,112	3,243	0.0008	0.9992	98.86
11.5	3,857,465	2,861	0.0007	0.9993	98.78
12.5	3,088,839	2,854	0.0009	0.9991	98.71
13.5	1,637,193	3,206	0.0020	0.9980	98.62
14.5	1,638,408	4,814	0.0029	0.9971	98.43
15.5	1,411,991	3,651	0.0026	0.9974	98.14
16.5	1,333,813	3,980	0.0030	0.9970	97.88
17.5	1,201,335	4,083	0.0034	0.9966	97.59
18.5	984,569	3,762	0.0038	0.9962	97.26
19.5	867,853	3,933	0.0045	0.9955	96.89
20.5	778,270	3,388	0.0044	0.9956	96.45
21.5	710,450	4,045	0.0057	0.9943	96.03
22.5	591,482	3,637	0.0061	0.9939	95.48
23.5	476,511	3,634	0.0076	0.9924	94.90
24.5	425,585	3,773	0.0089	0.9911	94.17
25.5	346,187	4,187	0.0121	0.9879	93.34
26.5	311,123	3,011	0.0097	0.9903	92.21
27.5	270,470	2,559	0.0095	0.9905	91.32
28.5	193,636	1,861	0.0096	0.9904	90.45
29.5	178,201	1,722	0.0097	0.9903	89.58
30.5	150,302	1,967	0.0131	0.9869	88.72
31.5	140,589	1,660	0.0118	0.9882	87.56
32.5	143,344	1,696	0.0118	0.9882	86.52
33.5	144,171	1,775	0.0123	0.9877	85.50
34.5	144,583	1,637	0.0113	0.9887	84.45
35.5	147,821	1,231	0.0083	0.9917	83.49
36.5	146,580	1,705	0.0116	0.9884	82.79
37.5	135,654	1,472	0.0108	0.9892	81.83
38.5	131,912	1,403	0.0106	0.9894	80.94



DUKE ENERGY KENTUCKY  
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ACCOUNT 2840 HOUSE REGULATOR INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1931-2013			EXPERIENCE BAND 1988-2017		
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	133,359	1,697	0.0127	0.9873	80.08
40.5	134,219	1,643	0.0122	0.9878	79.06
41.5	134,011	1,919	0.0143	0.9857	78.09
42.5	131,372	1,547	0.0118	0.9882	76.98
43.5	129,623	1,695	0.0131	0.9869	76.07
44.5	124,857	1,862	0.0149	0.9851	75.08
45.5	120,357	1,855	0.0154	0.9846	73.96
46.5	114,768	2,014	0.0176	0.9824	72.82
47.5	111,176	2,110	0.0190	0.9810	71.54
48.5	106,395	2,085	0.0196	0.9804	70.18
49.5	103,296	3,346	0.0324	0.9676	68.80
50.5	98,097	4,094	0.0417	0.9583	66.58
51.5	92,102	4,035	0.0438	0.9562	63.80
52.5	87,273	4,840	0.0555	0.9445	61.00
53.5	80,305	4,897	0.0610	0.9390	57.62
54.5	74,055	5,533	0.0747	0.9253	54.11
55.5	63,864	5,219	0.0817	0.9183	50.06
56.5	57,873	4,543	0.0785	0.9215	45.97
57.5	51,641	4,418	0.0855	0.9145	42.36
58.5	40,568	4,186	0.1032	0.8968	38.74
59.5	30,684	3,236	0.1055	0.8945	34.74
60.5	25,998	2,988	0.1149	0.8851	31.08
61.5	21,155	2,753	0.1302	0.8698	27.51
62.5	16,594	2,403	0.1448	0.8552	23.93
63.5	12,529	1,707	0.1362	0.8638	20.46
64.5	9,696	1,412	0.1457	0.8543	17.67
65.5	6,903	938	0.1359	0.8641	15.10
66.5	5,243	792	0.1510	0.8490	13.05
67.5	3,930	584	0.1486	0.8514	11.08
68.5	2,926	383	0.1308	0.8692	9.43
69.5	2,296	399	0.1736	0.8264	8.20
70.5	1,657	468	0.2824	0.7176	6.77
71.5	1,091	432	0.3957	0.6043	4.86
72.5	659	323	0.4898	0.5102	2.94
73.5	336	207	0.6168	0.3832	1.50
74.5	129	108	0.8381	0.1619	0.57
75.5	21	21	1.0000		0.09
76.5					

DUKE ENERGY KENTUCKY  
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ACCOUNT 2840 HOUSE REGULATOR INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1940-2013			EXPERIENCE BAND 2015-2017			
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	44,572	21	0.0005	0.9995	100.00	
2.5	44,551	261	0.0059	0.9941	99.95	
3.5	44,290	29	0.0007	0.9993	99.37	
4.5	740,125	3	0.0000	1.0000	99.30	
5.5	1,140,955		0.0000	1.0000	99.30	
6.5	1,140,955	3	0.0000	1.0000	99.30	
7.5	1,116,669	0	0.0000	1.0000	99.30	
8.5	1,001,310		0.0000	1.0000	99.30	
9.5	1,541,000		0.0000	1.0000	99.30	
10.5	2,274,252		0.0000	1.0000	99.30	
11.5	1,988,779		0.0000	1.0000	99.30	
12.5	1,676,348	127	0.0001	0.9999	99.30	
13.5	308,456	224	0.0007	0.9993	99.29	
14.5	440,947	577	0.0013	0.9987	99.22	
15.5	431,943	627	0.0015	0.9985	99.09	
16.5	467,180	951	0.0020	0.9980	98.95	
17.5	425,127	820	0.0019	0.9981	98.75	
18.5	276,057	877	0.0032	0.9968	98.56	
19.5	277,704	1,102	0.0040	0.9960	98.24	
20.5	308,120	1,118	0.0036	0.9964	97.85	
21.5	289,827	1,080	0.0037	0.9963	97.50	
22.5	259,988	1,478	0.0057	0.9943	97.13	
23.5	172,314	661	0.0038	0.9962	96.58	
24.5	163,437	1,109	0.0068	0.9932	96.21	
25.5	169,912	1,218	0.0072	0.9928	95.56	
26.5	165,996	747	0.0045	0.9955	94.87	
27.5	155,691	1,407	0.0090	0.9910	94.45	
28.5	76,777	552	0.0072	0.9928	93.59	
29.5	48,872	454	0.0093	0.9907	92.92	
30.5	21,872	287	0.0131	0.9869	92.06	
31.5	9,871	81	0.0082	0.9918	90.85	
32.5	8,675	105	0.0121	0.9879	90.10	
33.5	8,689	150	0.0172	0.9828	89.01	
34.5	19,535	323	0.0165	0.9835	87.48	
35.5	24,203	256	0.0106	0.9894	86.03	
36.5	19,327	334	0.0173	0.9827	85.12	
37.5	6,037	163	0.0269	0.9731	83.65	
38.5	168	4	0.0231	0.9769	81.39	



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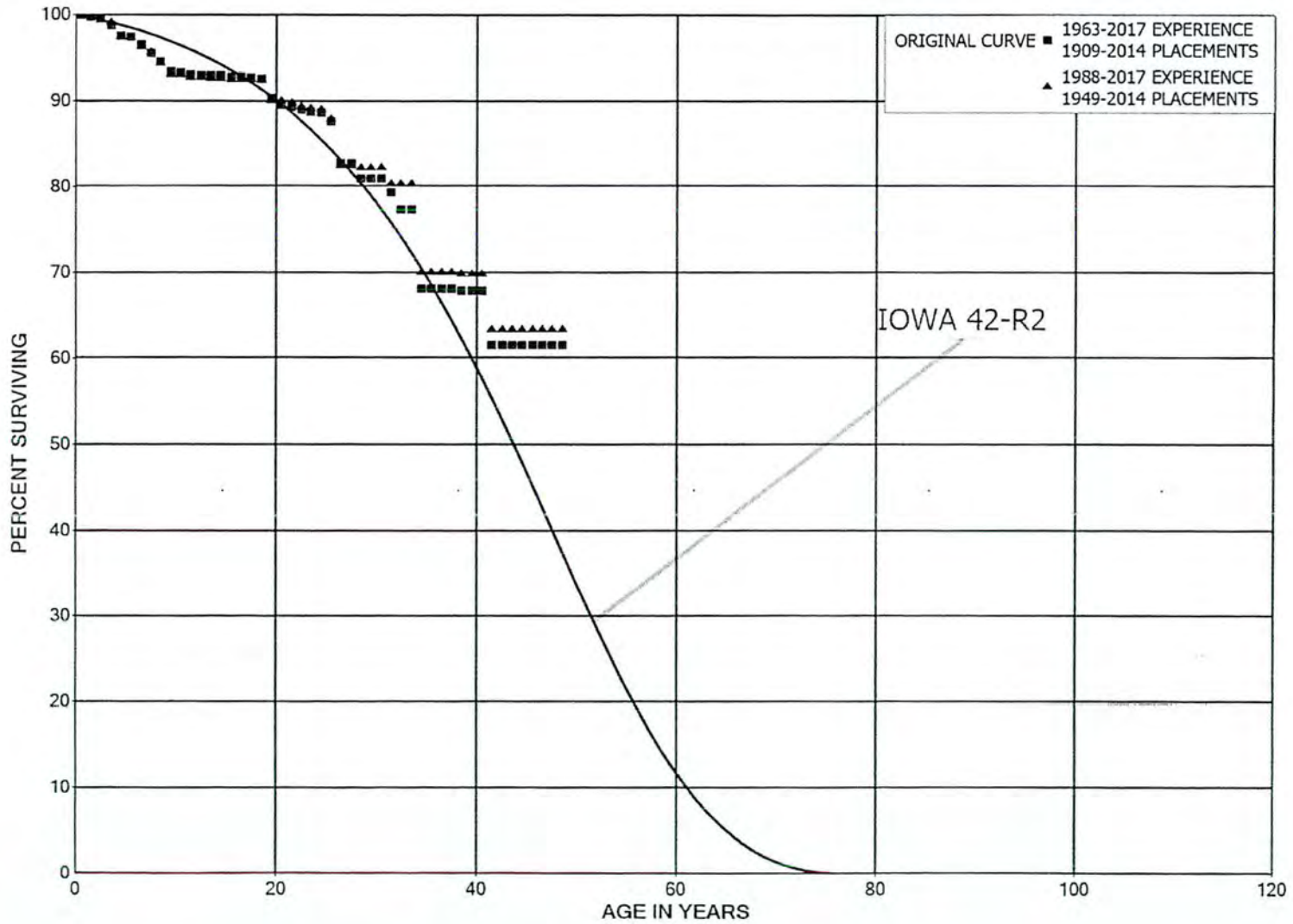
ACCOUNT 2840 HOUSE REGULATOR INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1940-2013			EXPERIENCE BAND 2015-2017			
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	862	29	0.0333	0.9667	79.51	
40.5	1,012	10	0.0099	0.9901	76.87	
41.5	4,337	173	0.0398	0.9602	76.11	
42.5	6,998	174	0.0249	0.9751	73.08	
43.5	11,170	385	0.0344	0.9656	71.26	
44.5	9,812	293	0.0299	0.9701	68.80	
45.5	9,862	460	0.0467	0.9533	66.75	
46.5	7,256	251	0.0345	0.9655	63.63	
47.5	7,731	411	0.0532	0.9468	61.43	
48.5	6,953	346	0.0498	0.9502	58.17	
49.5	6,007	281	0.0467	0.9533	55.27	
50.5	6,250	468	0.0748	0.9252	52.69	
51.5	5,145	256	0.0497	0.9503	48.74	
52.5	9,917	875	0.0882	0.9118	46.32	
53.5	7,851	281	0.0357	0.9643	42.24	
54.5	8,429	872	0.1034	0.8966	40.73	
55.5	11,747	1,267	0.1079	0.8921	36.52	
56.5	17,413	1,324	0.0760	0.9240	32.58	
57.5	16,414	1,362	0.0830	0.9170	30.10	
58.5	11,032	1,393	0.1263	0.8737	27.60	
59.5	6,572	707	0.1076	0.8924	24.12	
60.5	6,900	807	0.1170	0.8830	21.52	
61.5	5,974	713	0.1193	0.8807	19.01	
62.5	5,662	830	0.1465	0.8535	16.74	
63.5	4,372	544	0.1244	0.8756	14.28	
64.5	3,615	595	0.1647	0.8353	12.51	
65.5	2,418	418	0.1729	0.8271	10.45	
66.5	1,775	316	0.1779	0.8221	8.64	
67.5	1,471	327	0.2222	0.7778	7.10	
68.5	971	196	0.2019	0.7981	5.53	
69.5	527	126	0.2395	0.7605	4.41	
70.5	161	63	0.3895	0.6105	3.35	
71.5	1	1	0.5276	0.4724	2.05	
72.5	41	28	0.6878	0.3122	0.97	
73.5	29	17	0.5805	0.4195	0.30	
74.5	13	13	1.0000		0.13	
75.5						



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ACCOUNT 2850 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT  
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ACCOUNT 2850 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1909-2014			EXPERIENCE BAND 1963-2017		
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	500,913		0.0000	1.0000	100.00
0.5	502,480	1,247	0.0025	0.9975	100.00
1.5	503,128	1,102	0.0022	0.9978	99.75
2.5	504,898	3,911	0.0077	0.9923	99.53
3.5	497,229	6,364	0.0128	0.9872	98.76
4.5	496,036	562	0.0011	0.9989	97.50
5.5	495,794	4,490	0.0091	0.9909	97.39
6.5	491,545	4,833	0.0098	0.9902	96.51
7.5	490,587	5,500	0.0112	0.9888	95.56
8.5	492,630	5,664	0.0115	0.9885	94.49
9.5	488,569	320	0.0007	0.9993	93.40
10.5	488,717	1,717	0.0035	0.9965	93.34
11.5	477,054	25	0.0001	0.9999	93.01
12.5	475,066	195	0.0004	0.9996	93.01
13.5	469,521	200	0.0004	0.9996	92.97
14.5	465,950	1,026	0.0022	0.9978	92.93
15.5	464,805	86	0.0002	0.9998	92.72
16.5	453,826	661	0.0015	0.9985	92.71
17.5	438,693	512	0.0012	0.9988	92.57
18.5	399,822	9,183	0.0230	0.9770	92.46
19.5	371,200	3,332	0.0090	0.9910	90.34
20.5	360,046	1,045	0.0029	0.9971	89.53
21.5	362,416	1,307	0.0036	0.9964	89.27
22.5	343,796	870	0.0025	0.9975	88.95
23.5	326,094	381	0.0012	0.9988	88.72
24.5	304,114	3,500	0.0115	0.9885	88.62
25.5	284,257	15,635	0.0550	0.9450	87.60
26.5	243,361		0.0000	1.0000	82.78
27.5	174,429	3,924	0.0225	0.9775	82.78
28.5	164,385		0.0000	1.0000	80.92
29.5	152,595		0.0000	1.0000	80.92
30.5	147,060	2,886	0.0196	0.9804	80.92
31.5	134,361	3,422	0.0255	0.9745	79.33
32.5	122,370		0.0000	1.0000	77.31
33.5	109,641	13,088	0.1194	0.8806	77.31
34.5	76,199		0.0000	1.0000	68.08
35.5	76,199		0.0000	1.0000	68.08
36.5	76,199		0.0000	1.0000	68.08
37.5	62,294	195	0.0031	0.9969	68.08
38.5	60,764		0.0000	1.0000	67.87

DUKE ENERGY KENTUCKY  
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ACCOUNT 2850 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1909-2014			EXPERIENCE BAND 1963-2017		
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	60,764		0.0000	1.0000	67.87
40.5	60,764	5,666	0.0933	0.9067	67.87
41.5	55,097		0.0000	1.0000	61.54
42.5	55,097		0.0000	1.0000	61.54
43.5	55,097		0.0000	1.0000	61.54
44.5	54,940		0.0000	1.0000	61.54
45.5	52,797		0.0000	1.0000	61.54
46.5	47,902		0.0000	1.0000	61.54
47.5	46,526		0.0000	1.0000	61.54
48.5	9,307		0.0000	1.0000	61.54
49.5	8,754		0.0000	1.0000	61.54
50.5	7,410		0.0000	1.0000	61.54
51.5	6,874		0.0000	1.0000	61.54
52.5	4,847		0.0000	1.0000	61.54
53.5	5,088		0.0000	1.0000	61.54
54.5	4,345		0.0000	1.0000	61.54
55.5	3,340		0.0000	1.0000	61.54
56.5	3,340		0.0000	1.0000	61.54
57.5	3,340		0.0000	1.0000	61.54
58.5	2,311		0.0000	1.0000	61.54
59.5	2,311	242	0.1045	0.8955	61.54
60.5	2,069		0.0000	1.0000	55.11
61.5	2,069		0.0000	1.0000	55.11
62.5	1,760		0.0000	1.0000	55.11
63.5	1,654		0.0000	1.0000	55.11
64.5	251		0.0000	1.0000	55.11
65.5					55.11



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ACCOUNT 2850 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1949-2014		EXPERIENCE BAND 1988-2017			
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	342,515		0.0000	1.0000	100.00
0.5	348,074	1,247	0.0036	0.9964	100.00
1.5	362,918	1,102	0.0030	0.9970	99.64
2.5	374,618	1,039	0.0028	0.9972	99.34
3.5	381,201	6,364	0.0167	0.9833	99.06
4.5	397,248	562	0.0014	0.9986	97.41
5.5	397,309	4,490	0.0113	0.9887	97.27
6.5	382,847	2,015	0.0053	0.9947	96.17
7.5	396,002	5,500	0.0139	0.9861	95.67
8.5	391,862	5,664	0.0145	0.9855	94.34
9.5	386,393	320	0.0008	0.9992	92.97
10.5	386,273	1,265	0.0033	0.9967	92.90
11.5	375,193	25	0.0001	0.9999	92.59
12.5	373,095	195	0.0005	0.9995	92.59
13.5	361,885	200	0.0006	0.9994	92.54
14.5	358,471	217	0.0006	0.9994	92.49
15.5	360,823	86	0.0002	0.9998	92.43
16.5	359,724		0.0000	1.0000	92.41
17.5	347,475		0.0000	1.0000	92.41
18.5	351,874	9,183	0.0261	0.9739	92.41
19.5	324,014		0.0000	1.0000	90.00
20.5	319,676	1,045	0.0033	0.9967	90.00
21.5	309,365	1,307	0.0042	0.9958	89.70
22.5	310,150	870	0.0028	0.9972	89.32
23.5	295,334	381	0.0013	0.9987	89.07
24.5	274,098	3,500	0.0128	0.9872	88.96
25.5	255,246	15,635	0.0613	0.9387	87.82
26.5	214,350		0.0000	1.0000	82.44
27.5	145,418	383	0.0026	0.9974	82.44
28.5	139,945		0.0000	1.0000	82.23
29.5	128,155		0.0000	1.0000	82.23
30.5	122,619	2,886	0.0235	0.9765	82.23
31.5	119,188		0.0000	1.0000	80.29
32.5	110,929		0.0000	1.0000	80.29
33.5	102,126	13,088	0.1282	0.8718	80.29
34.5	70,087		0.0000	1.0000	70.00
35.5	70,337		0.0000	1.0000	70.00
36.5	70,337		0.0000	1.0000	70.00
37.5	56,628	195	0.0034	0.9966	70.00
38.5	60,764		0.0000	1.0000	69.76

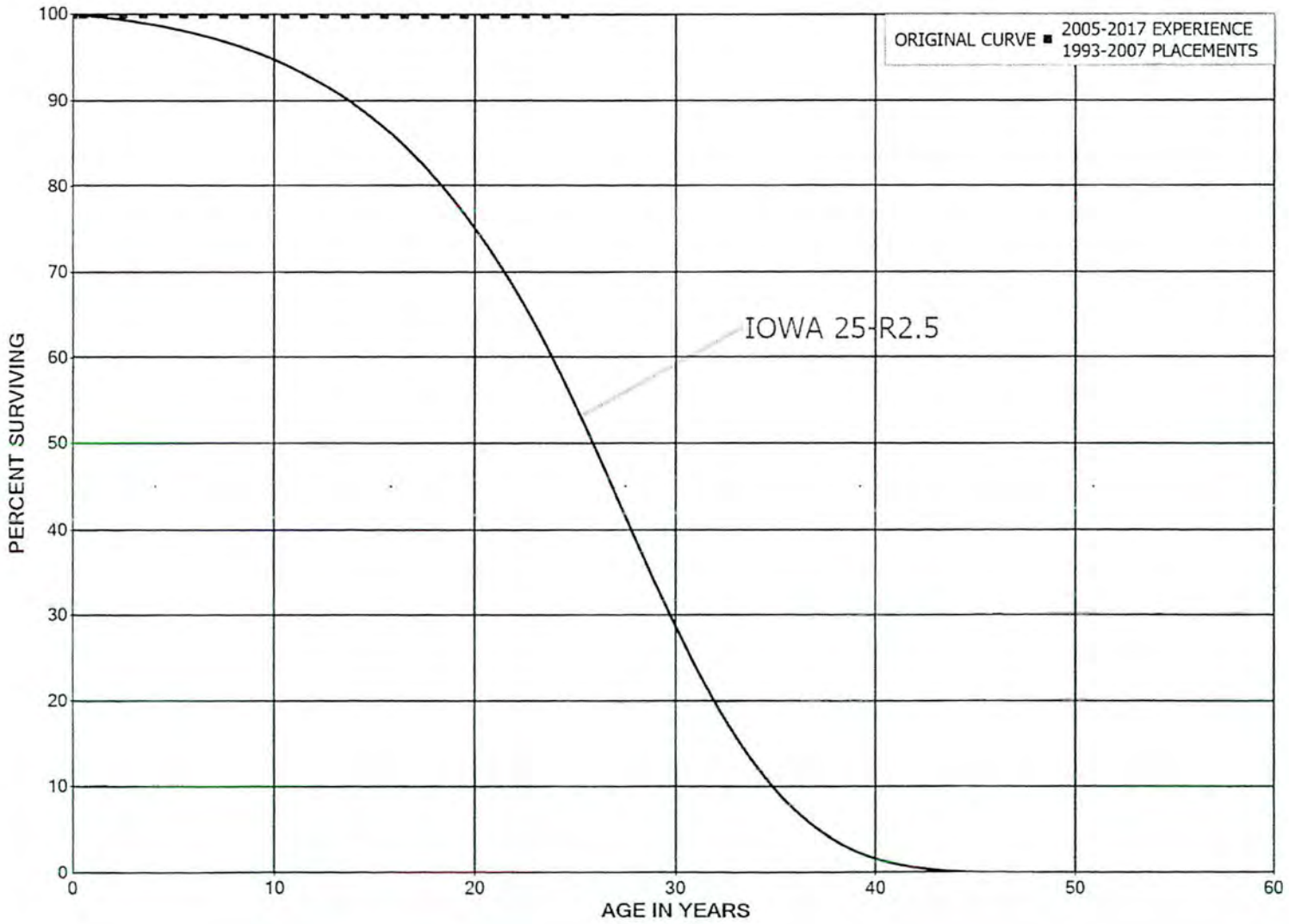
DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2850 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1949-2014			EXPERIENCE BAND 1988-2017		
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	60,764		0.0000	1.0000	69.76
40.5	60,764	5,666	0.0933	0.9067	69.76
41.5	55,097		0.0000	1.0000	63.25
42.5	55,097		0.0000	1.0000	63.25
43.5	55,097		0.0000	1.0000	63.25
44.5	54,940		0.0000	1.0000	63.25
45.5	52,797		0.0000	1.0000	63.25
46.5	47,902		0.0000	1.0000	63.25
47.5	46,526		0.0000	1.0000	63.25
48.5	9,307		0.0000	1.0000	63.25
49.5	8,754		0.0000	1.0000	63.25
50.5	7,410		0.0000	1.0000	63.25
51.5	6,874		0.0000	1.0000	63.25
52.5	4,847		0.0000	1.0000	63.25
53.5	4,847		0.0000	1.0000	63.25
54.5	4,103		0.0000	1.0000	63.25
55.5	3,098		0.0000	1.0000	63.25
56.5	3,098		0.0000	1.0000	63.25
57.5	3,098		0.0000	1.0000	63.25
58.5	2,069		0.0000	1.0000	63.25
59.5	2,069		0.0000	1.0000	63.25
60.5	2,069		0.0000	1.0000	63.25
61.5	2,069		0.0000	1.0000	63.25
62.5	1,760		0.0000	1.0000	63.25
63.5	1,654		0.0000	1.0000	63.25
64.5	251		0.0000	1.0000	63.25
65.5					63.25

DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2851 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT - ELECTRONIC  
ORIGINAL AND SMOOTH SURVIVOR CURVES





DUKE ENERGY KENTUCKY  
GAS PLANT

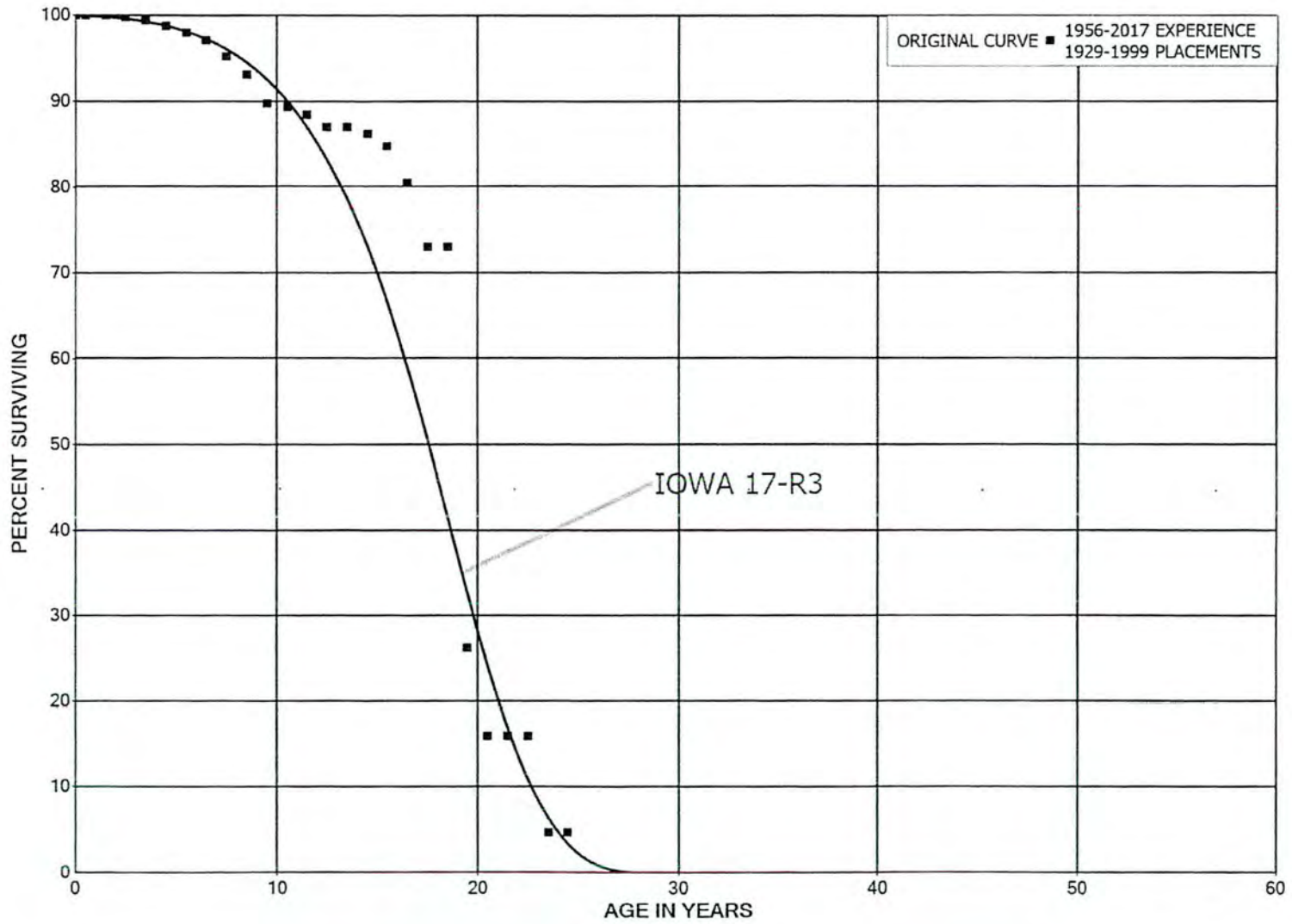
ACCOUNT 2851 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT -  
ELECTRONIC

ORIGINAL LIFE TABLE

PLACEMENT BAND 1993-2007			EXPERIENCE BAND 2005-2017		
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	23,064		0.0000	1.0000	100.00
0.5	23,064		0.0000	1.0000	100.00
1.5	23,064		0.0000	1.0000	100.00
2.5	23,064		0.0000	1.0000	100.00
3.5	23,064		0.0000	1.0000	100.00
4.5	23,064		0.0000	1.0000	100.00
5.5	23,064		0.0000	1.0000	100.00
6.5	23,064		0.0000	1.0000	100.00
7.5	23,064		0.0000	1.0000	100.00
8.5	23,064		0.0000	1.0000	100.00
9.5	35,684		0.0000	1.0000	100.00
10.5	12,620		0.0000	1.0000	100.00
11.5	41,727		0.0000	1.0000	100.00
12.5	41,727		0.0000	1.0000	100.00
13.5	41,727		0.0000	1.0000	100.00
14.5	41,727		0.0000	1.0000	100.00
15.5	41,727		0.0000	1.0000	100.00
16.5	41,727		0.0000	1.0000	100.00
17.5	41,727		0.0000	1.0000	100.00
18.5	41,727		0.0000	1.0000	100.00
19.5	41,727		0.0000	1.0000	100.00
20.5	41,727		0.0000	1.0000	100.00
21.5	41,727		0.0000	1.0000	100.00
22.5	29,107		0.0000	1.0000	100.00
23.5	29,107		0.0000	1.0000	100.00
24.5					100.00



DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2870 OTHER EQUIPMENT  
ORIGINAL AND SMOOTH SURVIVOR CURVES



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2870 OTHER EQUIPMENT

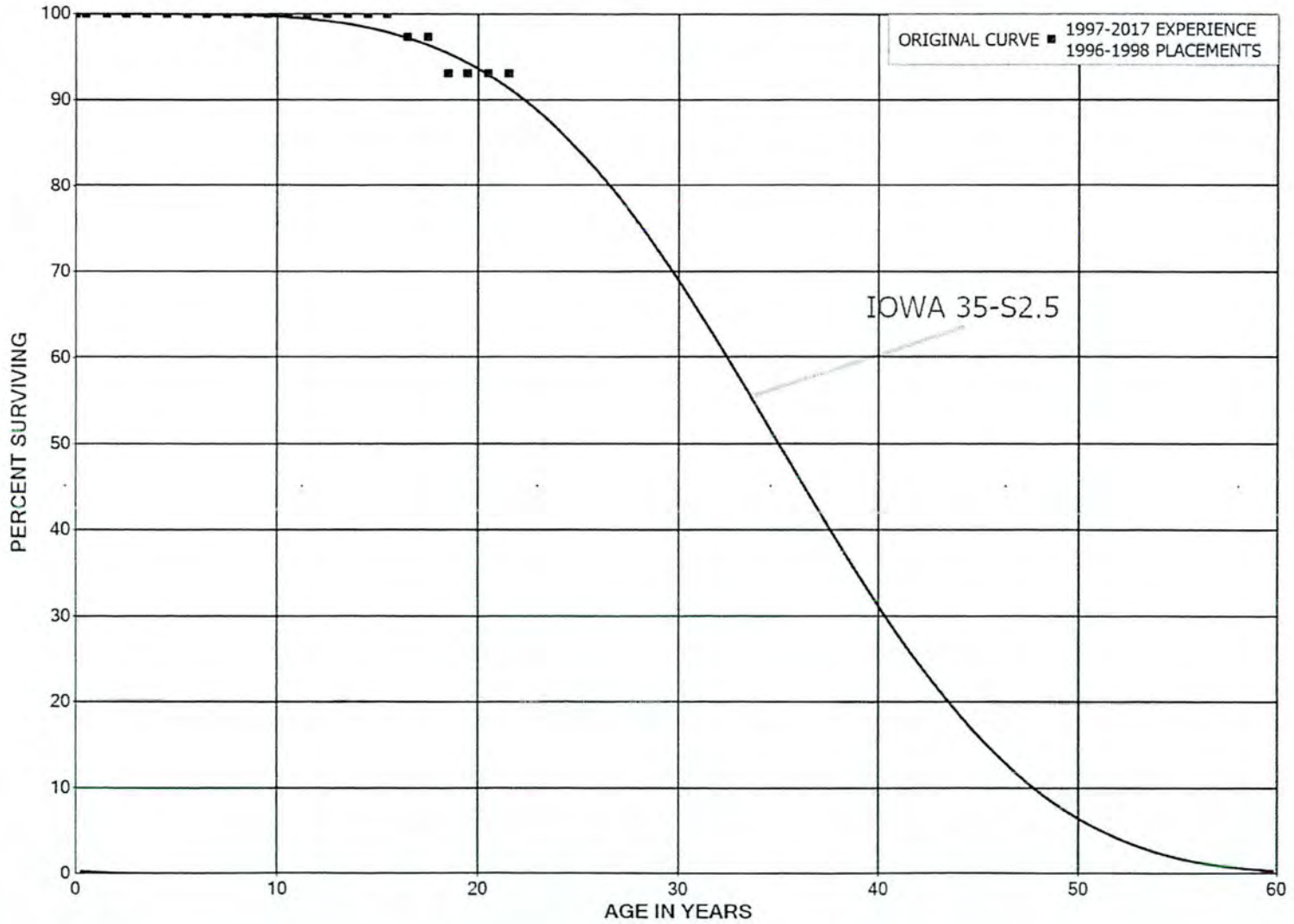
ORIGINAL LIFE TABLE

PLACEMENT BAND 1929-1999			EXPERIENCE BAND 1956-2017		
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	121,298		0.0000	1.0000	100.00
0.5	121,298		0.0000	1.0000	100.00
1.5	121,960	355	0.0029	0.9971	100.00
2.5	122,120	389	0.0032	0.9968	99.71
3.5	124,026	866	0.0070	0.9930	99.39
4.5	126,404	898	0.0071	0.9929	98.70
5.5	125,506	1,233	0.0098	0.9902	98.00
6.5	128,819	2,399	0.0186	0.9814	97.03
7.5	127,368	2,952	0.0232	0.9768	95.23
8.5	124,416	4,340	0.0349	0.9651	93.02
9.5	120,453	637	0.0053	0.9947	89.77
10.5	120,217	1,286	0.0107	0.9893	89.30
11.5	118,930	1,854	0.0156	0.9844	88.34
12.5	117,144	77	0.0007	0.9993	86.97
13.5	117,130	966	0.0082	0.9918	86.91
14.5	29,698	515	0.0173	0.9827	86.19
15.5	29,183	1,426	0.0489	0.9511	84.70
16.5	27,757	2,620	0.0944	0.9056	80.56
17.5	25,137		0.0000	1.0000	72.96
18.5	3,690	2,369	0.6419	0.3581	72.96
19.5	1,321	520	0.3935	0.6065	26.13
20.5	801		0.0000	1.0000	15.84
21.5	801		0.0000	1.0000	15.84
22.5	801	570	0.7110	0.2890	15.84
23.5	232		0.0000	1.0000	4.58
24.5	232		0.0000	1.0000	4.58
25.5	232		0.0000	1.0000	4.58
26.5	252		0.0000	1.0000	4.58
27.5	252	20	0.0795	0.9205	4.58
28.5	232	16	0.0686	0.9314	4.21
29.5	216	45	0.2106	0.7894	3.93
30.5	170	170	1.0000		3.10
31.5					





DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2871 STREET LIGHTING EQUIPMENT  
ORIGINAL AND SMOOTH SURVIVOR CURVES



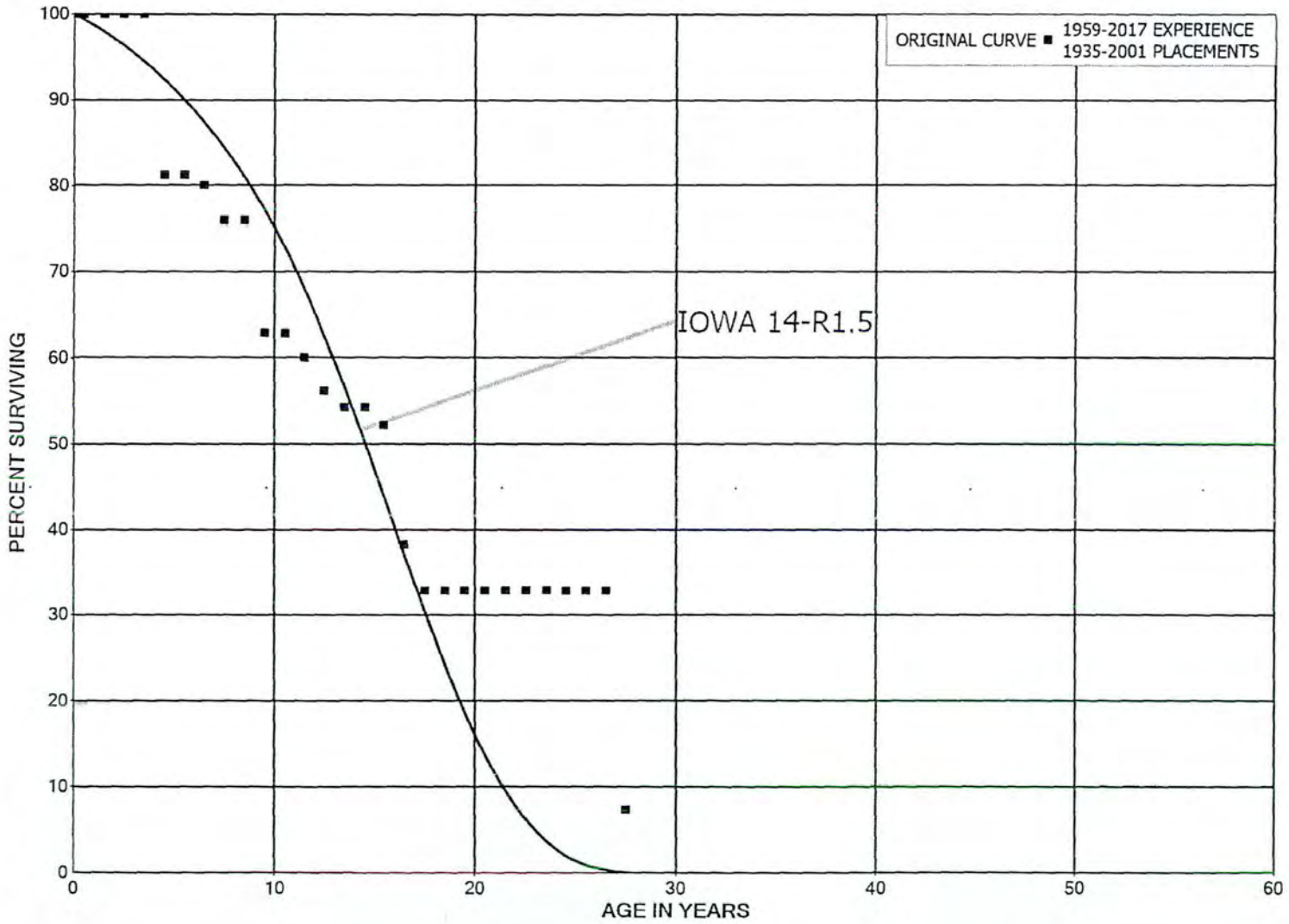
DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2871 STREET LIGHTING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1996-1998			EXPERIENCE BAND 1997-2017		
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	20,794		0.0000	1.0000	100.00
0.5	29,953		0.0000	1.0000	100.00
1.5	30,411		0.0000	1.0000	100.00
2.5	30,411		0.0000	1.0000	100.00
3.5	30,411		0.0000	1.0000	100.00
4.5	30,411		0.0000	1.0000	100.00
5.5	30,411		0.0000	1.0000	100.00
6.5	30,411		0.0000	1.0000	100.00
7.5	30,411		0.0000	1.0000	100.00
8.5	30,411		0.0000	1.0000	100.00
9.5	30,411		0.0000	1.0000	100.00
10.5	30,411		0.0000	1.0000	100.00
11.5	30,411		0.0000	1.0000	100.00
12.5	30,411		0.0000	1.0000	100.00
13.5	30,411		0.0000	1.0000	100.00
14.5	30,411		0.0000	1.0000	100.00
15.5	30,411	813	0.0267	0.9733	100.00
16.5	29,598		0.0000	1.0000	97.33
17.5	29,598	1,308	0.0442	0.9558	97.33
18.5	28,290		0.0000	1.0000	93.03
19.5	23,935		0.0000	1.0000	93.03
20.5	8,309		0.0000	1.0000	93.03
21.5					93.03

DUKE ENERGY KENTUCKY  
GAS PLANT  
ACCOUNT 2921 TRANSPORTATION EQUIPMENT - TRAILERS  
ORIGINAL AND SMOOTH SURVIVOR CURVES





DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2921 TRANSPORTATION EQUIPMENT - TRAILERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1935-2001			EXPERIENCE BAND 1959-2017		
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	180,049		0.0000	1.0000	100.00
0.5	180,049		0.0000	1.0000	100.00
1.5	181,172		0.0000	1.0000	100.00
2.5	181,172		0.0000	1.0000	100.00
3.5	181,172	33,976	0.1875	0.8125	100.00
4.5	147,196		0.0000	1.0000	81.25
5.5	147,196	2,061	0.0140	0.9860	81.25
6.5	145,388	7,476	0.0514	0.9486	80.11
7.5	137,911		0.0000	1.0000	75.99
8.5	137,911	23,806	0.1726	0.8274	75.99
9.5	114,105		0.0000	1.0000	62.87
10.5	117,285	5,269	0.0449	0.9551	62.87
11.5	115,758	7,541	0.0651	0.9349	60.05
12.5	109,158	3,529	0.0323	0.9677	56.14
13.5	106,783		0.0000	1.0000	54.32
14.5	106,783	4,227	0.0396	0.9604	54.32
15.5	102,556	27,304	0.2662	0.7338	52.17
16.5	56,715	8,079	0.1424	0.8576	38.28
17.5	45,251		0.0000	1.0000	32.83
18.5	19,104		0.0000	1.0000	32.83
19.5	10,213		0.0000	1.0000	32.83
20.5	3,948		0.0000	1.0000	32.83
21.5	3,948		0.0000	1.0000	32.83
22.5	1,328		0.0000	1.0000	32.83
23.5	1,705		0.0000	1.0000	32.83
24.5	1,705		0.0000	1.0000	32.83
25.5	1,705		0.0000	1.0000	32.83
26.5	1,705	1,328	0.7785	0.2215	32.83
27.5	378		0.0000	1.0000	7.27
28.5	378		0.0000	1.0000	7.27
29.5	378		0.0000	1.0000	7.27
30.5	378	378	1.0000		7.27
31.5					

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**PART VIII. NET SALVAGE STATISTICS**

**DUKE ENERGY KENTUCKY  
GAS PLANT**

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

ACCOUNT	PROJECTED RETIREMENTS		TOTAL OF ALL RETIREMENTS	TERMINAL RETIREMENT %	INTERIM RETIREMENT %
	TERMINAL	INTERIM			
(1)	(2)	(3)	(4)=(2)+(3)	(5)=(2)/(4)	(6)=(3)/(4)
2050	(1,151,865)	(570,898)	(1,722,764)	66.86	33.14
2110	(5,552,918)	(402,280)	(5,955,198)	93.24	6.76
<b>TOTAL PRODUCTION</b>	<b>(6,704,783)</b>	<b>(973,179)</b>	<b>(7,677,962)</b>	<b>87.33</b>	<b>12.67</b>



DUKE ENERGY KENTUCKY  
GAS PLANT

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)	
ERLANGER	87.33	(10)	12.67	(9)	(10)

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2050 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1981	368		0		0		0
1982							
1983							
1984							
1985							
1986	1,479	860	58		0	860-	58-
1987							
1988							
1989	524		0		0		0
1990	1,958	660	34		0	660-	34-
1991							
1992							
1993							
1994							
1995							
1996							
1997							
1998							
1999							
2000							
2001							
2002	12,230		0		0		0
2003	7,590		0		0		0
2004	12,100		0		0		0
2005							
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
2016							
2017							
TOTAL	36,249	1,520	4		0	1,520-	4-

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2050 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
81-83	123		0		0		0
82-84							
83-85							
84-86	493	287	58		0	287-	58-
85-87	493	287	58		0	287-	58-
86-88	493	287	58		0	287-	58-
87-89	175		0		0		0
88-90	827	220	27		0	220-	27-
89-91	827	220	27		0	220-	27-
90-92	653	220	34		0	220-	34-
91-93							
92-94							
93-95							
94-96							
95-97							
96-98							
97-99							
98-00							
99-01							
00-02	4,077		0		0		0
01-03	6,607		0		0		0
02-04	10,640		0		0		0
03-05	6,563		0		0		0
04-06	4,033		0		0		0
05-07							
06-08							
07-09							
08-10							
09-11							
10-12							
11-13							
12-14							
13-15							
14-16							
15-17							

FIVE-YEAR AVERAGE

13-17



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2110 LIQUEFIED PETROLEUM GAS EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	1,767	32	2		0	32-	2-
1981	11,185	1,007	9		0	1,007-	9-
1982							
1983							
1984							
1985	2,570	708	28		0	708-	28-
1986							
1987	19,808	2,210	11		0	2,210-	11-
1988							
1989	8,627		0		0		0
1990		538				538-	
1991							
1992	925		0		0		0
1993		338				338-	
1994							
1995	1,234	226	18		0	226-	18-
1996	42,666	766	2		0	766-	2-
1997	5,162		0	125-	2-	125-	2-
1998							
1999							
2000							
2001							
2002	1,722		0		0		0
2003	79,428		0		0		0
2004	89,828	343	0		0	343-	0
2005	37,208	22,715	61		0	22,715-	61-
2006	35,465	2,422	7		0	2,422-	7-
2007							
2008							
2009							
2010							
2011	22,545	517	2		0	517-	2-
2012							
2013							
2014	24,865	10,248	41		0	10,248-	41-
2015							
2016							
2017							
TOTAL	385,006	42,070	11	125-	0	42,195-	11-

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2110 LIQUEFIED PETROLEUM GAS EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE		
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	
THREE-YEAR MOVING AVERAGES								
80-82	4,317	346	8		0	346-	8-	
81-83	3,728	336	9		0	336-	9-	
82-84								
83-85	857	236	28		0	236-	28-	
84-86	857	236	28		0	236-	28-	
85-87	7,460	973	13		0	973-	13-	
86-88	6,603	737	11		0	737-	11-	
87-89	9,478	737	8		0	737-	8-	
88-90	2,876	179	6		0	179-	6-	
89-91	2,876	179	6		0	179-	6-	
90-92	308	179	58		0	179-	58-	
91-93	308	112	36		0	112-	36-	
92-94	308	112	36		0	112-	36-	
93-95	411	188	46		0	188-	46-	
94-96	14,633	331	2		0	331-	2-	
95-97	16,354	331	2	42-	0	372-	2-	
96-98	15,942	255	2	42-	0	297-	2-	
97-99	1,721		0	42-	2-	42-	2-	
98-00								
99-01								
00-02	574		0		0		0	
01-03	27,050		0		0		0	
02-04	56,993	114	0		0	114-	0	
03-05	68,822	7,686	11		0	7,686-	11-	
04-06	54,167	8,493	16		0	8,493-	16-	
05-07	24,225	8,379	35		0	8,379-	35-	
06-08	11,822	807	7		0	807-	7-	
07-09								
08-10								
09-11	7,515	172	2		0	172-	2-	
10-12	7,515	172	2		0	172-	2-	
11-13	7,515	172	2		0	172-	2-	
12-14	8,288	3,416	41		0	3,416-	41-	
13-15	8,288	3,416	41		0	3,416-	41-	
14-16	8,288	3,416	41		0	3,416-	41-	
15-17								
FIVE-YEAR AVERAGE								
13-17	4,973	2,050	41		0	2,050-	41-	

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2750 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2004	2,372		0		0		0
2005							
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
2016							
2017							
TOTAL	2,372		0		0		0
THREE-YEAR MOVING AVERAGES							
04-06	791		0		0		0
05-07							
06-08							
07-09							
08-10							
09-11							
10-12							
11-13							
12-14							
13-15							
14-16							
15-17							
FIVE-YEAR AVERAGE							
13-17							



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2760 MAINS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	297,448	63,990	22	226,938	76	162,948	55
1981	96,963	31,862	33	137-	0	31,999-	33-
1982	101,423	42,201	42	87,935	87	45,734	45
1983	56,366	50,631	90	175,712	312	125,081	222
1984	69,904	27,581	39	21,909	31	5,672-	8-
1985	99,714	27,067	27	126,424	127	99,358	100
1986	162,431	47,728	29	15,840	10	31,889-	20-
1987	208,624	47,610	23	9,107	4	38,503-	18-
1988	74,281	62,808	85	199,126	268	136,319	184
1989	144,904	152,404	105	215,651	149	63,247	44
1990	374,020	257,462	69	92,061	25	165,401-	44-
1991	325,319	210,093	65	1,374	0	208,719-	64-
1992	309,776	229,016	74	43,084-	14-	272,100-	88-
1993	401,462	57,958	14	655,817	163	597,859	149
1994	145,620	43,617	30	17,369	12	26,248-	18-
1995	169,197	80,946	48	159,250	94	78,304	46
1996	379,558	70,301	19	7,734	2	62,567-	16-
1997	280,831	82,481	29	20,990	7	61,490-	22-
1998	120,612	129,207	107	5,348	4	123,859-	103-
1999	478,232	97,369	20	14,793	3	82,576-	17-
2000	309,772	31,208-	10-	2,048	1	33,255	11
2001	951,780	380,571	40	342	0	380,229-	40-
2002	911,154	263,744	29		0	263,744-	29-
2003	496,164	74,211-	15-		0	74,211	15
2004	1,153,525	20,143	2		0	20,143-	2-
2005	535,014	12,886	2		0	12,886-	2-
2006	1,044,020	820,972	79		0	820,972-	79-
2007	464,868	178,746	38		0	178,746-	38-
2008	902,897	2,088	0	72,599	8	70,511	8
2009	768,874	151,704	20		0	151,704-	20-
2010	361,638	2,636	1		0	2,636-	1-
2011	28,962		0		0		0
2012	386,020	57,499	15	155-	0	57,654-	15-
2013	473,152	264,737	56	819-	0	265,556-	56-
2014	175,294	107,314	61	768-	0	108,082-	62-
2015	406,913	64,713	16	3,079-	1-	67,792-	17-
2016	45,141	19,513	43		0	19,513-	43-
2017	82,762		0		0		0
TOTAL	13,794,633	4,054,176	29	2,080,326	15	1,973,850-	14-

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2760 MAINS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
80-82	165,278	46,018	28	104,912	63	58,894	36
81-83	84,917	41,565	49	87,837	103	46,272	54
82-84	75,898	40,138	53	95,185	125	55,048	73
83-85	75,328	35,093	47	108,015	143	72,922	97
84-86	110,683	34,125	31	54,724	49	20,599	19
85-87	156,923	40,802	26	50,457	32	9,655	6
86-88	148,445	52,715	36	74,691	50	21,976	15
87-89	142,603	87,607	61	141,295	99	53,688	38
88-90	197,735	157,558	80	168,946	85	11,388	6
89-91	281,414	206,653	73	103,029	37	103,624	37
90-92	336,371	232,190	69	16,784	5	215,406	64
91-93	345,519	165,689	48	204,702	59	39,014	11
92-94	285,619	110,197	39	210,034	74	99,837	35
93-95	238,760	60,840	25	277,479	116	216,639	91
94-96	231,458	64,955	28	61,451	27	3,503	2
95-97	276,528	77,909	28	62,658	23	15,251	6
96-98	260,333	93,996	36	11,357	4	82,639	32
97-99	293,225	103,019	35	13,710	5	89,309	30
98-00	302,872	65,123	22	7,396	2	57,727	19
99-01	579,928	148,911	26	5,728	1	143,183	25
00-02	724,235	204,369	28	797	0	203,572	28
01-03	786,366	190,034	24	114	0	189,920	24
02-04	853,614	69,892	8		0	69,892	8
03-05	728,234	13,728	2		0	13,728	2
04-06	910,853	284,667	31		0	284,667	31
05-07	681,301	337,535	50		0	337,535	50
06-08	803,928	333,935	42	24,200	3	309,736	39
07-09	712,213	110,846	16	24,200	3	86,646	12
08-10	677,803	52,142	8	24,200	4	27,943	4
09-11	386,491	51,447	13		0	51,447	13
10-12	258,873	20,045	8	52	0	20,097	8
11-13	296,045	107,412	36	325	0	107,737	36
12-14	344,822	143,183	42	581	0	143,764	42
13-15	351,786	145,588	41	1,555	0	147,143	42
14-16	209,116	63,847	31	1,282	1	65,129	31
15-17	178,272	28,075	16	1,026	1	29,102	16
FIVE-YEAR AVERAGE							
13-17	236,652	91,255	39	933	0	92,188	39

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNTS 2780 AND 2781 MEASURING AND REGULATING STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	25,901	14,529	56	1,441	6	13,088-	51-
1981	1,913	930	49	2,031	106	1,102	58
1982	65-	3,167		50	77-	3,117-	
1983				10		10	
1984							
1985	12,087	3,716	31	409	3	3,307-	27-
1986	44,778	2,356	5	3,776	8	1,420	3
1987	42,349	10,457	25	6,680	16	3,776-	9-
1988	8,059	5,502	68	765	9	4,737-	59-
1989	54,330	6,734	12	1,198	2	5,536-	10-
1990		6,389		3,604		2,785-	
1991	7,057	7,981	113	49	1	7,932-	112-
1992	2,007	566	28	3	0	563-	28-
1993	16,129	273	2	48	0	226-	1-
1994	20,980		0	19	0	19	0
1995							
1996	30,954	2,672	9		0	2,672-	9-
1997				90-		90-	
1998							
1999							
2000							
2001							
2002	14,005		0		0		0
2003	24,878		0		0		0
2004	4,363		0		0		0
2005	5,278	5,939	113		0	5,939-	113-
2006	28,480	6,131	22		0	6,131-	22-
2007	54,620	2,738	5		0	2,738-	5-
2008							
2009	17,062	12,000	70	800	5	11,200-	66-
2010	17,574	12,000	68	800	5	11,200-	64-
2011	18,101	29,964	166	800	4	29,164-	161-
2012	92,692		0		0		0
2013	18,644	12,000	64	800	4	11,200-	60-
2014	19,203	12,000	62	800	4	11,200-	58-
2015	19,780	12,000	61	800	4	11,200-	57-
2016	20,373	12,000	59	800	4	11,200-	55-
2017	20,984	15,000	71	1,000	5	14,000-	67-
TOTAL	642,519	197,044	31	26,594	4	170,450-	27-



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNTS 2780 AND 2781 MEASURING AND REGULATING STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE		
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	
THREE-YEAR MOVING AVERAGES								
80-82	9,250	6,209	67	1,174	13	5,035-	54-	
81-83	616	1,366	222	697	113	668-	108-	
82-84	22-	1,056		20	93-	1,036-		
83-85	4,029	1,239	31	140	3	1,099-	27-	
84-86	18,955	2,024	11	1,395	7	629-	3-	
85-87	33,072	5,509	17	3,622	11	1,888-	6-	
86-88	31,729	6,105	19	3,740	12	2,364-	7-	
87-89	34,913	7,564	22	2,881	8	4,683-	13-	
88-90	20,797	6,209	30	1,856	9	4,353-	21-	
89-91	20,462	7,035	34	1,617	8	5,418-	26-	
90-92	3,021	4,979	165	1,219	40	3,760-	124-	
91-93	8,398	2,940	35	33	0	2,907-	35-	
92-94	13,038	280	2	23	0	256-	2-	
93-95	12,369	91	1	22	0	69-	1-	
94-96	17,311	891	5	6	0	884-	5-	
95-97	10,318	891	9	30-	0	921-	9-	
96-98	10,318	891	9	30-	0	921-	9-	
97-99				30-		30-		
98-00								
99-01								
00-02	4,668		0		0		0	
01-03	12,961		0		0		0	
02-04	14,415		0		0		0	
03-05	11,507	1,980	17		0	1,980-	17-	
04-06	12,707	4,023	32		0	4,023-	32-	
05-07	29,460	4,936	17		0	4,936-	17-	
06-08	27,700	2,956	11		0	2,956-	11-	
07-09	23,894	4,913	21	267	1	4,646-	19-	
08-10	11,545	8,000	69	533	5	7,467-	65-	
09-11	17,579	17,988	102	800	5	17,188-	98-	
10-12	42,789	13,988	33	533	1	13,455-	31-	
11-13	43,146	13,988	32	533	1	13,455-	31-	
12-14	43,513	8,000	18	533	1	7,467-	17-	
13-15	19,209	12,000	62	800	4	11,200-	58-	
14-16	19,785	12,000	61	800	4	11,200-	57-	
15-17	20,379	13,000	64	867	4	12,133-	60-	
FIVE-YEAR AVERAGE								
13-17	19,797	12,600	64	840	4	11,760-	59-	

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2782 MEASURING AND REGULATING STATION EQUIPMENT - DISTRICT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	2,308	416	18	486	21	70	3
1981	5,034	2,740	54	199	4	2,541-	50-
1982	1,629		0		0		0
1983	1,002	109	11	125	13	16	2
1984	14,822	2,250	15	344	2	1,906-	13-
1985	3,257	8,900	273	1,259	39	7,641-	235-
1986	5,959	6,689	112	482	8	6,207-	104-
1987				301		301	
1988	2,724	5,590	205	388	14	5,201-	191-
1989	4,437		0	137	3	137	3
1990		7,121		291		6,830-	
1991	5,557	3,153	57	48	1	3,104-	56-
1992	6,941	4,239	61	4	0	4,235-	61-
1993				13		13	
1994							
1995	2,924	5,160	176	26	1	5,134-	176-
1996							
1997	8,705	4,876	56		0	4,876-	56-
1998							
1999							
2000							
2001							
2002							
2003							
2004	5,462		0		0		0
2005							
2006							
2007	123,301		0		0		0
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
2016							
2017							
TOTAL	194,062	51,242	26	4,104	2	47,138-	24-

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2782 MEASURING AND REGULATING STATION EQUIPMENT - DISTRICT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
80-82	2,990	1,052	35	228	8	824-	28-
81-83	2,555	950	37	108	4	842-	33-
82-84	5,818	787	14	156	3	630-	11-
83-85	6,361	3,753	59	576	9	3,177-	50-
84-86	8,013	5,946	74	695	9	5,251-	66-
85-87	3,072	5,196	169	681	22	4,516-	147-
86-88	2,894	4,093	141	390	13	3,703-	128-
87-89	2,387	1,863	78	276	12	1,588-	67-
88-90	2,387	4,237	178	272	11	3,965-	166-
89-91	3,331	3,425	103	159	5	3,266-	98-
90-92	4,166	4,838	116	114	3	4,723-	113-
91-93	4,166	2,464	59	22	1	2,442-	59-
92-94	2,314	1,413	61	6	0	1,407-	61-
93-95	975	1,720	176	13	1	1,707-	175-
94-96	975	1,720	176	9	1	1,711-	176-
95-97	3,877	3,345	86	9	0	3,337-	86-
96-98	2,902	1,625	56		0	1,625-	56-
97-99	2,902	1,625	56		0	1,625-	56-
98-00							
99-01							
00-02							
01-03							
02-04	1,821		0		0		0
03-05	1,821		0		0		0
04-06	1,821		0		0		0
05-07	41,100		0		0		0
06-08	41,100		0		0		0
07-09	41,100		0		0		0
08-10							
09-11							
10-12							
11-13							
12-14							
13-15							
14-16							
15-17							

FIVE-YEAR AVERAGE

13-17



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2800 SERVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	135,656	50,083	37	18,509	14	31,573-	23-
1981	302,302	62,979	21	37,075	12	25,904-	9-
1982	149,937	64,940	43	43,970	29	20,969-	14-
1983	238,055	76,514	32	24,929	10	51,585-	22-
1984	112,911	65,364	58	39,679	35	25,685-	23-
1985	106,308	64,400	61	21,039	20	43,361-	41-
1986	140,701	80,731	57	20,432	15	60,298-	43-
1987	147,848	74,281	50	30,560	21	43,720-	30-
1988	157,350	143,746	91	25,861	16	117,885-	75-
1989	186,402	84,688	45	22,024	12	62,664-	34-
1990	265,841	97,991	37	37,664	14	60,328-	23-
1991	204,646	113,540	55	36,078	18	77,462-	38-
1992	217,280	73,083	34	11,764	5	61,320-	28-
1993	166,165	82,826	50	15,233	9	67,593-	41-
1994	164,178	68,270	42	15,698	10	52,572-	32-
1995	223,270	70,646	32	20,634	9	50,012-	22-
1996	218,739	84,035	38	24,112	11	59,923-	27-
1997	172,654	62,567	36	17,057	10	45,509-	26-
1998	285,837	127,759	45	9,132	3	118,627-	42-
1999	390,999	136,649	35	39,352	10	97,297-	25-
2000							
2001	298,851		0		0		0
2002	748,583	180,819	24		0	180,819-	24-
2003	751,729	491,114	65	2,439	0	488,675-	65-
2004	1,175,885	126,107	11		0	126,107-	11-
2005	1,326,366	767-	0		0	767	0
2006	2,016,660	994,460	49		0	994,460-	49-
2007	1,207,953	141,491	12		0	141,491-	12-
2008	1,910,520	1,937	0		0	1,937-	0
2009	1,657,019	17,447	1		0	17,447-	1-
2010	689,795		0		0		0
2011	208,392	47,571	23		0	47,571-	23-
2012	405,900		0		0		0
2013	472,263		0		0		0
2014	275,270		0		0		0
2015	261,301		0		0		0
2016	355,078		0		0		0
2017	1,157,849		0		0		0
TOTAL	18,906,492	3,685,271	19	513,243	3	3,172,028-	17-

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2800 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							
80-82	195,965	59,334	30	33,185	17	26,149-	13-
81-83	230,098	68,144	30	35,325	15	32,820-	14-
82-84	166,968	68,939	41	36,193	22	32,746-	20-
83-85	152,425	68,759	45	28,549	19	40,210-	26-
84-86	119,973	70,165	58	27,050	23	43,115-	36-
85-87	131,619	73,137	56	24,011	18	49,126-	37-
86-88	148,633	99,586	67	25,618	17	73,968-	50-
87-89	163,867	100,905	62	26,149	16	74,756-	46-
88-90	203,198	108,809	54	28,516	14	80,292-	40-
89-91	218,963	98,740	45	31,922	15	66,818-	31-
90-92	229,256	94,871	41	28,502	12	66,370-	29-
91-93	196,030	89,816	46	21,025	11	68,791-	35-
92-94	182,541	74,727	41	14,232	8	60,495-	33-
93-95	184,538	73,914	40	17,188	9	56,725-	31-
94-96	202,062	74,317	37	20,148	10	54,169-	27-
95-97	204,888	72,416	35	20,601	10	51,815-	25-
96-98	225,743	91,454	41	16,767	7	74,686-	33-
97-99	283,163	108,992	38	21,847	8	87,145-	31-
98-00	225,612	88,136	39	16,161	7	71,975-	32-
99-01	229,950	45,550	20	13,117	6	32,432-	14-
00-02	349,145	60,273	17		0	60,273-	17-
01-03	599,721	223,978	37	813	0	223,164-	37-
02-04	892,066	266,013	30	813	0	265,200-	30-
03-05	1,084,660	205,485	19	813	0	204,672-	19-
04-06	1,506,304	373,267	25		0	373,267-	25-
05-07	1,516,993	378,395	25		0	378,395-	25-
06-08	1,711,711	379,296	22		0	379,296-	22-
07-09	1,591,830	53,625	3		0	53,625-	3-
08-10	1,419,111	6,462	0		0	6,462-	0
09-11	851,735	21,673	3		0	21,673-	3-
10-12	434,695	15,857	4		0	15,857-	4-
11-13	362,185	15,857	4		0	15,857-	4-
12-14	384,477		0		0		0
13-15	336,278		0		0		0
14-16	297,216		0		0		0
15-17	591,409		0		0		0

FIVE-YEAR AVERAGE

13-17	504,352		0		0		0
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DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	44,360	769	2	15,015	34	14,246	32
1981	24,426	905	4	8,646	35	7,741	32
1982	34,256	1,091	3	12,800	37	11,710	34
1983	58,836	1,673	3	15,702	27	14,029	24
1984	63,821	738	1	10,694	17	9,956	16
1985	34,017	678	2	7,340	22	6,662	20
1986	49,461	1,064	2	9,448	19	8,384	17
1987	58,238	1,086	2	3,347	6	2,261	4
1988	46,074	1,034-	2-	6,303	14	7,337	16
1989	28,598	1,010	4	8,864	31	7,854	27
1990	77,800	1,889	2	1,666	2	224-	0
1991	85,222	1,321	2		0	1,321-	2-
1992	72,432	6,450	9	841	1	5,609-	8-
1993	50,387	12,835	25	2,612	5	10,224-	20-
1994	60,429	18,042	30	19,727	33	1,685	3
1995	89,728	4,369	5	18,263	20	13,894	15
1996	85,011	40	0	18,808	22	18,768	22
1997	69,582	406	1	29,350	42	28,944	42
1998	176,137	1,510	1	33,876	19	32,366	18
1999	190,950	1,815	1	38,022	20	36,207	19
2000		1,879		1,685		194-	
2001		3,117		2,244		873-	
2002		2,666		2,330		336-	
2003		1,402		4,371		2,969	
2004	102,135	296	0	6,885	7	6,589	6
2005	131,239		0		0		0
2006	265,830		0		0		0
2007	359,876		0		0		0
2008	356,538		0		0		0
2009	293,807		0		0		0
2010							
2011	276,736		0		0		0
2012	301,709	2,231	1		0	2,231-	1-
2013	158,425		0		0		0
2014	745,781		0		0		0
2015	46,576		0	182,244	391	182,244	391
2016	4,235,134		0		0		0
2017	18,016		0		0		0
TOTAL	8,691,565	68,248	1	461,081	5	392,834	5



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE		
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	
THREE-YEAR MOVING AVERAGES								
80-82	34,347	922	3	12,154	35	11,232	33	
81-83	39,173	1,223	3	12,383	32	11,160	28	
82-84	52,304	1,167	2	13,066	25	11,898	23	
83-85	52,225	1,030	2	11,245	22	10,216	20	
84-86	49,100	827	2	9,161	19	8,334	17	
85-87	47,239	943	2	6,712	14	5,769	12	
86-88	51,258	372	1	6,366	12	5,994	12	
87-89	44,303	354	1	6,171	14	5,817	13	
88-90	50,824	622	1	5,611	11	4,989	10	
89-91	63,873	1,407	2	3,510	5	2,103	3	
90-92	78,485	3,220	4	835	1	2,385-	3-	
91-93	69,347	6,869	10	1,151	2	5,718-	8-	
92-94	61,083	12,442	20	7,726	13	4,716-	8-	
93-95	66,848	11,749	18	13,534	20	1,785	3	
94-96	78,389	7,484	10	18,933	24	11,449	15	
95-97	81,440	1,605	2	22,141	27	20,535	25	
96-98	110,243	652	1	27,345	25	26,693	24	
97-99	145,556	1,244	1	33,750	23	32,506	22	
98-00	122,362	1,735	1	24,528	20	22,793	19	
99-01	63,650	2,270	4	13,984	22	11,713	18	
00-02		2,554		2,086		468-		
01-03		2,395		2,981		586		
02-04	34,045	1,455	4	4,528	13	3,074	9	
03-05	77,791	566	1	3,752	5	3,186	4	
04-06	166,401	99	0	2,295	1	2,196	1	
05-07	252,315		0		0		0	
06-08	327,415		0		0		0	
07-09	336,740		0		0		0	
08-10	216,781		0		0		0	
09-11	190,181		0		0		0	
10-12	192,815	744	0		0	744-	0	
11-13	245,623	744	0		0	744-	0	
12-14	401,972	744	0		0	744-	0	
13-15	316,927		0	60,748	19	60,748	19	
14-16	1,675,830		0	60,748	4	60,748	4	
15-17	1,433,242		0	60,748	4	60,748	4	

FIVE-YEAR AVERAGE

13-17	1,040,786		0	36,449	4	36,449	4
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DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2820 METER INSTALLATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	23,536	564	2	2,805	12	2,241	10
1981	14,897	6	0	3,134	21	3,128	21
1982	17,381	8	0	1,084	6	1,076	6
1983	31,237	2-	0	2,050	7	2,052	7
1984	33,973	68	0	2,486	7	2,418	7
1985	20,584		0	2,846	14	2,846	14
1986	17,419		0	1,618	9	1,618	9
1987	32,090	10	0	3,044	9	3,034	9
1988	20,095		0	2,580	13	2,580	13
1989	18,351		0	1,204	7	1,204	7
1990	57,234		0	1,969	3	1,969	3
1991	62,824	36	0	1,128	2	1,092	2
1992	52,537		0	33	0	33	0
1993	36,728	738	2	292	1	446-	1-
1994	32,931	6	0	88	0	83	0
1995	48,587	283	1	531	1	248	1
1996	25,275		0		0		0
1997	38,151		0		0		0
1998	80,727		0		0		0
1999	57,346		0		0		0
2000							
2001							
2002							
2003							
2004	44,579		0		0		0
2005	57,269		0		0		0
2006	199,280		0		0		0
2007							
2008							
2009							
2010							
2011	287,216		0		0		0
2012	572,833		0		0		0
2013	162,528		0		0		0
2014	588,776		0		0		0
2015							
2016							
2017							
TOTAL	2,634,385	1,718	0	26,893	1	25,175	1

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2820 METER INSTALLATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
80-82	18,605	193	1	2,341	13	2,148	12
81-83	21,172	4	0	2,089	10	2,085	10
82-84	27,530	25	0	1,873	7	1,849	7
83-85	28,598	22	0	2,461	9	2,439	9
84-86	23,992	23	0	2,317	10	2,294	10
85-87	23,365	3	0	2,503	11	2,499	11
86-88	23,202	3	0	2,414	10	2,411	10
87-89	23,512	3	0	2,276	10	2,273	10
88-90	31,893		0	1,918	6	1,918	6
89-91	46,136	12	0	1,434	3	1,422	3
90-92	57,532	12	0	1,043	2	1,031	2
91-93	50,697	258	1	484	1	226	0
92-94	40,732	248	1	138	0	110-	0
93-95	39,416	342	1	304	1	39-	0
94-96	35,598	96	0	207	1	110	0
95-97	37,338	94	0	177	0	83	0
96-98	48,051		0		0		0
97-99	58,741		0		0		0
98-00	46,024		0		0		0
99-01	19,115		0		0		0
00-02							
01-03							
02-04	14,860		0		0		0
03-05	33,949		0		0		0
04-06	100,376		0		0		0
05-07	85,516		0		0		0
06-08	66,427		0		0		0
07-09							
08-10							
09-11	95,739		0		0		0
10-12	286,683		0		0		0
11-13	340,859		0		0		0
12-14	441,379		0		0		0
13-15	250,435		0		0		0
14-16	196,259		0		0		0
15-17							

FIVE-YEAR AVERAGE

13-17	150,261		0		0		0
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DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2830 HOUSE REGULATORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	4,614	29	1	974	21	946	20
1981	4,743	455	10	3,040	64	2,585	54
1982	3,216	435	14	2,072	64	1,637	51
1983	2,492		0	1,035	42	1,035	42
1984	1,898	28	1	700	37	672	35
1985	4,371	41	1	2,873	66	2,832	65
1986	5,467	155	3	3,675	67	3,520	64
1987	6,521	39	1	2,449	38	2,409	37
1988	5,541	67	1	2,707	49	2,640	48
1989	9,307	885	10	2,755	30	1,870	20
1990	15,816	1,006	6	198	1	808-	5-
1991	12,354	683	6	913	7	230	2
1992	13,129	928	7	6,142	47	5,214	40
1993	19,067	1,135	6	4,544	24	3,409	18
1994	17,868	437	2	4,374	24	3,937	22
1995	11,977	752	6	5,395	45	4,642	39
1996	16,188		0	9,988	62	9,988	62
1997	16,522	272	2	5,557	34	5,285	32
1998	20,252		0	7,232	36	7,232	36
1999	5,002	1,294	26	1,486	30	191	4
2000		1,169				1,169-	
2001		843				843-	
2002		3,303				3,303-	
2003		8,199				8,199-	
2004	38,322	2,049	5		0	2,049-	5-
2005	13,807		0		0		0
2006	29,210		0		0		0
2007							
2008							
2009	69,799		0		0		0
2010	18,822		0		0		0
2011	19,386		0		0		0
2012	19,968		0		0		0
2013	20,567		0		0		0
2014	21,184		0		0		0
2015	98,345		0	34,713	35	34,713	35
2016	123,620		0		0		0
2017	65,283		0		0		0
TOTAL	734,656	24,205	3	102,819	14	78,614	11

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2830 HOUSE REGULATORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
80-82	4,191	306	7	2,029	48	1,722	41
81-83	3,483	297	9	2,049	59	1,752	50
82-84	2,535	154	6	1,269	50	1,115	44
83-85	2,920	23	1	1,536	53	1,513	52
84-86	3,912	75	2	2,416	62	2,341	60
85-87	5,453	79	1	2,999	55	2,920	54
86-88	5,843	87	1	2,943	50	2,856	49
87-89	7,123	330	5	2,637	37	2,306	32
88-90	10,222	653	6	1,886	18	1,234	12
89-91	12,492	858	7	1,289	10	430	3
90-92	13,766	872	6	2,418	18	1,545	11
91-93	14,850	915	6	3,866	26	2,951	20
92-94	16,688	833	5	5,020	30	4,187	25
93-95	16,304	775	5	4,771	29	3,996	25
94-96	15,344	397	3	6,586	43	6,189	40
95-97	14,896	341	2	6,980	47	6,638	45
96-98	17,654	91	1	7,592	43	7,502	42
97-99	13,925	522	4	4,758	34	4,236	30
98-00	8,418	821	10	2,906	35	2,084	25
99-01	1,667	1,102	66	495	30	607-	36-
00-02		1,772				1,772-	
01-03		4,115				4,115-	
02-04	12,774	4,517	35		0	4,517-	35-
03-05	17,376	3,416	20		0	3,416-	20-
04-06	27,113	683	3		0	683-	3-
05-07	14,339		0		0		0
06-08	9,737		0		0		0
07-09	23,266		0		0		0
08-10	29,540		0		0		0
09-11	36,002		0		0		0
10-12	19,392		0		0		0
11-13	19,974		0		0		0
12-14	20,573		0		0		0
13-15	46,698		0	11,571	25	11,571	25
14-16	81,049		0	11,571	14	11,571	14
15-17	95,749		0	11,571	12	11,571	12

FIVE-YEAR AVERAGE

13-17	65,800		0	6,943	11	6,943	11
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DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2840 HOUSE REGULATOR INSTALLATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	978	122	12	154	16	32	3
1981	1,881	1	0	134	7	133	7
1982	1,242		0	191	15	191	15
1983	885		0	109	12	109	12
1984	1,356	16	1	63	5	48	4
1985	1,373		0	132	10	132	10
1986	1,389		0	104	7	104	7
1987	1,590	1	0	213	13	212	13
1988	1,863		0	163	9	163	9
1989	4,144		0	223	5	223	5
1990	4,359		0	255	6	255	6
1991	3,797		0	73	2	73	2
1992	3,957		0	4	0	4	0
1993	8,943	499	6	42	0	457-	5-
1994	6,023	26	0	19	0	7-	0
1995	3,549	36	1	46	1	11	0
1996	4,700		0		0		0
1997	14,562		0		0		0
1998	10,239		0		0		0
1999	2,701		0		0		0
2000							
2001							
2002							
2003							
2004	34,397		0		0		0
2005	17,871		0		0		0
2006	35,211		0		0		0
2007							
2008							
2009	13,820		0		0		0
2010	14,234		0		0		0
2011	14,661		0		0		0
2012	15,101		0		0		0
2013	15,554		0		0		0
2014	16,021		0		0		0
2015	16,501		0		0		0
2016	261		0		0		0
2017	16,996		0		0		0
TOTAL	290,157	699	0	1,925	1	1,226	0



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2840 HOUSE REGULATOR INSTALLATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE		
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	
THREE-YEAR MOVING AVERAGES								
80-82	1,367	41	3	159	12	119	9	
81-83	1,336		0	144	11	144	11	
82-84	1,161	5	0	121	10	116	10	
83-85	1,205	5	0	102	8	96	8	
84-86	1,373	5	0	100	7	95	7	
85-87	1,450		0	150	10	149	10	
86-88	1,614		0	160	10	160	10	
87-89	2,532		0	200	8	200	8	
88-90	3,455		0	214	6	214	6	
89-91	4,100		0	184	4	184	4	
90-92	4,037		0	111	3	111	3	
91-93	5,565	166	3	40	1	127-	2-	
92-94	6,308	175	3	22	0	153-	2-	
93-95	6,172	187	3	36	1	151-	2-	
94-96	4,757	20	0	22	0	1	0	
95-97	7,604	12	0	15	0	4	0	
96-98	9,833		0		0		0	
97-99	9,167		0		0		0	
98-00	4,313		0		0		0	
99-01	900		0		0		0	
00-02								
01-03								
02-04	11,466		0		0		0	
03-05	17,423		0		0		0	
04-06	29,160		0		0		0	
05-07	17,694		0		0		0	
06-08	11,737		0		0		0	
07-09	4,607		0		0		0	
08-10	9,351		0		0		0	
09-11	14,238		0		0		0	
10-12	14,665		0		0		0	
11-13	15,105		0		0		0	
12-14	15,559		0		0		0	
13-15	16,025		0		0		0	
14-16	10,928		0		0		0	
15-17	11,253		0		0		0	
FIVE-YEAR AVERAGE								
13-17	13,067		0		0		0	

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2850 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1980	452		0	18	4	18	4
1981	661	226	34	39	6	187-	28-
1982							
1983	3,542		0		0		0
1984		569		290		280-	
1985							
1986	4,743	622	13	330	7	292-	6-
1987	1,602	95	6	328	21	233	15
1988	7,866	1,009	13	470	6	539-	7-
1989	2,149	799	37	356	17	443-	21-
1990	22,374	2,351	11	22	0	2,329-	10-
1991	23,687	1,921	8	389	2	1,532-	6-
1992	3,001	161	5	8	0	154-	5-
1993	6,490	1,252	19	36	1	1,216-	19-
1994	1,746		0	7	0	7	0
1995	4,370	1,800	41	52	1	1,748-	40-
1996	1,367	501	37		0	501-	37-
1997							
1998	5,041	207	4		0	207-	4-
1999	6,340	214	3		0	214-	3-
2000							
2001							
2002							
2003							
2004							
2005							
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
2016							
2017							
TOTAL	95,431	11,728	12	2,345	2	9,383-	10-

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2850 INDUSTRIAL MEASURING AND REGULATING 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							
80-82	371	75	20	19	5	56-	15-
81-83	1,401	75	5	13	1	62-	4-
82-84	1,181	190	16	97	8	93-	8-
83-85	1,181	190	16	97	8	93-	8-
84-86	1,581	397	25	207	13	190-	12-
85-87	2,115	239	11	220	10	20-	1-
86-88	4,737	576	12	376	8	199-	4-
87-89	3,872	634	16	385	10	250-	6-
88-90	10,796	1,386	13	283	3	1,104-	10-
89-91	16,070	1,690	11	256	2	1,435-	9-
90-92	16,354	1,478	9	140	1	1,338-	8-
91-93	11,059	1,111	10	144	1	967-	9-
92-94	3,746	471	13	17	0	454-	12-
93-95	4,202	1,017	24	32	1	986-	23-
94-96	2,494	767	31	20	1	747-	30-
95-97	1,913	767	40	17	1	750-	39-
96-98	2,136	236	11		0	236-	11-
97-99	3,794	141	4		0	141-	4-
98-00	3,794	141	4		0	141-	4-
99-01	2,113	72	3		0	72-	3-
00-02							
01-03							
02-04							
03-05							
04-06							
05-07							
06-08							
07-09							
08-10							
09-11							
10-12							
11-13							
12-14							
13-15							
14-16							
15-17							

FIVE-YEAR AVERAGE

13-17



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2921 TRANSPORTATION EQUIPMENT - TRAILERS

SUMMARY OF BOOK SALVAGE

1980	6,372		0		0		0
1981							
1982	4,767		0	1,545	32	1,545	32
1983							
1984							
1985							
1986	3,073	91	3	1,850	60	1,759	57
1987							
1988							
1989	1,328		0		0		0
1990							
1991							
1992				67		67	
1993							
1994							
1995							
1996							
1997	19,604		0		0		0
1998							
1999							
2000							
2001							
2002							
2003							
2004							
2005							
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013	30,313		0		0		0
2014							
2015							
2016							
2017							
TOTAL	65,457	91	0	3,462	5	3,371	5

THREE-YEAR MOVING AVERAGES

80-82	3,713		0	515	14	515	14
81-83	1,589		0	515	32	515	32

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2921 TRANSPORTATION EQUIPMENT - TRAILERS

SUMMARY OF BOOK SALVAGE

THREE-YEAR MOVING AVERAGES

82-84	1,589		0	515	32	515	32
83-85							
84-86	1,024	30	3	617	60	586	57
85-87	1,024	30	3	617	60	586	57
86-88	1,024	30	3	617	60	586	57
87-89	443		0		0		0
88-90	443		0		0		0
89-91	443		0		0		0
90-92				22		22	
91-93				22		22	
92-94				22		22	
93-95							
94-96							
95-97	6,535		0		0		0
96-98	6,535		0		0		0
97-99	6,535		0		0		0
98-00							
99-01							
00-02							
01-03							
02-04							
03-05							
04-06							
05-07							
06-08							
07-09							
08-10							
09-11							
10-12							
11-13	10,104		0		0		0
12-14	10,104		0		0		0
13-15	10,104		0		0		0
14-16							
15-17							

FIVE-YEAR AVERAGE

13-17	6,063		0		0		0
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**PART IX. DETAILED DEPRECIATION  
CALCULATIONS**



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2041 RIGHTS OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. SQUARE						
PROBABLE RETIREMENT YEAR.. 12-2024						
NET SALVAGE PERCENT.. 0						
1961	16,886.85	16,887	16,887			
1972	7,551.70	6,872	7,539	13	4.50	3
2009	20.35	11	13	8	7.00	1
	24,458.90	23,770	24,439	20		4
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.0 0.02						

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2050 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 55-R4						
PROBABLE RETIREMENT YEAR.. 12-2024						
NET SALVAGE PERCENT.. -10						
1961	1,194,033.14	1,189,553	1,080,760	232,676	5.08	45,802
1963	1,741.01	1,723	1,565	350	5.36	65
1970	10,435.91	10,068	9,147	2,333	6.18	378
1971	23,663.21	22,749	20,668	5,362	6.26	857
1972	6,642.53	6,364	5,782	1,525	6.33	241
1973	8,189.23	7,819	7,104	1,904	6.39	298
1974	4,680.08	4,452	4,045	1,103	6.45	171
1975	1,727.21	1,638	1,488	412	6.49	63
1977	15,661.74	14,736	13,388	3,840	6.58	584
1979	3,572.65	3,335	3,030	900	6.65	135
1981	379.83	351	319	99	6.71	15
1986	6,229.14	5,616	5,102	1,750	6.83	256
1989	1,326.34	1,173	1,066	393	6.88	57
1990	49,012.04	43,036	39,100	14,813	6.89	2,150
1991	3,324.02	2,895	2,630	1,026	6.91	148
1998	4,507.34	3,650	3,316	1,642	6.97	236
1999	11,206.91	8,947	8,129	4,199	6.97	602
2000	26,467.14	20,811	18,908	10,206	6.97	1,464
2001	7,831.50	6,050	5,497	3,118	6.98	447
2002	51,490.30	39,038	35,468	21,171	6.98	3,033
2003	132,259.87	98,188	89,208	56,278	6.98	8,063
2012	100,382.56	48,585	44,142	66,279	7.00	9,468
2014	57,999.96	21,266	19,321	44,479	7.00	6,354
	1,722,763.66	1,562,043	1,419,183	475,857		80,887

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.9 4.70

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2110 LIQUEFIED PETROLEUM GAS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 55-R2.5						
PROBABLE RETIREMENT YEAR.. 12-2024						
NET SALVAGE PERCENT.. -10						
1961	952,129.34	928,469	652,754	394,588	5.86	67,336
1964	2,027.28	1,963	1,380	850	6.04	141
1965	2,019.79	1,952	1,372	850	6.09	140
1966	10,522.69	10,143	7,131	4,444	6.14	724
1968	3,462.69	3,320	2,334	1,475	6.24	236
1971	78,732.83	74,871	52,638	33,968	6.37	5,332
1972	27,026.69	25,624	18,015	11,714	6.41	1,827
1974	21,887.44	20,624	14,500	9,576	6.48	1,478
1975	106,105.55	99,657	70,063	46,653	6.51	7,166
1976	14,383.85	13,463	9,465	6,357	6.54	972
1977	7,625.84	7,112	5,000	3,388	6.57	516
1978	4,979.82	4,628	3,254	2,224	6.59	337
1979	65,554.96	60,682	42,662	29,448	6.62	4,448
1980	58,352.96	53,801	37,824	26,364	6.64	3,970
1981	7,162.06	6,576	4,623	3,255	6.66	489
1984	11,031.84	9,986	7,021	5,114	6.72	761
1987	27,187.85	24,203	17,016	12,891	6.77	1,904
1989	60,099.34	52,833	37,144	28,965	6.79	4,266
1992	25,640.82	22,031	15,489	12,716	6.83	1,862
1993	10,880.49	9,269	6,517	5,452	6.84	797
1995	1,150.30	961	676	589	6.86	86
1996	73,370.31	60,626	42,623	38,084	6.87	5,544
1997	30,406.78	24,829	17,456	15,991	6.88	2,324
1998	41,149.54	33,185	23,330	21,934	6.88	3,188
1999	45,764.19	36,383	25,579	24,762	6.89	3,594
2000	357,976.15	280,186	196,983	196,791	6.90	28,520
2002	502,208.14	379,231	266,616	285,813	6.91	41,362
2003	436,175.63	322,363	226,635	253,158	6.92	36,584
2004	526,445.47	380,120	267,241	311,849	6.92	45,065
2005	122,382.62	85,981	60,448	74,173	6.93	10,703
2006	455,671.93	310,593	218,360	282,879	6.93	40,819
2007	81,176.60	53,390	37,536	51,758	6.94	7,458
2008	74,139.43	46,809	32,909	48,644	6.94	7,009
2009	55,090.59	33,108	23,276	37,324	6.95	5,370
2010	4,946.53	2,806	1,973	3,468	6.95	499
2011	680,563.79	359,472	252,724	495,896	6.95	71,352
2012	379,727.07	183,061	128,700	289,000	6.96	41,523



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2110 LIQUEFIED PETROLEUM GAS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 55-R2.5						
PROBABLE RETIREMENT YEAR.. 12-2024						
NET SALVAGE PERCENT.. -10						
2013	194,745.20	83,548	58,738	155,482	6.96	22,339
2014	171,958.81	62,930	44,242	144,913	6.96	20,821
2015	223,334.99	64,279	45,191	200,477	6.97	28,763
	5,955,198.20	4,235,068	2,977,438	3,573,280		527,625
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.8						8.86

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2741 RIGHTS OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R4						
NET SALVAGE PERCENT.. 0						
1910	10,635.46	10,635	10,635			
1919	1,621.43	1,582	1,621			
1924	8,823.50	8,461	8,824			
1925	678.47	648	678			
1933	5,568.76	5,153	5,569			
1952	1,342.39	1,101	1,340	2	12.57	
1953	1,826.75	1,484	1,806	21	13.15	2
1954	25.70	21	26			
1955	27,640.73	21,962	26,733	908	14.38	63
1956	180.45	142	173	7	15.02	
1957	15,131.04	11,744	14,295	836	15.67	53
1958	308.05	236	287	21	16.33	1
1959	1,946.26	1,473	1,793	153	17.01	9
1960	1,108.84	828	1,008	101	17.70	6
1961	7,019.04	5,175	6,299	720	18.39	39
1962	19,073.27	13,869	16,882	2,191	19.10	115
1963	1,814.75	1,301	1,584	231	19.81	12
1964	1,991.19	1,407	1,713	278	20.54	14
1965	134,989.37	93,953	114,363	20,626	21.28	969
1966	1,070.30	733	892	178	22.03	8
1967	12,722.90	8,582	10,446	2,277	22.78	100
1968	5,087.66	3,376	4,109	979	23.55	42
1969	3,480.98	2,271	2,764	717	24.33	29
1970	9,619.27	6,167	7,507	2,112	25.12	84
1971	17,951.13	11,301	13,756	4,195	25.93	162
1972	35,609.14	22,006	26,787	8,822	26.74	330
1973	6,934.62	4,204	5,117	1,818	27.56	66
1974	16,960.64	10,082	12,272	4,689	28.39	165
1975	28,419.62	16,552	20,148	8,272	29.23	283
1976	8,582.46	4,893	5,956	2,626	30.09	87
1977	22,107.90	12,333	15,012	7,096	30.95	229
1978	3,731.10	2,035	2,477	1,254	31.82	39
1979	941.95	502	611	331	32.70	10
1980	15,885.32	8,263	10,058	5,827	33.59	173
1981	5,112.34	2,594	3,158	1,954	34.48	57
1982	44,454.50	21,980	26,755	17,700	35.39	500
1983	6,959.60	3,351	4,079	2,881	36.30	79
1984	3,024.89	1,417	1,725	1,300	37.22	35
1985	10,039.09	4,569	5,562	4,477	38.14	117
1986	24,359.25	10,763	13,101	11,258	39.07	288
1987	21,569.99	9,241	11,249	10,321	40.01	258

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2741 RIGHTS OF WAY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R4							
NET SALVAGE PERCENT.. 0							
1988	15,344.70	6,368	7,751	7,594	40.95	185	
1989	69,914.21	28,066	34,163	35,751	41.90	853	
1990	37,094.33	14,382	17,505	19,588	42.86	457	
1991	29,490.94	11,034	13,431	16,060	43.81	367	
1992	180,997.49	65,212	79,379	101,618	44.78	2,269	
1993	9,764.91	3,384	4,119	5,646	45.74	123	
1994	105,098.80	34,967	42,564	62,535	46.71	1,339	
1995	909.60	290	353	557	47.68	12	
1996	25,191.12	7,680	9,348	15,843	48.66	326	
2005	2,674.77	476	579	2,096	57.54	36	
2006	51,359.23	8,416	10,245	41,114	58.53	702	
2007	10,613.11	1,589	1,934	8,679	59.52	146	
2008	10,163.32	1,376	1,675	8,488	60.52	140	
2012	152.55	12	15	138	64.51	2	
	1,095,119.18	531,642	642,232	452,887		11,381	
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						39.8	1.04



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2750 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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						
NET SALVAGE PERCENT.. -5						
1909	838.18	869	880			
1927	2,450.16	2,326	2,573			
1935	106.66	97	112			
1953	181.28	144	190			
1960	481.63	356	506			
1971	40,333.78	25,467	38,988	3,362	23.92	141
1972	13,340.47	8,281	12,678	1,329	24.53	54
1973	26,902.59	16,407	25,118	3,130	25.15	124
1974	3,422.20	2,049	3,137	456	25.78	18
1978	369.00	204	312	75	28.38	3
1980	22,083.46	11,698	17,909	5,279	29.73	178
1981	853.89	442	677	220	30.42	7
1986	9,563.62	4,356	6,669	3,373	33.97	99
1999	3,684.93	1,030	1,577	2,292	44.02	52
2000	30,027.79	7,966	12,195	19,334	44.84	431
2003	3,874.50	859	1,315	2,753	47.33	58
2012	13,960.53	1,202	1,840	12,819	55.08	233
2015	221,720.41	8,730	13,365	219,441	57.75	3,800
2016	161,793.19	3,851	5,895	163,988	58.64	2,797
	555,988.27	96,334	145,936	437,851		7,995

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 54.8 1.44

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2761 MAINS - CAST IRON, COPPER AND ALL VALVES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 47-R2.5						
NET SALVAGE PERCENT.. -20						
1915	6,141.84	7,370	7,370			
1927	66.11	79	79			
1928	208.11	250	250			
1930	42.12	51	51			
1931	78.79	94	17-	112	0.25	112
1934	24.86	29	5-	35	0.97	35
1935	227.33	266	49-	322	1.23	262
1936	58.03	67	12-	82	1.50	55
1937	326.86	377	69-	461	1.77	260
1938	165.13	190	35-	233	2.05	114
1939	49.94	57	10-	70	2.33	30
1940	201.04	228	42-	283	2.60	109
1941	50.58	57	10-	71	2.85	25
1942	545.62	612	112-	767	3.10	247
1943	204.96	229	42-	288	3.33	86
1944	92.66	103	19-	130	3.55	37
1947	95.30	104	19-	133	4.21	32
1948	57.02	62	11-	79	4.43	18
1949	719.75	778	142-	1,006	4.65	216
1950	1,020.27	1,097	200-	1,424	4.88	292
1951	3,086.68	3,302	602-	4,306	5.10	844
1952	1,753.10	1,865	340-	2,444	5.33	459
1953	1,366.68	1,446	264-	1,904	5.57	342
1954	3,283.40	3,453	630-	4,570	5.81	787
1955	2,464.63	2,577	470-	3,428	6.05	567
1956	1,603.45	1,666	304-	2,228	6.30	354
1957	19,988.82	20,639	3,763-	27,750	6.56	4,230
1958	7,713.83	7,913	1,443-	10,700	6.82	1,569
1959	24,349.71	24,812	4,524-	33,744	7.09	4,759
1960	11,541.17	11,675	2,129-	15,978	7.38	2,165
1961	9,237.57	9,276	1,691-	12,776	7.67	1,666
1962	7,197.58	7,171	1,307-	9,944	7.98	1,246
1963	9,596.41	9,482	1,729-	13,245	8.30	1,596
1964	2,661.41	2,607	475-	3,669	8.63	425
1965	3,388.63	3,289	600-	4,666	8.98	520
1966	5,713.58	5,492	1,001-	7,857	9.35	840
1967	617.76	588	107-	848	9.74	87
1968	4,580.67	4,311	786-	6,283	10.14	620
1969	4,786.47	4,453	812-	6,556	10.56	621
1970	6,332.36	5,820	1,061-	8,660	11.00	787
1971	6,490.06	5,889	1,074-	8,862	11.46	773



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2761 MAINS - CAST IRON, COPPER AND ALL VALVES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 47-R2.5						
NET SALVAGE PERCENT.. -20						
1972	11,648.43	10,427	1,901-	15,879	11.94	1,330
1973	8,947.66	7,895	1,440-	12,177	12.44	979
1974	28,422.68	24,710	4,505-	38,612	12.95	2,982
1975	25,251.13	21,611	3,940-	34,241	13.48	2,540
1976	2,592.82	2,183	398-	3,509	14.03	250
1977	21,405.44	17,707	3,229-	28,916	14.60	1,981
1978	48,406.97	39,327	7,171-	65,259	15.18	4,299
1979	43,431.50	34,620	6,312-	58,430	15.78	3,703
1980	74,471.63	58,202	10,612-	99,978	16.39	6,100
1981	46,421.90	35,533	6,479-	62,185	17.02	3,654
1982	39,631.38	29,678	5,411-	52,969	17.67	2,998
1983	26,032.21	19,056	3,474-	34,713	18.33	1,894
1984	38,499.45	27,523	5,018-	51,217	19.00	2,696
1985	29,763.41	20,761	3,785-	39,501	19.68	2,007
1986	42,282.42	28,749	5,242-	55,981	20.37	2,748
1987	12,620.73	8,352	1,523-	16,668	21.08	791
1988	40,038.59	25,761	4,697-	52,743	21.80	2,419
1989	19,529.91	12,202	2,225-	25,661	22.53	1,139
1990	85,267.90	51,661	9,420-	111,741	23.27	4,802
1991	34,654.48	20,324	3,706-	45,291	24.03	1,885
1992	12,115.32	6,870	1,253-	15,791	24.79	637
1993	16,723.67	9,155	1,669-	21,737	25.56	850
1994	9,537.02	5,028	917-	12,361	26.35	469
1995	11,765.39	5,966	1,088-	15,206	27.14	560
1996	16,194.08	7,881	1,437-	20,870	27.94	747
1997	14,476.97	6,746	1,230-	18,602	28.75	647
1998	58,388.34	25,984	4,737-	74,803	29.57	2,530
1999	16,097.65	6,823	1,244-	20,561	30.40	676
	982,749.37	720,561	122,219-	1,301,518		85,500

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.2 8.70



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2762 MAINS - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R2.5						
NET SALVAGE PERCENT.. -20						
1917	1.29	1	1	1	5.17	
1919	29.79	33	36			
1921	189.03	206	227			
1922	1.10	1	1			
1923	124.44	134	149			
1924	322.45	347	387			
1925	133.91	144	161			
1926	1,667.08	1,780	2,000			
1927	6,972.69	7,415	8,367			
1928	6,120.30	6,482	7,344			
1929	9,445.11	9,962	11,334			
1930	6.81	7	8			
1931	5,441.11	5,690	6,529			
1933	106.31	110	128			
1935	271.64	279	326			
1941	6.97	7	8			
1942	2,533.51	2,506	2,957	83	11.43	7
1943	110.57	109	129	4	11.76	
1944	197.17	193	228	9	12.11	1
1945	16.60	16	19	1	12.46	
1946	2,221.36	2,139	2,524	142	12.83	11
1947	1,096.92	1,049	1,238	78	13.21	6
1948	173.29	164	194	14	13.60	1
1949	118.78	112	132	11	14.01	1
1950	3,741.43	3,493	4,121	369	14.43	26
1951	814.02	754	890	87	14.86	6
1952	1,390.02	1,275	1,504	164	15.30	11
1953	33,151.01	30,136	35,558	4,223	15.76	268
1954	12,590.53	11,334	13,373	1,736	16.24	107
1955	18,445.61	16,441	19,399	2,736	16.72	164
1956	48,138.72	42,463	50,103	7,663	17.22	445
1957	49,571.44	43,260	51,044	8,442	17.73	476
1958	256,940.12	221,713	261,605	46,723	18.26	2,559
1959	171,521.44	146,295	172,618	33,208	18.80	1,766
1960	344,283.88	290,153	342,360	70,781	19.35	3,658
1961	255,717.80	212,867	251,168	55,693	19.91	2,797
1962	169,058.14	138,950	163,951	38,919	20.48	1,900
1963	406,888.14	329,994	389,369	98,897	21.07	4,694
1964	292,437.05	233,933	276,024	74,900	21.67	3,456
1965	527,787.47	416,253	491,149	142,196	22.28	6,382
1966	376,687.26	292,772	345,450	106,575	22.90	4,654

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2762 MAINS - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R2.5						
NET SALVAGE PERCENT.. -20						
1967	296,377.35	226,906	267,733	87,920	23.53	3,737
1968	614,676.11	463,331	546,697	190,914	24.17	7,899
1969	620,051.16	459,942	542,698	201,363	24.82	8,113
1970	516,375.15	376,747	444,534	175,116	25.48	6,873
1971	392,660.77	281,557	332,217	138,976	26.16	5,313
1972	533,099.74	375,567	443,142	196,578	26.84	7,324
1973	244,017.37	168,800	199,172	93,649	27.53	3,402
1974	373,144.52	253,373	298,962	148,811	28.22	5,273
1975	383,177.98	255,160	301,070	158,744	28.93	5,487
1976	245,769.14	160,438	189,305	105,618	29.64	3,563
1977	237,556.28	151,875	179,202	105,866	30.37	3,486
1978	635,412.54	397,672	469,224	293,271	31.10	9,430
1979	1,231,049.60	753,624	889,222	588,038	31.84	18,469
1980	2,211,078.82	1,322,986	1,561,028	1,092,267	32.59	33,515
1981	1,235,859.87	722,355	852,327	630,705	33.34	18,917
1982	1,508,781.65	860,694	1,015,557	794,981	34.10	23,313
1983	1,649,809.39	917,703	1,082,823	896,948	34.87	25,723
1984	816,575.52	442,460	522,071	457,820	35.65	12,842
1985	1,659,023.53	874,730	1,032,118	958,710	36.44	26,309
1986	1,982,233.24	1,016,243	1,199,093	1,179,587	37.23	31,684
1987	3,609,326.86	1,797,791	2,121,264	2,209,928	38.02	58,125
1988	4,905,428.81	2,370,028	2,796,462	3,090,053	38.83	79,579
1989	4,779,363.07	2,237,602	2,640,209	3,095,027	39.64	78,078
1990	9,053,682.15	4,101,753	4,839,773	6,024,646	40.46	148,904
1991	4,856,372.75	2,126,625	2,509,264	3,318,383	41.28	80,387
1992	2,434,645.34	1,028,832	1,213,948	1,707,626	42.11	40,552
1993	1,111,866.82	452,614	534,052	800,188	42.95	18,631
1994	99,935.73	39,132	46,173	73,750	43.79	1,684
1995	67,159.85	25,244	29,786	50,806	44.64	1,138
1996	236,297.70	85,067	100,373	183,184	45.50	4,026
1997	205,809.96	70,824	83,567	163,405	46.36	3,525
1998	678,840.21	222,828	262,921	551,687	47.22	11,683
1999	2,169,695.63	676,945	798,746	1,804,889	48.10	37,524
2000	177,149.83	52,426	61,859	150,721	48.97	3,078
2001	3,604,612.44	1,008,196	1,189,599	3,135,936	49.85	62,907
2002	2,160,436.76	568,748	671,082	1,921,442	50.74	37,868
2003	1,852,972.36	457,365	539,658	1,683,909	51.63	32,615
2004	1,176,677.49	270,895	319,636	1,092,377	52.53	20,795
2005	3,486,823.89	744,786	878,794	3,305,395	53.43	61,864
2006	1,357,357.62	267,372	315,480	1,313,349	54.33	24,174
2007	1,980,406.25	356,830	421,033	1,955,454	55.24	35,399



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2762 MAINS - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R2.5						
NET SALVAGE PERCENT.. -20						
2008	4,487,111.49	733,104	865,010	4,519,524	56.15	80,490
2009	3,406,793.30	498,755	588,495	3,499,657	57.07	61,322
2010	1,093,358.35	141,502	166,962	1,145,068	57.99	19,746
2011	98,469.72	11,071	13,063	105,101	58.91	1,784
2012	623,534.88	59,395	70,082	678,160	59.84	11,333
2013	208,240.52	16,263	19,189	230,700	60.77	3,796
2014	250,130.07	15,194	17,928	282,228	61.71	4,573
2015	1,478,650.70	64,428	76,020	1,698,361	62.64	27,113
2016	1,201,354.06	31,500	37,167	1,404,458	63.58	22,090
2017	258,722.93	2,245	2,649	307,818	64.53	4,770

83,504,429.58    33,488,495    39,512,552    60,692,763    1,373,621

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 44.2    1.64



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2763 MAINS - PLASTIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R3						
NET SALVAGE PERCENT.. -20						
1965	1,068.29	836	1,227	55	24.33	2
1968	5,786.86	4,322	6,341	603	26.43	23
1970	102,464.12	74,003	108,581	14,376	27.87	516
1971	171,822.92	121,917	178,883	27,305	28.61	954
1972	178,393.08	124,314	182,400	31,672	29.35	1,079
1973	116,143.78	79,423	116,534	22,839	30.11	759
1974	58,217.99	39,053	57,301	12,561	30.87	407
1975	66,529.18	43,750	64,192	15,643	31.64	494
1976	27,864.79	17,951	26,339	7,099	32.42	219
1977	7,491.98	4,726	6,934	2,056	33.20	62
1978	59,543.09	36,757	53,932	17,520	33.99	515
1979	99,133.03	59,837	87,796	31,164	34.79	896
1980	163,218.93	96,253	141,227	54,636	35.60	1,535
1981	35,554.88	20,467	30,030	12,636	36.42	347
1983	9,241.43	5,058	7,421	3,669	38.07	96
1984	40,437.09	21,552	31,622	16,903	38.91	434
1986	27,741.10	13,982	20,515	12,774	40.60	315
1987	58,759.72	28,748	42,181	28,331	41.46	683
1988	12,093.70	5,739	8,421	6,091	42.32	144
1989	71,049.07	32,654	47,912	37,347	43.19	865
1990	59,129.80	26,284	38,565	32,391	44.07	735
1991	171,276.74	73,552	107,919	97,613	44.95	2,172
1992	1,254,198.97	519,449	762,163	742,876	45.84	16,206
1993	2,379,214.85	949,107	1,392,580	1,462,478	46.73	31,296
1994	3,830,414.69	1,468,903	2,155,252	2,441,246	47.63	51,254
1995	3,063,437.21	1,126,990	1,653,579	2,022,546	48.54	41,668
1996	3,537,636.66	1,246,253	1,828,568	2,416,596	49.45	48,869
1997	4,248,040.91	1,430,247	2,098,534	2,999,115	50.36	59,554
1998	3,496,748.41	1,121,575	1,645,634	2,550,464	51.29	49,726
1999	2,617,183.06	798,157	1,171,098	1,969,522	52.21	37,723
2000	3,307,240.94	955,898	1,402,544	2,566,145	53.14	48,290
2001	6,512,010.49	1,777,232	2,607,649	5,206,764	54.08	96,279
2002	11,104,797.40	2,851,712	4,184,183	9,141,574	55.02	166,150
2003	10,232,044.06	2,462,689	3,613,388	8,665,065	55.96	154,844
2004	15,485,199.15	3,474,879	5,098,527	13,483,712	56.91	236,930
2005	10,795,974.78	2,246,815	3,296,646	9,658,524	57.86	166,929
2006	11,190,216.81	2,146,642	3,149,667	10,278,593	58.81	174,776
2007	7,450,165.66	1,306,521	1,916,997	7,023,202	59.77	117,504
2008	11,566,801.16	1,838,150	2,697,031	11,183,130	60.73	184,145
2009	15,622,789.10	2,222,873	3,261,518	15,485,829	61.70	250,986
2010	4,287,255.69	538,702	790,412	4,354,295	62.67	69,480

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2763 MAINS - PLASTIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R3						
NET SALVAGE PERCENT.. -20						
2011	2,313,573.32	252,254	370,120	2,406,168	63.64	37,809
2012	3,305,155.16	305,396	448,093	3,518,093	64.61	54,451
2013	1,730,891.75	130,855	191,998	1,885,072	65.59	28,740
2014	2,006,427.93	118,315	173,598	2,234,116	66.56	33,565
2015	1,200,453.03	50,621	74,274	1,366,270	67.54	20,229
2016	4,446,755.70	112,805	165,513	5,170,594	68.52	75,461
2017	764,024.53	6,418	9,417	907,412	69.51	13,054
	149,291,612.99	32,390,636	47,525,256	131,624,679		2,279,170
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						57.8 1.53



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2765 MAINS - STEEL FEEDER LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R2.5						
NET SALVAGE PERCENT.. -20						
1910	280.88	319	337			
1917	575.29	635	690			
1924	2,027.03	2,181	2,432			
1931	545.02	570	654			
1933	482.94	501	580			
1941	494.82	492	594			
1948	682.29	647	819			
1949	2,599.74	2,447	3,120			
1952	2,217.47	2,035	2,637	24	15.30	2
1953	181,290.46	164,802	213,590	3,959	15.76	251
1954	10,565.19	9,511	12,327	351	16.24	22
1955	1,211,139.92	1,079,518	1,399,101	54,267	16.72	3,246
1957	103,172.26	90,036	116,691	7,116	17.73	401
1958	50,018.88	43,161	55,938	4,085	18.26	224
1959	103,660.36	88,414	114,588	9,804	18.80	521
1960	17,263.12	14,549	18,856	1,860	19.35	96
1961	31,546.59	26,260	34,034	3,822	19.91	192
1962	369.71	304	394	50	20.48	2
1963	16,583.27	13,449	17,430	2,470	21.07	117
1965	1,438,515.09	1,134,522	1,470,389	255,829	22.28	11,482
1966	54,097.51	42,046	54,493	10,424	22.90	455
1967	148,675.27	113,826	147,523	30,887	23.53	1,313
1968	730,303.21	550,488	713,456	162,908	24.17	6,740
1969	206,539.82	153,207	198,563	49,285	24.82	1,986
1970	468,510.11	341,825	443,020	119,192	25.48	4,678
1971	869,403.93	623,404	807,958	235,327	26.16	8,996
1972	696,028.33	490,349	635,513	199,721	26.84	7,441
1973	25,211.04	17,440	22,603	7,650	27.53	278
1974	1,049,369.28	712,543	923,486	335,757	28.22	11,898
1975	615,896.91	410,128	531,544	207,532	28.93	7,174
1976	13,686.47	8,935	11,580	4,844	29.64	163
1977	328,001.01	209,699	271,779	121,822	30.37	4,011
1978	297,002.30	185,878	240,906	115,497	31.10	3,714
1979	168,072.08	102,890	133,350	68,336	31.84	2,146
1980	157,023.76	93,954	121,768	66,661	32.59	2,045
1982	303,717.21	173,257	224,549	139,912	34.10	4,103
1983	6,359.69	3,538	4,585	3,047	34.87	87
1984	85,891.38	46,540	60,318	42,752	35.65	1,199
1985	61,378.46	32,362	41,943	31,711	36.44	870
1986	539,582.84	276,631	358,526	288,973	37.23	7,762
1987	290,703.15	144,798	187,664	161,180	38.02	4,239



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2765 MAINS - STEEL FEEDER LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R2.5						
NET SALVAGE PERCENT.. -20						
1988	241,464.08	116,662	151,199	138,558	38.83	3,568
1989	2,954,728.98	1,383,345	1,792,874	1,752,801	39.64	44,218
1990	14,881.18	6,742	8,738	9,119	40.46	225
1991	1,505,103.02	659,091	854,210	951,914	41.28	23,060
1992	828,495.52	350,106	453,752	540,443	42.11	12,834
1993	319,948.28	130,243	168,801	215,137	42.95	5,009
1994	416,050.07	162,914	211,144	288,116	43.79	6,579
1995	12,293.53	4,621	5,989	8,763	44.64	196
1996	22,720.37	8,179	10,600	16,664	45.50	366
1997	46,344.74	15,948	20,669	34,945	46.36	754
1998	50,313.62	16,515	21,404	38,972	47.22	825
1999	402,737.30	125,654	162,853	320,432	48.10	6,662
2000	492,608.82	145,785	188,944	402,187	48.97	8,213
2001	37,700.39	10,545	13,667	31,573	49.85	633
2002	134,442.84	35,393	45,871	115,460	50.74	2,276
2003	1,350,852.65	333,428	432,137	1,188,886	51.63	23,027
2004	27,645.95	6,365	8,249	24,926	52.53	475
2005	315,485.79	67,388	87,338	291,245	53.43	5,451
2006	979,242.34	192,891	249,995	925,096	54.33	17,027
2007	1,391,725.30	250,761	324,997	1,345,073	55.24	24,350
2008	1,873,802.15	306,142	396,773	1,851,790	56.15	32,979
2009	71,469.36	10,463	13,560	72,203	57.07	1,265
2010	178,656.06	23,122	29,967	184,420	57.99	3,180
2011	426,573.78	47,959	62,157	449,732	58.91	7,634
2012	3,147,112.93	299,781	388,529	3,388,007	59.84	56,618
2013	685,506.59	53,535	69,384	753,224	60.77	12,395
2015	172,225.53	7,504	9,726	196,945	62.64	3,144
2016	3,004,038.07	78,766	102,084	3,502,762	63.58	55,092
2017	2,885,673.21	25,036	32,447	3,430,361	64.53	53,159
	34,279,326.54	12,282,975	15,918,386	25,216,805		509,068
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						49.5 1.49

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2780 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 52-R1.5						
NET SALVAGE PERCENT.. -25						
1935	291.04	321	364			
1947	27.44	28	34			
1949	3,802.18	3,816	4,753			
1953	4,922.12	4,780	6,153			
1955	2,185.44	2,084	2,732			
1958	780.88	723	976			
1959	13,369.94	12,255	16,712			
1960	650.41	590	813			
1961	12,166.97	10,909	15,209			
1963	2,062.37	1,806	2,577	1	15.57	
1965	4,892.04	4,177	5,961	154	16.48	9
1966	501.89	423	604	23	16.95	1
1968	6,895.66	5,649	8,062	558	17.92	31
1969	5,424.11	4,378	6,248	532	18.42	29
1970	6,016.50	4,783	6,826	695	18.93	37
1971	123,245.71	96,434	137,623	16,434	19.45	845
1972	94,838.28	72,998	104,177	14,371	19.98	719
1973	21,908.02	16,578	23,659	3,726	20.52	182
1974	22,189.86	16,498	23,545	4,192	21.07	199
1975	18,303.39	13,362	19,069	3,810	21.63	176
1976	14,982.50	10,733	15,317	3,411	22.20	154
1977	6,159.11	4,326	6,174	1,525	22.78	67
1978	32,608.91	22,450	32,039	8,722	23.36	373
1979	95,181.31	64,156	91,558	27,419	23.96	1,144
1980	58,534.73	38,610	55,101	18,067	24.56	736
1981	14,721.63	9,491	13,545	4,857	25.18	193
1982	29,929.94	18,850	26,901	10,511	25.80	407
1983	11,440.59	7,032	10,036	4,265	26.43	161
1984	99,252.36	59,479	84,884	39,181	27.07	1,447
1985	30,724.75	17,940	25,603	12,803	27.71	462
1986	160,068.01	90,923	129,758	70,327	28.37	2,479
1987	17,023.87	9,400	13,415	7,865	29.03	271
1988	87,813.81	47,074	67,180	42,587	29.70	1,434
1989	124,739.13	64,828	92,517	63,407	30.38	2,087
1990	7,971.22	4,012	5,726	4,238	31.06	136
1991	94,475.85	45,988	65,630	52,465	31.75	1,652
1992	19,238.92	9,041	12,903	11,146	32.45	343
1993	49,312.77	22,345	31,889	29,752	33.15	897
1994	25,211.88	10,994	15,690	15,825	33.86	467
1995	20,840.58	8,727	12,454	13,597	34.58	393
1997	22,605.99	8,678	12,385	15,872	36.03	441



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2780 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 52-R1.5						
NET SALVAGE PERCENT.. -25						
1998	74,245.14	27,200	38,818	53,988	36.76	1,469
1999	45,109.43	15,723	22,439	33,948	37.50	905
2000	690,390.66	228,364	325,902	537,086	38.24	14,045
2001	85,436.17	26,719	38,131	68,664	38.99	1,761
2002	48,427.71	14,261	20,352	40,183	39.75	1,011
2003	132,176.72	36,539	52,146	113,075	40.50	2,792
2004	77,608.77	20,018	28,568	68,443	41.27	1,658
2005	91,901.20	22,025	31,432	83,444	42.03	1,985
2006	299,301.57	66,191	94,462	279,665	42.80	6,534
2007	393,704.44	79,686	113,722	378,409	43.58	8,683
2008	290,405.58	53,333	76,113	286,894	44.36	6,467
2009	426,981.37	70,308	100,338	433,389	45.15	9,599
2010	4,800.67	699	998	5,003	45.94	109
2011	342,121.82	43,343	61,855	365,797	46.73	7,828
2012	77,132.52	8,288	11,828	84,588	47.53	1,780
2013	50,552.68	4,460	6,365	56,826	48.33	1,176
2014	23,297.23	1,602	2,286	26,836	49.14	546
2015	1,248,921.05	61,541	87,826	1,473,325	49.95	29,496
2016	341,270.88	10,089	14,398	412,191	50.77	8,119
2017	291,815.34	2,874	4,102	360,667	51.59	6,991
	6,402,913.06	1,640,932	2,338,883	5,664,759		130,926
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						43.3 2.04



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2781 MEASURING AND REGULATING STATION EQUIPMENT - ELECTRONIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-S2						
NET SALVAGE PERCENT.. -25						
1976	9,321.74	10,892	8,935	2,717	1.63	1,667
1986	135,429.25	141,388	115,980	53,307	4.12	12,939
1987	31,052.72	31,953	26,211	12,605	4.42	2,852
1988	27,683.04	28,057	23,015	11,589	4.73	2,450
1994	54,049.86	48,780	40,014	27,548	6.95	3,964
1995	3,799.69	3,346	2,745	2,005	7.39	271
1996	28,084.62	24,069	19,744	15,362	7.86	1,954
1997	28,631.08	23,850	19,564	16,225	8.34	1,945
1998	13,128.47	10,595	8,691	7,720	8.86	871
2002	6,270.87	4,317	3,541	4,298	11.23	383
2003	19,539.19	12,798	10,498	13,926	11.90	1,170
2004	11,995.27	7,425	6,091	8,903	12.62	705
2005	52,419.53	30,482	25,004	40,520	13.37	3,031
2006	99,210.95	53,822	44,150	79,864	14.15	5,644
2007	73,922.63	37,072	30,410	61,993	14.97	4,141
2008	28,347.51	12,997	10,661	24,773	15.83	1,565
2009	14,788.92	6,123	5,023	13,463	16.72	805
2010	20,411.63	7,522	6,170	19,345	17.63	1,097
2011	3,738.91	1,200	984	3,690	18.58	199
2012	304,378.07	83,095	68,162	312,311	19.54	15,983
2014	64,727.07	11,295	9,265	71,644	21.51	3,331
2015	106,041.86	13,255	10,873	121,679	22.50	5,408
	1,136,972.88	604,333	495,731	925,485		72,375

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.8 6.37

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2782 MEASURING AND REGULATING STATION EQUIPMENT - DISTRICT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R2						
NET SALVAGE PERCENT.. -25						
1909	1,324.10	1,655	1,655			
1910	790.42	988	988			
1930	683.94	793	855			
1937	2,128.52	2,371	2,661			
1938	1,351.39	1,496	1,689			
1939	1.99	2	2			
1948	1,403.07	1,454	1,754			
1949	1,423.51	1,465	1,779			
1952	15,020.07	15,088	18,775			
1953	12,006.48	11,960	15,008			
1955	4,216.45	4,125	5,271			
1959	2,520.47	2,370	3,151			
1960	2,832.87	2,636	3,541			
1961	4,752.05	4,373	5,940			
1963	2,049.31	1,842	2,562			
1964	4,478.32	3,976	5,598			
1965	2,336.22	2,047	2,920			
1966	6,971.70	6,029	8,715			
1969	172.23	143	215			
1970	8,163.68	6,663	10,205			
1971	4,561.64	3,665	5,702			
1972	1,878.25	1,485	2,348			
1973	26,665.90	20,727	33,332			
1974	10,564.00	8,067	13,205			
1975	21,000.40	15,750	26,250			
1976	18,501.10	13,619	23,126			
1977	2,257.00	1,630	2,821			
1978	50,274.91	35,569	62,844			
1979	20,187.49	13,989	25,234			
1980	24,713.69	16,761	30,892			
1981	31,356.29	20,795	39,195			
1982	11,678.95	7,567	14,599			
1983	10,848.54	6,862	13,525	36	27.17	1
1984	17,235.44	10,635	20,961	583	27.85	21
1985	21,620.50	12,997	25,616	1,410	28.55	49
1986	19,391.30	11,348	22,366	1,873	29.25	64
1989	44,358.02	23,782	46,873	8,575	31.41	273
1990	24,859.96	12,910	25,445	5,630	32.15	175
1992	13,666.49	6,634	13,075	4,008	33.64	119
1996	11,583.38	4,812	9,484	4,995	36.72	136
2003	44,747.25	12,834	25,295	30,639	42.38	723

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2782 MEASURING AND REGULATING STATION EQUIPMENT - DISTRICT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R2						
NET SALVAGE PERCENT.. -25						
2004	26,197.41	7,020	13,836	18,911	43.21	438
2005	36,565.03	9,100	17,936	27,770	44.05	630
2007	125,470.12	26,377	51,988	104,850	45.75	2,292
2008	221,340.25	42,257	83,286	193,389	46.60	4,150
2009	37,961.83	6,505	12,821	34,631	47.46	730
2010	129,637.53	19,651	38,731	123,316	48.33	2,552
2011	59,909.79	7,897	15,565	59,322	49.20	1,206
2012	427,612.96	47,812	94,235	440,281	50.08	8,792
2013	394,548.07	36,136	71,222	421,963	50.97	8,279
2014	128,065.73	9,168	18,069	142,013	51.85	2,739
2015	208,966.68	10,686	21,061	240,147	52.75	4,553
	2,302,852.69	556,523	1,014,222	1,864,343		37,922
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						49.2 1.65



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2801 SERVICES - CAST IRON, COPPER AND ALL VALVES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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						
NET SALVAGE PERCENT.. -25						
1940	0.01					
1949	90.31	109	37	76	1.51	50
1950	284.63	340	114	242	1.79	135
1951	269.31	319	107	230	2.07	111
1952	132.35	156	52	113	2.35	48
1953	415.49	485	163	356	2.63	135
1954	589.99	684	230	507	2.92	174
1955	393.66	453	152	340	3.21	106
1956	634.10	723	243	550	3.50	157
1957	1,239.53	1,403	472	1,077	3.79	284
1958	4,623.11	5,189	1,745	4,034	4.08	989
1959	11,726.95	13,057	4,391	10,268	4.37	2,350
1960	11,579.94	12,785	4,299	10,176	4.67	2,179
1961	20,127.42	22,040	7,412	17,747	4.96	3,578
1962	18,325.58	19,895	6,690	16,217	5.26	3,083
1963	19,264.59	20,734	6,973	17,108	5.56	3,077
1964	34,340.36	36,626	12,317	30,608	5.87	5,214
1965	32,104.38	33,920	11,407	28,723	6.19	4,640
1966	30,576.70	32,000	10,761	27,460	6.51	4,218
1967	51,918.78	53,801	18,092	46,806	6.84	6,843
1968	42,891.09	43,977	14,789	38,825	7.19	5,400
1969	67,681.72	68,655	23,088	61,514	7.54	8,158
1970	63,261.61	63,459	21,340	57,737	7.90	7,308
1971	61,979.23	61,437	20,660	56,814	8.28	6,862
1972	16,203.67	15,864	5,335	14,920	8.67	1,721
1973	5,192.32	5,019	1,688	4,802	9.07	529
1974	2,195.40	2,093	704	2,040	9.49	215
1975	2,349.32	2,208	743	2,194	9.92	221
1976	244.28	226	76	229	10.37	22
1977	2,983.78	2,720	915	2,815	10.83	260
1978	5,037.33	4,516	1,519	4,778	11.31	422
1980	5,514.94	4,774	1,605	5,289	12.30	430
1981	3,825.09	3,249	1,093	3,688	12.82	288
1982	1,848.80	1,539	518	1,793	13.36	134
1983	2,214.57	1,806	607	2,161	13.91	155
1984	1,550.80	1,237	416	1,522	14.47	105
1985	1,064.12	830	279	1,051	15.05	70
1986	1,436.93	1,094	368	1,428	15.64	91
1987	910.20	676	227	911	16.25	56
1988	1,777.07	1,284	432	1,789	16.87	106
1989	3,194.08	2,246	755	3,238	17.50	185

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2801 SERVICES - CAST IRON, COPPER AND ALL VALVES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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						
NET SALVAGE PERCENT.. -25						
1990	1,335.19	912	307	1,362	18.15	75
1993	999.46	620	208	1,041	20.16	52
1998	1,734.57	881	296	1,872	23.75	79
1999	1,021.27	495	166	1,111	24.50	45
2005	2,668,143.19	899,665	302,543	3,032,636	29.21	103,822
2006	2,128.22	663	223	2,437	30.03	81
2007	76,184.57	21,760	7,317	87,914	30.86	2,849
2008	245,716.00	63,809	21,458	285,687	31.69	9,015
	3,529,256.01	1,532,433	515,332	3,896,238		186,127
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.9 5.27



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2802 SERVICES - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 42-R2						
NET SALVAGE PERCENT.. -25						
1930	1,729.24	2,162	2,162			
1937	51.22	64	64			
1938	0.02					
1939	65.93	82	82			
1942	9.38	12	12			
1948	153.92	182	138	54	2.26	24
1952	153.92	177	135	57	3.41	17
1953	117.50	134	102	45	3.70	12
1955	154.07	173	132	61	4.28	14
1957	233.44	258	196	96	4.86	20
1958	5,374.76	5,893	4,480	2,238	5.16	434
1959	2,581.27	2,807	2,134	1,093	5.46	200
1960	2,332.81	2,516	1,913	1,003	5.76	174
1961	1,385.30	1,481	1,126	606	6.07	100
1962	1,356.53	1,438	1,093	603	6.38	95
1964	4,568.35	4,755	3,615	2,095	7.03	298
1965	24,292.95	25,045	19,042	11,324	7.36	1,539
1966	8,420.37	8,593	6,533	3,992	7.71	518
1967	10,442.42	10,545	8,017	5,036	8.07	624
1968	7,162.42	7,154	5,439	3,514	8.44	416
1969	15,718.49	15,522	11,801	7,847	8.82	890
1970	12,358.06	12,060	9,169	6,279	9.21	682
1971	13,360.27	12,875	9,789	6,911	9.62	718
1972	14,753.92	14,034	10,670	7,772	10.04	774
1973	3,831.47	3,595	2,733	2,056	10.47	196
1974	3,355.56	3,104	2,360	1,834	10.92	168
1975	2,342.66	2,135	1,623	1,305	11.38	115
1976	4,296.27	3,854	2,930	2,440	11.86	206
1977	4,450.90	3,928	2,986	2,578	12.35	209
1978	4,950.75	4,295	3,265	2,923	12.85	227
1979	43,408.68	36,988	28,122	26,139	13.37	1,955
1980	52,640.97	44,024	33,471	32,330	13.90	2,326
1981	43,846.13	35,951	27,333	27,475	14.45	1,901
1982	23,746.85	19,075	14,503	15,181	15.01	1,011
1983	37,210.77	29,259	22,245	24,268	15.58	1,558
1984	55,436.65	42,617	32,401	36,895	16.17	2,282
1985	61,187.10	45,945	34,932	41,552	16.77	2,478
1986	76,624.61	56,146	42,687	53,094	17.38	3,055
1987	86,700.63	61,903	47,064	61,312	18.01	3,404
1988	93,159.23	64,740	49,221	67,228	18.65	3,605
1989	206,477.56	139,496	106,058	152,039	19.30	7,878



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2802 SERVICES - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 42-R2						
NET SALVAGE PERCENT.. -25						
1990	213,237.65	139,873	106,345	160,202	19.96	8,026
1991	257,712.22	163,831	124,560	197,580	20.64	9,573
1992	127,547.10	78,464	59,656	99,778	21.33	4,678
1993	269,441.96	160,220	121,814	214,988	22.02	9,763
1994	145,812.25	83,625	63,580	118,685	22.73	5,222
1995	111,689.80	61,663	46,882	92,730	23.45	3,954
1996	104,833.83	55,600	42,272	88,770	24.18	3,671
1997	110,475.32	56,159	42,697	95,397	24.92	3,828
1998	87,899.98	42,720	32,480	77,395	25.67	3,015
1999	75,282.61	34,885	26,523	67,580	26.43	2,557
2000	136,850.36	60,279	45,830	125,233	27.20	4,604
2001	1,595.90	666	506	1,489	27.98	53
2003	1,070.42	396	301	1,037	29.56	35
2006	656,184.70	195,100	148,333	671,898	32.01	20,990
2007	12,541.19	3,419	2,599	13,077	32.84	398
2008	25,519.72	6,319	4,804	27,096	33.68	805
2009	4,656,522.90	1,036,658	788,165	5,032,489	34.52	145,785
2010	25,030.05	4,932	3,750	27,538	35.38	778
2011	162,192.38	27,804	21,139	181,601	36.24	5,011
2012	56,682.08	8,249	6,272	64,581	37.11	1,740
2013	40,149.20	4,803	3,652	46,534	37.98	1,225
2014	142,609.73	13,327	10,132	168,130	38.86	4,327
2015	209,523.32	14,030	10,667	251,237	39.75	6,320
2016	160,248.97	6,438	4,894	195,417	40.65	4,807
2017	100,998.40	1,352	1,028	125,220	41.55	3,014
	8,822,095.39	2,985,829	2,270,659	8,756,960		294,302

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 29.8 3.34

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2803 SERVICES - PLASTIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-S0.5						
NET SALVAGE PERCENT.. -25						
1965	5,254.09	4,462	5,825	743	15.39	48
1966	773.54	649	847	120	15.79	8
1967	810.37	671	876	137	16.20	8
1968	12,086.11	9,877	12,894	2,214	16.62	133
1969	11,350.74	9,152	11,948	2,240	17.04	131
1970	18,054.45	14,359	18,745	3,823	17.46	219
1971	69,800.10	54,731	71,449	15,801	17.89	883
1972	174,537.30	134,902	176,109	42,063	18.32	2,296
1973	157,967.28	120,286	157,029	40,430	18.76	2,155
1974	119,319.39	89,458	116,784	32,365	19.21	1,685
1975	119,614.75	88,279	115,245	34,273	19.66	1,743
1976	57,497.56	41,745	54,497	17,375	20.12	864
1977	113,705.51	81,193	105,994	36,138	20.58	1,756
1978	88,828.43	62,342	81,385	29,651	21.05	1,409
1979	334,482.97	230,567	300,996	117,108	21.53	5,439
1980	500,555.61	338,789	442,276	183,419	22.01	8,333
1981	397,802.81	264,062	344,723	152,531	22.51	6,776
1982	382,099.72	248,761	324,748	152,877	23.00	6,647
1983	265,673.06	169,436	221,192	110,899	23.51	4,717
1984	258,510.48	161,369	210,661	112,477	24.03	4,681
1985	399,532.13	243,984	318,512	180,903	24.55	7,369
1986	510,265.16	304,565	397,598	240,233	25.08	9,579
1987	761,609.15	443,875	579,462	372,549	25.62	14,541
1988	954,667.37	542,716	708,495	484,839	26.17	18,527
1989	1,340,311.48	742,750	969,632	705,757	26.72	26,413
1990	2,033,101.00	1,096,502	1,431,441	1,109,935	27.29	40,672
1991	1,914,235.73	1,003,490	1,310,018	1,082,777	27.87	38,851
1992	1,656,338.14	842,828	1,100,280	970,143	28.46	34,088
1993	1,908,818.09	941,978	1,229,716	1,156,307	29.05	39,804
1994	2,032,341.66	970,646	1,267,141	1,273,286	29.66	42,929
1995	1,463,016.40	675,127	881,353	947,418	30.28	31,289
1996	1,502,954.48	668,890	873,210	1,005,483	30.91	32,529
1997	1,946,512.60	833,351	1,087,908	1,345,233	31.56	42,625
1998	2,464,846.13	1,013,545	1,323,144	1,757,914	32.21	54,577
1999	874,844.47	344,470	449,692	643,864	32.88	19,582
2000	515,563.20	193,871	253,091	391,363	33.56	11,662
2001	579,696.71	207,423	270,783	453,838	34.26	13,247
2002	2,982,677.73	1,012,880	1,322,276	2,406,071	34.96	68,824
2003	1,971,456.74	632,000	825,052	1,639,269	35.69	45,931
2004	188,451.07	56,830	74,189	161,375	36.42	4,431
2005	2,687,126.79	757,837	989,327	2,369,581	37.17	63,750



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2803 SERVICES - PLASTIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-S0.5						
NET SALVAGE PERCENT.. -25						
2006	38,225,749.48	10,014,191	13,073,144	34,709,043	37.94	914,840
2007	5,238,546.15	1,265,960	1,652,663	4,895,520	38.72	126,434
2008	3,709,549.97	819,208	1,069,445	3,567,492	39.52	90,271
2009	20,271,346.22	4,048,948	5,285,747	20,053,436	40.33	497,234
2010	3,971,135.58	706,316	922,069	4,041,850	41.17	98,175
2011	2,497,156.15	388,870	507,655	2,613,790	42.02	62,203
2012	2,778,385.76	370,463	483,625	2,989,357	42.88	69,714
2013	2,812,786.31	309,828	404,469	3,111,514	43.77	71,088
2014	3,003,550.58	260,483	340,050	3,414,388	44.67	76,436
2015	4,309,411.89	270,469	353,087	5,033,678	45.59	110,412
2016	9,234,939.03	351,159	458,424	11,085,250	46.54	238,188
2017	16,724,295.16	213,444	278,643	20,626,726	47.51	434,155
	146,553,942.78	34,673,987	45,265,564	137,926,864		3,500,301
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					39.4	2.39



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 17-L0						
NET SALVAGE PERCENT.. 0						
1958	128.59	115	187-	316	1.82	174
1959	704.51	624	1,013-	1,718	1.94	886
1960	280.89	247	401-	682	2.07	329
1961	836.62	728	1,182-	2,019	2.20	918
1962	1,202.66	1,038	1,686-	2,889	2.33	1,240
1963	153.75	132	214-	368	2.46	150
1964	93.57	79	128-	222	2.59	86
1965	28,363.23	23,808	38,666-	67,029	2.73	24,553
1966	531.00	442	718-	1,249	2.86	437
1967	1,588.58	1,308	2,124-	3,713	3.00	1,238
1968	13,271.58	10,812	17,559-	30,831	3.15	9,788
1969	14,570.19	11,750	19,083-	33,653	3.29	10,229
1970	7,619.27	6,078	9,871-	17,490	3.44	5,084
1971	8,533.97	6,732	10,933-	19,467	3.59	5,423
1972	1,711.29	1,335	2,168-	3,879	3.74	1,037
1973	4,531.17	3,494	5,674-	10,205	3.89	2,623
1974	29.73	23	37-	67	4.05	17
1975	145.55	110	179-	325	4.21	77
1976	1,833.66	1,362	2,212-	4,046	4.37	926
1977	5,083.23	3,726	6,051-	11,134	4.54	2,452
1978	1,775.03	1,283	2,084-	3,859	4.71	819
1979	12,230.63	8,720	14,162-	26,393	4.88	5,408
1980	27,624.16	19,402	31,510-	59,134	5.06	11,687
1981	21,297.47	14,733	23,927-	45,224	5.24	8,631
1982	5,012.74	3,412	5,541-	10,554	5.43	1,944
1983	38,306.60	25,643	41,646-	79,953	5.62	14,227
1984	28,616.25	18,836	30,591-	59,207	5.81	10,191
1985	37,264.49	24,112	39,160-	76,424	6.00	12,737
1986	53,386.38	33,885	55,032-	108,418	6.21	17,459
1987	34,282.52	21,356	34,684-	68,967	6.41	10,759
1988	34,311.24	20,950	34,024-	68,335	6.62	10,323
1989	145,939.98	87,221	141,653-	287,593	6.84	42,046
1990	90,321.41	52,812	85,770-	176,091	7.06	24,942
1991	71,684.98	40,945	66,497-	138,182	7.29	18,955
1992	79,232.37	44,184	71,758-	150,990	7.52	20,078
1993	70,785.89	38,474	62,484-	133,270	7.76	17,174
1994	59,849.79	31,685	51,459-	111,309	8.00	13,914
1995	27,621.19	14,217	23,089-	50,710	8.25	6,147
1996	122,541.46	61,198	99,390-	221,931	8.51	26,079
1997	229,251.26	110,850	180,028-	409,279	8.78	46,615
1998	195,151.87	91,263	148,217-	343,369	9.05	37,941

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2810 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 17-L0						
NET SALVAGE PERCENT.. 0						
1999	447,398.89	201,857	327,830-	775,229	9.33	83,090
2000	264,876.88	114,988	186,748-	451,625	9.62	46,946
2001	162,012.57	67,569	109,737-	271,750	9.91	27,422
2002	97,658.35	38,948	63,254-	160,912	10.22	15,745
2003	26,856.07	10,221	16,600-	43,456	10.53	4,127
2004	76,432.12	27,650	44,905-	121,337	10.85	11,183
2005	64,964.46	22,202	36,058-	101,022	11.19	9,028
2006	98,010.93	31,536	51,217-	149,228	11.53	12,943
2007	182,624.89	55,003	89,329-	271,954	11.88	22,892
2008	277,583.13	77,723	126,227-	403,810	12.24	32,991
2009	16,656.48	4,292	6,971-	23,627	12.62	1,872
2010	340,364.64	80,084	130,062-	470,427	13.00	36,187
2011	47,214.89	9,971	16,194-	63,409	13.41	4,728
2012	1,591,636.23	296,792	482,010-	2,073,646	13.83	149,938
2013	956,114.12	152,414	247,531-	1,203,645	14.29	84,230
2014	827,080.53	108,008	175,412-	1,002,493	14.78	67,828
2015	1,581,903.07	157,257	255,396-	1,837,299	15.31	120,006
2016	2,268,593.86	146,801	238,415-	2,507,009	15.90	157,674
2017	3,354,917.02	80,921	131,421-	3,486,338	16.59	210,147
	14,160,599.88	2,523,361	4,098,109-	18,258,709		1,524,720
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.0 10.77



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2820 METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-S0						
NET SALVAGE PERCENT.. 0						
1960	52.10	51	37	15	0.92	15
1961	15.86	15	11	5	1.29	4
1962	54.96	52	38	17	1.66	10
1963	275.46	257	186	89	2.03	44
1964	237.55	219	158	80	2.40	33
1965	450.75	409	296	155	2.78	56
1966	1,058.18	947	685	373	3.15	118
1967	1,380.10	1,218	881	499	3.53	141
1968	2,097.85	1,824	1,319	779	3.92	199
1969	3,728.18	3,194	2,311	1,417	4.30	330
1970	3,323.93	2,804	2,028	1,296	4.69	276
1971	3,716.37	3,087	2,233	1,483	5.08	292
1972	5,533.22	4,524	3,273	2,260	5.47	413
1973	7,113.23	5,724	4,141	2,972	5.86	507
1974	2,442.14	1,933	1,398	1,044	6.26	167
1975	953.97	742	537	417	6.66	63
1977	774.41	582	421	353	7.46	47
1978	1,467.80	1,083	783	685	7.87	87
1979	9,186.23	6,651	4,811	4,375	8.28	528
1980	19,747.71	14,021	10,143	9,605	8.70	1,104
1981	16,435.29	11,444	8,279	8,156	9.11	895
1982	12,965.69	8,843	6,397	6,569	9.54	689
1983	11,575.00	7,732	5,593	5,982	9.96	601
1984	16,000.07	10,459	7,566	8,434	10.39	812
1985	24,377.14	15,585	11,274	13,103	10.82	1,211
1986	23,461.59	14,656	10,602	12,860	11.26	1,142
1987	42,824.07	26,123	18,897	23,927	11.70	2,045
1988	56,632.55	33,696	24,376	32,257	12.15	2,655
1989	42,996.65	24,938	18,040	24,957	12.60	1,981
1990	117,572.92	66,390	48,026	69,547	13.06	5,325
1991	99,850.84	54,851	39,679	60,172	13.52	4,451
1992	47,251.71	25,217	18,242	29,010	13.99	2,074
1993	174,840.08	90,509	65,474	109,366	14.47	7,558
1994	199,170.07	99,918	72,280	126,890	14.95	8,488
1995	251,186.40	121,908	88,188	162,998	15.44	10,557
1996	478,386.58	224,363	162,303	316,084	15.93	19,842
1997	715,160.89	323,253	233,840	481,321	16.44	29,277
1998	380,645.36	165,581	119,780	260,865	16.95	15,390
1999	335,414.82	140,093	101,343	234,072	17.47	13,399
2000	568,873.53	227,549	164,608	404,266	18.00	22,459
2001	142,202.38	54,321	39,296	102,906	18.54	5,550



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2820 METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-S0						
NET SALVAGE PERCENT.. 0						
2002	121,438.54	44,164	31,948	89,491	19.09	4,688
2003	220,445.63	76,054	55,017	165,429	19.65	8,419
2004	157,154.72	51,232	37,061	120,094	20.22	5,939
2005	423,344.34	129,683	93,812	329,532	20.81	15,835
2006	881,695.05	252,456	182,625	699,070	21.41	32,652
2007	325,415.70	86,453	62,540	262,876	22.03	11,933
2008	147,924.38	36,193	26,182	121,742	22.66	5,373
2009	445,182.05	99,129	71,709	373,473	23.32	16,015
2010	928,193.07	185,945	134,511	793,682	23.99	33,084
2011	33,895.35	6,011	4,348	29,547	24.68	1,197
2012	2,543,181.43	389,946	282,085	2,261,096	25.40	89,020
2013	375,536.56	48,193	34,863	340,674	26.15	13,028
	10,424,840.45	3,202,225	2,316,474	8,108,367		398,018
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.4						3.82

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2830 HOUSE REGULATORS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 42-R1.5						
NET SALVAGE PERCENT.. 0						
1929	1,637.67	1,638	1,638			
1930	77.27	77	77			
1932	8.05	8	8			
1935	6.32	6	6			
1936	109.16	107	109			
1937	196.67	191	197			
1938	336.39	323	336			
1939	220.83	210	221			
1940	95.96	91	96			
1941	330.14	310	330			
1942	220.72	206	221			
1945	4.07	4	4			
1946	363.22	330	363			
1947	423.67	383	424			
1948	1,856.51	1,668	1,857			
1949	2,944.77	2,629	2,945			
1950	2,169.88	1,924	2,170			
1951	3,745.57	3,299	3,746			
1952	3,106.10	2,716	3,106			
1953	3,080.49	2,674	3,080			
1954	2,791.10	2,404	2,791			
1955	4,658.79	3,982	4,659			
1956	4,722.92	4,004	4,723			
1957	2,352.09	1,978	2,352			
1958	6,854.56	5,715	6,855			
1959	5,657.23	4,677	5,657			
1960	4,351.11	3,565	4,316	35	7.59	5
1961	4,843.82	3,933	4,762	82	7.90	10
1962	8,415.74	6,769	8,195	221	8.22	27
1963	8,839.65	7,040	8,524	316	8.55	37
1964	9,069.75	7,150	8,657	413	8.89	46
1965	5,591.37	4,363	5,282	309	9.23	33
1966	11,607.69	8,960	10,848	760	9.58	79
1967	8,458.27	6,455	7,815	643	9.95	65
1968	7,457.73	5,625	6,810	648	10.32	63
1969	16,501.05	12,293	14,884	1,617	10.71	151
1970	17,490.79	12,864	15,575	1,916	11.11	172
1971	19,163.35	13,912	16,844	2,319	11.51	201
1972	12,065.45	8,638	10,458	1,607	11.93	135
1973	6,582.16	4,644	5,623	959	12.37	78
1974	8,502.25	5,909	7,154	1,348	12.81	105



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2830 HOUSE REGULATORS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 42-R1.5						
NET SALVAGE PERCENT.. 0						
1975	1,205.17	824	998	207	13.27	16
1976	946.41	637	771	175	13.74	13
1977	633.92	419	507	127	14.22	9
1978	3,792.57	2,464	2,983	810	14.71	55
1979	22,033.75	14,049	17,010	5,024	15.22	330
1980	66,699.38	41,703	50,491	16,208	15.74	1,030
1981	15,982.05	9,791	11,854	4,128	16.27	254
1982	5,514.75	3,306	4,003	1,512	16.82	90
1983	15,175.58	8,899	10,774	4,402	17.37	253
1984	8,636.97	4,948	5,991	2,646	17.94	147
1985	11,523.54	6,442	7,800	3,724	18.52	201
1986	41,827.07	22,796	27,600	14,227	19.11	744
1987	42,238.81	22,417	27,141	15,098	19.71	766
1988	51,670.22	26,672	32,293	19,377	20.32	954
1989	111,363.99	55,815	67,577	43,787	20.95	2,090
1990	80,442.85	39,111	47,353	33,090	21.58	1,533
1991	69,150.83	32,567	39,430	29,721	22.22	1,338
1992	37,239.44	16,953	20,526	16,713	22.88	730
1993	50,769.55	22,314	27,016	23,754	23.54	1,009
1994	103,994.56	44,049	53,332	50,663	24.21	2,093
1995	95,523.86	38,915	47,116	48,408	24.89	1,945
1996	58,366.24	22,818	27,626	30,740	25.58	1,202
1997	89,944.37	33,665	40,759	49,185	26.28	1,872
1998	171,961.53	61,497	74,456	97,506	26.98	3,614
1999	200,915.85	68,408	82,824	118,092	27.70	4,263
2002	107,584.04	31,046	37,588	69,996	29.88	2,343
2004	1,121,016.28	283,987	343,832	777,184	31.36	24,783
2005	527,882.60	124,179	150,348	377,535	32.12	11,754
2006	385,715.47	83,847	101,516	284,199	32.87	8,646
2007	532,421.12	105,978	128,311	404,110	33.64	12,013
2008	681,749.18	123,199	149,161	532,588	34.41	15,478
2009	642,936.92	104,400	126,400	516,537	35.18	14,683
2010	559,284.10	80,296	97,217	462,067	35.97	12,846
2012	177,605.83	18,860	22,835	154,771	37.54	4,123
2013	252,509.76	22,004	26,641	225,869	38.34	5,891
2014	107,310.54	7,282	8,816	98,494	39.15	2,516
	6,650,479.43	1,740,231	2,104,614	4,545,865		142,834

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 31.8 2.15



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2840 HOUSE REGULATOR INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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.. 0						
1946	98.10	92	98			
1947	240.46	224	240			
1948	247.76	229	248			
1949	419.58	386	420			
1950	520.99	477	521			
1951	721.75	657	722			
1952	1,381.41	1,250	1,381			
1953	1,125.46	1,013	1,125			
1954	1,661.98	1,487	1,662			
1955	1,807.17	1,607	1,807			
1956	1,854.61	1,638	1,855			
1957	1,450.43	1,273	1,450			
1958	5,698.52	4,966	5,699			
1959	6,654.67	5,756	6,655			
1960	1,690.03	1,451	1,690			
1961	817.96	697	818			
1962	4,684.88	3,955	4,685			
1963	1,352.08	1,131	1,352			
1964	2,242.55	1,859	2,243			
1965	886.45	727	886			
1966	2,317.11	1,881	2,317			
1967	2,216.26	1,780	2,216			
1968	1,667.03	1,323	1,667			
1969	3,115.15	2,442	3,115			
1970	1,868.05	1,445	1,868			
1971	4,071.13	3,106	4,071			
1972	3,212.70	2,417	3,213			
1973	3,081.21	2,283	3,081			
1974	201.00	147	201			
1975	719.86	516	720			
1976	42.27	30	42			
1977	40.44	28	40			
1978	78.45	53	78			
1979	5,751.37	3,830	5,751			
1980	12,999.42	8,481	12,759	240	17.38	14
1981	4,703.22	3,003	4,518	185	18.07	10
1982	1,068.30	667	1,003	65	18.77	3
1983	2,635.98	1,608	2,419	217	19.49	11
1984	4,792.34	2,854	4,293	499	20.22	25
1985	2,226.27	1,293	1,945	281	20.97	13
1986	14,446.29	8,171	12,292	2,154	21.72	99

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2840 HOUSE REGULATOR INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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.. 0						
1987	31,497.93	17,330	26,071	5,427	22.49	241
1988	29,646.92	15,855	23,852	5,795	23.26	249
1989	92,354.67	47,932	72,107	20,248	24.05	842
1990	41,853.06	21,052	31,670	10,183	24.85	410
1991	33,028.90	16,078	24,187	8,842	25.66	345
1992	86,714.10	40,790	61,363	25,351	26.48	957
1993	50,870.56	23,085	34,728	16,143	27.31	591
1994	119,801.20	52,353	78,758	41,043	28.15	1,458
1995	116,845.14	49,075	73,827	43,018	29.00	1,483
1996	68,777.95	27,704	41,677	27,101	29.86	908
1997	89,844.32	34,626	52,090	37,754	30.73	1,229
1998	115,698.10	42,577	64,051	51,647	31.60	1,634
1999	217,759.31	76,259	114,721	103,038	32.49	3,171
2000	131,806.52	43,812	65,909	65,898	33.38	1,974
2001	80,828.88	25,413	38,230	42,599	34.28	1,243
2002	226,968.63	67,228	101,135	125,834	35.19	3,576
2004	1,449,088.43	375,894	565,481	883,607	37.03	23,862
2005	539,690.40	129,957	195,503	344,187	37.96	9,067
2006	285,473.32	63,432	95,425	190,048	38.89	4,887
2007	715,836.45	145,458	218,822	497,014	39.84	12,475
2009	400,831.83	66,217	99,614	301,218	41.74	7,217
2010	740,119.44	108,205	162,780	577,339	42.69	13,524
2013	44,260.55	3,904	5,873	38,388	45.59	842
	5,816,407.30	1,572,469	2,351,040	3,465,368		92,360

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 37.5 1.59



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2850 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 42-R2						
NET SALVAGE PERCENT.. -10						
1952	250.87	254	276			
1953	1,403.07	1,407	1,543			
1954	106.00	106	117			
1955	309.42	306	340			
1959	1,029.10	985	1,132			
1962	1,004.94	938	1,105			
1963	743.50	687	818			
1965	2,026.70	1,839	2,229			
1966	536.44	482	590			
1967	1,344.27	1,195	1,479			
1968	553.04	486	608			
1969	37,218.79	32,343	40,941			
1970	1,375.85	1,182	1,513			
1971	4,894.93	4,151	5,384			
1972	2,142.73	1,794	2,357			
1973	157.82	130	174			
1979	1,335.60	1,001	1,469			
1980	13,904.37	10,233	15,295			
1983	20,354.71	14,085	22,390			
1984	12,728.85	8,611	14,002			
1985	8,568.64	5,662	9,426			
1986	9,813.01	6,328	10,794			
1987	5,535.59	3,478	6,089			
1988	11,789.80	7,210	12,969			
1989	6,120.05	3,639	6,732			
1990	68,931.92	39,790	74,185	1,640	19.96	82
1991	25,260.80	14,132	26,348	1,439	20.64	70
1992	16,357.02	8,855	16,509	1,484	21.33	70
1993	21,598.41	11,302	21,072	2,686	22.02	122
1994	16,831.84	8,495	15,838	2,677	22.73	118
1995	17,312.42	8,411	15,682	3,362	23.45	143
1996	10,462.79	4,883	9,104	2,405	24.18	99
1997	7,822.30	3,499	6,524	2,081	24.92	84
1998	19,439.49	8,314	15,501	5,882	25.67	229
1999	38,358.37	15,642	29,163	13,031	26.43	493
2000	14,472.84	5,610	10,459	5,461	27.20	201
2001	10,892.69	4,000	7,458	4,524	27.98	162
2002	118.73	41	76	55	28.77	2
2003	3,371.40	1,098	2,047	1,662	29.56	56
2004	11,015.52	3,355	6,255	5,862	30.37	193
2005	2,158.71	612	1,141	1,234	31.18	40



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2850 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 42-R2						
NET SALVAGE PERCENT.. -10						
2006	10,031.84	2,625	4,895	6,140	32.01	192
2011	10,291.82	1,553	2,896	8,425	36.24	232
2014	5,107.24	420	783	4,835	38.86	124
	455,084.24	251,169	425,708	74,885		2,712

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 27.6 0.60

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2851 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT -  
ELECTRONIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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-R2.5						
NET SALVAGE PERCENT.. -10						
1993	29,106.64	24,064	26,079	5,938	6.21	956
1995	12,620.37	9,868	10,694	3,188	7.23	441
2007	23,063.81	9,519	10,316	15,054	15.62	964
	64,790.82	43,451	47,089	24,181		2,361
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.2 3.64

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2870 OTHER EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 17-R3						
NET SALVAGE PERCENT.. 0						
1999	21,446.76	17,927	22,692	1,245-		
	21,446.76	17,927	22,692	1,245-		
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2871 STREET LIGHTING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 35-S2.5						
NET SALVAGE PERCENT.. 0						
1996	8,308.51	4,707	6,195	2,114	15.17	139
1997	15,626.37	8,523	11,218	4,408	15.91	277
1998	4,355.23	2,281	3,002	1,353	16.67	81
	28,290.11	15,511	20,415	7,875		497
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.8 1.76

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2910 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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						
2000	13,861.47	12,129	13,921		60-	
	13,861.47	12,129	13,921		60-	
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2911 OFFICE FURNITURE AND EQUIPMENT - ELECTRONIC DATA PROCESSING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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						
2013	10,778.22	9,700	7,675	3,103	0.50	3,103
2014	46,511.90	32,558	25,760	20,752	1.50	13,835
2015	63,728.72	31,864	25,211	38,518	2.50	15,407
2016	11,761.04	3,528	2,791	8,970	3.50	2,563
2017	177,875.04	17,788	14,074	163,801	4.50	36,400
	310,654.92	95,438	75,511	235,144		71,308
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 3.3						22.95



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2921 TRANSPORTATION EQUIPMENT - TRAILERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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 14-R1.5						
NET SALVAGE PERCENT.. +5						
1995	2,620.51	2,209	2,489			
1997	6,264.80	5,046	5,952			
1998	8,890.83	6,980	8,446			
1999	26,146.76	19,978	24,839			
2000	3,385.80	2,509	3,217			
2001	18,536.57	13,283	19,428	1,819-		
	65,845.27	50,005	64,371	1,818-		
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2940 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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						
1993	89,374.01	87,587	83,063	6,311	0.50	6,311
1994	47,440.13	44,594	42,291	5,149	1.50	3,433
1995	10,176.65	9,159	8,686	1,491	2.50	596
1996	26,062.82	22,414	21,256	4,807	3.50	1,373
1997	81,327.44	66,689	63,244	18,083	4.50	4,018
1999	428,478.41	317,074	300,696	127,782	6.50	19,659
2001	57,006.96	37,625	35,682	21,325	8.50	2,509
2002	42,172.04	26,147	24,796	17,376	9.50	1,829
2003	18,721.21	10,858	10,297	8,424	10.50	802
2004	46,609.77	25,169	23,869	22,741	11.50	1,977
2005	54,739.69	27,370	25,956	28,784	12.50	2,303
2006	6,587.17	3,030	2,874	3,713	13.50	275
2007	18,357.55	7,710	7,312	11,046	14.50	762
2008	110,147.47	41,856	39,694	70,453	15.50	4,545
2009	15,619.06	5,310	5,036	10,583	16.50	641
2010	13,247.88	3,974	3,769	9,479	17.50	542
2011	27,057.60	7,035	6,671	20,387	18.50	1,102
2012	5,455.52	1,200	1,138	4,318	19.50	221
2013	14,118.06	2,541	2,410	11,708	20.50	571
2014	96,265.62	13,477	12,781	83,485	21.50	3,883
2015	8,688.89	869	824	7,865	22.50	350
2016	36,675.87	2,201	2,087	34,589	23.50	1,472
2017	24,442.26	489	464	23,978	24.50	979
	1,278,772.08	764,378	724,896	553,876		60,153

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.2 4.70

DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2970 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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						
2011	7,340.21	3,181	1,944	5,396	8.50	635
2015	68.68	11	7	62	12.50	5
2016	37,092.76	3,709	2,267	34,826	13.50	2,580
2017	2,785,958.62	92,856	56,754	2,729,205	14.50	188,221
	2,830,460.27	99,757	60,972	2,769,488		191,441
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 14.5						6.76



DUKE ENERGY KENTUCKY  
GAS PLANT

ACCOUNT 2980 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2017

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						
2003	83,590.71	60,603	22,886	60,704	5.50	11,037
	83,590.71	60,603	22,886	60,704		11,037
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						5.5 13.20