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MAR 4 2016

PUBLIC SERVICE  
COMMISSION

**KENDRICK R. RIGGS**  
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March 4, 2016

**VIA HAND DELIVERY**

James W. Gardner  
Acting Executive Director  
Kentucky Public Service Commission  
211 Sower Boulevard  
Frankfort, KY 40601

**RE: *The Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Approval of Depreciation Rates for Brown Solar, Case No. 2016-00063***

Dear Chairman Gardner:

Enclosed please find and accept for filing the original and ten copies of Kentucky Utilities Company's and Louisville Gas and Electric Company's Joint Responses to the Commission Staff's Initial Request for Information dated February 26, 2016 in the above-referenced matter. Please confirm your receipt of this filing by placing the stamp of your office with the date received on the enclosed additional copies and return them to me via our office courier.

Should you have any questions or need any additional information, please contact me at your convenience.

Yours very truly,

  
Kendrick R. Riggs

KRR: ec

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

**In the Matter of:**

**JOINT APPLICATION OF KENTUCKY UTILITIES )  
COMPANY AND LOUISVILLE GAS AND ) CASE NO.  
ELECTRIC COMPANY FOR APPROVAL OF ) 2016-00063  
DEPRECIATION RATES FOR BROWN SOLAR )**

**RESPONSE OF  
KENTUCKY UTILITIES COMPANY  
AND LOUISVILLE GAS AND ELECTRIC COMPANY  
TO  
COMMISSION STAFF'S INITIAL REQUEST FOR INFORMATION  
DATED FEBRUARY 26, 2016**

**FILED: MARCH 4, 2016**

VERIFICATION

COMMONWEALTH OF PENNSYLVANIA )
)
COUNTY OF CUMBERLAND ) SS:

The undersigned, John J. Spanos, being duly sworn, deposes and says that he is a Senior Vice President for Gannett Fleming Valuation and Rate Consultants, LLC, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

John J. Spanos
John J. Spanos

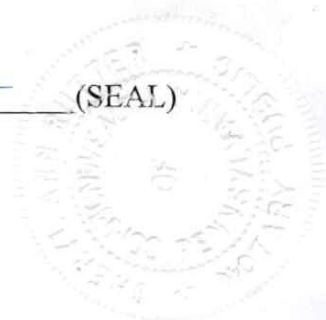
Subscribed and sworn to before me, a Notary Public in and before said County and State, this 3rd day of March 2016.

Cheryl Ann Rutter (SEAL)
Notary Public

My Commission Expires:

February 20, 2019

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Cheryl Ann Rutter, Notary Public
East Pennsboro Twp., Cumberland County
My Commission Expires Feb. 20, 2019
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES



VERIFICATION

COMMONWEALTH OF KENTUCKY )  
 ) SS:  
COUNTY OF JEFFERSON )

The undersigned, **Heather D. Metts**, being duly sworn, deposes and says that she is Director – Regulatory Accounting & Reporting for LG&E and KU Services Company, that she has personal knowledge of the matters set forth in the responses for which she is identified as the witness, and the answers contained therein are true and correct to the best of her information, knowledge and belief.

Heather D. Metts  
**Heather D. Metts**

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 4<sup>th</sup> day of March 2016.

Sheri L. Gardner (SEAL)  
Notary Public

My Commission Expires:

SHERI L. GARDNER  
Notary Public, State at Large, KY  
My Commission expires Dec. 24, 2017  
Notary ID # 501600



**KENTUCKY UTILITIES COMPANY  
AND LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Commission Staff's Initial Request for Information  
Dated February 26, 2016**

**Case No. 2016-00063**

**Question No. 1**

**Responding Witness: John J. Spanos**

- Q-1. Refer to the Application, Exhibit 2, page 1, third full paragraph, which states, in part, "[t]he recommended depreciation rates for each other production plant account are based on an interim survivor curve, net salvage percent and probable retirement date. Each of these parameters are established with the general understanding of the new facility and the estimates of other comparable facilities across the United States. The overall lifespan of the facility is 25 years."
- a. Provide a schedule listing all comparable facilities used in the analysis broken down by location, type of solar technology (photovoltaic, etc.), and all other relevant criteria included in the comparison.
  - b. Provide a paper copy and an electronic version of all work papers, spreadsheets or other media utilized in determining the interim survivor curve, net salvage percentage, the proposed depreciation rates and probable retirement date. Show all supporting calculations and provide the information in Excel spreadsheet format with cells and formulas intact.
  - c. Explain why the analysis was limited to comparable facilities in the United States.
  - d. Provide information detailing John Spanos's 25-year useful life determination.
- A-1.
- a. The attached schedule sets forth the comparable list of other facilities considered in Mr. Spanos' analyses. All the facilities are considered utility-scale solar. The list includes information available at the time the estimate was presented.
  - b. All parameters were based on the informed judgment since the assets are newly constructed or soon to be constructed. For the LG&E/KU solar facility, the parameters were based on a combination of company plans and Mr. Spanos' expectation of the assets given others in the industry, as well as his firm's

engineering group's involvement in the solar industry. The attached schedule sets forth the development of the depreciation rates by account.

- c. The analysis was based on solar projects in the United States because all the known information related to comparable facilities was other U.S. solar projects. However, Mr. Spanos has understanding of the solar industry that is world-wide.
- d. The 25-year life span is based on the overall period of time the solar assets will stay in service before it is economical to either shut down, rehabilitate or change functionality. This period is linked to the second generation of assets, such as inverters needing to be replaced. Support for the life span is also set forth in the attached schedule in part (a) of this response.

LOUISVILLE GAS & ELECTRIC AND KENTUCKY UTILITIES  
PROPOSED DEPRECIATION PARAMETERS FOR OTHER UTILITIES

COMPANY	ACCOUNT	DESCRIPTION	LIFE SPAN (YEARS)	INTERIM LIFE ESTIMATE	NET SALVAGE	RATE
COMPANY 1	341	STRUCTURES AND IMPROVEMENTS	25	50-S2.5	(1)	4.25
	344	GENERATORS	25	25-S2.5	(2)	4.49
	345	ACCESSORY ELECTRIC EQUIPMENT	25	40-R2.5	0	4.36
COMPANY 2	344	GENERATORS	NONE	20-S2.5	0	5.12
COMPANY 3	341	STRUCTURES AND IMPROVEMENTS	25	50-S2.5	(1)	3.01
	344	GENERATORS	25	25-S2.5	(2)	4.20
	345	ACCESSORY ELECTRIC EQUIPMENT	25	40-R2.5	0	3.20
COMPANY 4	341	STRUCTURES AND IMPROVEMENTS	25	50-R3	0	4.69
	344	GENERATORS	25	30-S2.5	0	4.85
	345	ACCESSORY ELECTRIC EQUIPMENT	25	40-R2.5	0	4.69
COMPANY 5	341	STRUCTURES AND IMPROVEMENTS	30	SQUARE	0	3.33
	343	PRIME MOVERS	30	SQUARE	0	3.33
	345	ACCESSORY ELECTRIC EQUIPMENT	30	SQUARE	0	3.33
	346	MISCELLANEOUS PLANT EQUIPMENT	30	SQUARE	0	3.33
COMPANY 6	341	STRUCTURES AND IMPROVEMENTS	20	40-S3	(5)	5.26
	344	GENERATORS	20	30-S1.5	(5)	5.52
	345	ACCESSORY ELECTRIC EQUIPMENT	20	45-R2.5	(5)	5.38
	346	MISCELLANEOUS PLANT EQUIPMENT	20	35-R2.5	0	5.19
COMPANY 7	341	STRUCTURES AND IMPROVEMENTS	20	60-S2.5	(15)	5.15
	344	GENERATORS	20	60-S2.5	(15)	4.91
COMPANY 8	344	GENERATORS	20	45-R2	0	4.82
COMPANY 9	344	GENERATORS	NONE	15-L2	0	6.90
COMPANY 10	346	MISCELLANEOUS POWER PLANT EQUIPMENT	NONE	25-R2.5	0	3.82
COMPANY 11	341	STRUCTURES AND IMPROVEMENTS	25	40-S3	0	4.04
	344	GENERATORS	25	30-S2.5	(5)	4.47
	345	ACCESSORY ELECTRIC EQUIPMENT	25	45-S2.5	0	4.05
	346	MISCELLANEOUS POWER PLANT EQUIPMENT	25	35-R2.5	0	4.26
COMPANY 12	341	STRUCTURES AND IMPROVEMENTS	25	SQUARE	0	4.01
	344	GENERATORS	25	SQUARE	0	4.02
	345	ACCESSORY ELECTRIC EQUIPMENT - INVERTERS	25	10-S2.5	0	12.04
	345	ACCESSORY ELECTRIC EQUIPMENT	25	SQUARE	0	4.01
	346	MISCELLANEOUS POWER PLANT EQUIPMENT	25	SQUARE	0	4.06
COMPANY 13	344	GENERATORS	20	SQUARE	0	4.44
COMPANY 14	344	GENERATORS - SUNWAY 1	25	25-S2.5	(2)	5.20
	344	GENERATORS - SUNWAY 2	20	25-S2.5	(2)	5.73
	344	GENERATORS - SUNWAY 3	20	25-S2.5	(2)	5.62

**LOUISVILLE GAS & ELECTRIC AND KENTUCKY UTILITIES**  
**PROPOSED DEPRECIATION PARAMETERS FOR OTHER UTILITIES**

<u>COMPANY</u>	<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>LIFE SPAN (YEARS)</u>	<u>INTERIM LIFE ESTIMATE</u>	<u>NET SALVAGE</u>	<u>RATE</u>
COMPANY 15	345	MISCELLANEOUS POWER PLANT EQUIPMENT	25	SQUARE	0	3.89
COMPANY 16	341	STRUCTURES AND IMPROVEMENTS	20	45-R2.5	(5)	5.44
	344	GENERATORS	20	60-S1.5	(10)	5.65
	345	ACCESSORY ELECTRIC EQUIPMENT	20	40-S2	(10)	5.68
	346	MISCELLANEOUS POWER PLANT EQUIPMENT	20	38-R1	0	5.31
COMPANY 17	344	GENERATORS	30	SQUARE	0	4.06
	345	ACCESSORY ELECTRIC EQUIPMENT	30	SQUARE	0	4.15
	346	MISCELLANEOUS POWER PLANT EQUIPMENT	30	SQUARE	0	3.68
	344	GENERATORS	30	SQUARE	0	3.35
	345	ACCESSORY ELECTRIC EQUIPMENT	30	SQUARE	0	3.38
	346	MISCELLANEOUS POWER PLANT EQUIPMENT	30	SQUARE	0	3.33
COMPANY 18	341	STRUCTURES AND IMPROVEMENTS				
	343	PRIME MOVERS	30	SQUARE	0	3.30
	345	ACCESSORY ELECTRIC EQUIPMENT	30	SQUARE	0	3.30
			30	SQUARE	0	3.30
COMPANY 19	344	GENERATORS	25	SQUARE	0	4.00
	345	ACCESSORY ELECTRIC EQUIPMENT	25	SQUARE	0	4.00

COMPANY LIST

OKLAHOMA GAS AND ELECTRIC	PUBLIC SERVICE OF NEW MEXICO
FLORIDA POWER AND LIGHT	PACIFICORP
PACIFIC GAS AND ELECTRIC	TAMPA ELECTRIC COMPANY
WISCONSIN POWER & LIGHT	DOMINION VIRGINIA POWWER
AMEREN MISSOURI	KCP&L
GREEN MOUNTAIN POWER	SAN DIEGO GAS & ELECTRIC COMPANY
NEVADA POWER COMPANY	SOUTH CAROLINA ELECTRIC AND GAS
PORTLAND GENERAL ELECTRIC	GREATER MISSOURI OPERATIONS
MADISON GAS & ELECTRIC	EL PASO ELECTRIC
SIERRA PACIFIC POWER COMPANY	

NOTE: COMPANIES ARE NOT SHOWN WITH THEIR STUDIES TO MAINTAIN CONFIDENTIALITY ON PENDING ISSUES OR AS REQUIRED BY THE ENGAGEMENT.



**KENTUCKY UTILITIES COMPANY  
PROJECTED SOLAR RATES**

**TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND  
CALCULATED ANNUAL DEPRECIATION RATES AS OF JUNE 30, 2016**

	ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK DEPRECIATION RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL		COMPOSITE REMAINING LIFE (8)=(6)/(7)	
							ACCRUAL AMOUNT (7)	ACCRUAL RATE (8)=(7)/(4)		
<b>DEPRECIABLE PLANT</b>										
<b>OTHER PRODUCTION PLANT</b>										
	341.00	STRUCTURES AND IMPROVEMENTS	40-S3 *	(5)	1,769,000.00	0	1,857,450	75,018	4.24	24.8
	344.00	GENERATORS	30-S1.5 *	(5)	13,287,500.00	0	13,930,875	612,077	4.61	22.8
	345.00	ACCESSORY ELECTRIC EQUIPMENT	45-R2.5 *	(5)	884,500.00	0	928,725	38,520	4.36	24.1
	346.00	MISCELLANEOUS PLANT EQUIPMENT	35-R2.5 *	0	1,769,000.00	0	1,769,000	75,213	4.25	23.5
		<b>TOTAL OTHER PRODUCTION PLANT</b>			<b>17,690,000.00</b>	<b>0</b>	<b>18,486,050</b>	<b>800,828</b>	<b>4.53</b>	<b>23.1</b>

\* LIFE SPAN PROCEDURE IS USED. CURVE SHOWN IS INTERIM SURVIVOR CURVE.

LOUISVILLE GAS AND ELECTRIC COMPANY  
PROJECTED SOLAR RATES

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF JUNE 30, 2016

ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK DEPRECIATION RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL		COMPOSITE REMAINING LIFE (9)=(6)/(7)	
						ACCRUAL AMOUNT (7)	ACCRUAL RATE (8)=(7)/(4)		
<b>DEPRECIABLE PLANT</b>									
<b>OTHER PRODUCTION PLANT</b>									
341.00	STRUCTURES AND IMPROVEMENTS	40-S3 *	(5)	1,131,000.00	0	1,187,550	47,962	4.24	24.8
344.00	GENERATORS	30-S1.5 *	(5)	8,482,500.00	0	8,906,625	391,328	4.61	22.8
345.00	ACCESSORY ELECTRIC EQUIPMENT	45-R2.5 *	(5)	565,500.00	0	593,775	24,628	4.36	24.1
346.00	MISCELLANEOUS PLANT EQUIPMENT	35-R2.5 *	0	1,131,000.00	0	1,131,000	48,087	4.25	23.5
	<b>TOTAL OTHER PRODUCTION PLANT</b>			<b>11,310,000.00</b>	<b>0</b>	<b>11,818,950</b>	<b>512,005</b>	<b>4.53</b>	<b>23.1</b>

\* LIFE SPAN PROCEDURE IS USED. CURVE SHOWN IS INTERIM SURVIVOR CURVE

**KENTUCKY UTILITIES COMPANY  
AND LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Commission Staff's Initial Request for Information  
Dated February 26, 2016**

**Case No. 2016-00063**

**Question No. 2**

**Responding Witness: Heather D. Metts / John J. Spanos**

- Q-2. Refer to the Application, Exhibit 2, the final paragraph, regarding a future depreciation study. What is the timeframe for a future study?
- A-2. The reference to a future depreciation study in Exhibit 2 was based on LG&E and KU's history of filing depreciation studies every three to five years which allows for a continued review of the assets while they have been in service. This will also allow the solar industry more experience in historical transactions.

Gannett Fleming Valuation and Rate Consultants, LLC is engaged by counsel to perform a depreciation study as of December 31, 2015. The study is expected to be completed and its recommendations reviewed by the end of this year.

**KENTUCKY UTILITIES COMPANY  
AND LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Commission Staff's Initial Request for Information  
Dated February 26, 2016**

**Case No. 2016-00063**

**Question No. 3**

**Responding Witness: John J. Spanos**

- Q-3. Provide copies of any and all depreciation studies performed by Mr. Spanos involving utility-scale solar photovoltaic facilities within the last five years.
- A-3. Mr. Spanos has not performed full depreciation studies on solar assets because the technology is too young to have experienced a full life cycle. There are many solar facilities currently in service where Mr. Spanos' or Gannett Fleming has recommended depreciation rates. These facilities are included in the Attachment to Response to PSC-1 Question No. 1a.