

**BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION**

In the Matter of:

APPLICATION OF KENTUCKY)	
UTILITIES COMPANY FOR AN)	CASE NO. 2018-00294
ADJUSTMENT OF ITS ELECTRIC)	
RATES)	

In the Matter of:

APPLICATION OF LOUISVILLE GAS)	
AND ELECTRIC COMPANY FOR AN)	CASE NO. 2018-00295
ADJUSTMENT OF ITS ELECTRIC)	
AND GAS RATES)	

**DIRECT TESTIMONY
OF
DONNA H. MULLINAX**

**ON BEHALF OF
THE OFFICE OF ATTORNEY GENERAL,
LOUISVILLE/JEFFERSON COUNTY METRO GOVERNMENT &
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT**

JANUARY 16, 2019

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1 **STATEMENT OF QUALIFICATIONS AND PURPOSE OF TESTIMONY**

2 **Q. Please state your name, by whom you are employed, and your business address.**

3 A. My name is Donna Hubler Mullinax. I am employed by Blue Ridge Consulting Services,
4 Inc. (“Blue Ridge”). My business address is 114 Knightsridge Road, Travelers Rest,
5 South Carolina 29690.

6 **Q. Please summarize your education and professional work experience.**

7 A. I graduated with honors from Clemson University with a Bachelor of Science in
8 Administrative Management and a Master of Science in Management. I am a Certified
9 Public Accountant (CPA) licensed in South Carolina, a Certified Internal Auditor (CIA),
10 a Certified Financial Planner (CFP), and a Chartered Global Management Account
11 (CGMA) designation holder. I am a member of the South Carolina Association of
12 Certified Public Accountants, the American Institute of Certified Public Accountants, and
13 the Institute of Internal Auditors.

14 I have over 39 years of professional experience and have been a utility industry
15 consultant for the last 24 years. My consulting assignments include numerous rate cases
16 filed by public utilities and litigation support for various construction claims. Other
17 project experience includes management, financial, and compliance audits, due diligence
18 reviews, prudence reviews, and economic viability and financial studies. I have worked
19 with public service commissions, attorneys general, and public advocates in Arizona,
20 Colorado, Connecticut, Delaware, District of Columbia, Hawaii, Illinois, Maryland,
21 Massachusetts, Michigan, Missouri, Nebraska, New Hampshire, New York, North

1 Dakota, Ohio, Oregon, Pennsylvania, and Utah. I have included a description of my
2 qualifications as Attachment 1.

3 **Q. On whose behalf are you testifying?**

4 A. I am presenting testimony on behalf of the Kentucky Office of the Attorney General
5 (“OAG”), Office of Rate Intervention, Louisville/Jefferson County Metro Government
6 (“Louisville Metro”) & Lexington-Fayette Urban County Government (“LFUCG”)
7 (collectively “OAG/Cities”).

8 **Q. What is the purpose of your testimony in this proceeding?**

9 A. Blue Ridge was retained to assist in the evaluation of the general rate case filings
10 submitted by Kentucky Utilities Company (“KU”) and Louisville Gas & Electric
11 Company (“LG&E”), collectively referred to as “Companies.” I was asked to evaluate the
12 Companies’ applications to determine the reasonableness of the Companies’ proposed
13 level of revenues in these proceedings. In this testimony, I present my findings regarding
14 the Companies’ rate base and net operating income at present rates. Based on these
15 amounts, I have determined the revenues that are required to generate the overall rate of
16 return based upon the Companies’ current authorized return on equity.

17 **SUMMARY OF RECOMMENDATIONS**

18 **Q. Please summarize your recommendations.**

19 A. I recommend that the Commission *increase* KU’s base rates by no more than
20 \$56,640,276—a reduction of \$55,819,583 compared to its initial requested increase of
21 \$112,459,859.

1 I recommend that the Commission *reduce* LG&E’s electric base rates by at least
 2 \$674,271—a reduction of \$35,561,756 compared to its initial requested increase of
 3 \$34,887,485.

4 I recommend that the Commission *increase* LG&E’s gas base rates by no more than
 5 \$16,905,530—a reduction of \$8,019,344 compared to its initial requested increase of
 6 \$24,924,874. These changes would allow the Companies the opportunity to generate an
 7 overall rate of return of 7.18 percent for KU, and 7.24 percent for LG&E based upon the
 8 Companies’ current authorized return on equity of 9.70 percent. My recommendations
 9 are summarized in the following table.

10 **Table 1: Modification to Base Revenues**

	KU	LG&E	
		Electric	Gas
Company's Initial Revenue Request	\$ 112,459,859	\$ 34,887,485	\$ 24,924,874
Recommended Adjustment	(55,819,583)	(35,561,756)	(8,019,344)
Maximum Revenue Increase	<u>\$ 56,640,276</u>	<u>\$ (674,271)</u>	<u>\$ 16,905,530</u>

11
 12 The following table summarizes my recommended revenue requirement adjustments for
 13 KU and LG&E Electric and Gas.

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Table 2: Summary of the Recommended Adjustments and the Impact on Rate Base, Operating Income, and Revenue Deficiency

Adjustment #	Description	KU			LG&E-Electric			LG&E-Gas		
		Rate Base	Operating Income	Revenue Deficiency	Rate Base	Operating Income	Revenue Deficiency	Rate Base	Operating Income	Revenue Deficiency
	Recommended Rate of Return			7.18%			7.24%			7.24%
	Revenue Conversion Factor			1.33936			1.33790			1.33639
Adjustment 1	Effect of Proxy Cost of Capital	-	-	\$(20,888,336)	-	-	\$(13,190,744)	-	-	\$(4,029,853)
Adjustment 2	Slippage	\$(21,624,620)	\$ 474,734	(2,714,991)	\$(10,460,477)	\$ 243,174	(1,338,229)	\$(3,704,304)	\$ 60,715	(439,419)
Adjustment 3	Uniform Diameter Transmission Line Replacement	-	-	-	-	-	-	(9,600,000)	-	(928,512)
Adjustment 4	Nelson County Line Extension Project	-	-	-	-	-	-	(31,619)	-	(3,058)
Adjustment 5	Plant Held for Future Use	(240,853)	-	(23,157)	-	-	-	-	-	-
Adjustment 6	Cash Working Capital	(64,490,693)	-	(6,200,619)	(43,534,934)	-	(4,215,476)	(8,996,061)	-	(870,099)
Adjustment 7	Late Payment Credit	-	253,208	(339,136)	-	173,410	(232,006)	-	73,363	(98,041)
Adjustment 8	Employee Retirement Plans	-	1,515,138	(2,029,309)	-	1,027,966	(1,375,319)	-	324,620	(433,818)
Adjustment 9	Directors and Officers Liability Insurance	-	104,168	(139,518)	-	73,711	(98,619)	-	16,701	(22,318)
Adjustment 10	Dues for EEI and EPRI	-	1,842,552	(2,467,834)	-	954,402	(1,276,899)	-	-	-
Adjustment 11	Outside Counsel Expense	-	331,742	(444,320)	-	253,648	(339,357)	-	-	-
Adjustment 12	Credit-Card Rebate	-	158,179	(211,858)	-	180,023	(240,853)	-	2,227	(2,976)
Adjustment 13	Economic Development	-	1,255,237	(1,681,209)	-	414,263	(554,244)	-	328,944	(439,597)
Adjustment 14	Customer Education	-	945,630	(1,266,535)	-	435,061	(582,070)	-	345,459	(461,667)
Adjustment 15	Baseline ECR Beneficial Reuse Operating Expense Credit	-	330,220	(442,282)	-	-	-	-	-	-
Adjustment 16	Merger Mitigation Depancaking	-	11,333,665	(15,179,814)	-	6,737,621	(9,014,288)	-	-	-
Adjustment 17	Amortization of Storm Damage Regulatory Asset	-	349,860	(468,587)	-	174,244	(233,122)	-	-	-
Adjustment 18	Amortization of State Tax Reform Regulatory Liability	-	1,429,418	(1,914,500)	-	2,430,103	(3,251,244)	-	334,682	(447,264)
	Interest Synchronization	-	(442,319)	592,423	-	(284,559)	380,713	-	(117,690)	157,279
	Rounding	-	(1)	1	-	-	-	-	1	1
		<u>\$(86,356,166)</u>	<u>\$19,881,431</u>	<u>\$(55,819,583)</u>	<u>\$(53,995,411)</u>	<u>\$12,813,068</u>	<u>\$(35,561,756)</u>	<u>\$(22,331,984)</u>	<u>\$1,369,022</u>	<u>\$(8,019,344)</u>

5

1 **COMPANIES' RATE REQUEST**

2 **Q. Please summarize the Companies' rate request and the impact on ratepayers.**

3 A. The Companies' applications, filed on September 28, 2018, summarize the proposed
4 increase in rates and the impact to the average residential customer as follows.

5 • KU proposes an increase in annual revenues of approximately \$112 million or 6.9
6 percent per year compared to the operating revenues for the forecasted test period
7 under existing electric base rates. The monthly residential-electric-bill increase would
8 be 8.1 percent, or approximately \$9.63, for a customer using 1,139 kWh of electricity.
9 However, due to the expiration of the Tax Cuts and Jobs Act (TCJA) surcredit, when
10 base rates go into effect, the total monthly residential electric bill will increase by 11.7
11 percent, or approximately \$13.47.¹

12 • LG&E-Electric proposed an increase in annual revenues of approximately \$35 million,
13 or 3.0 percent per year, compared to the operating revenues for the forecasted test
14 period under existing electric base rates. The monthly residential-electric-bill increase
15 would be 4.1 percent, or approximately \$4.23, for a customer using 917 kWh of
16 electricity. However, due to the expiration of the TCJA surcredit, when base rates go
17 into effect, the total monthly residential electric bill will increase by 7.5 percent, or
18 approximately \$7.53.²

19 • LG&E-Gas proposed an increase in annual revenues of approximately \$25 million, or
20 7.5 percent per year, compared to operating revenues for the forecasted test period
21 under existing gas base rates. The monthly residential gas bill increase would be 8.1

¹ Case No. 2018-00294, Application dated September 28, 2018, page 4.

² Case No. 2018-00295, Application dated September 28, 2018, pages 3–4.

1 percent, or approximately \$4.93, for a customer using 54 Ccf of gas. However, due to
2 the expiration of the TCJA surcredit, when base rates go into effect, the total monthly
3 residential gas bill will increase by 12.2 percent, or approximately \$7.14.³

4 The requested increases are based on a forecasted test period beginning May 1, 2019, and
5 ending April 30, 2020.⁴ The Companies are requesting overall rate of returns of 7.56
6 percent for KU and 7.62 percent for LG&E, which includes a return on equity of 10.42
7 percent.⁵

8 **Q. When were the Companies' current base rates established?**

9 A. The Companies' current base rates were established in Case Nos. 2016-00370 and 2016-
10 00371, based on agreement among the parties and approval, with modifications, by the
11 Commission on June 22, 2017.

12 In Case No. 2016-00370, KU requested an increase of \$103.1 million, based on a
13 forecasted test year ending June 30, 2018. Through stipulation, KU was granted an
14 increase of \$54.9 million, effective July 1, 2017.⁶ However, in a subsequent order, the
15 Commission further reduced KU's net electric revenue increase to \$51.58 million.⁷

16 In Case No. 2016-00371, LG&E requested an increase to its electric and gas rates
17 based on a forecasted test year ending June 30, 2018. The requested electric rate increase
18 was \$93.6 million, and the requested gas rate increase was \$13.8 million. Through
19 stipulation, LG&E was granted an increase of \$59.4 million in electric rates and \$7.5
20 million in gas rates, effective July 1, 2017.⁸ However, in a subsequent order, the

³ Case No. 2018-00295, Application dated September 28, 2018, pages 4–5.

⁴ Direct Testimony of Christopher M. Garrett, page 8, lines 6–9.

⁵ Direct Testimony of Daniel K. Arbough, page 17, lines 8–10 and page 18, line 18.

⁶ Case No. 2016-00370, Order dated June 22, 2018, pages 1, 8, and 9.

⁷ Case No. 2016-00370, Order dated June 29, 2017, page 3.

⁸ Case No. 2016-00371, Order dated June 22, 2018, pages 1, 9, and 10.

1 Commission further reduced LG&E's net electric revenue increase to \$57.09 million, and
2 its net gas revenue increase to \$6.78 million.⁹

3 **Q. Does the Companies' rate request include any other items?**

4 A. In a separate application, the Companies have jointly requested the Commission authorize
5 the establishment of regulatory liabilities to account for excess accumulated deferred
6 income taxes (ADIT), created by recent Kentucky state tax reform, and regulatory assets
7 to accumulate and defer for future recovery the costs incurred to repair damage and restore
8 electric service following the storms that struck the Companies' service territories
9 beginning on July 20, 2018.¹⁰ In this proceeding, KU seeks regulatory asset treatment for
10 \$1.9 million in remaining Kentucky jurisdictional inventory values of E. W. Brown
11 Generating Station ("Brown") Units 1 and 2.¹¹ The Companies have included the effects
12 of those requests in their rate requests.

13 **ORGANIZATION OF TESTIMONY**

14 **Q. How is the remainder of your testimony organized?**

15 A. In the remainder of my testimony, I present the adjustments made to rate base and
16 operating income that form the basis of my recommendations.

17 **Q. Are you presenting any exhibits with your direct testimony in this proceeding?**

18 A. Yes. Exhibits DHM-1 (KU), DHM-2 (LG&E-Electric), and DHM-3 (LG&E-Gas) include
19 my revenue requirements and adjustment schedules for the three utilities. Exhibits DHM-4
20 through DHM-60 are copies of selected documents I refer to in my testimony.

⁹ Case No. 2016-00371, Order dated June 29, 2017, page 4.

¹⁰ Case No. 2018-00294, Application dated September 28, 2018, page 8, and Case No. 2018-00294, Application dated September 28, 2018, page 9.

¹¹ Case No. 2018-00294, Application dated September 28, 2018, pages 8–9.

1 **Q. How are your schedules organized?**

2 A. My schedules, included in Exhibits DHM-1, DHM-2, and DHM-3, are organized into
3 summary schedules and adjustment schedules. The summary schedules consist of
4 Schedules 1, 1.1, 1.2, 1.2.1, 2, 2.1, and 3. The schedules beginning with 3.1 support the
5 specific adjustments. I am using a similar numbering nomenclature for each utility. I have
6 labeled the schedules by company—KU, LG&E-E, or LG&E-G.

7 **Q. What is shown on Schedule 1?**

8 A. Schedule 1 is a summary comparison of each company's and my computations of the
9 purported revenue requirement and revenue deficiency. The schedule summarizes the
10 impact of all my recommended adjustments and reflects the revenue requirement needed
11 for the company to have the opportunity to earn a rate of return based upon the
12 Companies' current authorized return on equity.

13 **Q. What is shown on Schedule 1.1?**

14 A. Schedule 1.1 provides additional detail by major rate base and operating income
15 categories and shows how my recommended adjustments are applied to the Companies'
16 filings to obtain my recommended revenue requirement adjustments and revenue
17 deficiency.

18 **Q. What is shown on Schedules 1.2 and 1.2.1?**

19 A. Schedule 1.2 presents the calculation of the gross-up conversion factor. The gross-up
20 conversion factor grosses up the Income Deficiency (Sufficiency) amount for income
21 taxes to obtain the Revenue Deficiency amount. The conversion is needed to reflect that
22 more than one dollar in gross revenue is needed for each dollar of net operating income

1 because of the imposition of taxes and other items that are affected by my recommended
2 revenue deficiency (such as for bad debt expense and assessments). Schedule 1.2.1
3 quantifies the effect of my recommended modifications to the Bad Debt Expense
4 component of the gross-up conversion factor for LG&E-Electric and LG&E-Gas.

5 **Q. What is shown on Schedules 2 and 2.1?**

6 A. Schedule 2 summarizes the capital structure and cost of capital proposed by the company
7 and the capital structure and cost of capital from the Companies' most recent rate cases.
8 Schedule 2.1 isolates the impact on the revenue deficiency for the difference between each
9 company's proposed capital structure and cost of capital and the current approved rate of
10 return.

11 **Q. What is shown on Schedules 3?**

12 A. Schedule 3 summarizes my adjustments to rate base and operating income (i.e., revenues
13 less expenses). As I mentioned earlier, the schedules beginning with 3.1 provide
14 supporting calculations for the adjustments I am recommending.

15 **TEST YEAR**

16 **Q. What base period and test period have the Companies used to calculate their**
17 **requested increases?**

18 A. The Companies' requested revenue increases are based on a fully forecasted test period
19 beginning May 1, 2019, and ending April 30, 2020. The base period is the 12-month
20 period ending December 31, 2018. The base period consists of six months of actual data
21 from January 1, 2018, to June 30, 2018, and six months of forecasted data from July 1,
22 2018, to December 31, 2018. The Companies stated that they expect to file updated

1 information, any corrections, and the actual data from July 1, 2018, to December 31, 2019,
2 with the Commission no later than February 14, 2019.¹² Therefore, this testimony is being
3 provided without the opportunity of having reviewed the veracity or reasonableness of the
4 forecasted data as compared to actual results for the second six months.

5 **Q. What test year did you use in determining the appropriate revenue increase?**

6 A. I used the same forecasted future test year used by the Companies.

7 **ADJUSTMENTS TO OVERALL REVENUE DEFICIENCY CALCULATION**

8 ***Effect of Different Cost of Capital***

9 **Q. What return on equity (ROE) did the Companies use?**

10 A. The Companies used an ROE of 10.42 percent in determining its weighted cost of capital
11 as shown in the following table.

¹² Direct Testimony of Christopher M. Garrett, page 8, lines 6–16.

1

Table 3: Companies' Cost of Capital

<u>Kentucky Utilities</u>				
Capital Source	Jurisdictional Adjusted Capital	Capital Structure	Cost %	Weighted Cost %
Short-Term Debt	51,047,467	1.25%	3.23%	0.040%
Long-Term Debt	1,882,004,471	45.91%	4.38%	2.01%
Common Equity	2,166,083,945	52.84%	10.42%	5.51%
Total	4,099,135,883	100.00%		7.56%

<u>Louisville Gas and Electric Company–Electric</u>				
Capital Source	Jurisdictional Adjusted Capital	Capital Structure	Cost %	Weighted Cost %
Short-Term Debt	49,111,557	1.89%	3.25%	0.062%
Long-Term Debt	1,174,033,050	45.27%	4.53%	2.05%
Common Equity	1,370,289,941	52.84%	10.42%	5.51%
Total	2,593,434,548	100.00%		7.62%

<u>Louisville Gas and Electric Company–Gas</u>				
Capital Source	Jurisdictional Adjusted Capital	Capital Structure	Cost %	Weighted Cost %
Short-Term Debt	14,929,496	1.89%	3.25%	0.062%
Long-Term Debt	356,896,070	45.27%	4.53%	2.05%
Common Equity	416,556,497	52.84%	10.42%	5.51%
Total	788,382,063	100.00%		7.62%

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4 **Q. What return on equity did you use in determining the maximum revenue increase**
 5 **that should be allowed for the Companies?**

6 A. The OAG/Cities are not supporting ROE testimony in these proceeding. Therefore, I have
 7 used a proxy ROE based on the ROE established in Case Nos. 2016-00370 and 2016-
 8 00371. In those cases, the Commission authorized an ROE of 9.70 percent for KU¹³ and
 9 LG&E.¹⁴

10 **Q. Have you calculated the effect on the revenue deficiency for the difference between**
 11 **the Companies’ proposed cost of capital and that granted by the Commission in the**
 12 **Companies’ most recent base rate cases?**

¹³ Case No. 2016-00370, Order dated June 22, 2017, page 18.
¹⁴ Case No. 2016-00371, Order dated June 22, 2017, page 21.

1 A. Yes. My Schedules 2.1 isolate the effect on the revenue deficiency for the difference
 2 between the Companies' cost of capital and the current approved return of equity of 9.70
 3 percent. The schedules hold everything except the cost of capital constant. The effects of
 4 the different costs of capital are shown in the following table.

5 **Table 4: Effect of Cost of Capital at Currently Approved Rate of Return**

		KU	
		Rate of Return	Revenue Deficiency
Company Cost of Capital		7.56%	\$ 112,663,325
Cost of Capital at Currently Approved ROE		7.18%	91,774,989
Difference			<u>\$ (20,888,336)</u>
		LG&E-Electric	
		Rate of Return	Revenue Deficiency
Company Cost of Capital		7.62%	\$ 34,975,012
Cost of Capital at Currently Approved ROE		7.24%	21,784,268
Difference			<u>\$ (13,190,744)</u>
		LG&E-Gas	
		Rate of Return	Revenue Deficiency
Company Cost of Capital		7.62%	\$ 24,925,739
Cost of Capital at Currently Approved ROE		7.24%	20,895,887
Difference			<u>\$ (4,029,852)</u>

6
 7 **Q. What is the effect of a ten-basis point change from the 9.7 percent ROE you used?**
 8 A. The effect of a ten-basis point swing from 9.7 percent on the revenue requirements is \$2.9
 9 million for KU, \$1.8 million for LG&E-Electric, and \$0.5 million for LG&E-Gas.

10 ***Adjustment to Gross-Up Conversion Factor***

11 **Q. Please explain why a gross-up conversion factor is needed when determining the**
 12 **revenue requirements.**
 13 A. The use of a gross-up conversion factor is a long-standing practice in calculating the
 14 revenue requirement. The gross-up conversion factor is used to account for the effect of
 15 federal and state income taxes on net operating income. It is applied to the net operating
 16 income deficiency to derive the revenue deficiency. This factor is designed to cover

1 income taxes, uncollectible accounts expense, and revenue-based fees assessed by the
2 Commission on the requested revenue increase.¹⁵

3 **Q. What is your concern regarding the Companies' gross-up conversion factor?**

4 A. Uncollectible account expense is based on a historic five-year average consistent with
5 what the parties agreed to and the Commission approved in the most recent base rate
6 case.¹⁶ KU's five-year average uncollectible account expense is 0.32 percent.¹⁷ LG&E
7 used a total company uncollectible account expense of 0.18 percent,¹⁸ which does not
8 recognize the difference in uncollectible experience between gas and electric. Based on
9 the information provided by LG&E, the electric uncollectible five-year experience is
10 0.208 percent, and gas is 0.095 percent.¹⁹ Isolating the effect of the difference in
11 uncollectible expense results in an *increase* of the LG&E-Electric revenue deficiency of
12 \$9,131, and a *decrease* in LG&E-Gas revenue deficiency of \$21,751. The calculations are
13 provided in LG&E-E and LG&E-G Schedules 1.2 and 1.2.1.

14 ***Electric Operations' Revenue Request Rounding***

15 **Q. Please explain the rounding item that reduces the revenue deficiency to derive the**
16 **revenue request included on your schedules.**

17 A. The Companies' calculated-electric-operations revenue deficiencies are less than the
18 Companies' revenue requests. The Companies explained that the difference is due to
19 rounding in the Solar Share and Electric Vehicle programs shown in their schedules.²⁰ I

¹⁵ Direct Testimony of Christopher M. Garrett, page 36, lines 1–13.

¹⁶ Case No. 2016-00370, Order dated June 22, 2018, page 8 and Case No. 2016-00371, Order dated June 22, 2108, page 10.

¹⁷ OAG DR to KU 1-85 [Exhibit DHM-4].

¹⁸ OAG DR to LGE 1-85 [Exhibit DHM-5].

¹⁹ OAG DR to LGE 2-79 [Exhibit DHM-6].

²⁰ Direct Testimony of Robert M. Conroy, page 11, line 18–page 12, line 4.

1 have reflected the same rounding amounts in my recommended maximum revenue
2 increases.

3 **ADJUSTMENTS TO RATE BASE**

4 **Q. What rate base have the Companies proposed?**

5 A. KU's proposed forecasted rate base is \$4,045,218,983. LG&E-Electric proposes a rate
6 base of \$2,548,077,150. LG&E-Gas proposes a rate base of \$775,283,637.²¹

7 **Q. Are you recommending any adjustments to the Companies' proposed rate base?**

8 A. Yes. I recommend adjustments to the following rate base components:

- 9 • Slippage (Adjustment #1)
- 10 • Uniform Diameter Transmission Line Replacement (Adjustment #2)
- 11 • Nelson County Line Extension Project (Adjustment #3)
- 12 • Plant Held for Future Use (Adjustment #4)
- 13 • Working Capital (Adjustment #5)

14 *Slippage (Adjustment #1)*

15 **Q. Explain the importance of recognizing a slippage adjustment.**

16 A. The Companies used their forecasted capital in the calculation of the requested revenue
17 deficiency. As part of the capital forecast process, the Companies estimated the level of
18 capital construction that will be undertaken during the year. Because of delays, whether
19 they be related to weather or other events, the actual costs of construction will often vary
20 from the level budgeted. The difference between the actual and budgeted levels is

²¹ KU and LG&E Schedules B-1.

1 reflected in the calculation of a “slippage factor,” which serves as an indicator of the
2 Companies’ accuracy in predicting the cost of its utility plant additions and when new
3 plant will be placed in service. The Commission has typically established a slippage factor
4 by determining the annual slippage during each year of the most recent ten-year period
5 and then calculating the average annual slippage factor. The slippage factor is normally
6 applied to the plant-in-service and construction-work-in-progress (CWIP) balance to
7 determine the slippage adjustment.

8 **Q. Did the last base rate case include a slippage adjustment?**

9 A. Yes. The parties agreed to, and the Commission approved, an adjustment to CWIP
10 slippage.²²

11 **Q. Did the Companies recognize a slippage adjustment in either their base period or the**
12 **forecasted test period?**

13 A. No. The Companies did not recognize a slippage adjustment in either their base period or
14 the forecasted test period. The Companies provided the ten-year weighted slippage factors
15 and argued that the slippage factor of 96.027 percent for KU and 97.153 percent for
16 LG&E demonstrate the reasonableness of the Companies’ accuracy in projecting capital
17 additions. Given the reasonable accuracy demonstrated, they contend a slippage factor
18 should not be applied.²³

19 **Q. Do you agree with the Companies’ argument?**

²² Case No. 2016-00370, Order dated June 22, 2018, page 8 and Case No. 2016-00371, Order dated June 22, 2018, page 10.

²³ PSC DR to KU 2-65 [Exhibit DHM-7], PSC DR to KU 1-13 [Exhibit DHM-8], PSC DR to LG&E 1-13 [Exhibit DHM-10] and PSC DR to LGE 2-75 [Exhibit DHM-9].

1 A. No. A slippage adjustment based on a ten-year weighted average reflects a reasonable
2 approach to recognizing the variance between budgeted and actual capital construction
3 amounts. The use of a weighted average also places more emphasis on recent slippage
4 experience. Applying a slippage factor helps to ensure that the Companies do not earn a
5 return on plant that will likely not be put into service. The impact to revenue requirement
6 is significant. The Companies provided the revenue requirement effect (using their
7 recommended cost of capital) for each company had the slippage factor been applied, as
8 shown below.

- 9 • KU—revenue requirement would be reduced \$2,685,522
- 10 • LG&E-Gas—revenue requirement would be reduced \$1,304,937
- 11 • LG&E-Electric—revenue requirement would be reduced \$432,475²⁴

12 **Q. What do you recommend?**

13 A. I recommend that the ten-year weighted-average slippage factors of 96.027 percent for KU
14 and 97.153 percent for LG&E be applied using the same methodology provided by the
15 Companies in its response to discovery. My adjustments to recognize slippage are shown
16 on Schedules 3.1. The effect of the adjustment on revenue requirements (using the proxy
17 cost of capital and my modified gross-up conversion factor) is shown in the summary
18 table on page 4.

19 ***Uniform Diameter Transmission Line Replacement (Adjustment #2)***

20 **Q. Please explain your adjustment regarding the replacement of the gas transmission**
21 **lines.**

²⁴ PSC DR to KU 2-65 [Exhibit DHM-7] and PSC DR to LGE 2-75 [Exhibit DHM-9].

1 A. LG&E plans to spend \$91.2 million to replace 13.2 miles of transmission line segments to
2 achieve uniform diameter and to better facilitate enhanced inline inspection capabilities.²⁵
3 The company stated that no formal analysis has been completed and a CPCN (Certificate
4 of Public Convenience and Necessity) has not been requested. Approximately \$9.6 million
5 is included in the forecasted test period.²⁶ Although the company stated a CPCN is not
6 required because the project involves “replacement of existing transmission line segments
7 and is in the ordinary course of business,”²⁷ the Commission previously found that a
8 similar, but less expensive, project did require a CPCN. In Case No. 2016-00371, LG&E
9 used a similar argument to justify why it did not obtain a CPCN for the Bullitt County
10 Pipeline. The company stated that “it considers it to be an ordinary extension of its
11 existing gas system in the usual course of business.”²⁸ However, the Commission found
12 that the construction should be subject to a CPCN.²⁹ Consistent with the Commission’s
13 finding regarding the CPCN need for the Bullitt County Pipeline, I recommend that the
14 Uniform Diameter Transmission Line Replacement be denied recovery until a CPCN can
15 be requested and obtained. The \$91.2 million proposed expenditure should be excluded
16 until LG&E performs a formal cost/benefit analysis to determine whether spending \$91.2
17 million to replace the current inspection process is prudent. My recommended adjustment
18 reduces rate base by \$9,600,000, as shown on LGE-G Schedule 3.2. The effect of the
19 adjustment on revenue requirements is shown in the summary table on page 4.

²⁵ Direct Testimony of Lonnie E. Bellar, page 59, lines 15–17 and Page 60, line 6.

²⁶ OAG DR to LGE 1-55 (c) [Exhibit DHM-11].

²⁷ OAG DR to LGE 1-55 (b) [Exhibit DHM-11].

²⁸ Case No. 2016-00371, Order dated June 22, 2017, page 31.

²⁹ Case No. 2016-00371, Order dated June 22, 2017, page 32.

1 ***Nelson County Line Extension Project (Adjustment #3)***

2 **Q. Please explain your adjustment regarding the Nelson County Line Extension Project.**

3 A. LG&E plans to construct an approximately 2.5 to 3.5 mile, steel, high-pressure
4 distribution pipeline that will extend the Calvary Transmission pipeline. The company
5 stated that the primary driver for extending additional gas supply is to accommodate
6 planned and future growth. The estimated cost of the new pipeline is \$12.5 million.³⁰
7 LG&E was asked for, but failed to provide, specific studies and forecasts that supported
8 the expansion. Instead, the company provided only anecdotal information regarding
9 queries but not the detailed studies and forecasts needed to justify approval for spending
10 \$12.5 million. A CPCN has not been obtained. The forecasted test period includes \$31,619
11 of capital for the project.³¹ The project has not begun.³²

12 I recommend that the capital costs associated with the planned extension be excluded
13 until LG&E can provide detailed studies and forecasts that demonstrate the extension is
14 required to provide additional capacity. In addition, the company should reflect the
15 additional revenue that would be generated should the project be justified and installed.
16 My adjustment is shown on LG&E-G Schedule 3.3. The effect of the adjustment on
17 revenue requirements is shown in the summary table on page 4.

18 ***Plant Held for Future Use (Adjustment #4)***

19 **Q. Please explain your adjustment regarding plant held for future use (PHFU).**

³⁰ Direct Testimony of Lonnie E. Bellar, page 61, lines 18–23 and Page 62, lines 7–8.

³¹ OAG DR to LGE 1-57 [Exhibit DHM-12].

³² Louisville Metro DR to LGE 2-38 [Exhibit DHM-13].

1 A. KU included \$240,863 for Virginia-located land and site preparation at the Lonesome Pine
2 Substation in plant held for future use.³³ Since 69kv-12kv substation distribution property
3 should be directly assigned to the jurisdiction of the physical location, the Lonesome Pine
4 Substation was incorrectly assigned to Kentucky.³⁴ My adjustment removes the incorrectly
5 allocated plant held for future use from rate base. My adjustment is shown on KU
6 Schedule 3.4. The effect of the adjustments on revenue requirements is shown in the
7 summary table on page 4.

8 ***Working Capital (Adjustment #5)***

9 **Q. Please explain Cash Working Capital.**

10 A. Cash Working Capital (“CWC”) is one of the working capital components in rate base. It
11 represents the cash a utility needs to have on hand to fund its day-to-day operations.
12 Regulatory jurisdictions typically afford a CWC allowance in rate base to compensate
13 shareholders for investor-supplied capital that is used to bridge the time differential
14 between when companies pay their vendors for operating expenses incurred and when
15 they collect customer revenues for utility services rendered.

16 **Q. How did the Companies determine their proposed CWC allowance?**

17 A. Pursuant to the terms established in the prior rate cases, the Companies performed a lead-
18 lag study to determine CWC allowance (rather than applying the simpler 1/8th rule to total
19 operating expenses). A lead-lag study is an in-depth analysis that measures the difference
20 between a company’s revenue lag (the lapsed days between a company supplying service
21 and being paid for service) and the expense lead (the lapsed days between the company

³³ PSC DR to KU 1-21 [Exhibit DHM-14].

³⁴ OAG DR to KU 2-77 [Exhibit DHM-15].

1 incurring costs and having to pay for those costs). The difference is expressed in terms of
2 a net lag, which is then multiplied by the average daily operating expense to estimate the
3 level of investor-supplied funds required to fund operations.

4 **Q. Did you have any concerns regarding the lead-lag study provided?**

5 A. I generally do not dispute the general approach used to develop the lead-lag factors in a
6 study. However, there are instances in which this study did not properly identify and
7 reflect the service period for certain invoices sampled to develop the Other O&M expense
8 lead. These instances include invoices from tree trimming companies for vegetation
9 management, telecommunication providers for cellular and paging services, and
10 employment agencies for contract labor.

11 **Q. How do you propose to resolve your concern regarding the Other O&M expense**
12 **lead?**

13 A. Since it is the responsibility of the Companies, as well as impractical for outside parties, to
14 review each invoice, I recommend assuming 30 days for all transactions in the sample
15 without a service period. The results of this modification changes the Other O&M expense
16 lead from 48.05 days to 51.92 days for KU and from 49.19 days to 53.58 days for LG&E.

17 **Q. Do you have any concerns regarding the CWC calculations the Companies**
18 **performed based on factors developed in the lead-lag studies?**

19 A. Yes. The Companies applied the revenue lag to non-cash expenses, which Witness Seelye
20 stated should be excluded from the calculation:

21 **Question:**
22 Refer to Exhibit WSS-36 which presents the individual revenue lags and
23 expense leads developed for each Company.

- 1 a. For each item with an expense lead of 0 (e.g., pension and OPEB expense,
2 depreciation, amortization, and deferred taxes), clarify whether the
3 intention is to reflect an exclusion from cash working capital or an actual
4 expense lead of 0 days in the computation.
5 b. If the item with an expense lead of 0 should be reflected in the computation
6 as shown in Schedule B-5.2, explain and provide supporting workpapers
7 for the determination of 0 days.

8 **Answer:**

- 9 a. The intention of including an expense lead of 0 for the referenced items
10 shown on Exhibit WSS-36 is to exclude these items from the calculation of
11 cash working capital.
12 b. See the response to part a.³⁵

13 **Q. Did the OAG follow up with the Companies to clarify the discrepancy between**
14 **Witness Seelye’s response and the CWC calculations in Schedules B-5.2?**

- 15 A. Yes. The Companies responded, “The expense items referenced are intentionally excluded
16 from the calculation of cash working capital from an expense standpoint because they do
17 not have a current cash outlay when the expense is recorded. The revenue requirements for
18 these expense items included in revenue do however have a revenue lag due to the time it
19 takes to recover the expenses from customers.”³⁶

20 **Q. Does the Companies’ explanation make sense?**

- 21 A. No. Applying the revenue lag to a non-cash item, such as depreciation and pension
22 expense, results in double counting. The Companies already earn a return on their net
23 plant investments and additional components of working capital in rate base. Under the
24 logic put forward, the Companies would earn a second return on the same assets through
25 the CWC allowance, as calculated under the lead-lag method.

³⁵ OAG DR to KU 1-64 [Exhibit DHM-16].

³⁶ OAG DR to KU 2-21 [Exhibit DHM-17].

1 **Q. Please quantify the impact to Cash Working Capital and rate base due to the**
2 **misapplication.**

3 A. The combined value of the identified error is \$81,396,433. The table below presents the
4 impact to Cash Working Capital and rate base by utility for the test year ending April 30,
5 2020.

6 **Table 5: Non-Cash Items Mistakenly Included with Revenue Lag**

Description	Working Capital (Provided)/Required		
	KU	LG&E-E	LG&E-G
No-Notice Storage Injections and Withdrawals	\$ -	\$ -	\$ (147,640)
Pension Expense	(214,820)	(95,286)	(37,570)
OPEB Expense	49,558	176,073	74,540
Depreciation and Amortization	41,549,335	26,415,000	4,805,169
Regulatory Debits	1,051,265	184,403	-
Amortization of Regulatory Assets	823,067	734,123	31,264
Amortization of Regulatory Liabilities	(393,968)	(36,934)	-
Deferred: Federal and State (Including ITC)	4,188,150	1,723,108	517,597
Total	\$ 47,052,586	\$ 29,100,488	\$ 5,243,359

7
8 **Q. After adjusting the Other O&M expense lead and removing the non-cash expense**
9 **items to which the Companies applied the revenue lag, do you recommend any other**
10 **adjustments to Cash Working Capital?**

11 A. Yes. The lead-lag is applied to each component of the cost of service to quantify the CWC
12 allowance associated with that operating expense category. Therefore, the Cash Working
13 Capital balance must be updated to reflect any ratemaking adjustments to operating
14 expense.

15 **Q. Are there other components of working capital, besides the CWC allowance, you**
16 **propose to adjust?**

1 A. Yes. The Companies reflected Prepayments in rate base twice: (1) as a separate
2 component of working capital and (2) within the allowance for Cash Working Capital.³⁷ I
3 recommend excluding from rate base Prepayments of \$15,605,034 for KU, \$13,197,915
4 for LG&E-Electric, and \$3,178,701 for LG&E-Gas³⁸ to eliminate the double count.

5 **Q. Is your recommendation to exclude Prepayments from rate base consistent with**
6 **sound ratemaking principles?**

7 A. Yes. My recommendation is supported by *Accounting for Public Utilities*:

8 For ratemaking purposes, working capital is a measure of the amount of
9 funding needed to satisfy the level of the daily operating expenditures and a
10 variety of non-plant investments that are necessary to sustain the on-going
11 operations of the utility. The ratemaking measure of working capital is
12 designed to identify these ongoing average funding requirements over a test
13 period. Regulatory commissions vary as to the identification of individual
14 components of working capital; however, in general, the components are:
15 (1) fuel inventory; (2) materials and supplies (M&S); (3) prepayments; and
16 (4) cash working capital.³⁹

17
18 . . .

19
20 Prepayments as a component of working capital represents an investment
21 of funds that are generally included in the rate base *if that investment has*
22 *not been recognized elsewhere, such as in Cash Working Capital* (emphasis
23 added).⁴⁰

24
25 **Q. Where did you summarize your adjustments to working capital?**

26 A. My adjustments to working capital are shown on Schedules 3.5. The effect of the
27 adjustments on revenue requirements is shown in the summary table on page 4.

³⁷ OAG DR to KU 1-59 [Exhibit DHM-58] and OAG DR to LGE 1-59 [Exhibit DHM-59].

³⁸ KU and LG&E Schedules B-5.2, page 2.

³⁹ Robert L. Hahne and Gregory E. Aliff, *Accounting for Public Utilities* (LexisNexis, Release 35, November 2018), page 5-1-5-2. [Exhibit DHM-60].

⁴⁰ Robert L. Hahne and Gregory E. Aliff, *Accounting for Public Utilities* (LexisNexis, Release 32, December 2015), page 5-3. [Exhibit DHM-60].

1 ***Effect of Rate Base Adjustments on Capitalization***

2 **Q. What is the effect of your recommended rate base adjustments to the Companies’**
 3 **capitalization?**

4 A. The effect of my recommended rate base adjustments on the Companies’ proposed
 5 capitalization is provided on Schedules 1.1. The following table summarizes the effects.

6 **Table 6: Effect of Recommended Adjustments on Companies' Proposed Capitalization**

	KU	LG&E	
		Electric	Gas
Company Rate Base	\$4,045,218,983	\$2,548,077,150	\$ 775,283,637
Company Capitalization	4,099,135,883	2,593,434,547	788,382,062
Recommended Adjustments	(86,356,166)	(53,995,411)	(22,331,984)
Adjusted Capitalization	<u>\$4,012,779,717</u>	<u>\$2,539,439,136</u>	<u>\$ 766,050,078</u>

7
 8 **ADJUSTMENTS TO OPERATING INCOME**

9 **Q. What net operating incomes have the Companies proposed?**

10 A. KU’s proposed forecasted net operating income is \$225,740,344. LG&E-Electric proposes
 11 a net operating income of \$171,415,400. LG&E-Gas proposes a net operating income of
 12 \$41,422,432.⁴¹

13 **Q. Are you recommending any adjustments to the Companies’ proposed net operating**
 14 **incomes?**

15 A. Yes. I recommend adjustments to the following net operating income components:

- 16 • Late Payment Credit (Adjustment #6)
- 17 • Employee Retirement Plans (Adjustment #7)
- 18 • Directors and Officers Liability Insurance (Adjustment #8)
- 19 • Dues for EEI and EPRI (Adjustment #9)

⁴¹ KU and LG&E Schedules C-1.

- 1 • Outside Counsel Expense (Adjustment #10)
- 2 • Credit-Card Rebate (Adjustment #11)
- 3 • Economic Development (Adjustment #12)
- 4 • Customer Education (Adjustment #13)
- 5 • Baseline ECR Beneficial Reuse Operating Expense Credit (Adjustment #14)
- 6 • Merger Mitigation Depancaking (Adjustment #15)
- 7 • Amortization of Storm Damage Regulatory Asset (Adjustment #16)
- 8 • Amortization of Tax Reform Regulatory Liabilities (Adjustment #17)
- 9 • Interest Synchronization (Adjustment #18)

10 ***Late Payment Credit (Adjustment #6)***

11 **Q. Please explain your recommendation regarding the Companies' proposed waiver of**
12 **residential customers' late payment charges.**

13 A. The Companies propose a change in the late-payment-charge policy. The Companies have
14 assumed that *all* affected customers would request the credit be applied and has
15 recognized that effect on the revenue deficiency by reducing other operating revenues by
16 \$337,386 for KU, \$231,059 for LG&E-Electric, and \$97,753 for LG&E-Gas.⁴² However,
17 the Companies stated they do not plan to advertise the program. Customers would have to
18 otherwise be aware of the program and then request the Late Payment Credit online
19 through the Contact Us form on the website or by contacting a customer service
20 representative.⁴³ Since it is unlikely that *all* the affected customers would request a waiver,
21 I propose that the actual Late Payment Credits be deferred and recovered in a future rate

⁴² Direct Testimony of William Steven Seelye, page 66, lines 1-18 and LFUCG-DR to KU 1-58 [Exhibit DHM-18].

⁴³ Id., PSC DR to KU 3-27 [Exhibit DHM-19] and PSC DR to LGE 3-26 [Exhibit DHM-20].

1 case. Given the Companies' reluctance to advertise the program, it would not be
2 unreasonable for the Commission to make the adjustment without any deferral. My
3 adjustments are shown on Schedules 3.6. The effect of the adjustments on revenue
4 requirements is shown in the summary table on page 4.

5 ***Employee Retirement Plans (Adjustment #7)***

6 **Q. Briefly describe the Companies' retirement-benefit plans.**

7 A. The Companies' retirement benefits include (1) a traditional defined benefit pension plan
8 ("DB Plan") available only to those who were hired prior to 1/1/06 (and thus, the plan is
9 being phased out), (2) a retirement income account ("DC Plan"), which is a defined
10 contribution plan to which the Companies make annual contributions and available to
11 those hired or rehired on or after 1/1/06, and (3) a company savings plan. The Companies
12 will match 70% of an employee's voluntary deferred compensation amount to the savings
13 plan up to a maximum of six percent. This match is available to all employees who invest
14 voluntary contributions to their retirement.

15 **Q. Did the Commission approve recovery of the costs of the Companies' retirement-**
16 **benefit plans as outlined above in their last rate cases?**

17 A. No. The Commission rejected recovery of the Companies' savings plan contributions for
18 employees who were still participating in the DB Plan, noting that doing so would be not
19 reasonable and is excessive:

20 The Commission finds that, for ratemaking purposes, it is ***not reasonable***
21 to include both LG&E Pre 2006 DDB Plan contributions and LG&E's
22 matching contributions to the 401 (k) Plan for the following employee
23 categories: exempt, manager, non-exempt, and officer and director
24 personnel. The Commission chooses not to address similar 401(k) Plan
25 company matching contributions for hourly and bargaining unit employees

1 in this proceeding, as it is not within the Commission's authority to
2 negotiate or modify bargaining agreements. The Commission will not make
3 a distinction between represented and non-represented hourly groups at this
4 time, but will instead provide an opportunity for LG&E to address these
5 *excessive* costs for both employee classes prior to its next base rate case as
6 rate recovery of these contributions will be evaluated for appropriateness as
7 part of its next base rate case. Employees participating in the Pre 2006
8 DDB Plan enjoy generous retirement plan benefits, making the matching
9 401 (k) Plan amounts excessive for ratemaking purposes.⁴⁴ [emphasis
10 added]

11 **Q. If the Commission applied the same methodology for a similar disallowance in this**
12 **proceeding, what is the 401(k) match made on behalf of employees who participated**
13 **in the DB Plan?**

14 A. For KU the jurisdictional match is \$2,018,838.⁴⁵ The match of LG&E-Electric is
15 \$1,369,708 and for LG&E-Gas the match is \$432,539.⁴⁶

16 **Q. Do the Companies agree with the Commission's conclusion in this matter as**
17 **rendered in the last rate cases?**

18 A. No.⁴⁷ The Companies' disagreements, as discussed throughout its testimony on this
19 subject, may be categorized into four areas of argument: (1) the benefit package must be
20 considered as a whole; (2) market comparison shows the benefit package in the range of
21 competitiveness; (3) the market comparison proves the Companies have controlled costs;
22 and (4) elimination of savings plan matching contributions would deprive employees of
23 promised benefits.

24 **Q. Do you agree with all or any of the Companies' arguments?**

⁴⁴ Order dated June 22, 2017, Case No. 2016-00371, pp. 16–17 (similar language in KU rate case, order dated June 22, 2017, Case No. 2016-00370, pp. 14–15).

⁴⁵ KIUC DR 1-60 to KU [Exhibit DHM-21].

⁴⁶ KIUC DR 1-52 to KU [Exhibit DHM-22].

⁴⁷ Direct Testimony of Gregory J. Meiman, page 20, line 21.

1 A. I disagree with all four arguments as the Companies have presented them. I will discuss
2 the Companies' arguments and my objections in the order listed above.

3 **Q. Please discuss the Companies' first argument: the benefit package must be**
4 **considered as a whole.**

5 A. In testimony, the Companies stated, "When we set retirement and welfare benefit levels,
6 we do not look at each individual benefit or segment of the employee population in
7 isolation and neither should any objective analysis."⁴⁸ From a regulatory point of view,
8 unfair and/or unreasonable practices cannot be overlooked or disregarded in any one area
9 simply because the overall result balances out. Each area of concern should be examined
10 separately and, if reasonable objections to it are identified, regulatory response should
11 address it.

12 **Q. Please discuss the Companies' second argument: market comparison shows the**
13 **benefit package in the range of competitiveness.**

14 A. To support this argument, the Companies commissioned Mercer, an employee-benefit
15 package design and support firm, to assess their retirement- and welfare-benefit offerings
16 relative to the market.

17 **Q. Did you find the Mercer Benefits Study convincing as to the competitiveness of the**
18 **Companies' retirement benefits?**

19 A. No. In its introduction, the Mercer Benefits Study states that they evaluated "benefits
20 against organizations most similar to the client."⁴⁹ In its appendix, the study also provided

⁴⁸ Direct Testimony of Gregory J. Meiman, page 15, lines 12–14.

⁴⁹ KU and LG&E Filing Requirement 807 KAR 5:001 Sec. 16(8)(g) Attachment 4, Page 4 of 13.

1 a list of these “similar” organizations.⁵⁰ A comparative study should compare a company
2 to peers that are similar in geographic location, size, and operation. While Mercer’s list
3 includes a few utilities from Kentucky’s general area, 21 (31%) of the listed companies
4 are west of the Mississippi River, with 10 of those in or west of the Rocky Mountains.
5 Fifteen others are located in the Northeast. Area economic factors in these widely varying
6 locations may skew the results of the study. The sizes of the utilities are also across the
7 board. Two of the organizations are cooperatives, with one of them (although in
8 Kentucky) being a generation and transmission cooperative, not even itself providing
9 distribution services. The diversity of location, size, and even operation of the companies
10 included in the comparison does not provide a good basis to assess market
11 competitiveness.

12 **Q. Do the Companies fully commit to surveys of such widely disparate groupings in all**
13 **their compensation activity?**

14 A. No. For example, the Companies base their compensation structure on another wide-
15 ranging survey of national general or utility industry,⁵¹ in other words, in the same widely
16 diverse manner as performed by Mercer. By doing so, the Companies state, they may
17 consider the compensation competitive.⁵² However, the Companies found they needed to
18 adjust employee compensation using a peer group of local area companies to address turn
19 over issues in its call center.⁵³ Thus, the Companies demonstrated that comparing
20 themselves to utilities not comparable in location was ineffective for their purposes.

⁵⁰ KU and LG&E Filing Requirement 807 KAR 5:001 Sec. 16(8)(g) Attachment 4, Page 10 of 13.

⁵¹ Direct Testimony of Gregory J. Meiman, page 7, lines 21–22.

⁵² Direct Testimony of Gregory J. Meiman, page 8, lines 2–5.

⁵³ Direct Testimony of Gregory J. Meiman, page 6, lines 12–19 and OAG DR to KU 1-114 [Exhibit DHM-23] and OAG DR to LGE 1-114 [Exhibit DHM-24].

1 **Q. Please discuss the Companies' third argument: the market comparison proves the**
2 **Companies have controlled costs.**

3 A. Controlling costs to a certain extent does not alleviate responsibility to control them to a
4 greater extent if the opportunity is available and reasonable. The Companies seem to
5 imply that by reducing overall retirement-benefit costs to some extent, they should not be
6 expected to limit other costs that the Commission has previously called "not reasonable"
7 and "excessive." This argument, therefore, falls short of supporting their objection to the
8 Commission's previous order.

9 **Q. Please discuss the Companies' fourth argument: elimination of savings plan**
10 **matching contributions would deprive employees of promised benefits.**

11 A. The Companies state the following:

12 "The Companies have effectively managed costs related to their retirement
13 plans by closing their DB Plan and offering employees hired on or after
14 January 1, 2006 participation in their DC Plan. Some of those savings are
15 now being used to make the matching payments the Commission
16 disallowed in the 2016 rate cases. To eliminate that match just because an
17 ever-decreasing number of employees receive a benefit from both plans
18 would penalize the Companies for their cost control efforts."⁵⁴

19 However, to characterize the Commission's concern about "not reasonable" and
20 "excessive" costs as penalizing a decision the Companies made without regard for
21 Commission direction displays a misunderstanding of the Companies' responsibility. Had
22 they discontinued the benefit from both plans upon receiving the order from the
23 Commission in the last rate cases, their cost control savings would have benefitted the
24 Companies' shareholders as much as their ratepayers.

⁵⁴ Direct Testimony of Gregory J. Meiman, page 21, lines 2–8.

1 **Q. Do the Companies show a misunderstanding of their responsibility in this regard**
2 **elsewhere in testimony?**

3 A. Yes. The Companies state the following:

4 Eliminating matching payments would deprive employees of benefits they
5 were promised and have relied upon for years when making important life
6 decisions. The Companies have encouraged all employees to take
7 ownership of their retirement planning by directing them to use modeling
8 tools that show the effects of their investment by making voluntary
9 contributions to the Savings Plan. . . . Elimination of matching payments
10 will also cause employee morale issues, inefficiencies, and a loss of
11 productivity, all of which can cause a negative impact on customer service
12 and an increase in the cost of providing service.⁵⁵

13 By their own admission, the Companies explain how they have “promised” and
14 “encouraged” employees in disregard of the Commission’s conclusion that paying benefit
15 for both plans was “not reasonable” and “excessive.” The Companies should not expect
16 ratepayers to bear the burden of their disregard.

17 **Q. What do you recommend?**

18 A. On the authority of the Commission’s prior ruling and the lack of any reasonable support
19 for the Companies’ disagreement, I recommend excluding the matching contribution costs
20 to the 401 (k) Plan for exempt, manager, non-exempt, and officer and director personnel.
21 My adjustments are shown on Schedules 3.7. The effect of the adjustments on revenue
22 requirements is shown in the summary table on page 4.

23 ***Directors and Officers Liability Insurance (Adjustment #8)***

24 **Q. Please explain your recommended adjustment to share the cost of Directors and**
25 **Officers (D&O) Liability Insurance.**

⁵⁵ Direct Testimony of Gregory J. Meiman, page 21, lines 9–18.

1 A. My adjustment removes one-half of the D&O Liability Insurance expense. The removal of
2 one-half of this expense reflects a sharing of this insurance between shareholders and
3 ratepayers.

4 **Q. Why should the cost of D&O Liability Insurance Expense be shared between**
5 **shareholders and ratepayers?**

6 A. PPL maintains D&O liability insurance that is designed to indemnify the directors and
7 officers of PPL Corporation and each of its subsidiaries against any liability (including
8 legal expenses, settlements, and judgments) arising out of alleged wrongful acts, errors, or
9 commissions committed while managing corporate affairs.⁵⁶ Shareholders elect the
10 directors and officers. Should a legal action be brought against a director and/or officer,
11 shareholders would benefit from payouts under the policy that would otherwise reduce the
12 company's below-the-line net income. On the other hand, ratepayers benefit because
13 having the insurance improves the ability of the company to attract and retain qualified
14 directors and officers and enables the directors and officers to make decisions without fear
15 of personal liability. As a result, it is reasonable for shareholders to bear half of the cost of
16 D&O Liability Insurance.

17 The D&O insurance premiums are \$240,936 for LG&E⁵⁷ and \$277,596 for KU.⁵⁸ I
18 allocated my adjustment between LG&E gas and electric using Total Utility Plant Assets
19 Ratio of gas to electric. My adjustments are shown on Schedules 3.8. The effect of the
20 adjustments on revenue requirements is shown in the summary table on page 4.

⁵⁶ OAG DR to LGE 1-81 [Exhibit DHM-25].

⁵⁷ OAG DR to LG&E 1-81 [Exhibit DHM-25].

⁵⁸ OAG DR to KU 1-81 [Exhibit DHM-26].

1 ***Dues for EEI and EPRI (Adjustment #9)***

2 **Q. Please explain your adjustment regarding EEI and EPRI expenses.**

3 A. I will discuss my adjustment regarding EEI dues first. In its Final Orders in cases 2003-
4 00433 and 2003-00434, dated June 30, 2004 (pp. 51–52 and 44–45, respectively), the
5 Commission ordered the removal of 45.35% of the Companies’ dues to EEI because EEI
6 applied that portion of the dues toward (1) legislative advocacy, (2) regulatory advocacy,
7 and (3) public relations (referred to hereafter as “covered expenses”). The Commission
8 precedent established in those cases, however, was not followed by the Companies in the
9 current cases when determining the amounts to be excluded.

10 **Q. If not using the Commission precedent, upon what basis did the Companies calculate**
11 **covered expenses to be excluded in the current cases?**

12 A. The Companies stated that EEI no longer prepares a breakout of activities by NARUC
13 operating expense category. They, therefore, relied on invoice designations to exclude
14 items from rates. Based on invoice designations, 13% of membership dues and 24% of
15 industry issues (a combined 14% of the invoice amount) should be excluded from the cost
16 of service as expenses related to influencing legislation.⁵⁹

17 **Q. Did the Companies provide support for using the invoice designations rather than**
18 **the Commission precedent?**

19 A. No. The Companies stated that they do not rely upon any NARUC reports or other studies
20 for the exclusion from or inclusion in rates of a portion of any organizations dues. They

⁵⁹ OAG DR to KU 1-92 [Exhibit DHM-27] and OAG DR to LGE 1-92 [Exhibit DHM-28].

1 rely on information provided on the invoices received from EEI to determine the portion
2 to be excluded from rates.⁶⁰

3 **Q. Do you consider the Companies' use of the invoice designations rather than the**
4 **Commission precedent sufficient support for the excluded amounts?**

5 A. No. I believe the Companies should continue to exclude amounts relative to the
6 Commission's precedent for two reasons. First, based on the orders establishing the
7 Commission precedent, of particular concern are the three areas previously excluded
8 regarding legislative advocacy, regulatory advocacy, and public relations. EEI's invoices
9 no longer break out costs based on these designations, making it impossible to know
10 exactly how much is associated with these areas.

11 **Q. Do not the EEI invoices identify amounts used for influencing legislation?**

12 A. Not fully. EEI provides a percentage for "membership dues relating to influencing
13 legislation, which is not deductible for federal income tax purposes,"⁶¹ which does not
14 specify whether all NARUC-identified areas are covered as they were under the
15 Commission-established precedent.

16 **Q. What is your second reason for continuing to exclude amounts relative to the**
17 **Commission's precedent?**

18 A. My second reason spawns from my first. The invoice designation of 14% of the invoice
19 total is significantly less than the exclusion rate of 43.35% previously established. There is
20 no support for concluding EEI's activity in regard to the covered expenses has decreased.
21 In fact, the Companies themselves have stated that while they cannot confirm the activity

⁶⁰ OAG DR to KU 1-91 [Exhibit DHM-29] and OAG DR to LGE 1-91 [Exhibit DHM-30].

⁶¹ OAG DR to KU 1-98 [Exhibit DHM-31] and OAG DR to LGE 1-98 [Exhibit DHM-32].

1 of EEI, they assume in their proposed forecast that EEI will continue their current
2 activities.

3 **Q. How much of the EEI dues do you recommend should be removed for the**
4 **Companies' rate request?**

5 A. The Companies failed to provide any evidence as to how much of the EEI dues are related
6 to covered activities. Therefore, I could argue that all the EEI dues should be excluded
7 entirely. However, I believe EEI provides resources, industry training, and testing that can
8 be beneficial. Therefore, of the total EEI membership dues of \$516,777 for KU and of
9 \$359,563 for LG&E-Electric, I recommend continuing to exclude the Commission's
10 established-precedent rate of 43.35%. My adjustments are shown on Schedules 3.9. The
11 effect of the adjustments on revenue requirements is shown in the summary table on page
12 4.

13 **Q. Please explain your adjustment regarding EPRI expenses.**

14 A. The Commission has previously taken a strong stand regarding LG&E's membership in
15 EPRI. In Case No. 8924, the Commission stated the following in regard to the cost of
16 membership:

17 LG&E is hereby apprised that should it decide to become a member of
18 EPRI it will bear the burden in future cases of justifying the cost of its
19 membership. To do so, LG&E must present clear documentation of the
20 benefits available through membership, its utilization of these benefits and
21 its inability to obtain such benefits at a lower cost. The Commission is also
22 concerned that a substantial portion of EPRI's research concerns nuclear
23 power which is of no direct concern in Kentucky. In future cases, should it
24 decide to join EPRI, LG&E must document whether it could receive all
25 nonnuclear related benefits if it reduced its dues by the portion related to
26 nuclear research. The Commission wishes to emphasize that these are the
27 conditions LG&E must meet should it decide to become a member of

1 EPRI. These conditions in no way represent a prior endorsement of such
2 membership.”⁶²
3

4 **Q. Have the Companies provided in this case the information the Commission**
5 **requested?**

6 A. No. The Companies responded that no formal cost-benefit analyses have been prepared
7 regarding EPRI membership.⁶³ The Companies did list presumed benefits in the
8 availability of EPRI research through membership, but without a cost-benefit analysis or
9 some other definitive, comparative analytical support, it would be impossible to realize
10 whether the benefits did outweigh costs, whether any other possible means of obtaining
11 the presumed benefits would be possible, and therefore, whether the EPRI-listed benefits
12 actually do benefit ratepayers.

13 **Q. Did the Companies provide a reason for not producing the Commission-required**
14 **information?**

15 A. No. However, the Companies did note the Commission’s long-standing interest in seeing
16 research and development investments maintained.⁶⁴

17 **Q. Do you believe the Commission’s interest in maintaining research and development**
18 **avenues is reason to justify EPRI membership costs being charged to ratepayers?**

19 A. Not by itself. As the Commission has made clear, the area of research and development
20 should, of course, be an important part of a utility’s effort to maintain low rates and high-
21 quality service. However, those research and development programs must be able to
22 produce cost-effective results. It is precisely for that reason that the Commission required

⁶² Case No. 8924, Order dated May 16, 1984, page 43.

⁶³ OAG DR to KU 2-63 [Exhibit DHM-33] and OAG DR to LGE 2-63 [Exhibit DHM-34].

⁶⁴ OAG DR to KU 2-63 [Exhibit DHM-33] and OAG DR to LGE 2-63 [Exhibit DHM-34].

1 LG&E to “present clear documentation of the benefits available through membership, its
2 utilization of these benefits and its inability to obtain such benefits at a lower cost.”

3 **Q. What do you recommend?**

4 A. In the absence of the Commission’s required support analysis, I recommend excluding
5 EPRI costs from the revenue requirements. My adjustments are shown on Schedules 3.9.
6 The effect of the adjustments on revenue requirements is shown in the summary table on
7 page 4.

8 **Q. Are there other organizations whose dues are included in the Companies rate request
9 that engage in covered activities?**

10 A. Yes. The following other organizations engage in covered activities and should be
11 excluded.

- 12 • Steptoe & Johnson LLC, and agent of Midwest Ozone Group
- 13 • Utility Air Regulatory Group (UARG)
- 14 • Utility Water Act Group (UWAG)
- 15 • Midwest Ozone Group (MOG)
- 16 • Utility Solid Waste Activities Group (USWAG)⁶⁵

17 My adjustments excluding the other organization dues that engage in covered activities are
18 shown on Schedules 3.9. The effect of the adjustments on revenue requirements is shown
19 in the summary table on page 4.

20 ***Outside Counsel Expense (Adjustment #10)***

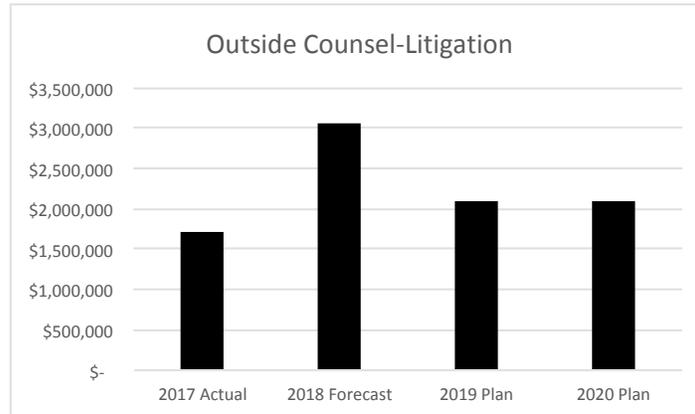
21 **Q. Please explain your adjustment regarding outside counsel expense.**

⁶⁵ OAG DR to KU 1-93 [Exhibit DHM-56] and OAG DR to LGE 1-93 [Exhibit DHM-57].

1 A. The Companies are forecasting significant increases in outside counsel associated with
 2 litigation in 2018 as shown in the following table.⁶⁶

3 **Table 7: Outside Counsel-Litigation 2017–2020**

Annual O&M Expense Outside Counsel (Litigation)



Year	Amount
2017 Actual	\$1,710,000
2018 Forecast	\$3,073,000
2019 Plan	\$2,086,000
2020 Plan	\$2,107,000

4 The Companies stated that the litigation matter involves challenges based on alleged
 5 environmental impacts from operations at two of their coal-fired generating stations. The
 6 Companies are defendants in these actions and deny any liability regarding the plaintiffs’
 7 complaints. The matters are in the pretrial stage, with no trial date set in either case. The
 8 Companies have included \$1.56 million in the forecast for outside services related to these
 9 matters. The Companies have notified their insurance carriers, but it is presently unknown
 10 how much, if any, coverage will be available to cover these additional outside services
 11 costs.⁶⁷ I recommend disallowing these costs as they are non-recurring and should not be
 12 built into on-going rates. In addition, it is possible that a portion, if not all the costs, would
 13 be covered by insurance. Since the Companies did not provide any additional detail
 14

⁶⁶ Filing Requirement 807 KAR 5:001 Section 16(7)(c)I, page 214 of 235.

⁶⁷ OAG DR to KU 1-78 [Exhibit DHM-35], OAG DR to KU 2-52 [Exhibit DHM-36], OAG DR to LGE 1-78 [Exhibit DHM-37], and OAG DR to LGE 2-52 [Exhibit DHM-38].

1 associated with which coal-fired generating stations were involved in the litigation, I
2 allocated my adjustment between KU and LG&E based on coal generation at each utility.
3 My adjustments are shown on KU and LG&E-E Schedules 3.10. The effect of the
4 adjustments on revenue requirements is shown in the summary table on page 4.

5 ***Credit-Card Rebate (Adjustment #11)***

6 **Q. Please explain your recommended adjustment regarding the recognition of the**
7 **credit-card rebate.**

8 A. The Companies use credit cards that provide rebates for purchases. The rebates were not
9 reflected in the cost of service for the base or forecasted period. The rebates are recorded
10 in account 921 Office Supplies and Expenses. The rebates for 2016 and 2017 are shown in
11 the following table.⁶⁸

12 **Table 8: Credit Card Rebates for 2016 and 2017**

	LG&E	KU
2016	\$ 237,348	\$ 206,000
2017	\$ 242,837	\$ 210,764

13
14 The Companies stated that the 2018 rebate has not been received.⁶⁹ My adjustment
15 recognizes the credit card rebates using the most recent information available (2017). This
16 amount is conservative since the rebate for 2017 is likely less than what will be received
17 in 2018 due to the growth in the balances in Material and Supplies (M&S) and Stores in
18 recent years. The balances in M&S and Stores for LG&E Gas and Electric were used to
19 allocate the total LG&E credit card rebate between gas and electric. My adjustments are
20 shown on Schedules 3.11. The effect of the adjustments on revenue requirements is shown
21 in the summary table on page 4.

⁶⁸ OAG DR to KU 1-84 [Exhibit DHM-39] and OAG DR to LGE 1-84 [Exhibit DHM-40].

⁶⁹ OAG DR to KU 1-84 [Exhibit DHM-39] and OAG DR to LGE 1-84 [Exhibit DHM-40].

1 ***Economic Development (Adjustment #12)***

2 **Q. Please explain your concern regarding the Companies' economic development**
3 **investment.**

4 A. The mission of the Kentucky Public Service Commission is “to foster the provision of safe
5 and reliable service at a reasonable price to the customers of jurisdictional utilities while
6 providing for the financial stability of those utilities by setting fair and just rates, and
7 supporting their operational competence by overseeing regulated activities.” Both LG&E
8 and KU have incorporated the goal of reliable, safe energy at a reasonable cost in their
9 own mission statements.⁷⁰ My concern is that the Companies, in taking on economic
10 development activities, unfairly expect ratepayers to bear the burden of those economic
11 development pursuits. Although someday customers may see a benefit from economic
12 development, it is unfair to have ratepayers shoulder the entirety of that burden now, even
13 though shareholders will equally enjoy any possible successes.

14 **Q. Please explain.**

15 A. Economic development by definition is neither a reasonable nor necessary cost of
16 providing safe and reliable electricity and gas service to customers. Not only are there
17 already local and state entities that provide this service as a primary mission (through
18 taxes by which ratepayers are already burdened), but the day-to-day activities of economic
19 development risk can distract the Companies from their stated mission to provide safe and
20 reliable service to its customers.

⁷⁰ <https://lge-ku.com/our-company/vision-mission>

1 **Q. Have the Companies supported their claim for economic development investment**
2 **recovery with a cost-benefit analysis or other analyses determining benefit to**
3 **ratepayers?**

4 A. The Companies provided no such analyses in their application. As support, the Companies
5 should at least provide record of incremental revenues generated through economic
6 development to offset the investment they expect the ratepayers to pay. They should also
7 provide forecasts of future revenue growth expected.

8 **Q. What is your recommendation regarding economic development costs?**

9 A. Because investment in economic development is not a reasonable or necessary cost of
10 providing safe and reliable service, I recommend that economic development costs be
11 removed from ratepayer burden, especially since the Companies have not provided
12 evidence that those ratepayers bearing the cost burden will benefit from these investments.
13 My adjustments are shown on Schedules 3.12. The effect of the adjustments on revenue
14 requirements is shown in the summary table on page 4.

15 ***Customer Education (Adjustment #13)***

16 **Q. Please explain your concerns regarding the Companies' customer education**
17 **spending.**

18 A. The Companies are inconsistent in their arguments regarding the benefits of energy-
19 efficiency customer education. The Commission approved the Customer Education and
20 Public Information Program ("CEPI") in Case Nos. 2007-00319 and 2014-00003. The
21 Companies stated in their most recent DSM proceeding that the CEPI "program provides
22 education and increased public awareness and understanding of the urgent need for more

1 efficient use of energy and the financial impacts created by increased usage.”⁷¹ Within the
2 LG&E and KU 2019–2025 Demand-Side Management and Energy Efficiency Program
3 Plan, the Companies provided details on the Customer Education and Public Information
4 program:

5 The Customer Education and Public Information Program (CEPI) offered
6 elementary and middle-school energy education curriculum, professional
7 development and innovative materials to K-8 teachers. Additionally, the
8 Companies implemented a mass media education campaign, including
9 public-service advertisements *to encourage customers to take easy but*
10 *effective steps to reduce their energy usage.*⁷² [emphasis added]

11 The Companies stated that they included CEPI in their DSM portfolio to help drive DSM
12 program participation, although no energy savings were attributed to CEPI.⁷³ The
13 Companies stated that they believed it was “prudent” to discontinue the CEPI.⁷⁴

14 The inconsistency is that the Companies have included \$1.26 million for KU and
15 \$1.04 million for LG&E for customer education in this proceeding for *essentially the same*
16 *program that they stated did not produce any energy savings.* The Companies state that
17 the benefits of the customer education it proposes to include in base rates:

18 KU [LG&E] believes it is important to ensure that customers understand
19 how they can *reduce energy* and save money on their [gas and] electric
20 bills. In the absence of many residential demand side management
21 programs that helped customers understand the importance of energy
22 management, KU [LG&E] is educating customers on various techniques
23 they can do on their own *to reduce the amount of energy they consume.*
24 The education process comes in a variety of forms to ensure we meet our
25 customers in their varied ways they consume information.⁷⁵ [emphasis
26 added]

27 These benefits appear to be very similar to the benefits of the CEPI that the
28 Companies had stated did not produce any energy savings.

⁷¹ Case No. 2017-00441, Direct Testimony of Gregory S. Lawson, page 15, line 3–8.

⁷² Case No. 2017-00441, Direct Testimony of Gregory S. Lawson, Exhibit GSL-1, page 18 of 182.

⁷³ PSC DR to KU 3-23 [Exhibit DHM-41] and PSC DR to LGE 3-21 [Exhibit DHM-42].

⁷⁴ Case No. 2017-00441, Direct Testimony of Gregory S. Lawson, page 15, line 10.

⁷⁵ OAG DR to KU 1-73 [Exhibit DHM-43] and OAG DR to LGE 1-73 [Exhibit DHM-44].

1 **Q. Please elaborate on the inconsistency.**

2 A. The Companies stated, “The Companies are committed to continuing education efforts
3 regarding the reduced energy consumption.”⁷⁶ However, the Companies have not provided
4 support that the expense is cost-beneficial, particularly since just a year ago they
5 effectively admitted it was not, and in doing so requested approval to discontinue the
6 program. Sensible education and programs can help customers reduce their energy
7 burdens, but it is inconsistent for the Companies to state they are “committed” to an idea
8 while throwing customer money at a program they concluded is *not* cost beneficial and
9 *does not* save energy.

10 **Q. What do you recommend?**

11 A. The Companies have two options: (1) provide support that the expense is cost-beneficial,
12 particularly since just a year ago they effectively admitted it was not, or (2) fund the
13 program through shareholder monies by not recovering the cost through rates. Thus, given
14 the Companies’ lack of support, I recommend excluding the \$1.26 million for KU and
15 \$1.04 million for LG&E for customer education. My adjustments are shown on Schedules
16 3.13. The effect of the adjustments on revenue requirements is shown in the summary
17 table on page 4.

18 ***Baseline ECR Beneficial Reuse Operating Expense Credit (Adjustment #14)***

19 **Q. Please explain the Baseline ECR Beneficial Reuse Operating Expense Credit.**

20 A. KU explained that it is allowed to include the expenses and revenues related to beneficial
21 reuse projects through the Environmental Cost Recovery (ECR) Mechanism above the

⁷⁶ Case No. 2017-00441, Direct Testimony of Gregory S. Lawson, page 15, line 12–13.

1 baseline amount included in base rates.⁷⁷ The baseline reuse amount was the result of a
2 settlement between KU and Kentucky Industrial Utility Customers, Inc. (KIUC) in KU's
3 environmental compliance plan filing from 2009. The parties agreed to include a baseline
4 amount in base rates and the increment or decrement reflected through the ECR. In that
5 2009 matter, the Commission explicitly considered and approved the Environmental
6 Surcharge (ES) form and ECR tariff rider that specify the inclusion of the beneficial reuse
7 amount in base rates.

8 **Q. What is KU proposing in this proceeding?**

9 A. KU is proposing to eliminate the baseline ECR beneficial reuse operating expense credit
10 currently in the ECR mechanism. The company argues that, with the implementation of
11 new base rates in this proceeding, the baseline adjustment is no longer necessary and all
12 beneficial reuse savings and costs will be included in the ECR mechanism.⁷⁸

13 **Q. Please explain your recommendation regarding the baseline ECR beneficial reuse**
14 **operating expense credit.**

15 A. There have been numerous rate cases since that settlement, and KU wants to change the
16 process now without any substantive reason to do so. It is the company's burden to
17 support adjustments, and KU has provided no good reason to deviate from the process the
18 Commission previously found reasonable. In addition, KU stated that there is no negative
19 impact to KU if it continues the baseline credit.⁷⁹ KU stated that the baseline credit,
20 currently included in base rates prior to this change, is \$440,000 for the Ghent facility.⁸⁰
21 My recommendation is to retain the ECR beneficial reuse operating expense credit in base

⁷⁷ OAG DR to KU 1-21 [Exhibit DHM-45].

⁷⁸ Direct Testimony of Christopher M. Garrett, page 25, lines 7-14.

⁷⁹ OAG DR to KU 1-21 [Exhibit DHM-45].

⁸⁰ Direct Testimony of Christopher M. Garrett, page 25, lines 14-15.

1 rates and, thus, restate the \$440,000 credit. My adjustments are shown on KU Schedule
2 3.14. The effect of the adjustments on revenue requirements is shown in the summary
3 table on page 4.

4 ***Merger Mitigation Depancaking (Adjustment #15)***

5 **Q. Please explain the Merger Mitigation Depancaking.**

6 A. It is my understanding that during the mid-to-late 1990s, LG&E and KU proposed to
7 merge. This merger required Kentucky PSC and FERC approvals. Upon evidence
8 provided by objecting parties (primarily municipal utilities within Kentucky) that a merger
9 of the Companies raised the likelihood of excessive horizontal market power, FERC
10 required LG&E and KU to address the issue. In order to address FERC's market power
11 concerns, LG&E/KU agreed to join MISO in 1998.

12 In 2006, LG&E and KU received Kentucky PSC and FERC approvals to withdraw
13 from MISO, but with FERC's continued concerns regarding Kentucky municipal access to
14 other suppliers, LG&E and KU agreed to a mechanism called Merger Mitigation
15 Depancaking (MMD).⁸¹ LG&E and KU now claim that given the robust markets available
16 to KU's soon-to-be former all-requirements customers, chiefly the municipal customers
17 KU served/serves at the wholesale level, continuing the MMD out of fear of horizontal
18 market power is no longer necessary. Therefore, LG&E and KU are asking FERC
19 approval to remove the MMD mechanism.

20 **Q. How does MMD impact this proceeding?**

21 A. LG&E and KU are asking for FERC approval for the removal of the MMD mechanism at
22 this time because, starting May 1, 2019, many of KU's former all requirements customers

⁸¹ OAG DR to KU 1-9 [Exhibit DHM-46].

1 (i.e. the municipals) will be taking service from elsewhere, namely from within organized
2 RTOs/ISOs. The Companies stated that the nine departing municipals, as well as changes
3 being made by other municipal utilities in Kentucky, are projected to add costs for KU
4 under its MMD transmission rate mechanism.⁸² The impact to Kentucky retail customers
5 from the MMD is, that by providing credit to certain wholesale customers (i.e.
6 municipals), the Companies' transmission revenues are lower than they otherwise would
7 be. All else equal, these transmission revenues would otherwise be credited against the
8 retail revenue requirement where the transmission assets are rate-based. The impact
9 related to the MMD mechanism included for recovery in these cases are \$15.1 million
10 from KU customers and \$9.0 million from LG&E customers.⁸³ The Companies believe
11 that due to the development of robust, accessible energy markets over time, these merger
12 mitigation commitments are no longer relevant or appropriate. On August 3, 2018, the
13 Companies made a filing with FERC to eliminate these MMD charges. The Companies
14 stated they cannot predict its outcome.⁸⁴ FERC is required to issue an order within 180
15 days of the filing (January 30, 2019), but FERC can also request additional time for
16 review or even reject the Companies' request.⁸⁵ The Companies have assumed a test
17 period level of MMD costs that it expects to incur if the approval is denied in whole.

18 **Q. How do the Companies propose recognizing the effect of receiving FERC approval in**
19 **this proceeding?**

20 A. The Companies stated, "If the FERC grants the Companies' request during the pendency
21 of this proceeding, the Companies will address the effect on the revenue requirements.

⁸² Direct Testimony of Kent W. Blake, page 10, line 21–page 11, line 1.

⁸³ LFUCG DR to KU 1-49c [Exhibit DHM-47].

⁸⁴ Direct Testimony of Kent W. Blake, page 11, lines 6–7.

⁸⁵ LFUCG DR to KU 1-49f [Exhibit DHM-47].

1 However, it is not known when FERC would issue such an order or when the elimination
2 of MMD would be made effective.”⁸⁶ The Companies stated that to remove the effects of
3 the MMD from the test period, Miscellaneous Transmission Expenses would be reduced
4 by \$15.1 million for KU⁸⁷ and \$9 million for LG&E-Electric.⁸⁸

5 **Q. What is your recommendation?**

6 A. The Companies’ position on this issue is unreasonable. There are a number of
7 uncertainties that could simply be addressed through deferral accounting. First, if the
8 MMD costs remain in this proceeding and FERC eventually approves the request, any
9 benefit would go to shareholders, at the expense to ratepayers. Second, the actual level of
10 costs is not certain. Therefore, I recommend that the MMD offset be removed in the test
11 period for ratemaking purposes and the Commission approve deferral accounting of the
12 actual costs or savings until after the FERC decision is known and measurable. My
13 adjustments are shown on KU and LG&E-E Schedules 3.15. The effect of the adjustments
14 on revenue requirements is shown in the summary table on page 4.

15 ***Amortization of Storm Damage Regulatory Asset (Adjustment #16)***

16 **Q. Please explain the Companies’ request for regulatory asset treatment for storm**
17 **damage.**

18 A. In Case No. 2018-00304, the Companies requested, and the Commission granted,
19 permission to establish a regulatory asset for accounting purposes to account for expenses
20 incurred by the Companies to repair and restore services caused by severe thunderstorms

⁸⁶ OAG DR to KU 1-9e [Exhibit DHM-46].

⁸⁷ OAG DR to KU 2-29c [Exhibit DHM-48].

⁸⁸ OAG DR to LGE 2-29c [Exhibit DHM-49].

1 beginning on July 20, 2018, and defer for future recovery their actual incremental July
2 2018 Storm-related O&M costs.⁸⁹ The Companies' regulatory asset includes current
3 estimates for the O&M costs to repair and restore (excluding normal operations expenses
4 currently imbedded in rates) of \$4.7 million for KU and \$2.4 million for LG&E. The
5 Commission specifically did not address the recovery of the costs.⁹⁰ In this proceeding, the
6 Companies are requesting these costs be amortized over a five-year period beginning
7 when new rates take effect from this proceeding.⁹¹

8 **Q. What is your recommendation?**

9 A. I recommend that the regulatory asset for the July 2018 Storm be amortized over a ten-
10 year period, consistent with prior cases, instead of the five years the Companies proposed.
11 In Case No. 2009-00548, a nonunanimous stipulation agreed to, and the Commission
12 explicitly approved, a ten-year amortization of the Companies' regulatory assets the
13 Commission approved concerning the 2008 Wind Storm and 2009 Winter Storm.⁹² My
14 adjustments to update the Companies' estimated July 2018 Storm costs to the most recent
15 actuals⁹³ and changing the amortization from five years to ten years are shown on KU and
16 LG&E-E Schedules 3.16. The effect of the adjustments on revenue requirements is shown
17 in the summary table on page 4.

⁸⁹ Case No. 2018-00304, Application dated September 12, 2018, pages 8–9.

⁹⁰ Case No. 2018-00304, Order dated December 20, 2018, pages 1 and 15.

⁹¹ Direct Testimony of Christopher M. Garrett, page 38, lines 15–19.

⁹² Case No. 2009-00548, Order dated July 30, 2010, pages 12 and 18–20; *See also* Case No. 2009-00549, Order dated July 30, 2010.

⁹³ KIUC DR to KU 1-65, which references Case No. 2018-000304, PSC DR to KU 1-8 [Exhibit DHM-50].

1 ***Amortization of Tax Reform Regulatory Liabilities (Adjustment #17)***

2 **Q. Please explain the Companies' request for regulatory liability treatment for state tax**
3 **reform.**

4 A. In Case No. 2018-00304, the Companies requested, and the Commission granted,
5 permission to establish regulatory liabilities by the end of the year for the excess
6 accumulated deferred income taxes (ADIT) created by the reduction in the state corporate
7 income tax rate. While the Companies proposed an amortization methodology for the
8 regulatory liability in Case No. 2018-00304, the Commission authorized the Companies to
9 establish the regulatory liabilities for the excess ADIT created by the reduction in the
10 Kentucky corporate income tax rate *for accounting purposes only*.⁹⁴ The Commission did
11 not approve the recovery of the regulatory liability in Case No. 2018-00304.

12 **Q. Did the Commission approve amortization for excess ADIT items due to the Tax**
13 **Cuts and Jobs Act (TCJA)?**

14 A. In Case No. 2018-00034, the Commission approved amortizing all protected excess ADIT
15 using the Average Rate Assumption Method (ARAM) and unprotected excess ADIT over
16 15 years. However, the Attorney General requested that the issue regarding the
17 amortization of the unprotected ADIT remain subject to reevaluation in the next rate case.
18 The Commission acquiesced as stated in its September 28, 2018, Order at page 16:

19 The Attorney General does suggest that the Commission can reevaluate and
20 shorten the amortization period in the subsequent base rate cases, thereby
21 lowering the revenue requirement.

22 The Commission finds the methodologies proposed by KU/LG&E to
23 refund the protected and unprotected portions of the excess ADIT are
24 reasonable and should be approved. The Commission does note the

⁹⁴ Case No. 2018-00304, Order dated December 20, 2018, page 15.

1 Attorney General's suggestion regarding the amortization period for the
2 unprotected excess ADIT, and will reexamine the 15-year amortization
3 period during KU/LG&E's next base rate cases.⁹⁵

4 **Q. What did the Companies include in this filing regarding the amortization of the**
5 **regulatory liability from the state income tax rate change?**

6 A. The Companies proposed amortizing all protected excess ADIT using ARAM and
7 amortizing all unprotected excess ADIT over a 15-year amortization period. The
8 Companies stated they will continue to treat all property-related excess ADIT as protected.
9 The amortization of the unprotected excess ADIT would begin when new base rates go
10 into effect.⁹⁶ The Companies have included \$1.0 million for KU, \$0.5 million for LG&E-
11 Electric, and \$0.1 million for LG&E-Gas of additional excess ADIT amortization in its
12 rate requests in this proceeding.⁹⁷

13 **Q. The Companies treated all plant-based excess ADIT items as “protected” and flowed**
14 **back the corresponding income tax expense offset in rates using the Average Rate**
15 **Assumption Method (ARAM). Is such ratemaking treatment pure under federal and**
16 **state law?**

17 A. No.⁹⁸ The normalization requirement applies only to ADIT balances derived from book-
18 tax timing differences owing to the election of bonus and accelerated depreciation for
19 federal income tax purposes. Plant-based timing differences, such as repair allowances and
20 cost of removal, are therefore not subject to ARAM. The Companies acknowledged as
21 much in their response to an OAG data request.

22 **Question:**
23 Tax Cuts and Jobs Act. Notwithstanding the regulatory treatment in Case

⁹⁵ Case No. 2018-00034, Order dated September 28, 2018, page 16.

⁹⁶ Direct Testimony of Christopher M. Garrett, page 35, lines 4–15.

⁹⁷ Direct Testimony of Christopher M. Garrett, page 37, line 19–page 38, line 6.

⁹⁸ OAG DR to KU 1-132 [Exhibit DHM 52].

1 No. 2018-00034, confirm that IRS normalization requirements for excess
2 accumulated deferred income taxes (“ADIT”) apply to only accelerated
3 federal tax method-life depreciation, and that they do not apply to excess
4 ADIT on other book-tax temporary differences, regardless of whether they
5 have a basis in plant.

6 **Answer:**

7 Confirmed. The normalization requirements apply to ADIT and excess
8 ADIT attributable to differences in the method of computing depreciation
9 and/or the depreciable life of an asset (method-life differences) used for
10 federal income tax purposes versus those used for financial purposes.
11 Federal ADIT and excess ADIT attributable to method-life differences are
12 subject to the normalization rules and are generally referred to as
13 “protected items.” There is no prohibition against any other basis
14 adjustments being treated in the same way (normalized) as method-life
15 differences. The Company has, with past regulatory approval, consistently
16 treated plant related basis adjustments arising from other than method-life
17 differences as protected items. Furthermore, the Companies have classified
18 net operating loss carryforward excess ADITs as “protected.”

19 In this case customers actually benefit by including the other basis
20 adjustments as protected items. The other basis adjustments are a net
21 deferred income tax asset or additional “costs” to customers (rather than a
22 deferred income tax liability that is refunded to customers) due to the
23 income tax rate change. The customers benefit because they are “paying
24 back” this deferred tax asset over a longer period of time as a protected
25 item versus an unprotected item.⁹⁹

26 **Q. Does the Companies’ reasoning on the application of ARAM to all plant-based excess**
27 **ADIT items regardless of their protected status fairly interpret the facts and**
28 **circumstances?**

29 A. No. The tax losses that created the NOLC offset within Accumulated Deferred Income
30 Taxes were driven by the Companies’ election of 50 and 100 percent bonus depreciation
31 over the past decade on federal income tax returns, before the enactment of the TCJA.
32 Derivation of the NOLC due to the election of bonus depreciation indicates the excess
33 ADIT item should in principle be flowed back into rates under ARAM, whether or not the
34 tax code explicitly states the requirement. All other plant-based excess ADIT items,

⁹⁹ OAG DR to KU 1-127 [Exhibit DHM-53].

1 unrelated to bonus and accelerated depreciation, are not subject to ARAM. Therefore,
2 reducing their amortization period will decrease rates.

3 **Q. Do you agree with the Companies' proposal regarding the amortization of the excess**
4 **ADIT?**

5 A. Partially. The Companies have assumed, although incorrectly, that all plant-based excess
6 ADIT is protected and applied ARAM to it. While I can accept the Companies' protected
7 labeling and use of ARAM for all plant-based items, regardless of their true status under
8 the law, the 15-year amortization period for the unprotected non-plant excess ADIT is
9 excessive.

10 **Q. Do you propose an alternative amortization period for the unprotected excess ADIT?**

11 A. Yes. The unprotected excess ADIT for the federal and state regulatory liabilities should be
12 amortized over a six-year period to mitigate intergenerational inequity. The matching
13 principle establishes that customers who *use* an asset should be the ones to *pay* for that
14 asset at the time it is used. When the temporal match between cost recovery and use is in
15 question, maintaining intergenerational equity must be taken into strong consideration.

16 **Q. Is there a practical reason to amortize over a six-year period?**

17 A. Yes. Amortizing the unprotected component of the regulatory liability over six years
18 synchronizes recovery with the next rate case and avoids over or under recovery. The
19 Companies file rate cases every two years and have had to request adjustments to the
20 amortization period to prevent over recovery in past cases and in these matters.
21 Establishing the recovery period at six years upfront, avoids this concern.

1 **Q. How did you adjust the unprotected amortization for the federal regulatory liability,**
2 **given that the customer credit through April 30, 2019, is being returned through the**
3 **TCJA surcredit using 15 years?**

4 A. The TCJA surcredit returns the federal excess ADIT amortization from January 1, 2018,
5 through April 30, 2019, when new base rates are established via the instant cases.¹⁰⁰ I reset
6 the amortization schedule from May 1, 2019, through December 31, 2023, so that it would
7 complete at the end of six years. My adjustments are shown on Schedules 3.17. The effect
8 of the adjustments on revenue requirements is shown in the summary table on page 4.

9 *Interest Synchronization (Adjustment #18)*

10 **Q. Please explain your recommended adjustment regarding Interest Synchronization.**

11 A. To determine the tax-deductible interest for ratemaking, I have multiplied my
12 recommended capitalization by the weighted cost of debt. This procedure synchronizes the
13 interest deduction for tax purposes with the interest component of the return on
14 capitalization to be recovered from ratepayers. My adjustments for the Companies are
15 shown on Schedules 3.18. The effect on revenue requirements is shown in the summary
16 table on page 4.

17 *Effect of Adjustments on Operating Income*

18 **Q. What is the effect of your recommended adjustments to the Companies' operating**
19 **income?**

20 A. The effect of my recommended adjustments on the Companies' proposed operating
21 income is provided in Schedules 1.1. The following table summarizes the effects.

¹⁰⁰ Case No. 2018-00034, PSC DR to KU and LG&E 2-1 [Exhibit DHM 51].

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matters of:

ELECTRONIC APPLICATION OF)
KENTUCKY UTILITIES COMPANY) CASE NO. 2018-00294
FOR AN ADJUSTMENT OF ITS)
ELECTRIC RATES)

-and-

ELECTRONIC APPLICATION OF)
LOUISVILLE GAS AND ELECTRIC) CASE NO. 2018-00295
COMPANY FOR AN ADJUSTMENT)
OF ITS ELECTRIC AND GAS RATES)

AFFIDAVIT OF Donna Mullinax

State of South Carolina)
)
)

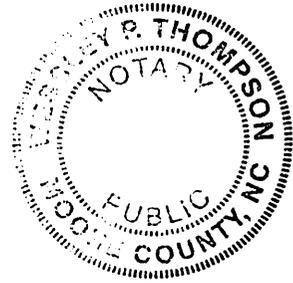
Donna Mullinax, being first duly sworn, states the following:
The prepared Pre-Filed Direct Testimony and Schedules attached thereto constitute the direct testimony of Affiant in the above-styled cases. Affiant states that she would give the answers set forth in the Pre-Filed Direct Testimony if asked the questions propounded therein. Affiant further states that, to the best of her knowledge, information and belief her statements made are true and correct. Further affiant saith naught.

Donna Mullinax
Donna Mullinax

SUBSCRIBED AND SWORN to before me this 15th day of January, 2019.

[Signature]
NOTARY PUBLIC

My Commission Expires: July 26, 2020



Attachment 1–Professional Experience and Education of Donna H. Mullinax

Summary

Mrs. Mullinax has over thirty-nine years of financial, management and consulting experience. She is President of Blue Ridge Consulting Services, Inc. Prior to becoming President, she held the position of Vice President and Chief Financial Officer for Blue Ridge and her former employer. She has served on various Boards of Directors. She has extensive experience in project management; regulatory and litigation support; financial, administration, and human resource management. She has performed numerous financial, compliance and management audits. Mrs. Mullinax has excellent analytical skills and report writing capabilities. She has designed and implemented accounting and business systems and developed policy and procedure manuals to support those systems.

Key Qualifications and Selected Professional Experience

Financial, Administration, and Human Resource Management

As Chief Financial Officer and Vice President she was responsible for all aspects of financial, administration, and human resources. Her responsibilities included accounting, cash management, budgeting, tax planning and preparation, fixed assets, human resources, and employee benefits. Records under her control have been subject to an IRS compliance audit with no findings.

Project Management

Mrs. Mullinax has successfully managed numerous projects controlling cost, schedule, and scope. These projects included management, financial, and compliance audits, M&A due diligence reviews, economic viability studies, prudence reviews, and litigation/regulatory support for construction contract claims and regulatory proceedings. She works well with diverse team members and has an excellent ability to reconcile various viewpoints and establish and maintain effective working relationships among cross-functional teams.

Financial, Compliance, and Management Auditing

Mrs. Mullinax is a skilled auditor. She has performed numerous financial, compliance, and management audits for governmental entities, businesses, and public utilities. As a CPA and CIA, she is knowledgeable about sound internal control processes and procedures and has made numerous recommendations for modifications to provide reasonable assurance regarding the achievement of objectives related to (1) effectiveness and efficiency of operations; (2) reliability of financial records, and (3) compliance with laws and regulations.

She has also conducted detailed base rates revenue requirements and rider compliance audits. She has analyzed financial information and budget projections, performed risk identification, and evaluated performance against industry benchmarks. Her extensive professional experience allows her to effectively analyze and evaluate methods and procedures and to thoroughly document her findings. She has successfully testified to her audit findings.

- ❖ Before the Nebraska Public Service Commission (NEPSC) on behalf of the Public Advocate of Nebraska
 - Application NG-0078.6 System Safety and Integrity Rider (SSIR) of Black Hills Distribution, LLC-Nebraska, October 2018–December 2018.
 - Application NG-0078.5 Extension of the System Safety and Integrity Rider (SSIR) of Black Hills Distribution, LLC-Nebraska, June 2018–September 2018.
 - Application NG-0078.4, System Safety and Integrity Rider (SSIR) of Black Hills Distribution, LLC-Nebraska, October 2017–December 2017.

Attachment 1–Professional Experience and Education of Donna H. Mullinax

- Application NG-0078.3, System Safety and Integrity Rider (SSIR) of Black Hills Distribution, LLC-Nebraska (formerly SourceGas Distribution LLC), October 2016–December 2016.
- Application NG-0078.2, System Safety and Integrity Rider (SSIR) of SourceGas Distribution, LLC, October 2015– January 2016
- Application NG-0078.1, System Safety and Integrity Rider (SSIR) of SourceGas Distribution, LLC, November 2014– February 2015

Project Manager and Lead Auditor. Review of the Company’s applications for a system safety and integrity rider for compliance to the Commission directives.

- Application NG-0072.1, Infrastructure System Replacement Cost Recovery Charge (ISR Rider) of SourceGas Distribution, LLC May 2014–August 2014.
- Application No. NG-0074, Infrastructure System Replacement Cost Recovery Charge (ISR Rider) of Black Hills/Nebraska Gas Utility Company, LLC, d/b/a Black Hills Energy, July–November 2013.
- Application No. NG-0072, Infrastructure System Replacement Cost Recovery Charge (ISR Rider) of SourceGas Distribution, LLC March 2013–May 2013.

Project Manager and Lead Auditor. Review of the Company’s applications for an infrastructure system replacement cost recovery charge for compliance to the Nebraska Natural Gas Regulation Act.

❖ On behalf of the Staff of the Public Utilities Commission of Ohio (PUCO)

- Case No. 17-2202-GA-ALT: Plant in Service and Capital Spending Prudence Audit of Columbia Gas of Ohio, May 10, 2018–Present

Project Manager and Lead Auditor. Review to determine if the company has accurately determined and account for its plant in service balance from the last base rate case through December 31, 2017. Also reviewed the necessity, reasonableness, and prudence of the Company’s capital expenditures and associated assets from the last base rate case through December 31, 2017.

- Case No. 15-1830-EL-AIR: Plant in Service Balance Audit of Dayton Power and Light Company, April 2017–August 2018.

Project Manager and Lead Auditor. Review to ensure the accuracy and reasonableness of the Company’s plant in service balances placed in service from April 1, 1991 through September 30, 2015..

First Energy

- Case No. 11-5428-EL-RDR, November 2011–April 2012
- Case No. 12-2885-EL-RDR, December 2012–July 2013
- Case No. 13-2100-EL-RDR, December 2013–April 2014
- Case No. 14-1929-EL-RDR, December 2014–May 2015
- Case No. 15-1739-EL-RDR, January 2016–July 2016
- Case No. 16-2041-EL-RDR, January 2017–November 2017
- Case No. 17-2009-EL-RDR, December 2017–May 2018
- Case No. 18-1542-EL-RDR, December 2018–present

AEP-Ohio

- Case No. 13-0419-EL-RDR, March–August 2013
- Case No. 16-0021-EL-RDR, March–August 2016

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- Case No. 17-0038-EL-RDR, April–November 2017
- Case No. 18-0230-EL-RDR, April 2018–present

Project Manager and Lead Auditor. Review to ensure the accuracy and reasonableness of the Companies' compliance with its Commission-approved infrastructure cost recovery rider filings.

- Case No. 08-0072-GA-AIR Columbia Gas of Ohio, April–August 2008
- Case No. 07-0829-GA-AIR Dominion East Ohio, November 2007–July 2008
- Case No. 07-0589-GA-AIR Duke Energy Ohio, November 2007–February 2008

Lead Auditor and assistant project manager. Comprehensive rate case audit of companies' gas rate filings to validate the filings, provided conclusions and recommendations concerning the reliability of the information, and supported Staff in its evaluation of the reasonableness of the filing.

❖ Before the New Hampshire Public Utilities Commission on behalf of Staff

- Docket No. DE 16-822 Public Service of New Hampshire d/b/a Eversource Energy. Project Manager and Lead Auditor. Review of the Company's revised cash working capital study in its 2017 Energy Service rate calculations. February 2017-May 31, 2017.

❖ On behalf of the Massachusetts Department of Public Utilities,

- Case No. D.P.U. 08-110, regarding the Petition and Complaint of the Massachusetts Attorney General for an Audit of New England Gas Company (NEGC), February–August 2010.

Lead Auditor and Assistant Project Manager. Management audit on how NEGC manages its accounting and financial reporting functions and whether sufficient controls are in place to ensure that the information included in the company's filings can be reasonably relied upon for setting rates – areas reviewed included general accounting, financial reporting, and internal controls; plant accounting; income tax; accounts receivable; accounts payable; cash management; payroll; cost allocations; and capital structure.

❖ On behalf of the Staff of the Connecticut Public Utilities Regulatory Authority (PURA)

- Management Audit of Yankee Gas Services Company. June 2014–April 3, 2015. Lead Auditor and Assistant Project Manager. In-depth investigation and assessment of the company's business processes, procedures, and policies relating to the management operations and system of internal controls of the company's executive management and financial operations.
- Diagnostic Management Audit of Connecticut Light and Power Company, July 2008–June 2009, Lead Auditor and Assistant Project Manager. In-depth investigation and assessment of the company's business processes, procedures, and policies relating to the management operations and system of internal controls of the company's executive management, system operations, financial operations, marketing operations, human resources, customer service, external relations, and support services. In addition, supported an in-depth review of the development and implementation process of the company's new customer information system.

❖ Before the Oregon Public Utilities Commission (ORPUC), Docket No. UP 205: Examination of NW Natural's Rate Base and Affiliated Interests Issues, Co-sponsored between NW Natural, ORPUC Staff, Northwest Industrial Gas Users, Citizens Utility Board, August 2005-January 2006, Lead

Attachment 1–Professional Experience and Education of Donna H. Mullinax

Auditor and Assistant Project Manager. Examination of NW Natural's Financial Instruments, Deferred Taxes, Tax Credits, and Security Issuance Costs to ensure Company compliance with orders, rules, and regulations of the ORPUC and with Company policies.

Partial List of Reports and Publications

- Examination of Black Hills Gas Distribution, LLC Application to Adjust System Safety and Integrity Costs in 2019 on Behalf of the Nebraska Public Advocate, December 7, 2018
- Compliance Audit of the 2017 Distribution Investment Rider (DIR) Ohio Power Company d/b/a AEP Ohio, August 23, 2017
- Compliance Audit of the 2017 Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, May 11, 2018
- Examination of Black Hills Gas Distribution, LLC Application to Increase Eligible System Safety and Integrity Costs in 2018 on Behalf of the Nebraska Public Advocate, December 11, 2017
- Audit of Plant in Service for Dayton Power & Light's Application to Increase Rates, September 28, 2107
- Compliance Audit of the 2016 Distribution Investment Rider (DIR) Ohio Power Company d/b/a AEP Ohio, August 9, 2017
- Review of Public Service Company of New Hampshire d/b/a Eversource Energy Cash Working Capital and Lead-lag Methodology, May 31, 2017
- Compliance Audit of the 2016 Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, May 1, 2017
- Examination of Black Hills Gas Distribution, LLC Application for Recovery of 2017 Eligible System Safety and Integrity Costs on Behalf of the Nebraska Public Advocate, December 2, 2016
- Compliance Audit of the 2015 Distribution Investment Rider (DIR) Ohio Power Company d/b/a AEP Ohio, August 5, 2016
- Compliance Audit of the 2015 Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, April 22, 2016
- Examination of SourceGas Distribution LLC Application for Recovery of 2015 Eligible System Safety and Integrity Costs on Behalf of the Nebraska Public Advocate, January 8, 2015
- Compliance Audit of the 2014 Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, March 30, 2015
- Management Audit of Yankee Gas Services Company, April 3, 2015
- Examination of the Infrastructure System Replacement Cost Recovery Charge of SourceGas Distribution LLC, June 30, 2014
- Compliance Audit of the 2013 Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, April 9, 2014
- Examination of the Infrastructure System Replacement Cost Recovery Charge of Black Hills/Nebraska Gas Utility, LLC d/b/a Black Hills Energy, October 4, 2013

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- Compliance Audit of the 2012 Distribution Investment Rider (DIR) of Columbus Southern Power and Ohio Power Company d/b/a AEP-Ohio, June 19, 2013
- Examination of the Infrastructure System Replacement Cost Recovery Charge of SourceGas Distribution LLC, May 16, 2013
- Compliance Audit of the 2012 Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, March 22, 2013
- Compliance Audit of the Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, April 12, 2012
- Revenue Requirements Audit of New England Gas Company, May 12, 2011
- Accounting and Financial Reporting Review of New England Gas Company, August 5, 2010
- Management Audit of The Connecticut Light & Power Company, May 29, 2009
- Report of Conclusions and Recommendations on the Financial Audit of the Columbia Gas of Ohio, Inc. in Regards to Case No. 08-0074-GA-AIR, August 13, 2008
- Report of Conclusions and Recommendations on the Financial Audit of the East Ohio Gas Company d/b/a Dominion East Company in Regards to Case No. 07-0829-GA-AIR, April 16, 2008
- Report of Conclusions and Recommendations on the Financial Audit of Duke Energy Ohio, Inc. in Regards to Case No. 07-0589-GA-AIR, December 17, 2007
- Report of Conclusions and Recommendations of NW Natural’s Rate Base and Affiliated Interest Issues in Support of Oregon Public Utilities Commission Docket UM1148, December 23, 2005

Regulatory and Civil Litigation

She has provided or supported civil or regulatory testimony in Arizona, Colorado, Connecticut, Delaware, Illinois, Maryland, Michigan, Missouri, New Hampshire, New York, North Carolina, North Dakota, South Carolina, Texas, and Utah. She has also served as an advisor to public service commissioners in the District of Columbia and Connecticut. In addition to providing analytical support, she has served as an expert witness and routinely works with other highly specialized expert witnesses. She has developed defensible analyses and testimony in connection with rate cases, audit findings, and other regulatory issues. She has also supported various civil litigations including delay and disruption construction claims and financial fraud. She has supported counsel with interrogatories, depositions, and hearings/trials support.

Regulatory Proceedings

- ❖ Before the Pennsylvania Public Utilities Commission on behalf of the Office of Consumer Advocate
 - Docket No. R-2018-3000019 – The York Water Company. May 2018–December 2018
Project Manager and Expert Witness. Review of the Company’s proposed rate base, net operating income, and revenue requirements and offered recommendations for adjustments. Developed a revenue requirement model analyzing the Company’s positions and incorporating recommended adjustments. Testified August 23, 2018
- ❖ Before the New Hampshire Public Utilities Commission on behalf of Staff
 - Docket No. DG 17-0048 – Liberty Utilities (EnergyNorth Natural Gas) Corp., d/b/a Liberty Utilities general rate case. June 2017–present.

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Project Manager and Expert Witness. Review of the Company’s proposed rate base, net operating income, and revenue requirements and offered recommendations for adjustments. Developed a revenue requirement model analyzing the Company’s positions and incorporating recommended adjustments. Supported Staff with Settlement discussions. Also evaluated the Company’s calculated Rate Effects on the Federal and State Corporate Tax Reductions provided during Settlement. Testified March 21, 2018.

- Docket No. DE 16-384 – Until Energy Systems, Inc. general rate case. Testimony was filed on November 16, 2016. July 2016– January 2017.
- Docket No. DE 16-383 – Liberty Utilities (Granite State Electric) Corp general rate case. Testimony was filed on December 16, 2016. July 2016– January 2017.

Project Manager and Expert Witness. Review of the Company’s proposed rate base, net operating income, and revenue requirements and offered recommendations for adjustments. Developed a revenue requirement model analyzing the Company’s positions and incorporating recommended adjustments. Supported Staff with Settlement discussions.

- Docket No. DG 17-0070 Northern Utilities, Inc. Rate Effects on the Federal and State Corporate Tax Reductions. January 2018– February 2018.

Project Manager. Review of the Company’s proposed changes in its revenue requirement to reflect the change in federal and state corporate income tax rates. Supported Staff with Settlement discussions.

- ❖ Before the Massachusetts Department of Public Utilities on behalf of the Massachusetts Attorney General Office
 - D.P.U. 16-106, Fitchburg Gas and Electric Light Company d/b/a Until. January 2017–May 2017. Expert Witness reviewing the Company’s Capital Cost Adjustment filing for compliance to the Department’s Order.
- ❖ Before the Arizona Corporation Commission (AZCC) on behalf of Staff
 - Docket No. E-01933A-15-0322, Phase I, Tucson Electric Power Company, general rate case January 2016–August 2016. Project Manager and Expert Witness. Review of the Company’s proposed rate base, net operating income, and revenue requirements and offered recommendations for adjustments. Developed a revenue requirement model analyzing the Company’s positions and incorporating recommended adjustments. Testimony was filed on June 3, 2016. Supported Staff during Settlement of revenue requirements. Agreement filed with Commission August 15, 2016.
 - Docket No. E-04204A-15-0142, UNS Electric, Inc. general rate case August 2015–January 2017. Project Manager and Expert Witness. Review of the Company’s proposed rate base, net operating income, and revenue requirements and offered recommendations for adjustments. Developed a revenue requirement model analyzing the Company’s positions and incorporating recommended adjustments. Direct Testimony was filed on November 6, 2016. Surrebuttal Testimony was filed February 23, 2016.
- ❖ Before the Connecticut Public Utilities Regulatory Authority
 - Docket No. 18-05-10 Yankee Gas Services Company d/b/a Eversource Energy general rate case July 2018–present

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- Docket No. 18-05-16 Connecticut Natural Gas Corporation (CNG) general rate case July 2018–present

Project Manager supporting a team of experts assisting Staff in its regulatory oversight of Yankee Gas and CNG with a focus on revenue forecasting, rate mechanisms, and rate design; depreciation; rate base analysis; cash working capital; and environmental remediation. Team developed interrogatories, summarized parties positions, and developed questions for cross examination.

- ❖ Before the Nebraska Public Service Commission (NEPSC) on behalf of the Public Advocate of Nebraska

- Application NG-0095/PI-213, Investigation into the Effect of the Tax Cut and Jobs Act of 1987. March 2018–June 2018.

Project Manager and Expert Witness. Review of the tax effect filings and calculations of Black Hills/Nebraska Gas Utility Company, LLC, Black Hills Distribution, LLC, Northwestern Corporation. Provided report with recommendations. Supported settlement discussions that were adopted by the Nebraska Commission.

- Application NG-0093, Black Hills Energy/Nebraska Gas Utility LLC d/b/a Black Hills Energy, September 2017–March 2018. Project Manager and Expert Witness. Evaluation of the Company’s request for approval of accounting and regulatory treatment related to a regulatory asset comprised of increased location costs with the ALLO Fiber Optics Project. Testimony filed on December 18, 2017.
- Application NG-0090, Black Hills/Nebraska Gas Utility, LLC d/b/a Black Hills Energy, December 2016–August 2017. Project Manager and Expert Witness. Evaluation of the Company’s Farm Tap Safety Proposal. Testimony filed on March 17, 2017. Supported the Public Advocate during Settlement discussions.
- Application NG-0088, SourceGas Distribution LLC, December 2015–March 2016. Project Manager and Expert Witness. Evaluation of the company’s request for regulatory asset treatment related to net buyout costs of gas-supply-related contracts. Testimony filed on February 24, 2016. Supported the Public Advocate during Settlement discussions
- Application NG-0084, Black Hills Holdings, Inc. acquisition of SourceGas Holdings, LLC, October 2015–December 2015. Project Manager and Expert Witness. Analysis of the impact of the proposed acquisition on whether it would be consistent with the public interest and not adversely affect the utility’s ability to service its ratepayers. Testimony was filed on November 6, 2015.
- Application NG-0078, SourceGas Distribution, LLC May 2014–November 2014. Project Manager, Lead Auditor, and Expert Witness. Led the review of the Companies’ applications to replace its infrastructure system replacement (ISR) cost recovery charge with a prospective System Safety and Integrity Rider (SSIR). The review included an analysis of the Company’s projected revenue deficiency that lead to the request for the prospective SSIR. The SSIR was subject to a detailed mathematical verification and validation of support for the revenue requirements model and reviews of proposed projects supporting the requested recovery of utility plant in service. Testimony on the analysis was filed in August 2014.

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- ❖ On behalf of the Commissioners and Staff of the District of Columbia Public Service Commission (DCPSC)
 - Formal Case No. 1151 Washington Gas Light Company's Application for Approval of Reduction of Distribution Rates to Reflect the Tax Cuts and Jobs Act of 2017 March 2018–July 2018
 - Formal Case No. 1150/FC1151 Pepco base electric rate case, March 2018–present. (includes rate impact associated with Tax-Change Effect)
 - Formal Case No. 1139 Pepco base electric rates case, October 2016–November 2017.
 - Formal Case No. 1137 Washington Gas Light Company (WGL) base gas rates case, May 2016–March 2017.
 - Formal Case No. 1103 Potomac Electric Power Company (Pepco) base electric rate case, June 2013–August 2014. Project Manager.
 - Formal Case No. 1093 Washington Gas Light Company (WGL) base gas rates case, July 2011–July 2013. Project Manager.
 - Formal Case No. 1087 Pepco base electric rates case, September 2011–December 2012
 - Formal Case No. 1076 Pepco base electric rates case, July 2009–December 2009
 - Formal Case No. 1053 Pepco base electric rates case, February 2007–June 2008

Lead Consultant advising Commissioners and Staff of the Office of Technical and Regulatory Analysis regarding Companies' proposed rate base, net operating income and revenue requirements. Assessed the companies' and Intervenors' positions on various issues and provided defensible recommendations for the Commissioners' consideration. Developed "what if" revenue requirement model used during Commission deliberations to analyze the impact of various adjustments. Supported the drafting of the Commission's Order and supplied the revenue requirement schedules to support the final decision. Supported the Commissioners' legal team in addressing motions for reconsideration.

 - Formal Case No. 1032 Pepco base electric rates case, January–March 2005. Senior Technical Consultant and Assistant Project Manager. Reviewed and evaluated Company's compliance filings for class cost of service and revenue requirements for distribution service pursuant to a settlement approved in May 2002. Provided analysis and recommended adjustments to Staff. Proceeding was settled in anticipation of a full rate case for rates to be effective August 8, 2007.
 - Formal Case No. 1016 WGL natural gas base rates case, June–December 2003. Senior Technical Consultant and Project Manager. Analyzed and recommended adjustments regarding the company's proposed increase to base rates – advised the Commission on party positions during deliberations Review and evaluation of company's depreciation study filed with the Commission.
- ❖ Before the Missouri Public Service Commission, Case No. HR-2011-0241, on behalf of the City of Kansas City: Veolia Energy Company 2011 and 2012 electric base rates case, July–September 2011. Senior Technical Consultant. Analyzed Company's proposed net operating income, rate base, and revenue requirements. Supported testifying witness with drafted testimony and development of a model to calculate an alternative revenue requirement incorporating recommended adjustments.
- ❖ Before the North Dakota Public Service Commission, Case No. PU-10-657/PU-11-55: Northern States Power Company (NSP) 2011 and 2012 electric base rates case, April–November 2011. On behalf of the Commission Staff, Lead Consultant and Assistant Project Manager. Led the analysis of NSP's rate increase filings and supported adjustments for the Commission's consideration.

Attachment 1–Professional Experience and Education of Donna H. Mullinax

Developed a model to calculate the appropriate revenue requirements and exhibits to support Staff recommended adjustments.

- ❖ Before the Connecticut Public Utilities Regulatory Authority (PURA), Docket 10-02-13: Aquarion Water Company base rates case, on behalf of the PURA, April–August 2010. Senior Technical Consultant and Assistant Project Manager. Reviewed the expense component of the company’s revenue requirement and recommended adjustments for Staff consideration.
- ❖ Before the of the Delaware Public Service Commission on behalf of Staff
 - Docket No. 09-414: Delmarva Power & Light Company (DPL) electric base rates case, September 2009–May 2010. Expert Witness and Assistant Project Manager. Analyzed the company’s rate increase filings and provided testimony offering adjustments for the Commission consideration related to the rate base and revenue requirements.
 - Docket No. 06-284: DPL’s gas base rates case, October 2006–March 2007. Senior Technical Consultant and Assistant Project Manager. Analyzed the Company’s filings, checked the mathematical accuracy of the Company’s revenue requirements calculations, and provided analytical support to testifying witness.
- ❖ Before the Michigan Public Service Commission (MIPSC) on behalf of the Michigan Attorney General
 - Case No. U-15506: Consumers Energy Company base gas rates case, May–November 2008. Expert Witness and Assistant Project Manager. Analyzed the company’s rate increase filings and provided testimony offering adjustments for the Commission consideration related to the rate base and revenue requirements – proceeding was settled through negotiations.
 - Case No U-15244 Detroit Edison electric base rates case, September 2007–October 2008.
 - Case No. U-15245 Consumers Energy Company base gas rates case, July 2007–April 2008.
Senior Technical Consultant and Assistant Project Manager. Analyzed the Company’s filings, checked the mathematical accuracy of the Company’s revenue requirements calculations, and provided analytical support to testifying witness.
 - Case No. U-14547 Consumers Energy Company base gas rates case, December 2005–April 2006. Expert Witness and Assistant Project Manager. Analyzed Company’s rate increase filings and provided testimony offering adjustments for Commission consideration related to the rate base and revenue requirements.
- ❖ Before the Maryland Public Service Commission (MDPSC)
 - Case No. 9092 Pepco electric base rates case, on behalf of the Staff of the MDPSC, December 2006–June 2007. Expert Witness and Assistant Project manager. Analyzed Company’s rate increases filings and provided direct and rebuttal testimony offering adjustments for the Commission consideration related to the rate base and revenue requirements.
 - Case No. 9062 Chesapeake Utilities Corporation gas base rates case, on Behalf of the Maryland Office of People’s Counsel, May 2006–August 2006. Expert Witness and Assistant Project Manager. Analyzed Company’s rate increase filings and provided testimony offering adjustments for the Commission consideration related to the rate base and revenue requirements – participated in settlement negotiations that were ultimately accepted by all parties.

Attachment 1–Professional Experience and Education of Donna H. Mullinax

- ❖ Before the Hawaii Public Utilities Commission (HPUC), Docket No. 05-0075: Instituting a Proceeding to Investigate Kauai Island Utility Cooperative’s Proposed Revised Integrated Resource Planning and Demand Side Management Framework, On behalf of the Staff of the HPUC, June–November 2005. Senior Technical Consultant and Assistant Project Manager. Conducted and reported on the results of an industry survey of other cooperatives and Commissions to obtain an overview of how other entities approach the specific issues identified within this docket.
- ❖ Before the Public Utilities Commission of the State of Colorado (COPUC), Docket No. 04A-050E: Review of the Electric Commodity Trading Operations of Public Service Company of Colorado (PSCo), On behalf of the COPUC Staff, March–September 2004. Expert Witness and Assistant Project Manager. Performed a transaction audit of PSCo’s electric commodity trading operations and submitted testimony describing the process used to conduct the investigation, a summary of the audit findings, and discussion of the significance of the findings.
- ❖ Before the New York Public Service Commission, Case No. 00-E-0612: Proceeding on Motion of the Commission to Investigate the Forced Outage at Consolidated Edison Company of New York, Inc.’s Indian Point No. 2 Nuclear Generation Facility, On behalf of Consolidated Edison Company of New York, Inc., October 2000–September 2003. Project Manager. Supervised cross functional teams to assist scheduling and nuclear engineering experts with responses to interrogatories and the development of three comprehensive rebuttal testimonies on the prudence of extended outages at the Indian Point 2 nuclear power plant. The proceeding settled prior to filing of testimony.

Civil Litigation

- ❖ ADF Construction vs. Kismet, On Behalf of ADF Construction, December 2003–February 2004. Assistant Project Manager for a delay and disruption construction claim related to a large hotel complex in North Carolina – worked with scheduling experts to determine schedule delay and disruption and calculated related damages.
- ❖ On behalf of New Carolina Construction, July 2002–January 2003
 - New Carolina Construction vs. Atlantic Coast
 - New Carolina Construction vs. Acousti

Project Manager for a delay and disruption claim related to construction of a large high school complex in South Carolina – worked with scheduling experts to determine schedule delay and disruption and calculated related damages. Claim was settled out of court.
- ❖ State of Nevada Bureau of Consumer Protection, September-December 2003. Assistant Project Manager for damage assessment project related to potential litigation regarding the Western Market Manipulation.
- ❖ Oakwood Homes, On behalf of Oakwood Homes, February 1999–May 2000. Assistant Project Manager for a delay and disruption claim related to the construction of a large manufacturing facility in Texas – worked with scheduling experts to determine schedule delay and disruption and calculated related damages. Dispute was settlement through mediation.
- ❖ McMillan Carter, On behalf of McMillan Carter, June–September 2002. Project Manager for a delay and disruption claim related to construction of a large high school complex in North Carolina – worked with scheduling experts to determine schedule delay and disruption and calculated related damages. Claim was settled out of court.

Attachment 1–Professional Experience and Education of Donna H. Mullinax

- ❖ Fluor Daniel Inc. vs. Solutia, Inc., On behalf of Fluor Daniel, May 2000–August 2001. Assistant Project Manager for a delay and disruption construction claim related to large chemical processing facility in Texas – worked with scheduling experts to determine schedule delay and disruption and calculated related damages. Dispute proceeded through mediation.
- ❖ First National Bank of South Carolina vs. Pappas, On Behalf of First National Bank of South Carolina, 1991–1992. Civil litigation, deposed during pre-trial discovery on analytical findings related to check kiting and fraudulent loan applications. Supported counsel and expert witnesses during civil proceeding.
- ❖ First Union vs. Pappas, On Behalf of First Union, 1991–1992. Civil litigation, deposed during pre-trial discovery on analytical findings related to check kiting and fraudulent loan applications. Dispute was settled out of court.

Testimony proffered

Before the Arizona Corporation Commission

- Tucson Electric Power Company – Docket No. E-01933A-0239
- UNS Electric, Inc. – Docket No. E-04204A-15-0142

Before the Colorado Public Utilities Commission

- Public Service Company of Colorado - Docket No. 04A-050E

Before the Delaware Public Service Commission

- Delmarva Power & Light Company - Docket No. 09-414

Before the Maryland Public Service Commission

- Potomac Electric Power Company - Case No. 9092
- Chesapeake Utilities Corporation - Case No. 9062

Before the Michigan Public Service Commission

- Consumers Energy Company - Case No. U-15506
- Consumers Energy Company - Case No. U-14547

Before the Public Service Commission of Nebraska

- SourceGas Distribution LLC – Docket No. NG-0078
- Black Hills Utility Holdings, Inc. and Source Gas Holdings Inc. – Docket No. NG-0084
- SourceGas Distribution LLC – Docket No. NG-0088
- Black Hills Energy – Docket No. NG-0090

Before the New Hampshire Public Utilities Commission

- Unitil Energy Systems, Inc. – Docket No. DE 16-384
- Liberty Utilities (Granite State Electric) Corp. – Docket No. DE 16-383
- Liberty Utilities (EnergyNorth Natural Gas) Corp., d/b/a Liberty Utilities – Docket No. DG 17-0048

Before the Pennsylvania Public Utilities Commission

- The York Water company – Docket No. R-2018-3000019

System Implementation

Mrs. Mullinax has worked with various business and local governmental entities to design and implement accounting and business systems that addressed real world problems and concerns. She has developed accounting policy and procedure manuals for county governments, a library, and a water utility.

Attachment 1–Professional Experience and Education of Donna H. Mullinax

Professional Experience

Blue Ridge Consulting Services, Inc.: 2004 - Present

President

Vice President and Chief Financial Officer

Senior Technical Consultant / Expert Witness

Hawks, Giffels & Pullin, Inc.: 1993 - 2004

Vice President and Chief Financial Officer

Executive Consultant

Controller

Cherry, Bekaert & Holland, CPAs: 1991 - 1993

Accounting Supervisor

Senior Accountant

Staff Accountant

Smith, Kline and French Pharmaceutical Company: 1988 - 1991

Professional Sales Representative

Milliken & Company: 1979 - 1988

Quality Assurance Manager

Technical Cause Analyst

Department Manager

Professional Certification

Certified Public Accountant (CPA), State of South Carolina - 1993

Certified Financial Planner (CFP) - 1994

Certified Internal Auditor (CIA) - 2006

Chartered Global Management Account (CGMA) - 2012

Professional Affiliations

Member of the American Institute of Certified Public Accountants (AICPA)

Member of the South Carolina Association of Certified Public Accountants (SCACPA)

Member of the Institute of Internal Auditors (IIA)

Member of the Western Carolinas Chapter of the Institute of Internal Auditors (WCIIA)

Education

Clemson University, B.S. Administrative Management with honors, 1978

Clemson University, M.S. in Management, 1979

College for Financial Planning, 1994

NARUC Utility Rate School, 32nd Annual Eastern

**BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION**

In the Matter of:

APPLICATION OF KENTUCKY)	
UTILITIES COMPANY FOR AN)	CASE NO. 2018-00294
ADJUSTMENT OF ITS ELECTRIC)	
RATES)	

In the Matter of:

APPLICATION OF LOUISVILLE GAS)	
AND ELECTRIC COMPANY FOR AN)	CASE NO. 2018-00295
ADJUSTMENT OF ITS ELECTRIC)	
AND GAS RATES)	

**EXHIBITS
OF
DONNA H. MULLINAX**

JANUARY 16, 2019

List of Exhibits

DHM-1	Ratemaking Schedules KU
DHM-2	Ratemaking Schedules LG&E-Electric
DHM-3	Ratemaking Schedules LG&E-Gas
DHM-4	OAG DR to KU 1-85
DHM-5	OAG DR to LGE 1-85
DHM-6	OAG DR to LGE 2-79
DHM-7	PSC DR to KU 2-65 (electronic files)
DHM-8	PSC DR to KU 1-13 (partial)
DHM-9	PSC DR to LGE 2-75 (electronic files)
DHM-10	PSC DR to LGE 1-13 (partial)
DHM-11	OAG DR to LGE 1-55
DHM-12	OAG DR to LGE 1-57
DHM-13	Metro DR to LGE 2-38
DHM-14	PSC DR to KU 1-21
DHM-15	OAG DR to KU 2-77
DHM-16	OAG DR to KU 1-64
DHM-17	OAG DR to KU DR 2-21
DHM-18	LFUC DR to KU 1-58
DHM-19	PSC DR to KU 3-27
DHM-20	PSC DR to LGE 3-26
DHM-21	KIUC DR to KU 1-60
DHM-22	KIUC DR to LGE 1-52
DHM-23	OAG DR to KU 1-114
DHM-24	OAG DR to LGE 1-114
DHM-25	OAG DR to LGE 1-81
DHM-26	OAG DR to KU 1-81
DHM-27	OAG DR to KU 1-92
DHM-28	OAG DR to LGE 1-92
DHM-29	OAG DR to KU 1-91
DHM-30	OAG DR to LGE 1-91
DHM-31	OAG DR to KU 1-98 (partial)
DHM-32	OAG DR to LGE 1-98 (partial)
DHM-33	OAG DR to KU 2-63
DHM-34	OAG DR to LGE 2-63
DHM-35	OAG DR to KU 1-78
DHM-36	OAG DR to KU 2-52
DHM-37	OAG DR to LGE 1-78
DHM-38	OAG DR to LGE 2-52
DHM-39	OAG DR to KU 1-84
DHM-40	OAG DR to LGE 1-84
DHM-41	PSC DR to KU 3-23
DHM-42	PSC DR to LGE 3-21
DHM-43	OAG DR to KU 1-73
DHM-44	OAG DR to LGE 1-73
DHM-45	OAG DR to KU 1-21
DHM-46	OAG DR to KU 1-9

Case No. 2018-00294 Kentucky Utilities Company
Case No. 2018-00295 Louisville Gas and Electric Company
Direct Testimony of Donna Mullinax

DHM-47 LFUCG DR to KU 1-49
DHM-48 OAG DR to KU 2-29
DHM-49 OAG DR to LGE 2-29
DHM-50 KIUC DR to KU 1-65
DHM-51 Case No. 2018-00034 - PSC 2-1 (electronic files)
DHM-52 OAG DR to KU 1-132
DHM-53 OAG DR to KU 1-127
DHM-54 PSC DR to KU 1-53 (electronic files)
DHM-55 PSC DR to LGE 1-53 (electronic files)
DHM-56 OAG DR to KU 1-93
DHM-57 OAG DR to LGE 1-93
DHM-58 OAG DR to KU 1-59
DHM-59 OAG DR to LGE 1-59
DHM-60 Excerpt from *Accounting for Public Utilities*

Kentucky Public Service Commission

Case No. 2018-00294

Kentucky Utilities Company

List of Schedules

<u>Line #</u>		<u>Description</u>
1	KU Schedule 1	Summary Comparison of Revenue Requirement
2	KU Schedule 1.1	Revenue Requirements with OAG's Recommended Adjustments
3	KU Schedule 1.2	Computation of Gross-Up Conversion Factor
4	KU Schedule 2	Rate of Return Calculation
5	KU Schedule 2.1	Effect of Proxy ROE on Company's Revenue Deficiency
6	KU Schedule 3	Ratemaking Adjustments
7	KU Schedule 3.1	Adjustment 1 Slippage
8	KU Schedule 3.2	This schedule intentionally left blank to maintain numbering with other utilities.
9	KU Schedule 3.3	This schedule intentionally left blank to maintain numbering with other utilities.
10	KU Schedule 3.4	Adjustment 4 Plant Held for Future Use
11	KU Schedule 3.5	Adjustment 5 Working Capital
12	KU Schedule 3.5.1	Adjustment 5 Cash Working Capital Workpaper
13	KU Schedule 3.6	Adjustment 6 Late Payment Credit
14	KU Schedule 3.7	Adjustment 7 Employee Retirement Plans
15	KU Schedule 3.8	Adjustment 8 Directors and Officers Liability Insurance
16	KU Schedule 3.9	Adjustment 9 Dues for EEI and EPRI
17	KU Schedule 3.10	Adjustment 10 Outside Counsel Expense
18	KU Schedule 3.11	Adjustment 11 Credit Card Rebate
19	KU Schedule 3.12	Adjustment 12 Economic Development
20	KU Schedule 3.13	Adjustment 13 Customer Education
21	KU Schedule 3.14	Adjustment 14 Baseline ECR Beneficial Reuse Operating Expense Credit
22	KU Schedule 3.15	Adjustment 15 Merger Mitigation Depancaking
23	KU Schedule 3.16	Adjustment 16 Amortization of Storm Damage Regulatory Asset
24	KU Schedule 3.17	Adjustment 17 Amortization of Tax Reform Regulatory Liability
25	KU Schedule 3.18	Adjustment 18 Interest Synchronization

Kentucky Public Service Commission

Case No. 2018-0029
 KU Schedule 1

Kentucky Utilities Company

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Summary Comparison of Revenue Requirement

<u>Line</u>	<u>Description</u>	<u>Company</u> <u>(A)</u>	<u>Recommended</u> <u>(B)</u>	<u>Difference</u> <u>(C)</u>
1	Jurisdictional Capitalization	\$ 4,099,135,883	\$4,012,779,717	\$(86,356,166)
2	Rate of Return	7.56%	7.18%	-0.38%
3	Return Requirement	309,857,872	288,062,872	(21,795,000)
4	Adjusted Net Operating Income	225,740,344	245,621,775	19,881,431
5	Deficiency	84,117,528	42,441,096	(41,676,431)
6	Income Tax Effect	28,545,797	14,402,646	(14,143,152)
7	Revenue (Sufficiency) Deficiency	112,663,325	56,843,742	(55,819,583)
8	Solar Share and Electric Vehicle Rounding	(203,466)	(203,466)	-
9	Revenue Increase	<u>\$ 112,459,859</u>	<u>\$ 56,640,276</u>	<u>\$(55,819,583)</u>

Notes and Sources

Schedule 1.1

Kentucky Public Service Commission

Case No. 2018-00294
 KU Schedule 1.1
 Page 1 of 1

Kentucky Utilities Company

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020
 Revenue Requirements with OAG's Recommended Adjustments

Line	Description	Company	Recommended Adjustments	Adjusted Total
		(A)	(B)	(C)
1	Rate Base			
2	Plant in Service	\$ 7,719,113,381	\$ (21,624,620)	\$ 7,697,488,761
3	Property Held for Future Use	1,561,634	(240,853)	1,320,781
4	Accumulated Depreciation	<u>(2,974,075,465)</u>	-	<u>(2,974,075,465)</u>
5	Net Plant in Service	\$ 4,746,599,550		\$ 4,724,734,077
6	Construction Work in Progress	<u>134,479,318</u>	-	<u>134,479,318</u>
7	Net Plant	\$ 4,881,078,868		\$ 4,859,213,395
8	Cash Working Capital	94,636,138	(48,885,659)	45,750,479
9	Other Working Capital Allowances	130,931,331	(15,605,034)	115,326,297
10	Customers' Advances for Construction	(951,647)	-	(951,647)
11	Deferred Income Tax	(976,331,381)	-	(976,331,381)
12	Investment Tax Credits	(84,144,327)	-	(84,144,327)
13	Other Items	-	-	-
14	Total Jurisdictional Rate Base	<u>\$ 4,045,218,983</u>	<u>\$ (86,356,166)</u>	<u>\$ 3,958,862,816</u>
15	Jurisdictional Capitalization	\$ 4,099,135,883	\$ (86,356,166)	4,012,779,717
16	Used for Return Requirement	\$ 4,099,135,883	\$ (86,356,166)	4,012,779,717
17	Rate of Return	7.56%		7.18%
18	Return Requirement	<u>\$ 309,857,872</u>	<u>\$ (21,795,000)</u>	<u>\$ 288,062,872</u>
19	Revenues			
20	Electric Sales Revenues	\$ 1,408,801,019	\$ (245)	\$ 1,408,800,774
21	Other Operating Revenues	<u>38,850,409</u>	<u>\$ 337,386</u>	<u>39,187,795</u>
22	Total Revenues	<u>\$ 1,447,651,427</u>	<u>\$ 337,141</u>	<u>\$ 1,447,988,568</u>
23	Expenses			
24	O&M Expenses	\$ 884,639,921	\$ (24,219,629)	\$ 860,420,292
25	Depreciation and Amortization	268,954,148	(2,074,087)	266,880,061
26	Regulatory Debits	-	-	-
27	Taxes other than Income Taxes	43,682,224	(112,869)	43,569,355
28	Income Taxes	24,634,790	6,862,295	31,497,085
29	Investment Tax Credits	-	-	-
30	Total Operating Expenses	<u>\$ 1,221,911,083</u>	<u>\$ (19,544,290)</u>	<u>\$ 1,202,366,793</u>
31	Net Operating Income	<u>\$ 225,740,344</u>	<u>\$ 19,881,431</u>	<u>\$ 245,621,775</u>
32	Deficiency	\$ 84,117,528	\$ (41,676,431)	\$ 42,441,096
33	Gross-Up Conversion Factor	<u>1,339,356</u>		<u>1,339,356</u>
34	Revenue (Sufficiency) Deficiency	\$ 112,663,325	\$ (55,819,583)	\$ 56,843,742
35	Solar Share and Electric Vehicle Rounding	<u>(203,466)</u>		<u>(203,466)</u>
36	Revenue Increase	<u>\$ 112,459,859</u>	<u>\$ (55,819,583)</u>	<u>\$ 56,640,276</u>
37	Percent of Request			-49.64%

Notes and Sources

Column A, Lines 1-14: Garrett, Schedule B-1
 Column A, Line 15 and 17, Schedule 2
 Column A, Lines 19-30: Garrett, Schedule C-1
 Column A, Line 33: Schedule 1.2
 Column A, Line 35: Testimony of Robert M. Conroy, page 11, lines 9-17

Kentucky Public Service Commission

Case No. 2018-00294
 KU Schedule 1.2
 Page 1 of 1

Kentucky Utilities Company

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020
 Computation of Gross-Up Conversion Factor

Line	Description	Company	Adjustment	Adjusted Amount
		(A)	(B)	(C)
1	Bad Debt Expense	0.32%		0.32%
2	PSC Fees	0.20%		0.20%
3	Subtotal	0.52%		0.52%
4	Percent Income Before State Income Taxes	99.48%		99.48%
5	Statutory Rate-State	5.00%		5.00%
6	Effective Rate-State	4.97%		4.97%
7	Percent Income Before Federal Income Taxes	94.51%		94.51%
8	Statutory Rate-Federal	21.00%		21.00%
9	Effective Rate-Federal	19.85%		19.85%
10	Total Composite Tax rate	25.3373%		25.3373%
11	Tax Gross Up Factor	74.6627%		74.6627%
12	Gross-Up Conversion Factor	1.339356		1.339356

Notes and Sources

Column A: Garrett, Schedule H-1

Line 1: Uncollectibles based on five year average net charge off % (OAG-KU DR 1.85)

Kentucky Public Service Commission

Case No. 2018-00294
 KU Schedule 2
 Page 1 of 1

Kentucky Utilities Company

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020
 Rate of Return Calculation

Line	Description	Jurisdictional Adjusted Capital (A)	Capital Structure (B)	Cost % (C)	Weighted Cost % (D)
<u>Company Proposed Rate of Return</u>					
1	Short-Term Debt	51,047,467	1.25%	3.23%	0.040%
2	Long-Term Debt	1,882,004,471	45.91%	4.38%	2.01%
3	Common Equity	2,166,083,945	52.84%	10.42%	5.51%
4	Total	<u>4,099,135,883</u>	<u>100.00%</u>		<u>7.56%</u>
<u>Proxy Rate of Return</u>					
5	Short-Term Debt	51,047,467	1.25%	3.23%	0.040%
6	Long-Term Debt	1,882,004,471	45.91%	4.38%	2.01%
7	Common Equity	2,166,083,945	52.84%	9.70%	5.13%
8	Total	<u>4,099,135,883</u>	<u>100.00%</u>		<u>7.18%</u>

Notes and Sources

Column A and B, lines 1-4: Arbough, Schedule J-1.1/J-1.2, Page 1 (13 Month Average)
 Column C, line 7: Proxy ROE from Case No. 2016-00370, Order dated June 22, 2017, page 18

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Kentucky Public Service Commission

Case No. 2018-00294

KU Schedule 2.1

Kentucky Utilities Company

Page 1 of 1

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Effect of Proxy ROE on Company's Revenue Deficiency

<u>Line</u>	<u>Description</u>	<u>Company Proposed (A)</u>	<u>Adjustment (B)</u>	<u>Total (C)</u>
1	<u>ROE of 9.7%</u>			
2	Capitalization	\$ 4,099,135,883		\$ 4,099,135,883
3	Rate of Return	7.56%	-0.38%	7.18%
4	Return Requirement	\$ 309,857,872	\$ (15,595,804)	\$ 294,262,067
5	Net Operating Income	\$ 225,740,344		\$ 225,740,344
6	Deficiency	\$ 84,117,528		\$ 68,521,723
7	Revenue Conversion Factor	1.33936		1.33936
8	Revenue Deficiency	\$ 112,663,325	\$ (20,888,336)	\$ 91,774,989

Notes and Sources

Column A: Summary Totals from Schedule 1

Check 112,663,325

Kentucky Public Service Commission

Case No. 2018-00294
 KU Schedule 3.1
 Page 1 of 1

Kentucky Utilities Company

Adjustment 1

Slippage

<u>Line</u>	<u>Description</u>	<u>Company Proposed</u>	<u>Adjustment</u>	<u>Adjusted Amount</u>
		(A)	(B)	(C)
1	<u>Rate Base</u>			
2	Plant	\$ 4,099,135,883	\$ (21,624,620)	\$ 4,077,511,263
3	Impact to Rate Base	\$ 4,099,135,883	\$ (21,624,620)	\$ 4,077,511,263
4	<u>Revenues</u>			
5	Electric Sales Revenues	\$ 1,408,801,019	\$ (245)	\$ 1,408,800,774
6	Other Operating Revenues	38,850,409	\$ -	38,850,409
		<u>\$ 1,447,651,427</u>		<u>\$ 1,447,651,183</u>
7	<u>Expenses</u>			
8	O&M Expenses	\$ 884,639,921	\$ (13,912)	\$ 884,626,009
9	Depreciation and Amortization	268,954,148	(630,852)	268,323,296
10	Taxes Other Than Income Taxes	43,682,224	(112,869)	43,569,355
11	Total Income Taxes	24,634,790	282,655	24,917,445
12	Total Operating Expenses	<u>\$ 1,221,911,083</u>	<u>\$ (474,978)</u>	<u>\$ 1,221,436,105</u>
13	Impact to Operating Income	\$ 225,740,344	\$ 474,734	\$ 226,215,078

Notes and Sources

Column A, line 1: MFR Schedule A

Column A, lines 5–14 1: MFR Schedule C-1

Column C: Response to PSC-KU 2.065, Attachments Schedule A and Schedule C-1

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Kentucky Public Service Commission

Case No. 2018-00294

Kentucky Utilities Company

KU Schedule 3.2

Page 1 of 1

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Kentucky Public Service Commission

Case No. 2018-00294

Kentucky Utilities Company

KU Schedule 3.3

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Kentucky Public Service Commission

Case No. 2018-00294
 KU Schedule 3.4
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Kentucky Utilities Company

Adjustment 4

Plant Held for Future Use

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Lonesome Pine Substation-Land and Site Prep	\$ 240,853	\$ (240,853)	\$ -
2	Impact to Rate Base	\$ 240,853	\$ (240,853)	\$ -

Notes and Sources

Column A, line 1: Garret Scheudle B-2.6
 Column B, line 1: Response to AG-KU DR 2-77

Kentucky Public Service Commission

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 KU Schedule 3.5
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Kentucky Utilities Company

Adjustment 5

Working Capital

Line	Description	Company Proposed (A)	Operating Expenses (B)	Average Daily (C)	Net (Lead)/Lag Days (D)	Adjustment (E)	Adjusted Amount (F)
1	Cash Working Capital	\$ 94,636,138				\$ (48,909,465)	\$ 45,726,673
2	<u>Update for Adjustments</u>						
3	O&M Expense		#####				
4	Employee Retirement		(2,018,838)	(5,516)	22.74	(125,433)	(125,433)
5	D&O Insurance		(138,798)	(379)	19.91	(7,551)	(7,551)
6	Outside Counsel		(442,028)	(1,208)	19.91	(24,046)	(24,046)
7	Remaining O&M Expense		(21,619,965)	(59,071)	(6.62)	391,337	
8	Depreciation and Amortization		(2,074,087)	(5,667)	-	-	-
9	Taxes Other Than Income Taxes		(112,869)	(308)	(112.27)	34,622	34,622
10	Income Taxes (without Interest Synchronization)		6,419,976	17,541	7.80	136,790	136,790
11	Interest Synchronization		442,319	1,209	7.80	9,424	9,424
12	Total Operating Expenses		<u>(19,544,290)</u>				
	<i>Check from Schedule 3</i>						
13	Cash Working Capital	\$ 94,636,138				<u>\$ (48,885,659)</u>	\$ 45,750,479
14	Prepayments	\$ 15,605,034				<u>\$ (15,605,034)</u>	\$ -
15	Impact to Rate Base	<u>\$ 110,241,172</u>				<u>\$ (64,490,693)</u>	<u>\$ 45,750,479</u>

Notes and Sources

Column A, lines 1 and 15: Garrett, Schedule B-5, page 2 of 2
 Column C, line 1: CWC WP
 Column C, line 2: Schedule 3.18
 Column C, line 3: Schedule 3.5.1, line 24

Kentucky Public Service Commission

Kentucky Utilities Company
 Adjustment 5
 Cash Working Capital Workpaper

Line	Description	As Filed by Company							Adjusted							Adjustment	
		Total Company	Allocation Factor	Forecast Period Jurisdictional	Average Daily Amount	Revenue Lag Days	Expense (Lead)/Lag Days	Net (Lead)/Lag Days	Working Capital (Provided)/Required	Total Company	Allocation Factor	Forecast Period Jurisdictional	Average Daily Amount	Revenue Lag Days	Expense (Lead)/Lag Days		Net (Lead)/Lag Days
O&M Expenses:																	
1	Fuel: Coal	\$ 295,804,202	94.101%	\$ 278,354,463	\$ 760,531	45.30	(27.28)	18.02	\$ 13,703,507	\$ 295,804,202	94.101%	\$ 278,354,463	\$ 760,531	45.30	(27.28)	18.02	\$ 13,703,507
2	Fuel: Gas	\$ 127,316,246	94.101%	\$ 119,805,754	\$ 327,338	45.30	(39.32)	5.98	\$ 1,956,936	\$ 127,316,246	94.101%	\$ 119,805,754	\$ 327,338	45.30	(39.32)	5.98	\$ 1,956,936
3	Fuel: Oil	\$ 2,965,300	94.101%	\$ 2,790,374	\$ 7,624	45.30	(17.32)	27.98	\$ 213,306	\$ 2,965,300	94.101%	\$ 2,790,374	\$ 7,624	45.30	(17.32)	27.98	\$ 213,306
4	Other Non-Fuel Commodities	\$ 11,163,321	94.101%	\$ 10,504,797	\$ 28,702	45.30	(27.76)	17.54	\$ 503,378	\$ 11,163,321	94.101%	\$ 10,504,797	\$ 28,702	45.30	(27.76)	17.54	\$ 503,378
5	Purchased Power	\$ 58,036,196	94.026%	\$ 54,569,078	\$ 149,096	45.30	(23.66)	21.63	\$ 3,225,534	\$ 58,036,196	94.026%	\$ 54,569,078	\$ 149,096	45.30	(23.66)	21.63	\$ 3,225,534
6	Payroll Expense	\$ 42,880,206	94.070%	\$ 40,337,352	\$ 110,211	45.30	(13.01)	32.29	\$ 3,558,447	\$ 42,880,206	94.070%	\$ 40,337,352	\$ 110,211	45.30	(13.01)	32.29	\$ 3,558,447
7	Pension Expense	\$ (1,845,117)	94.070%	\$ (1,735,699)	\$ (4,742)	45.30	-	45.30	\$ (214,820)	\$ (1,845,117)	94.070%	\$ (1,735,699)	\$ (4,742)	45.30	-	45.30	\$ (214,820)
8	OPEB Expense	\$ 425,663	94.070%	\$ 400,421	\$ 1,094	45.30	-	45.30	\$ 49,558	\$ 425,663	94.070%	\$ 400,421	\$ 1,094	45.30	-	45.30	\$ 49,558
9	Team Incentive Award Compensation	\$ 3,289,813	94.070%	\$ 3,094,723	\$ 8,456	45.30	(244.79)	(199.49)	\$ (1,686,807)	\$ 3,289,813	94.070%	\$ 3,094,723	\$ 8,456	45.30	(244.79)	(199.49)	\$ (1,686,807)
10	401k Match Expense	\$ 2,387,490	94.070%	\$ 2,245,909	\$ 6,136	45.30	(22.56)	22.74	\$ 139,541	\$ 2,387,490	94.070%	\$ 2,245,909	\$ 6,136	45.30	(22.56)	22.74	\$ 139,541
11	Retirement Income Account Expense	\$ 1,020,651	94.070%	\$ 960,125	\$ 2,623	45.30	(283.50)	(238.20)	\$ (624,873)	\$ 1,020,651	94.070%	\$ 960,125	\$ 2,623	45.30	(283.50)	(238.20)	\$ (624,873)
12	Uncollectible Expense	\$ 5,155,113	95.003%	\$ 4,897,522	\$ 13,381	45.30	(131.70)	(86.40)	\$ (1,156,147)	\$ 5,155,113	95.003%	\$ 4,897,522	\$ 13,381	45.30	(131.70)	(86.40)	\$ (1,156,147)
13	Major Storm Damage Expense	\$ 3,189,917	94.068%	\$ 3,000,679	\$ 8,199	45.30	(41.74)	3.56	\$ 29,160	\$ 3,189,917	94.068%	\$ 3,000,679	\$ 8,199	45.30	(41.74)	3.56	\$ 29,160
14	Charges from Affiliates	\$ 194,926,536	93.818%	\$ 182,875,398	\$ 499,660	45.30	(25.39)	19.91	\$ 9,948,364	\$ 194,926,536	93.818%	\$ 182,875,398	\$ 499,660	45.30	(25.39)	19.91	\$ 9,948,364
15	Other O&M	\$ 188,803,771	92.883%	\$ 175,366,533	\$ 479,144	45.30	(48.05)	(2.75)	\$ (1,317,384)	\$ 188,803,771	92.883%	\$ 175,366,533	\$ 479,144	45.30	(51.92)	(6.62)	\$ (3,174,263)
16	Total O&M Expenses	\$ 935,519,308		\$ 877,467,419					\$ 28,327,701	\$ 935,519,308		\$ 877,467,419					\$ 26,636,085
17	Depreciation and Amortization Expense																
18	Depreciation and Amortization	\$ 358,688,939	93.593%	\$ 335,708,969	\$ 917,238	45.30	-	45.30	\$ 41,549,335	\$ 358,688,939	93.593%	\$ 335,708,969	\$ 917,238	45.30	-	45.30	\$ 41,549,335
19	Regulatory Debits	\$ 9,627,285	88.228%	\$ 8,493,973	\$ 23,208	45.30	-	45.30	\$ 1,051,265	\$ 9,627,285	88.228%	\$ 8,493,973	\$ 23,208	45.30	-	45.30	\$ 1,051,265
20	Amortization of Regulatory Assets	\$ 6,650,186	100.000%	\$ 6,650,186	\$ 18,170	45.30	-	45.30	\$ 823,067	\$ 6,650,186	100.000%	\$ 6,650,186	\$ 18,170	45.30	-	45.30	\$ 823,067
21	Amortization of Regulatory Liabilities	\$ (3,183,173)	100.000%	\$ (3,183,173)	\$ (8,697)	45.30	-	45.30	\$ (393,968)	\$ (3,183,173)	100.000%	\$ (3,183,173)	\$ (8,697)	45.30	-	45.30	\$ (393,968)
22	Total Depreciation and Amortization Expense	\$ 371,783,238		\$ 347,669,956					\$ 43,029,698	\$ 371,783,238		\$ 347,669,956					\$ 43,029,698
23	Income Tax Expense:																
24	Current: Federal	\$ 13,364,718	98.532%	\$ 13,168,587	\$ 35,980	45.30	(37.50)	7.80	\$ 280,582	\$ 13,364,718	98.532%	\$ 13,168,587	\$ 35,980	45.30	(37.50)	7.80	\$ 280,582
25	Current: State	\$ (265,338)	98.532%	\$ (261,444)	\$ (714)	45.30	(37.50)	7.80	\$ (5,571)	\$ (265,338)	98.532%	\$ (261,444)	\$ (714)	45.30	(37.50)	7.80	\$ (5,571)
26	Deferred: Federal and State (Including ITC)	\$ 34,343,274	98.532%	\$ 33,839,277	\$ 92,457	45.30	-	45.30	\$ 4,188,150	\$ 34,343,274	98.532%	\$ 33,839,277	\$ 92,457	45.30	-	45.30	\$ 4,188,150
27	Total Income Tax Expense	\$ 47,442,654		\$ 46,746,420					\$ 4,463,161	\$ 47,442,654		\$ 46,746,420					\$ 4,463,161
28	Taxes Other Than Income			(0)								(0)					
29	Property Tax Expense	\$ 34,311,579	93.811%	\$ 32,188,176	\$ 87,946	45.30	(157.57)	(112.27)	\$ (9,873,605)	\$ 34,311,579	93.811%	\$ 32,188,176	\$ 87,946	45.30	(157.57)	(112.27)	\$ (9,873,605)
30	Payroll Tax Expense	\$ 10,653,786	94.070%	\$ 10,022,002	\$ 27,383	45.30	(35.64)	9.66	\$ 264,585	\$ 10,653,786	94.070%	\$ 10,022,002	\$ 27,383	45.30	(35.64)	9.66	\$ 264,585
31	Other Taxes	\$ 3,406,958	100.000%	\$ 3,406,958	\$ 9,309	45.30	152.00	197.30	\$ 1,836,620	\$ 3,406,958	100.000%	\$ 3,406,958	\$ 9,309	45.30	152.00	197.30	\$ 1,836,620
32	Total Taxes Other Than Income	\$ 48,372,323		\$ 45,617,136					\$ (7,772,401)	\$ 48,372,323		\$ 45,617,136					\$ (7,772,401)
33	AFUDC	\$ (2,364)	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -	\$ (2,364)	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -
34	(Gain)/Loss on Disposition of Property	\$ -	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -	\$ -	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -
35	(Gain)/Loss on Disposition of Allowances	\$ -	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -	\$ -	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -
36	Charitable Donations	\$ 1,513,100	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -	\$ 1,513,100	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -
37	Interest on Customer Deposits	\$ 435,511	0.000%	\$ -	\$ -	-	-	-	\$ -	\$ 435,511	0.000%	\$ -	\$ -	-	-	-	\$ -
38	Other (Income)/Expense	\$ (2,455,452)	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -	\$ (2,455,452)	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -
39	Other Interest Expense/(Income)	\$ (153,487)	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -	\$ (153,487)	0.000%	\$ -	\$ -	45.30	(45.30)	-	\$ -
40	Interest Expense	\$ 116,394,856	93.819%	\$ 109,200,168	\$ 298,361	45.30	(88.65)	(43.35)	\$ (12,934,452)	\$ 116,394,856	93.819%	\$ 109,200,168	\$ 298,361	45.30	(88.65)	(43.35)	\$ (12,934,452)
41	Income Available for Common Equity	\$ 217,238,011		\$ 210,335,404	\$ 574,687	45.30	(45.30)	-	\$ -	\$ 217,238,011		\$ 210,335,404	\$ 574,687	45.30	(45.30)	-	\$ -
42	Total	\$ 1,736,087,697		\$ 1,637,036,502	\$ 873,048				\$ 55,113,709	\$ 1,736,087,697		\$ 1,637,036,502	\$ 873,048				\$ 6,204,244
43	Sales Taxes	\$ 35,572,412	100.000%	\$ 35,572,412	\$ 97,192	45.30	(39.80)	5.49	\$ 534,025	\$ 35,572,412	100.000%	\$ 35,572,412	\$ 97,192	45.30	(39.80)	5.49	\$ 534,025
44	School Taxes	\$ 39,016,854	100.000%	\$ 39,016,854	\$ 106,603	45.30	(34.95)	10.35	\$ 1,103,256	\$ 39,016,854	100.000%	\$ 39,016,854	\$ 106,603	45.30	(34.95)	10.35	\$ 1,103,256
45	Franchise Fees	\$ 28,463,762	100.000%	\$ 28,463,762	\$ 77,770	45.30	(67.16)	(21.86)	\$ (1,700,055)	\$ 28,463,762	100.000%	\$ 28,463,762	\$ 77,770	45.30	(67.16)	(21.86)	\$ (1,700,055)
46	Cash Working Capital (Lead/Lag)								\$ 55,050,935								\$ 6,141,470
47	Additional Cash Working Capital Items (Page 5)								\$ 42,083,714								\$ 42,083,714
48	Total Cash Working Capital								\$ 97,134,649								\$ 48,225,184
49	ECR Cash Working Capital (Page 6)								\$ 2,498,511								\$ 2,498,511
50	Jurisdictional Cash Working Capital (Line 48 - 49)								\$ 94,636,138								\$ 45,726,673

Notes and Sources

Garet, Schedule B.5.2, page 4 of 6

\$ (48,909,465)

Kentucky Public Service Commission

Kentucky Utilities Company
 Adjustment 5
 Cash Working Capital Workpaper

As Filed by Company													Adjusted			
Line No.	Vendor Name	Expenditure Type	Invoice Date	Payment Amount	Service Date/From	To	Service Lead/ Mid-Point	KU Payment Date	Payment Lead	Total Lead	Weighted Lead	Service Lead/ Mid-Point	Payment Lead	Total Lead	Weighted Lead	
	(1)	(2)	(3)	(4)	(5)	(6)	(7) = zero or (6-5)/2	(8)	(9)=(8-5) or (8-6)	(10)=(7+9)	(11)=(4*10)					
1	KENTUCKY PRESS SERVICE INC	ADV - NEWSPAPER	12/06/2017	\$ 120,762	11/29/2017	12/05/2017	3.00	01/08/2018	34.00	37.00	\$ 4,468,196	3.0	34.0	37.0	4,468,196	
2	KENTUCKY PRESS SERVICE INC	ADV - NEWSPAPER	12/12/2017	\$ 240,980	12/06/2017	12/19/2017	6.50	01/12/2018	24.00	30.50	\$ 7,349,901	6.5	24.0	30.5	7,349,901	
3	STANDARD AND POORS RATINGS SERVICES	BANK SERVICE FEES	03/15/2017	\$ 52.50	03/31/2017			04/03/2017	3.00	3.00	\$ 157,500	15.0	3.0	18.0	945,000	
4	TELEMAR USA LLC	CELLULAR/PAGING SERVICES	08/10/2017	\$ 46	08/10/2017			08/14/2017	4.00	4.00	\$ 184	15.0	4.0	19.0	874	
5	TELEMAR USA LLC	CELLULAR/PAGING SERVICES	08/10/2017	\$ 58	08/10/2017			08/14/2017	4.00	4.00	\$ 232	15.0	4.0	19.0	1,102	
6	KENTUCKY STATE TREASURER	CELLULAR/PAGING SERVICES	07/31/2017	\$ 4	07/11/2017			08/25/2017	45.00	45.00	\$ 181	15.0	45.0	60.0	242	
7	VERIZON WIRELESS	CELLULAR/PAGING SERVICES	06/12/2017	\$ 349	06/12/2017			07/28/2017	46.00	46.00	\$ 16,048	15.0	46.0	61.0	21,281	
8	SICK INC	CLOSED 02/18 - PM - OTHER	08/09/2017	\$ 5,637	08/09/2017			09/11/2017	33.00	33.00	\$ 186,022	15.0	33.0	48.0	270,578	
9	WHAYNE SUPPLY CO	CLOSED 02/18 - PM - OTHER	03/31/2017	\$ 57,122	03/16/2017			05/03/2017	48.00	48.00	\$ 2,741,870	15.0	48.0	63.0	3,598,705	
10	KENTUCKY STATE TREASURER	CLOSED 02/18 - PM - OTHER	06/30/2017	\$ 8	04/28/2017			07/25/2017	88.00	88.00	\$ 664	15.0	88.0	103.0	777	
11	KENTUCKY STATE TREASURER	CLOSED 02/18 - PM - OTHER	03/31/2017	\$ 33	08/11/2017			09/25/2017	45.00	45.00	\$ 1,493	15.0	45.0	60.0	1,991	
12	BAE BATTERIES USA	CLOSED 02/18 - PM - OTHER	05/17/2016	\$ 911	05/16/2016			08/14/2017	455.00	455.00	\$ 414,482	15.0	455.0	470.0	428,147	
13	SERCO INC	CLOSED 02/18 - PM - OTHER	09/06/2017	\$ 236	09/06/2017			09/18/2017	12.00	12.00	\$ 2,830	15.0	12.0	27.0	6,367	
14	US BANK NATIONAL ASSOCIATION ND	CLOSED 02/18 - PM - OTHER	05/30/2017	\$ 1,875	05/04/2017	05/24/2017	10.00	06/05/2017	12.00	22.00	\$ 41,244	10.0	12.0	22.0	41,244	
15	KENTUCKY STATE TREASURER	CLOSED 02/18 - PM - OTHER	06/30/2017	\$ 241	05/01/2017	06/23/2017	26.50	07/25/2017	32.00	58.50	\$ 14,108	26.5	32.0	58.5	14,108	
16	ACTUATOR SPECIALTIES	CLOSED 02/18 - PM - OTHER	03/30/2017	\$ 56,738	03/30/2017			05/01/2017	32.00	32.00	\$ 1,815,621	15.0	32.0	47.0	2,666,694	
17	FERGUSON ENTERPRISES INC	CLOSED 02/18 - PM - OTHER	12/30/2016	\$ 647	12/01/2016	12/07/2016	3.00	01/11/2017	35.00	38.00	\$ 24,598	15.0	35.0	38.0	24,598	
18	NALCO COMPANY	CLOSED 02/18 - PM - OTHER	04/26/2017	\$ 52,687	04/26/2017			05/03/2017	34.00	34.00	\$ 1,791,373	15.0	34.0	49.0	2,581,685	
19	TOWNLEY FOUNDRY AND MACHINE CO INC	CLOSED 02/18 - PM - OTHER	06/27/2017	\$ 56,680	06/21/2017			07/28/2017	37.00	37.00	\$ 2,097,160	15.0	37.0	52.0	2,947,360	
20	ALRO STEEL CORP	CLOSED 02/18 - PM - OTHER	10/31/2017	\$ 400	10/31/2017			12/01/2017	31.00	31.00	\$ 12,388	15.0	31.0	46.0	18,382	
21	AIR TECHNOLOGIES	CLOSED 02/18 - PM - OTHER	01/30/2017	\$ 52,086	12/13/2016	01/17/2017	17.50	03/02/2017	44.00	61.50	\$ 3,203,315	17.5	44.0	61.5	3,203,315	
22	NALCO COMPANY	CLOSED 02/18 - PM - OTHER	04/26/2017	\$ 85,405	04/26/2017			05/03/2017	34.00	34.00	\$ 2,903,785	15.0	34.0	49.0	4,184,866	
23	MRC GLOBAL (US) INC.	CLOSED 02/18 - PM - OTHER	05/02/2017	\$ 4,780	05/02/2017			06/02/2017	31.00	31.00	\$ 148,180	15.0	31.0	46.0	219,880	
24	KONCRANES INC	CLOSED 02/18 - PM - OTHER	02/19/2017	\$ 220	01/23/2017	01/24/2017	0.50	04/24/2017	90.00	90.50	\$ 19,910	0.5	90.0	90.5	19,910	
25	BEST ONE TIRE & SVCE OF MID AMERICA	CLOSED 02/18 - PM - OTHER	03/09/2017	\$ 55,904	03/09/2017			11/30/2017	31.00	31.00	\$ 1,102,450	15.0	31.0	46.0	2,581,685	
26	WHAYNE SUPPLY CO	CLOSED 02/18 - PM - OTHER	03/07/2017	\$ 3,447	03/07/2017			04/10/2017	34.00	34.00	\$ 117,201	15.0	34.0	49.0	168,907	
27	TEGA INDUSTRIES INC	CLOSED 02/18 - PM - OTHER	03/31/2017	\$ 172,500	03/28/2017			05/01/2017	34.00	34.00	\$ 5,865,000	15.0	34.0	49.0	8,452,500	
28	ABELL ELEVATOR INTL	CLOSED 02/18 - PM - OTHER	10/31/2017	\$ 21	10/26/2017			11/13/2017	18.00	18.00	\$ 376	15.0	18.0	33.0	689	
29	KENTUCKY STATE TREASURER	CLOSED 02/18 - PM - OTHER	08/31/2017	\$ 127	05/18/2017			09/25/2017	130.00	130.00	\$ 16,552	15.0	130.0	145.0	18,461	
30	KENTUCKY STATE TREASURER	CLOSED 02/18 - PM - OTHER	08/31/2017	\$ 127	05/18/2017	08/25/2017	49.50	09/25/2017	31.00	80.50	\$ 12,762	49.5	31.0	80.5	12,762	
31	PRO CHEM INC	CLOSED 02/18 - PM - OTHER	05/26/2017	\$ 920	05/26/2017			06/23/2017	28.00	28.00	\$ 25,760	15.0	28.0	43.0	39,560	
32	WESCO DISTRIBUTION INC	CLOSED 02/18 - PM - OTHER	04/20/2017	\$ 278	04/19/2017			05/01/2017	12.00	12.00	\$ 3,337	15.0	12.0	27.0	7,509	
33	US BANK NATIONAL ASSOCIATION ND	CLOSED 02/18 - PM - OTHER	02/24/2017	\$ 3,275	01/30/2017	02/22/2017	11.50	03/02/2017	9.00	20.50	\$ 67,143	11.5	9.0	20.5	67,143	
34	US BANK NATIONAL ASSOCIATION ND	CLOSED 02/18 - PM - OTHER	03/29/2017	\$ 35	03/13/2017			04/04/2017	22.00	22.00	\$ 759	15.0	22.0	37.0	1,277	
35	BROWNSTOWN ELECTRIC SUPPLY CO INC	CLOSED 02/18 - PM - OTHER	12/01/2017	\$ 105	11/01/2017	11/30/2017	14.50	12/07/2017	7.00	21.50	\$ 2,257	14.5	7.0	21.5	2,257	
36	BROWNSTOWN ELECTRIC SUPPLY CO INC	CLOSED 02/18 - PM - OTHER	05/01/2017	\$ 225	04/01/2017	04/30/2017	14.50	06/09/2017	40.00	54.50	\$ 12,253	14.5	40.0	54.5	12,253	
37	BROWNSTOWN ELECTRIC SUPPLY CO INC	CLOSED 02/18 - PM - OTHER	08/01/2017	\$ 57	07/01/2017	07/31/2017	15.00	09/05/2017	36.00	51.00	\$ 2,882	15.0	36.0	51.0	2,882	
38	BROWNSTOWN ELECTRIC SUPPLY CO INC	CLOSED 02/18 - PM - OTHER	01/03/2017	\$ 54	12/01/2016	12/31/2016	15.00	03/03/2017	62.00	77.00	\$ 4,153	15.0	62.0	77.0	4,153	
39	BROWNSTOWN ELECTRIC SUPPLY CO INC	CLOSED 02/18 - PM - OTHER	10/03/2017	\$ 32	09/01/2017	09/30/2017	14.50	10/16/2017	16.00	30.50	\$ 976	14.5	16.0	30.5	976	
40	BROWNSTOWN ELECTRIC SUPPLY CO INC	CLOSED 02/18 - PM - OTHER	08/01/2017	\$ 41	07/01/2017	07/31/2017	15.00	08/10/2017	19.00	25.00	\$ 1,027	15.0	19.0	25.0	1,027	
41	KENTUCKY STATE TREASURER	CLOSED 02/18 - PM - OTHER	10/31/2017	\$ 11	09/27/2017	10/02/2017	2.50	12/11/2017	70.00	72.50	\$ 790	2.5	70.0	72.5	790	
42	BROWNSTOWN ELECTRIC SUPPLY CO INC	CLOSED 02/18 - PM - OTHER	06/01/2017	\$ 11	05/01/2017	05/31/2017	15.00	06/12/2017	12.00	27.00	\$ 304	15.0	12.0	27.0	304	
43	KENTUCKY STATE TREASURER	CLOSED 02/18 - PM - OTHER	03/31/2017	\$ 39	10/27/2015			04/25/2017	546.00	546.00	\$ 21,447	15.0	546.0	561.0	22,036	
44	BROWNSTOWN ELECTRIC SUPPLY CO INC	CLOSED 02/18 - PM - OTHER	11/01/2017	\$ 541	10/01/2017	10/31/2017	15.00	11/06/2017	6.00	21.00	\$ 11,361	15.0	6.0	21.0	11,361	
45	US BANK NATIONAL ASSOCIATION ND	CLOSED 02/18 - PM - SAFETY SUPPLIES	07/27/2017	\$ 306	06/29/2017	07/12/2017	6.50	08/02/2017	21.00	27.50	\$ 8,418	6.5	21.0	27.5	8,418	
46	US BANK NATIONAL ASSOCIATION ND	CLOSED 02/18 - PM - SAFETY SUPPLIES	02/24/2017	\$ 1,594	01/26/2017	02/20/2017	12.50	03/03/2017	11.00	23.50	\$ 37,453	12.5	11.0	23.5	37,453	
47	WESCO DISTRIBUTION INC	CLOSED 02/18 - PM - SMALL TOOLS	02/09/2017	\$ 44	02/08/2017			02/21/2017	13.00	13.00	\$ 568	15.0	13.0	28.0	1,223	
48	F AND M MAFCO INC	CLOSED 02/18 - PM - SMALL TOOLS	04/28/2017	\$ 234	04/21/2017			05/30/2017	39.00	39.00	\$ 9,138	15.0	39.0	54.0	12,652	
49	CUSTOMER REFUNDS	CUSTOMER INCENTIVE PROGRAMS	09/14/2017	\$ 544	09/14/2017			09/29/2017	15.00	15.00	\$ 8,160	15.0	15.0	30.0	16,320	
50	UNITED DYNAMICS ADVANCED	ENGINEERING SERVICES	04/03/2017	\$ 57,702	03/23/2017	04/02/2017	5.00	04/13/2017	11.00	16.00	\$ 923,232	5.0	11.0	16.0	923,232	
51	UNITED DYNAMICS ADVANCED	ENGINEERING SERVICES	05/05/2017	\$ 64,131	04/22/2017	04/27/2017	2.50	05/16/2017	19.00	21.50	\$ 1,378,820	2.5	19.0	21.5	1,378,820	
52	LEXINGTON FAYETTE URBAN	FEES, PERMITS & LICENSES	08/16/2017	\$ 15	09/01/2017	08/31/2018	182.00	09/05/2017	(360.00)	(178.00)	\$ (2,670)	182.0	(360.0)	(178.0)	(2,670)	
53	INDIANA BAT CONSERVATION FUND (IBCF)	FEES, PERMITS & LICENSES	07/31/2017	\$ 59,340	04/01/2017	06/30/2017	45.00	08/10/2017	41.00	86.00	\$ 5,103,240	45.0	41.0	86.0	5,103,240	
54	INDIANA BAT CONSERVATION FUND (IBCF)	FEES, PERMITS & LICENSES	10/30/2017	\$ 59,831	04/01/2017	06/30/2017	45.00	11/08/2017	131.00	176.00	\$ 10,530,256	45.0	131.0	176.0	10,530,256	
55	AIRGAS USA LLC	FREIGHT - OTHER	03/03/2017	\$ 25	03/02/2017			04/03/2017	32.00	32.00	\$ 800	15.0	32.0	47.0	1,172	
56	AIRGAS USA LLC	FREIGHT - OTHER	04/24/2017	\$ 25	04/24/2017			05/25/2017	31.00	31.00	\$ 775	15.0	31.0	46.0	1,150	
57	ABB INC	FREIGHT - OTHER	06/05/2017	\$ 7	06/05/2017			07/06/2017	31.00	31.00	\$ 211	15.0	31.0	46.0	314	
58	LEBANON POWER AND APPARATUS CO INC	FREIGHT - OTHER	02/16/2017	\$ 38	02/13/2017			03/20/2017	35.00	35.00	\$ 1,339	15.0	35.0	50.0	1,913	
59	ALRO STEEL CORP	FREIGHT - OTHER	10/31/2017	\$ 8	10/31/2017			12/01/2017	31.00	31.00	\$ 248	15.0	31.0	46.0	368	
60	SCOTT GROSS CO	FREIGHT - OTHER	02/09/2017	\$ 50	02/07/2017			03/13/2017	34.00	34.00	\$ 1,700	15.0	34.0	49.0	2,450	

79	Taylor, Christopher Brandon	MISCELLANEOUS	05/11/2017	\$	23	05/09/2017	05/10/2017	0.50	05/23/2017	13.00	13.50	\$	314	0.5	13.0	13.5	314
80	TOWNSEND TREE SERVICE COMPANY INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	10/05/2017	\$	1,217	09/17/2017	09/23/2017	3.00	11/06/2017	44.00	47.00	\$	57,176	3.0	44.0	47.0	57,176
81	ON UTILITY CONSULTING INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	07/12/2017	\$	1,166	07/01/2017		-	08/14/2017	44.00	44.00	\$	51,322	15.0	44.0	59.0	68,818
82	PHILLIPS TREE EXPERTS INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	08/01/2017	\$	103,800	07/02/2017		13.50	09/08/2017	41.00	54.50	\$	5,646,199	13.5	41.0	54.5	5,646,199
83	GENERAL INSULATION INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	05/22/2017	\$	2,800	05/22/2017	07/29/2017	-	07/27/2017	46.00	46.00	\$	128,800	15.0	46.0	61.0	170,800
84	KENTUCKY STATE TREASURER	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/31/2017	\$	14	12/06/2017		-	01/25/2018	50.00	50.00	\$	675	15.0	50.0	65.0	878
85	INTERNATIONAL CONVEYOR AND RUBBER LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	02/07/2017	\$	2,520	02/04/2017		-	03/10/2017	34.00	34.00	\$	85,666	15.0	34.0	49.0	123,459
86	TRANS ASH INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	02/07/2017	\$	185,472	01/01/2017	01/31/2017	15.00	03/06/2017	34.00	49.00	\$	9,088,112	15.0	34.0	49.0	9,088,112
87	TRANS ASH INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	03/27/2017	\$	185,472	02/01/2017	02/28/2017	13.50	04/12/2017	43.00	56.50	\$	10,479,149	13.5	43.0	56.5	10,479,149
88	TRANS ASH INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	03/31/2017	\$	185,472	03/01/2017	03/31/2017	15.00	04/26/2017	26.00	41.00	\$	7,604,338	15.0	26.0	41.0	7,604,338
89	TRANS ASH INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/30/2017	\$	185,472	04/01/2017	04/30/2017	14.50	05/30/2017	30.00	44.50	\$	8,253,489	14.5	30.0	44.5	8,253,489
90	TRANS ASH INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	05/23/2017	\$	185,472	05/01/2017	05/30/2017	14.50	07/12/2017	43.00	57.50	\$	10,864,821	14.5	43.0	57.5	10,864,821
91	TRANS ASH INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	06/30/2017	\$	185,472	06/01/2017	06/30/2017	14.50	08/01/2017	32.00	46.50	\$	8,624,433	14.5	32.0	46.5	8,624,433
92	TRANS ASH INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	07/31/2017	\$	185,472	07/01/2017	07/31/2017	15.00	08/31/2017	31.00	46.00	\$	8,531,697	15.0	31.0	46.0	8,531,697
93	TRANS ASH INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	08/31/2017	\$	185,472	08/01/2017	08/31/2017	15.00	09/18/2017	18.00	33.00	\$	6,120,565	15.0	18.0	33.0	6,120,565
94	TRANS ASH INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	09/30/2017	\$	185,472	09/01/2017	09/30/2017	14.50	10/19/2017	19.00	33.50	\$	6,213,301	14.5	19.0	33.5	6,213,301
95	TRANS ASH INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	10/31/2017	\$	185,472	10/01/2017	10/31/2017	15.00	12/01/2017	31.00	46.00	\$	8,531,697	15.0	31.0	46.0	8,531,697
96	TRANS ASH INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	11/30/2017	\$	187,345	11/01/2017	11/30/2017	14.50	01/04/2018	35.00	49.50	\$	9,273,583	14.5	35.0	49.5	9,273,583
97	LUNH AND OAK CONSTRUCTION CO INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	01/23/2017	\$	99	01/23/2017		-	02/03/2017	11.00	11.00	\$	1,069	15.0	11.0	26.0	2,574
98	PEAK INDUSTRIAL COATINGS AND LININGS INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/28/2017	\$	49,983	12/28/2017		-	01/29/2018	32.00	32.00	\$	1,599,456	15.0	32.0	47.0	2,349,201
99	INCORP INDUSTRIES LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	08/24/2017	\$	48	08/24/2017		-	09/01/2017	8.00	8.00	\$	382	15.0	8.0	23.0	1,098
100	RIVERSIDE GROUP LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	02/22/2017	\$	56,435	02/10/2017	02/13/2017	1.50	03/31/2017	46.00	47.50	\$	2,680,665	1.5	46.0	47.5	2,680,665
101	CSS MECHANICAL	O/S - MATERIAL & EQUIPMENT (INSTALLED)	06/09/2017	\$	69	05/13/2017		-	06/21/2017	39.00	39.00	\$	2,675	15.0	39.0	54.0	3,704
102	ASPLUNDH TREE EXPERT LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	10/20/2017	\$	63,488	10/14/2017		-	11/20/2017	37.00	37.00	\$	2,349,041	15.0	37.0	52.0	3,301,355
103	ASPLUNDH TREE EXPERT LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	08/18/2017	\$	53,837	07/15/2017		-	09/18/2017	65.00	65.00	\$	3,499,399	15.0	65.0	80.0	4,306,953
104	ASPLUNDH TREE EXPERT LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/13/2017	\$	52,868	11/18/2017		-	01/16/2018	59.00	59.00	\$	3,119,236	15.0	59.0	74.0	3,912,262
105	PRECISION PRODUCTS LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	09/24/2017	\$	79,961	09/24/2017		40.50	11/16/2017	43.00	45.00	\$	3,893,359	40.50	43.00	45.00	4,287,804
106	PHILLIPS TREE EXPERTS INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	10/20/2017	\$	15,857	09/16/2017		-	11/20/2017	65.00	65.00	\$	1,017,713	15.0	65.0	80.0	1,252,570
107	PHILLIPS TREE EXPERTS INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/19/2017	\$	54,190	11/04/2017		-	12/18/2017	44.00	44.00	\$	2,384,368	15.0	44.0	59.0	3,197,221
108	SUMMIT HELICOPTERS INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	07/11/2017	\$	144,910	06/24/2017		-	08/11/2017	48.00	48.00	\$	6,955,689	15.0	48.0	63.0	9,129,342
109	SUMMIT HELICOPTERS INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	07/19/2017	\$	196,060	07/15/2017		-	08/21/2017	37.00	37.00	\$	7,254,225	15.0	37.0	52.0	10,195,127
110	SUMMIT HELICOPTERS INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	08/07/2017	\$	181,156	07/29/2017		-	09/07/2017	40.00	40.00	\$	7,246,247	15.0	40.0	55.0	9,663,590
111	HACH COMPANY	O/S - OTHER-LABOR-3RD PARTY	09/29/2017	\$	(703)	05/24/2017		-	10/30/2017	159.00	159.00	\$	(111,777)	15.0	159.0	174.0	(122,322)
112	OAK AND VEATCH CORP	O/S - OTHER-LABOR-3RD PARTY	02/03/2017	\$	95,759	02/03/2017		-	03/31/2017	56.00	56.00	\$	5,506,493	15.0	56.0	71.0	7,082,876
113	MECHANICAL DYNAMICS AND ANALYSIS LLC	O/S - OTHER-LABOR-3RD PARTY	12/15/2017	\$	60,755	12/15/2017		-	01/09/2018	32.00	32.00	\$	1,944,068	15.0	32.0	47.0	2,815,065
114	GEORFORCE UTILITY TECHNOLOGIES	O/S - OTHER-LABOR-3RD PARTY	04/15/2017	\$	2,053	04/15/2017		-	05/01/2017	16.00	16.00	\$	32,842	15.0	16.0	31.0	63,631
115	GEORFORCE UTILITY TECHNOLOGIES	O/S - OTHER-LABOR-3RD PARTY	09/16/2017	\$	35	09/16/2017		-	10/02/2017	16.00	16.00	\$	553	15.0	16.0	31.0	1,072
116	IVEY MECHANICAL LLC	O/S - OTHER-LABOR-3RD PARTY	06/29/2017	\$	1,878	06/21/2017		-	07/31/2017	40.00	40.00	\$	75,113	15.0	40.0	55.0	103,281
117	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	04/30/2017	\$	78,842	04/17/2017	04/23/2017	3.00	05/16/2017	23.00	26.00	\$	2,049,897	3.00	23.00	26.00	2,049,897
118	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	04/30/2017	\$	109,506	04/24/2017	04/30/2017	3.00	05/31/2017	31.00	34.00	\$	3,723,217	3.00	31.00	34.00	3,723,217
119	QUEST INTEGRITY USA LLC	O/S - OTHER-LABOR-3RD PARTY	05/31/2017	\$	107,370	04/18/2017	04/29/2017	5.50	07/03/2017	65.00	70.50	\$	7,569,595	5.50	65.00	70.50	7,569,595
120	PRECISION COOLING TOWERS INC	O/S - OTHER-LABOR-3RD PARTY	04/28/2017	\$	78,400	09/24/2017		40.50	11/08/2017	48.00	78.50	\$	4,593,359	40.50	48.00	78.50	5,187,804
121	BARNHART CRANE AND RIGGING CO	O/S - OTHER-LABOR-3RD PARTY	04/26/2017	\$	78,400	04/20/2017	04/25/2017	2.50	05/30/2017	35.00	37.50	\$	2,940,000	2.50	35.00	37.50	2,940,000
122	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	04/30/2017	\$	545	03/24/2017		-	05/16/2017	53.00	53.00	\$	28,872	15.0	53.00	68.0	37,043
123	ALSTOM POWER INC	O/S - OTHER-LABOR-3RD PARTY	12/08/2017	\$	250,157	12/08/2017		-	01/08/2018	31.00	31.00	\$	7,754,875	15.0	31.0	46.0	11,507,234
124	ALSTOM POWER INC	O/S - OTHER-LABOR-3RD PARTY	12/19/2017	\$	82,793	12/16/2017		-	01/19/2018	34.00	34.00	\$	2,814,954	15.0	34.00	49.0	4,056,845
125	GENERAL INSULATION INC	O/S - OTHER-LABOR-3RD PARTY	08/18/2017	\$	2,026	08/07/2017	08/08/2017	0.50	09/18/2017	41.00	41.50	\$	84,072	0.50	41.00	41.50	84,072
126	GENERAL INSULATION INC	O/S - OTHER-LABOR-3RD PARTY	02/28/2017	\$	1,162	02/15/2017		-	03/31/2017	44.00	44.00	\$	51,108	15.0	44.00	59.0	68,531
127	PRECISION PRODUCTS LLC	O/S - OTHER-LABOR-3RD PARTY	08/24/2017	\$	15,340	08/24/2017		-	09/25/2017	32.00	32.00	\$	3,422,954	15.0	32.00	47.0	5,433,957
128	MPW INDUSTRIAL SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	04/28/2017	\$	102,599	03/10/2017	03/24/2017	7.00	06/01/2017	69.00	75.00	\$	7,797,500	7.00	69.00	75.00	7,797,500
129	INCORP INDUSTRIES LLC	O/S - OTHER-LABOR-3RD PARTY	04/18/2017	\$	65,370	04/18/2017		-	05/01/2017	13.00	13.00	\$	849,809	15.0	13.00	28.0	1,830,358
130	INTERNATIONAL COOLING TOWER USA INC	O/S - OTHER-LABOR-3RD PARTY	03/31/2017	\$	68,000	03/31/2017		-	05/01/2017	31.00	31.00	\$	2,108,000	15.0	31.00	46.0	3,128,000
131	AMERTECH TOWER SERVICES LLC	O/S - OTHER-LABOR-3RD PARTY	03/28/2017	\$	53,073	02/12/2017	03/19/2017	17.50	04/28/2017	40.00	57.50	\$	3,051,724	17.50	40.00	57.50	3,051,724
132	THE ATLANTIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	03/28/2017	\$	150,480	03/28/2017		-	04/28/2017	31.00	31.00	\$	4,664,878	15.0	31.00	46.0	6,922,077
133	THE ATLANTIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	04/04/2017	\$	154,072	04/04/2017		-	05/05/2017	31.00	31.00	\$	4,776,225	15.0	31.00	46.0	7,087,302
134	THE ATLANTIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	04/07/2017	\$	146,596	04/07/2017		-	05/11/2017	34.00	34.00	\$	4,984,273	15.0	34.00	49.0	7,183,217
135	ACUREN INSPECTION	O/S - OTHER-LABOR-3RD PARTY	11/15/2017	\$	59,995	10/30/2017	11/05/2017	3.00	12/19/2017	44.00	47.00	\$	2,815,065	3.00	44.00	47.00	3,215,065
136	TESTEX INC	O/S - OTHER-LABOR-3RD PARTY	11/05/2017	\$	52,140	10/30/2017	11/04/2017	2.50	12/19/2017	45.00	47.50	\$	2,476,650	2.50	45.00	47.50	2,476,650
137	PROFESSIONAL POWER GROUP INC	O/S - OTHER-LABOR-3RD PARTY	12/11/2017	\$	132,340	12/11/2017		-	01/11/2018	31.00	31.00	\$	4,102,540	15.0	31.00	46.0	6,087,640
138	INCORP INDUSTRIES LLC	O/S - OTHER-LABOR-3RD PARTY	11/06/2017	\$	52,963	11/06/2017		-	12/07/2017	31.00	31.00	\$	1,641,864	15.0	31.00	46.0	2,436,315
139	INCORP INDUSTRIES LLC	O/S - OTHER-LABOR-3RD PARTY	11/27/2017	\$	54,695	11/27/2017		-	12/08/2017	11.00	11.00	\$	601,648	15.0	11.00	26.0	1,422,077
140	UNITED DYNAMICS ADVANCED	O/S - OTHER-LABOR-3RD PARTY	11/29/2017	\$	77,777	11/05/2017	11/12/2017	3.50	01/02/2018	51.00	54.50	\$	4,238,840	3.50	51.00	54.50	4,238,840
141	THE ATLANTIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	11/01/2017	\$	60,700	11/01/2017		-	12/04/2017	33.00	33.00	\$	2,003,099	15.0	33.00	48.0	2,913,599

175	DAVIS H ELLIOT COMPANY INC	O/S - OTHER-LABOR-3RD PARTY	06/13/2017	\$	370	06/10/2017			-	07/31/2017	51.00	51.00	\$	18,870	15.0	51.0	66.0	24,420
176	EXAMINETICS INC	O/S - PHYSICAL AND MEDICAL EXAMS	04/25/2017	\$	64,693	02/22/2017			4.50	06/02/2017	91.00	95.50	\$	6,178,182	4.5	91.0	95.5	6,178,182
177	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	09/07/2017	\$	1,145	09/07/2017			-	10/10/2017	33.00	33.00	\$	37,789	15.0	33.0	48.0	54,966
178	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	06/19/2017	\$	326	06/19/2017			-	07/20/2017	31.00	31.00	\$	10,111	15.0	31.0	46.0	15,006
179	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	06/28/2017	\$	669	06/28/2017			-	07/31/2017	33.00	33.00	\$	31,783	15.0	33.0	48.0	48,141
180	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	02/24/2017	\$	3,054	02/24/2017			-	03/27/2017	31.00	31.00	\$	94,672	15.0	31.0	46.0	140,482
181	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	09/21/2017	\$	6,214	09/21/2017			-	10/23/2017	32.00	32.00	\$	198,848	15.0	32.0	47.0	292,058
182	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	05/24/2017	\$	67	05/24/2017			-	06/23/2017	30.00	30.00	\$	2,021	15.0	30.0	45.0	3,031
183	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	02/03/2017	\$	49,665	01/01/2017	01/28/2017		13.50	03/06/2017	37.00	50.50	\$	2,508,094	13.5	37.0	50.5	2,508,094
184	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	02/03/2017	\$	51,403	01/01/2017	01/28/2017		13.50	03/06/2017	37.00	50.50	\$	2,595,837	13.5	37.0	50.5	2,595,837
185	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	02/03/2017	\$	81,937	01/01/2017	01/28/2017		13.50	03/06/2017	37.00	50.50	\$	4,137,834	13.5	37.0	50.5	4,137,834
186	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	03/07/2017	\$	71,793	03/07/2017			13.50	03/10/2017	41.00	54.50	\$	2,928,856	13.5	41.0	54.5	2,928,856
187	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	03/02/2017	\$	86,629	01/29/2017	02/25/2017		13.50	04/03/2017	37.00	50.50	\$	4,374,748	13.5	37.0	50.5	4,374,748
188	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	04/06/2017	\$	53,376	02/26/2017	04/01/2017		17.00	05/08/2017	37.00	54.00	\$	2,882,315	17.0	37.0	54.0	2,882,315
189	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	04/06/2017	\$	82,339	02/26/2017	04/01/2017		17.00	05/08/2017	37.00	54.00	\$	4,446,294	17.0	37.0	54.0	4,446,294
190	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	04/07/2017	\$	76,570	02/26/2017	04/01/2017		17.00	05/17/2017	46.00	63.00	\$	4,823,914	17.0	46.0	63.0	4,823,914
191	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	05/05/2017	\$	60,715	04/02/2017	04/29/2017		13.50	06/06/2017	38.00	51.50	\$	3,126,811	13.5	38.0	51.5	3,126,811
192	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	05/04/2017	\$	58,187	04/02/2017	04/29/2017		13.50	06/05/2017	37.00	50.50	\$	2,938,467	13.5	37.0	50.5	2,938,467
193	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	06/08/2017	\$	83,334	04/30/2017	06/03/2017		17.00	07/10/2017	37.00	54.00	\$	4,500,040	17.0	37.0	54.0	4,500,040
194	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	06/08/2017	\$	52,230	04/30/2017	06/03/2017		17.00	07/10/2017	37.00	54.00	\$	2,920,405	17.0	37.0	54.0	2,920,405
195	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	06/07/2017	\$	52,910	04/30/2017	06/03/2017		17.00	07/13/2017	40.00	57.00	\$	3,015,843	17.0	40.0	57.0	3,015,843
196	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	06/07/2017	\$	79,982	04/30/2017	06/03/2017		17.00	07/13/2017	40.00	57.00	\$	4,558,970	17.0	40.0	57.0	4,558,970
197	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	06/07/2017	\$	66,893	04/30/2017	06/03/2017		17.00	07/21/2017	48.00	65.00	\$	4,348,500	17.0	48.0	65.0	4,348,500
198	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	07/07/2017	\$	50,775	06/04/2017	07/01/2017		13.50	08/07/2017	37.00	50.50	\$	2,564,124	13.5	37.0	50.5	2,564,124
199	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	07/07/2017	\$	77,169	06/04/2017	07/01/2017		13.50	08/07/2017	37.00	50.50	\$	3,897,015	13.5	37.0	50.5	3,897,015
200	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	07/06/2017	\$	64,304	06/04/2017	06/30/2017		13.50	08/07/2017	38.00	51.00	\$	3,275,497	13.50	38.0	51.0	3,275,497
201	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	07/06/2017	\$	71,793	06/04/2017	06/30/2017		13.50	08/07/2017	38.00	51.00	\$	3,897,015	13.50	38.0	51.0	3,897,015
202	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	07/06/2017	\$	63,537	06/04/2017	06/30/2017		13.00	08/07/2017	38.00	51.00	\$	3,240,372	13.0	38.0	51.0	3,240,372
203	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	08/03/2017	\$	92,609	07/02/2017	07/29/2017		13.50	09/08/2017	41.00	54.50	\$	5,047,180	13.5	41.0	54.5	5,047,180
204	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	08/03/2017	\$	76,134	07/02/2017	07/29/2017		13.50	09/08/2017	41.00	54.50	\$	4,149,295	13.5	41.0	54.5	4,149,295
205	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	08/03/2017	\$	83,681	07/02/2017	07/29/2017		13.50	09/08/2017	41.00	54.50	\$	4,560,631	13.5	41.0	54.5	4,560,631
206	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$	62,972	07/02/2017	07/29/2017		13.50	09/08/2017	41.00	54.50	\$	3,431,996	13.5	41.0	54.5	3,431,996
207	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	09/09/2017	\$	56,673	08/06/2017	09/02/2017		13.50	10/10/2017	38.00	51.50	\$	2,918,644	13.5	38.0	51.5	2,918,644
208	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	09/08/2017	\$	58,230	08/06/2017	09/02/2017		13.50	10/10/2017	38.00	51.50	\$	3,024,978	13.5	38.0	51.5	3,024,978
209	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	09/07/2017	\$	182,471	07/30/2017	09/02/2017		17.00	10/10/2017	38.00	55.00	\$	10,035,300	17.0	38.0	55.0	10,035,300
210	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	09/07/2017	\$	132,231	07/30/2017	09/02/2017		17.00	10/10/2017	38.00	55.00	\$	7,272,719	17.0	38.0	55.0	7,272,719
211	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	09/08/2017	\$	78,533	07/30/2017	09/02/2017		17.00	10/10/2017	38.00	55.00	\$	4,319,296	17.0	38.0	55.0	4,319,296
212	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	10/05/2017	\$	24,466	09/03/2017	09/30/2017		13.50	11/06/2017	37.00	50.50	\$	1,235,540	13.5	37.0	50.5	1,235,540
213	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	10/05/2017	\$	118,525	09/03/2017	09/30/2017		13.50	11/06/2017	37.00	50.50	\$	5,985,531	13.5	37.0	50.5	5,985,531
214	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	10/05/2017	\$	92,831	09/03/2017	09/30/2017		13.50	11/06/2017	37.00	50.50	\$	4,687,956	13.5	37.0	50.5	4,687,956
215	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	11/03/2017	\$	69,608	10/01/2017	10/28/2017		13.50	12/04/2017	37.00	50.50	\$	3,515,195	13.5	37.0	50.5	3,515,195
216	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	11/02/2017	\$	90,718	10/01/2017	10/28/2017		13.50	12/04/2017	37.00	50.50	\$	4,581,255	13.5	37.0	50.5	4,581,255
217	WRIGHT TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	11/02/2017	\$	90,718	10/01/2017	10/28/2017		13.50	12/04/2017	37.00	50.50	\$	4,581,255	13.5	37.0	50.5	4,581,255
218	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	09/08/2017	\$	79,388	10/01/2017	10/28/2017		13.50	12/04/2017	37.00	50.50	\$	4,009,116	13.5	37.0	50.5	4,009,116
219	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	12/07/2017	\$	55,174	10/29/2017	12/02/2017		17.00	01/08/2018	37.00	54.00	\$	2,979,420	17.0	37.0	54.0	2,979,420
220	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	12/02/2017	\$	202,499	10/29/2017	12/02/2017		17.00	01/03/2018	32.00	49.00	\$	9,922,459	17.0	32.0	49.0	9,922,459
221	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	12/02/2017	\$	99,984	10/29/2017	12/02/2017		17.00	01/03/2018	32.00	49.00	\$	4,899,235	17.0	32.0	49.0	4,899,235
222	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	12/07/2017	\$	78,801	10/29/2017	12/02/2017		17.00	01/08/2018	37.00	54.00	\$	4,255,272	17.0	37.0	54.0	4,255,272
223	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	11/30/2017	\$	90,267	09/29/2017	10/22/2017		17.00	01/02/2018	31.00	48.00	\$	5,177,116	17.0	31.0	48.0	5,177,116
224	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	02/10/2017	\$	59,661	01/01/2017	01/28/2017		13.50	07/31/2017	44.00	57.50	\$	3,430,533	13.5	44.0	57.5	3,430,533
225	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	03/10/2017	\$	52,914	02/01/2017	02/25/2017		12.00	04/10/2017	44.00	56.00	\$	2,963,175	12.0	44.0	56.0	2,963,175
226	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	04/14/2017	\$	75,325	03/01/2017	04/01/2017		15.50	05/15/2017	44.00	59.50	\$	4,481,825	15.5	44.0	59.5	4,481,825
227	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	05/19/2017	\$	56,658	04/01/2017	04/29/2017		14.00	06/16/2017	48.00	62.00	\$	3,512,825	14.0	48.0	62.0	3,512,825
228	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	07/21/2017	\$	50,699	06/01/2017	07/01/2017		15.00	08/21/2017	51.00	66.00	\$	3,346,145	15.0	51.0	66.0	3,346,145
229	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	11/25/2017	\$	54,140	11/19/2017	11/25/2017		3.00	01/08/2018	44.00	47.00	\$	2,544,601	3.0	44.0	47.0	2,544,601
230	PHILLIPS TREE EXPERTS INC	O/S SUPPLEMENTAL CONTRACTOR	04/04/2017	\$	70,180	02/28/2017	04/01/2017		17.00	05/05/2017	34.00	51.00	\$	3,579,164	17.0	34.0	51.0	3,579,164
231	PHILLIPS TREE EXPERTS INC	O/S SUPPLEMENTAL CONTRACTOR	05/02/2017	\$	90,267	04/02/2017	04/29/2017		13.50	06/02/2017	34.00	47.50	\$	4,436,271	13.5	34.0	47.5	4,436,271
232	PHILLIPS TREE EXPERTS INC	O/S SUPPLEMENTAL CONTRACTOR	06/06/2017	\$	55,798	04/30/2017	06/03/2017		17.00	07/12/2017	39.00	56.00	\$	3,124,672	17.0	39.0	56.0	3,124,672
233	PHILLIPS TREE EXPERTS INC	O/S SUPPLEMENTAL CONTRACTOR	08/01/2017	\$	76,611	07/02/2017	07/29/2017		13.50	09/08/2017	41.00	54.50	\$	4,175,298	13.5	41.0	54.5	4,175,298
234	PHILLIPS TREE EXPERTS INC	O/S SUPPLEMENTAL CONTRACTOR	09/05/2017	\$	92,174	07/30/2017	09/02/2017		17.00	10/06/2017	34.00	51.00	\$	4,700,897	17.0	34.0	51.0	4,700,897
235	PHILLIPS TREE EXPERTS INC	O/S SUPPLEMENTAL CONTRACTOR	10/03/2017	\$	56,425													

271	TRU CHECK INC	O/S SUPPLEMENTAL CONTRACTOR	04/07/2017	\$ 145,259	01/01/2017	01/31/2017	15.00	05/08/2017	97.00	112.00	\$ 16,268,995	15.00	97.00	112.00	16,268,995
272	TRU CHECK INC	O/S SUPPLEMENTAL CONTRACTOR	05/03/2017	\$ 137,717	04/01/2017	04/30/2017	14.50	06/05/2017	36.00	50.50	\$ 6,954,683	14.50	36.00	50.50	6,954,683
273	TRU CHECK INC	O/S SUPPLEMENTAL CONTRACTOR	06/07/2017	\$ 152,426	05/01/2017	05/31/2017	15.00	07/10/2017	40.00	55.00	\$ 8,383,431	15.00	40.00	55.00	8,383,431
274	TRU CHECK INC	O/S SUPPLEMENTAL CONTRACTOR	07/10/2017	\$ 133,256	06/01/2017	06/30/2017	14.50	08/10/2017	41.00	55.50	\$ 7,395,720	14.50	41.00	55.50	7,395,720
275	TRU CHECK INC	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$ 137,798	07/01/2017	07/31/2017	15.00	09/12/2017	32.00	47.00	\$ 6,476,524	15.00	32.00	47.00	6,476,524
276	TRU CHECK INC	O/S SUPPLEMENTAL CONTRACTOR	09/05/2017	\$ 167,584	08/01/2017	08/31/2017	15.00	10/06/2017	36.00	51.00	\$ 8,546,774	15.00	36.00	51.00	8,546,774
277	TRU CHECK INC	O/S SUPPLEMENTAL CONTRACTOR	10/05/2017	\$ 135,347	09/01/2017	09/30/2017	14.50	11/06/2017	37.00	51.50	\$ 6,970,357	14.50	37.00	51.50	6,970,357
278	TRU CHECK INC	O/S SUPPLEMENTAL CONTRACTOR	11/06/2017	\$ 157,827	10/01/2017	10/31/2017	15.00	12/07/2017	37.00	52.00	\$ 8,206,987	15.00	37.00	52.00	8,206,987
279	TRU CHECK INC	O/S SUPPLEMENTAL CONTRACTOR	12/08/2017	\$ 143,955	11/01/2017	11/30/2017	14.50	01/08/2018	39.00	53.50	\$ 7,701,607	14.50	39.00	53.50	7,701,607
280	TRU CHECK INC	O/S SUPPLEMENTAL CONTRACTOR	01/04/2018	\$ 117,516	12/01/2016	12/31/2016	15.00	02/06/2018	37.00	52.00	\$ 6,110,852	15.00	37.00	52.00	6,110,852
281	TRU CHECK INC	O/S SUPPLEMENTAL CONTRACTOR	03/07/2017	\$ 142,162	02/01/2017	02/28/2017	13.50	04/07/2017	38.00	51.50	\$ 7,321,345	13.50	38.00	51.50	7,321,345
282	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	10/31/2017	\$ 256,974	10/01/2017	10/31/2017	31.00	12/01/2017	31.00	41.00	\$ 7,966,192	15.00	31.00	46.00	11,800,986
283	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	03/02/2017	\$ 68,106	01/29/2017	02/25/2017	13.50	04/03/2017	37.00	50.50	\$ 3,439,373	13.50	37.00	50.50	3,439,373
284	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	04/06/2017	\$ 71,906	02/26/2017	04/01/2017	17.00	05/08/2017	37.00	54.00	\$ 3,882,940	17.00	37.00	54.00	3,882,940
285	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	05/04/2017	\$ 58,358	04/02/2017	04/29/2017	13.50	06/05/2017	37.00	50.50	\$ 2,947,054	13.50	37.00	50.50	2,947,054
286	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	06/08/2017	\$ 61,543	04/30/2017	06/03/2017	17.00	07/10/2017	37.00	54.00	\$ 3,323,306	17.00	37.00	54.00	3,323,306
287	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	06/07/2017	\$ 82,765	04/30/2017	06/03/2017	17.00	07/13/2017	40.00	57.00	\$ 4,717,599	17.00	40.00	57.00	4,717,599
288	CE POWER ENGINEERED SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	06/12/2017	\$ 2,406	05/22/2017	05/30/2017	4.00	07/13/2017	44.00	48.00	\$ 115,502	4.00	44.00	48.00	115,502
289	CE POWER ENGINEERED SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	06/30/2017	\$ 934	06/06/2017	06/07/2017	0.50	07/31/2017	54.00	54.50	\$ 50,895	0.50	54.00	54.50	50,895
290	CE POWER ENGINEERED SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	03/22/2017	\$ 176	03/09/2017	03/09/2017	0.00	04/24/2017	46.00	46.00	\$ 8,085	0.00	46.00	46.00	10,921
291	CE POWER ENGINEERED SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	06/01/2017	\$ 76	05/11/2017	-	-	07/03/2017	53.00	53.00	\$ 4,007	15.00	53.00	68.00	5,141
292	CE POWER ENGINEERED SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/30/2017	\$ 740	11/07/2017	11/09/2017	1.00	01/02/2018	54.00	55.00	\$ 40,722	1.00	54.00	55.00	40,722
293	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	06/28/2017	\$ 549	06/28/2017	-	-	07/31/2017	33.00	33.00	\$ 18,116	15.00	33.00	48.00	26,350
294	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	12/03/2017	\$ 36	12/03/2017	-	-	01/03/2018	31.00	31.00	\$ 1,121	15.00	31.00	46.00	1,664
295	SAIIA CONSTRUCTION COMPANY LLC	O/S SUPPLEMENTAL CONTRACTOR	01/31/2017	\$ 60,913	01/01/2017	01/31/2017	15.00	03/03/2017	31.00	46.00	\$ 2,801,998	15.00	31.00	46.00	2,801,998
296	SAIIA CONSTRUCTION COMPANY LLC	O/S SUPPLEMENTAL CONTRACTOR	02/28/2017	\$ 58,286	02/01/2017	02/28/2017	13.50	04/04/2017	35.00	48.50	\$ 2,826,879	13.50	35.00	48.50	2,826,879
297	SAIIA CONSTRUCTION COMPANY LLC	O/S SUPPLEMENTAL CONTRACTOR	03/31/2017	\$ 60,913	03/01/2017	03/31/2017	15.00	05/01/2017	31.00	46.00	\$ 2,801,998	15.00	31.00	46.00	2,801,998
298	SAIIA CONSTRUCTION COMPANY LLC	O/S SUPPLEMENTAL CONTRACTOR	04/30/2017	\$ 60,913	04/01/2017	04/30/2017	14.50	05/31/2017	31.00	45.50	\$ 2,771,542	14.50	31.00	45.50	2,771,542
299	SAIIA CONSTRUCTION COMPANY LLC	O/S SUPPLEMENTAL CONTRACTOR	05/31/2017	\$ 60,913	05/01/2017	05/31/2017	15.00	07/03/2017	33.00	48.00	\$ 2,923,824	15.00	33.00	48.00	2,923,824
300	SAIIA CONSTRUCTION COMPANY LLC	O/S SUPPLEMENTAL CONTRACTOR	06/30/2017	\$ 60,913	06/01/2017	06/30/2017	14.50	07/31/2017	31.00	45.50	\$ 2,771,542	14.50	31.00	45.50	2,771,542
301	SAIIA CONSTRUCTION COMPANY LLC	O/S SUPPLEMENTAL CONTRACTOR	07/31/2017	\$ 60,304	07/01/2017	07/31/2017	15.00	08/11/2017	11.00	26.00	\$ 1,567,901	15.00	11.00	26.00	1,567,901
302	SAIIA CONSTRUCTION COMPANY LLC	O/S SUPPLEMENTAL CONTRACTOR	08/31/2017	\$ 60,252	08/01/2017	08/31/2017	15.00	10/02/2017	32.00	47.00	\$ 2,831,852	15.00	32.00	47.00	2,831,852
303	SAIIA CONSTRUCTION COMPANY LLC	O/S SUPPLEMENTAL CONTRACTOR	09/30/2017	\$ 60,913	09/01/2017	09/30/2017	14.50	10/31/2017	31.00	45.50	\$ 2,771,542	14.50	31.00	45.50	2,771,542
304	SAIIA CONSTRUCTION COMPANY LLC	O/S SUPPLEMENTAL CONTRACTOR	10/31/2017	\$ 60,913	10/01/2017	10/31/2017	15.00	12/01/2017	31.00	46.00	\$ 2,801,998	15.00	31.00	46.00	2,801,998
305	SAIIA CONSTRUCTION COMPANY LLC	O/S SUPPLEMENTAL CONTRACTOR	11/30/2017	\$ 60,913	11/01/2017	11/30/2017	14.50	01/02/2018	33.00	47.50	\$ 2,893,368	14.50	33.00	47.50	2,893,368
306	FACILITIES PERFORMANCE GROUP LLC	O/S SUPPLEMENTAL CONTRACTOR	10/27/2017	\$ 3,126	10/27/2017	-	-	12/11/2017	46.00	46.00	\$ 143,806	15.00	46.00	61.00	190,699
307	CSS MECHANICAL	O/S SUPPLEMENTAL CONTRACTOR	04/14/2017	\$ 285	03/20/2017	03/23/2017	1.50	05/01/2017	39.00	40.50	\$ 11,534	1.50	39.00	40.50	11,534
308	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	02/10/2017	\$ 6,781	02/10/2017	-	-	03/31/2017	31.00	31.00	\$ 210,219	15.00	31.00	46.00	311,938
309	FACILITIES PERFORMANCE GROUP LLC	O/S SUPPLEMENTAL CONTRACTOR	03/02/2017	\$ 471	03/02/2017	-	-	04/14/2017	43.00	43.00	\$ 20,241	15.00	43.00	58.00	27,302
310	TRANS ASH INC	O/S SUPPLEMENTAL CONTRACTOR	02/17/2017	\$ 134,588	01/01/2017	01/31/2017	15.00	03/06/2017	34.00	49.00	\$ 6,594,821	15.00	34.00	49.00	6,594,821
311	TRANS ASH INC	O/S SUPPLEMENTAL CONTRACTOR	03/27/2017	\$ 134,588	02/01/2017	02/28/2017	13.50	04/12/2017	43.00	56.50	\$ 7,604,232	13.50	43.00	56.50	7,604,232
312	TRANS ASH INC	O/S SUPPLEMENTAL CONTRACTOR	03/28/2017	\$ 134,588	03/01/2017	03/31/2017	15.00	05/01/2017	41.00	56.00	\$ 7,604,232	15.00	41.00	56.00	7,604,232
313	TRANS ASH INC	O/S SUPPLEMENTAL CONTRACTOR	04/30/2017	\$ 134,588	04/01/2017	04/30/2017	14.50	05/30/2017	30.00	44.50	\$ 5,989,174	14.50	30.00	44.50	5,989,174
314	TRANS ASH INC	O/S SUPPLEMENTAL CONTRACTOR	05/31/2017	\$ 134,588	05/01/2017	05/30/2017	14.50	07/12/2017	43.00	57.50	\$ 7,738,820	14.50	43.00	57.50	7,738,820
315	TRANS ASH INC	O/S SUPPLEMENTAL CONTRACTOR	06/30/2017	\$ 134,588	06/01/2017	06/30/2017	14.50	08/01/2017	32.00	46.50	\$ 6,258,350	14.50	32.00	46.50	6,258,350
316	TRANS ASH INC	O/S SUPPLEMENTAL CONTRACTOR	07/31/2017	\$ 134,588	07/01/2017	07/31/2017	15.00	08/31/2017	31.00	46.00	\$ 6,191,056	15.00	31.00	46.00	6,191,056
317	TRANS ASH INC	O/S SUPPLEMENTAL CONTRACTOR	08/31/2017	\$ 134,588	08/01/2017	08/31/2017	15.00	09/18/2017	18.00	33.00	\$ 4,441,410	15.00	18.00	33.00	4,441,410
318	TRANS ASH INC	O/S SUPPLEMENTAL CONTRACTOR	09/30/2017	\$ 134,588	09/01/2017	09/30/2017	14.50	10/19/2017	19.00	33.50	\$ 4,508,704	14.50	19.00	33.50	4,508,704
319	TRANS ASH INC	O/S SUPPLEMENTAL CONTRACTOR	10/31/2017	\$ 134,588	10/01/2017	10/31/2017	15.00	12/01/2017	31.00	46.00	\$ 6,191,056	15.00	31.00	46.00	6,191,056
320	TRANS ASH INC	O/S SUPPLEMENTAL CONTRACTOR	11/30/2017	\$ 135,949	11/01/2017	11/30/2017	14.50	01/04/2018	49.50	65.00	\$ 6,729,409	14.50	49.50	65.00	6,729,409
321	INCORP INDUSTRIES LLC	O/S SUPPLEMENTAL CONTRACTOR	08/17/2017	\$ 574	08/17/2017	-	-	08/28/2017	11.00	11.00	\$ 6,313	15.00	11.00	26.00	14,921
322	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	06/12/2017	\$ 2,442	06/12/2017	-	-	07/31/2017	31.00	31.00	\$ 75,695	15.00	31.00	46.00	112,322
323	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	06/19/2017	\$ 5,353	06/19/2017	-	-	07/20/2017	31.00	31.00	\$ 165,931	15.00	31.00	46.00	246,220
324	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	09/05/2017	\$ 8,825	09/05/2017	-	-	10/06/2017	31.00	31.00	\$ 273,578	15.00	31.00	46.00	405,955
325	FACILITIES PERFORMANCE GROUP LLC	O/S SUPPLEMENTAL CONTRACTOR	06/22/2017	\$ 963	06/22/2017	-	-	08/07/2017	46.00	46.00	\$ 44,280	15.00	46.00	61.00	58,719
326	CSS MECHANICAL	O/S SUPPLEMENTAL CONTRACTOR	12/08/2017	\$ 1,058	11/14/2017	11/15/2017	0.50	12/28/2017	41.00	41.50	\$ 43,924	0.50	41.00	41.50	43,924
327	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	08/18/2017	\$ 76,951	07/15/2017	-	-	09/18/2017	65.00	65.00	\$ 5,001,812	15.00	65.00	80.00	6,156,077
328	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	08/18/2017	\$ 50,245	07/22/2017	-	-	09/18/2017	58.00	58.00	\$ 2,914,197	15.00	58.00	73.00	3,667,869
329	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	09/21/2017	\$ 51,162	08/19/2017	-	-	10/23/2017	65.00	65.00	\$ 3,325,551	15.00	65.00	80.00	4,092,986
330	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	11/15/2017	\$ 54,497	10/07/2017	-	-	12/18/2017	72.00	72.00	\$ 3,923,807	15.00	72.00	87.00	4,741,267
331	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	11/15/2017	\$ 53,577	10/14/2017	-	-	12/18/2017	65.00	65.00	\$ 3,482,513	15.00	65.00	80.00	4,286,170
332	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	12/13/2017	\$ 80,070	11/04/2017	-	-	01/16/2018	73.00	73.00	\$ 5,845,998	15.00	73.00	88.00	7,046,146
333	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	12/13/2017	\$ 61,299	11/11/2017	-	-	01/16/2018	66.00	66.00	\$ 4,045,702	15.00	66.00	81.00	4,965,180
334	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	12/13/2017	\$ 79,645	11/18/2017	-	-	01/16/2018	59.00	59.00	\$ 4,699,051	15.00	59.00	74.00	5,593,726
335	ASPLUNDH TREE EXPERT LLC	O/S SUPPLEMENTAL CONTRACTOR	12/13/2017	\$ 85,164	12/02/2017	-	-	01/16/201							

367	US BANK NATIONAL ASSOCIATION ND	PURCHASED MATERIAL - TRANS. AND DISTRIB - KU	09/27/2017	\$	313	08/28/2017	09/22/2017	12.50	10/04/2017	12.00	24.50	\$	7,675	12.5	12.0	24.5	7,675	
368	SIEMENS ENERGY INC	RENTAL OTHER (NON-LEASE)	01/04/2017	\$	135,000	12/04/2016	01/03/2017	15.00	02/06/2017	34.00	49.00	\$	6,615,000	15.0	34.0	49.0	6,615,000	
369	SIEMENS ENERGY INC	RENTAL OTHER (NON-LEASE)	02/06/2017	\$	135,000	01/04/2017	02/03/2017	15.00	03/09/2017	34.00	49.00	\$	6,615,000	15.0	34.0	49.0	6,615,000	
370	SIEMENS ENERGY INC	RENTAL OTHER (NON-LEASE)	03/03/2017	\$	135,000	02/04/2017	03/03/2017	13.50	04/03/2017	31.00	44.50	\$	6,007,500	13.5	31.0	44.5	6,007,500	
371	SIEMENS ENERGY INC	RENTAL OTHER (NON-LEASE)	04/03/2017	\$	135,000	03/04/2017	04/03/2017	15.00	05/04/2017	31.00	46.00	\$	6,210,000	15.0	31.0	46.0	6,210,000	
372	SIEMENS ENERGY INC	RENTAL OTHER (NON-LEASE)	04/26/2017	\$	101,250	04/04/2017	04/24/2017	10.00	05/30/2017	36.00	46.00	\$	4,657,500	10.0	36.0	46.0	4,657,500	
373	PRAXAIR DISTRIBUTION INC	RENTAL OTHER (NON-LEASE)	06/21/2017	\$	227	05/20/2017	06/20/2017	15.50	07/25/2017	35.00	50.50	\$	11,457	15.5	35.0	50.5	11,457	
374	Warren, Allison M	TRAVEL	12/07/2017	\$	132	12/03/2017		-	12/14/2017	11.00	11.00	\$	1,455	15.0	11.0	26.0	3,439	
375	Marler, David R	TRAVEL	09/29/2017	\$	130	09/21/2017		-	10/19/2017	28.00	28.00	\$	3,642	15.0	28.0	43.0	5,593	
376	CITY OF MORGANFIELD	UTILITIES	02/01/2017	\$	187	01/03/2017	02/01/2017	14.50	02/22/2017	21.00	35.50	\$	6,643	14.5	21.0	35.5	6,643	
377	UTILITIES COMMISSION	UTILITIES	10/24/2017	\$	20	09/01/2017	10/24/2017	26.50	11/09/2017	16.00	42.50	\$	849	26.5	16.0	42.5	849	
378	CITY OF SOMERSET UTILITIES	UTILITIES	11/15/2017	\$	240	10/11/2017	11/10/2017	15.00	11/29/2017	19.00	34.00	\$	8,154	15.0	19.0	34.0	8,154	
379	WATER SERVICE CORP OF KENTUCKY	UTILITIES	05/09/2017	\$	22	04/06/2017	05/02/2017	13.00	05/23/2017	21.00	34.00	\$	745	13.0	21.0	34.0	745	
380	Total			\$	<u>24,973,667</u>							\$	<u>1,199,929,464</u>				\$	<u>1,296,712,728</u>
381	Other O&M Expense Lead												<u>48.05</u>					<u>51.92</u>

Notes: Sample size of 380 payments based on 95% confidence level, 5% confidence interval, and 35,447 KU payments in population. Selected the highest 228 payment amounts and determined the number of payments by expenditure type for random sampling based on the % of total payments times 152 (population for random sample). Payment to USDA FOREST SERVICE for \$68,740 covered 10 year period, which is not representative of normal operating results; thus, this payment was excluded from our analysis.

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Kentucky Utilities Company

Adjustment 6

Late Payment Credit

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Other Operating Revenues	\$ -	\$ 337,386	\$ 337,386
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ -	\$ 16,869	\$ 16,869
4	Federal Taxable	\$ -		\$ 320,517
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ -	\$ 67,309	\$ 67,309
7	Total Income Taxes	\$ -	\$ 84,178	\$ 84,178
	Impact to Operating Income	\$ -	\$ 253,208	\$ 253,208

Notes and Sources

Line 1: Seelye, page 66, lines 13–15 and Exhibit WSS-14

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Kentucky Utilities Company
Adjustment 7
 Employee Retirement Plans

<u>Line</u>	<u>Description</u>	<u>Company Proposed (A)</u>	<u>Adjustment (B)</u>	<u>Adjusted Amount (C)</u>
1	401(k) Match	\$ 2,018,838	\$ (2,018,838)	\$ -
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ (100,942)	\$ 100,942	\$ -
4	Federal Taxable	\$ 1,917,896		\$ -
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ (402,758)	\$ 402,758	\$ -
7	Total Income Taxes	\$ (503,700)	\$ 503,700	\$ -
8	Impact to Operating Income	\$ (1,515,138)	\$ 1,515,138	\$ -

Notes and Sources

Response to KIUC-KU 1.060

Kentucky Public Service Commission

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Kentucky Utilities Company

KU Schedule 3.8

Adjustment 8

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Directors and Officers Liability Insurance

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	D&O Insurance	\$ 277,596	\$ (138,798)	\$ 138,798
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ (13,880)	\$ 6,940	\$ (6,940)
4	Federal Taxable	\$ 263,716		\$ 131,858
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ (55,380)	\$ 27,690	\$ (27,690)
7	Total Income Taxes	\$ (69,260)	\$ 34,630	\$ (34,630)
8	Impact to Operating Income	\$ (208,336)	\$ 104,168	\$ (104,168)

Notes and Sources

Column A, Line 1: Response to OAG-KU 1.081

Column B, line 3: 50% of D&O Insurance

Kentucky Public Service Commission

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 KU Schedule 3.9
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Kentucky Utilities Company

Adjustment 9

Dues for EEI and EPRI

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	EEI Dues	\$ 420,216	\$ (199,755)	\$ 220,461
2	EPRI Dues	1,949,786	(1,949,786)	-
3	Steptoe & Johnson LLC (Midwest Ozone Group)	40,444	(40,444)	-
4	Utility Air Regulatory Group (UARG)	139,600	(139,600)	-
5	Utility Water Act Group (UWAG)	56,837	(56,837)	-
6	Midwest Ozone Group (MOG)	34,277	(34,277)	-
7	Utility Solid Waste Activities Group (USWAG)	34,401	(34,401)	-
8	Total	\$ 2,675,560	\$ (2,455,099)	\$ 220,461
9	State Income Tax	5.00%		5.00%
10	Taxable Income for Federal Income Tax	<u>\$ (133,778)</u>	<u>\$ 122,755</u>	<u>\$ (11,023)</u>
11	Federal Taxable	\$ 2,541,782		\$ 209,438
12	Federal Income Tax Rate	21%		21%
13	Federal Income Tax Expense	<u>\$ (533,774)</u>	<u>\$ 489,792</u>	<u>\$ (43,982)</u>
14	Total Income Taxes	<u>\$ (667,552)</u>	<u>\$ 612,547</u>	<u>\$ (55,005)</u>
15	Impact to Operating Income	<u>\$ (2,008,008)</u>	<u>\$ 1,842,552</u>	<u>\$ (165,456)</u>

Notes and Sources

Column A, line 1–7: Garrett, Schedule F-1

Column C, line 2: EEI Dues

Recoverable (Schedule F-1)	\$ 446,706
Non Recoverable (Schedule F-1)	70,071
Total EEI Dues	<u>\$ 516,777</u>
Recommended Exclusion per Commission (Order Case No. 2003-00434)	45.35%
Recoverable EEI Dues	\$ 234,358
Jurisdictional Allocation (Schedule F-1)	94.07%
Jurisdictional Recoverable EEI Dues	<u>\$ 220,461</u>

Kentucky Public Service Commission

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Kentucky Utilities Company

KU Schedule 3.10

Adjustment 10

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Outside Counsel Expense

<u>Line</u>	<u>Description</u>	<u>Company Proposed</u> (A)	<u>Adjustment</u> (B)	<u>Adjusted Amount</u> (C)
1	Outside Counsel	\$ 1,560,000		
2	Ratio of Coal Generation	56.7%		
3	Allocated D&O Insurance	\$ 884,055	\$ (442,028)	\$ 442,028
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ (44,203)	\$ 22,102	\$ (22,101)
4	Federal Taxable	\$ 839,852		\$ 419,927
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ (176,369)	\$ 88,184	\$ (88,185)
7	Total Income Taxes	\$ (220,572)	\$ 110,286	\$ (110,286)
8	Impact to Operating Income	\$ (663,483)	\$ 331,742	\$ (331,742)

Notes and Sources

Column A, line 1: Response to AG-KU 2-52

Column A, Line 2: Allocation between KU and LG&E Electric based on Coal Generation Ratio [Filing Requirement 807 KAR 5:001 Section 16(7)(h)(7)]

2018 Coal GWh		
KU	15,998	56.7%
LG&E	12,232	43.3%
	<u>28,230</u>	<u>100.0%</u>

<u>Coal Generation GWh</u>	<u>KU</u>	<u>LG&E</u>	<u>Total</u>
Brown 1	320	-	320
Brown 2	661	-	661
Brown 3	1,260	-	1,260
Ghent 1	2,898	-	2,898
Ghent 2	3,241	-	3,241
Ghent 3	2,276	-	2,276
Ghent 4	2,714	-	2,714
Mill Creek 1	-	1,990	1,990
Mill Creek 2	-	1,490	1,490
Mill Creek 3	-	2,476	2,476
Mill Creek 4	-	2,641	2,641
OVEC	243	558	801
Trimble County 1	-	2,518	2,518
Trimble County 2	2,385	559	2,944
	<u>15,998</u>	<u>12,232</u>	<u>28,230</u>

Kentucky Public Service Commission

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 KU Schedule 3.11
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Kentucky Utilities Company

Adjustment 11

Credit Card Rebate

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Credit Card Rebate	\$ 210,764	\$ (210,764)	\$ -
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ (10,538)	\$ 10,538	\$ -
4	Federal Taxable	\$ 200,226		\$ -
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ (42,047)	\$ 42,047	\$ -
7	Total Income Taxes	\$ (52,585)	\$ 52,585	\$ -
8	Impact to Operating Income	\$ (158,179)	\$ 158,179	\$ -

Notes and Sources

Response to OAG-KU 1-084

Kentucky Public Service Commission

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Kentucky Utilities Company

KU Schedule 3.12

Adjustment 12

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Economic Development

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Economic Development Costs	\$ 1,672,534	\$ (1,672,534)	\$ -
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ (83,627)	\$ 83,627	\$ -
4	Federal Taxable	\$ 1,588,907		\$ -
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ (333,670)	\$ 333,670	\$ -
7	Total Income Taxes	\$ (417,297)	\$ 417,297	\$ -
8	Impact to Operating Income	\$ (1,255,237)	\$ 1,255,237	\$ -

Notes and Sources

Column A, Line 1: Response to AG-KU 2-49

Kentucky Public Service Commission

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 KU Schedule 3.13
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Kentucky Utilities Company

Adjustment 13

Customer Education

<u>Line</u>	<u>Description</u>	<u>Company Proposed (A)</u>	<u>Adjustment (B)</u>	<u>Adjusted Amount (C)</u>
1	Customer Eduction	\$ 1,260,000	\$ (1,260,000)	\$ -
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ (63,000)	\$ 63,000	\$ -
4	Federal Taxable	\$ 1,197,000		\$ -
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ (251,370)	\$ 251,370	\$ -
7	Total Income Taxes	\$ (314,370)	\$ 314,370	\$ -
8	Impact to Operating Income	\$ (945,630)	\$ 945,630	\$ -

Notes and Sources

Column A, line 1: Response to AG-KU 1-73

Kentucky Public Service Commission

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 KU Schedule 3.14
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Kentucky Utilities Company

Adjustment 14

Baseline ECR Beneficial Reuse Operating Expense Credit

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Operating Expense-Baseline Credit (Ghent facility)	\$ -	\$ (440,000)	\$ (440,000)
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ -	\$ 22,000	\$ 22,000
4	Federal Taxable	\$ -		\$ (418,000)
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ -	\$ 87,780	\$ 87,780
7	Total Income Taxes	\$ -	\$ 109,780	\$ 109,780
8	Impact to Operating Income	\$ -	\$ 330,220	\$ 330,220

Notes and Sources

Column B, Line 1: Garret, page 25, lines 13–15

Kentucky Public Service Commission

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 KU Schedule 3.15
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Kentucky Utilities Company

Adjustment 15

Merger Mitigation Depancaking

<u>Line</u>	<u>Description</u>	<u>Company Proposed (A)</u>	<u>Adjustment (B)</u>	<u>Adjusted Amount (C)</u>
1	Misc. Transmission Expenses	\$ 15,101,486	\$ (15,101,486)	\$ -
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ (755,074)	\$ 755,074	\$ -
4	Federal Taxable	\$ 14,346,412		\$ -
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ (3,012,747)	\$ 3,012,747	\$ -
7	Total Income Taxes	\$ (3,767,821)	\$ 3,767,821	\$ -
8	Impact to Operating Income	\$ (11,333,665)	\$ 11,333,665	\$ -

Notes and Sources

Column A, Line 1: Garret, KU Schedule D-1, page 4 or 8, line 72; Response to AG-KU 2.29
 Response to OAG-KU 1.049

Kentucky Public Service Commission

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Kentucky Utilities Company

KU Schedule 3.16

Adjustment 16

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Amortization of Storm Damage Regulatory Asset

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Employee Labor	\$ 596,969	\$ 18,039	\$ 615,008
2	Contract Labor	3,369,195	245,322	3,614,517
3	Materials	377,534	(243,174)	134,360
4	Miscellaneous	293,973	36,867	330,840
5	Transportation	85,604	4,518	90,122
6	Total Regulatory Asset	\$ 4,723,274	\$ 61,571	\$ 4,784,846
7	Amortization Period	5.0	5.0	10.0
8	Annual Amortization	\$ 944,655	\$ (466,170)	\$ 478,485
9	State Income Tax	5.00%		5.00%
10	Taxable Income for Federal Income Tax	\$ (47,233)	\$ 23,309	\$ (23,924)
11	Federal Taxable	\$ 897,422		\$ 454,561
12	Federal Income Tax Rate	21%		21%
13	Federal Income Tax Expense	\$ (188,459)	\$ 93,001	\$ (95,458)
14	Total Income Taxes	\$ (235,692)	\$ 116,310	\$ (119,382)
15	Impact to Operating Income	\$ (708,963)	\$ 349,860	\$ (359,103)

Notes and Sources

Column A, lines 1–6: Case No. 2018-00304, Application dated September 12, 2018, Exhibit 4

Column A, line 7: Direct Testimony of Christopher M. Garrett, page 38, lines 16–17

Column B, lines 1-5: Response to KIUC-KU DR 1.65, which refers to Case No. 2018-00304, PSC-KU DR 1-8

Kentucky Public Service Commission

Case No. 2018-00294
 KU Schedule 3.17
 Page 1 of 1

Kentucky Utilities Company

Adjustment 17

Amortization of Tax Reform Regulatory Liability

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	State Tax Reform			
2	Total Regulatory Liability-Excess ADIT	\$ (657,929)		\$ (657,929)
3	Amortization Period	15.0	(9.0)	6.0
4	Annual Amortization	\$ (43,862)	\$ (65,793)	\$ (109,655)
5	State Income Tax			
6	Taxable Income for Federal Income Tax	\$ -	\$ -	\$ -
7	Federal Taxable	\$ (43,862)		\$ (109,655)
8	Federal Income Tax Rate	21%		21%
9	Federal Income Tax Expense	\$ 9,211	\$ 13,817	\$ 23,028
10	Total Income Taxes	\$ 9,211	\$ 13,817	\$ 23,028
11	Federal Tax Reform			
12	Total Regulatory Liability-Excess ADIT	\$ (9,761,136)		\$ (9,761,136)
13	Amortization Period	13.7	(9.0)	4.7
14	Annual Amortization	\$ (714,229)	\$ (1,377,443)	\$ (2,091,672)
15	State Income Tax			
16	Taxable Income for Federal Income Tax	\$ -	\$ -	\$ -
17	Federal Taxable			
18	Federal Income Tax Rate			
19	Federal Income Tax Expense	\$ -	\$ -	\$ -
20	Total Income Taxes	\$ -	\$ -	\$ -
21	State and Federal Annual Amortization	\$ (758,091)	\$ (1,443,235)	\$ (2,201,327)
22	State and Federal Total Income Taxes	\$ 9,211	\$ 13,817	\$ 23,028
23	Impact to Operating Income	\$ 748,880	\$ 1,429,418	\$ 2,178,299

Notes and Sources

Column A, line 2: Case No. 2018-00304, Application dated September 12, 2018, Exhibit 3
 Column A, line 3: Direct Testimony of Christopher M. Garrett, page 35, lines 12-13
 Column A, line 12: EDIT RMA Workpaper derived from Case No. 2018-00034 PSC DR 2-1

Kentucky Public Service Commission

Case No. 2018-00294
 KU Schedule 3.18
 Page 1 of 1

Kentucky Utilities Company

Adjustment 18

Interest Synchronization

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Capitalization	\$ 4,099,135,883	(86,356,166)	\$ 4,012,779,717
2	Debt Component of Rate of Return	2.05%		2.05%
3	Interest Synchronization	\$ 84,151,924		\$ 82,379,103
4	Interest Per Books	109,200,168		109,200,168
5	Interest Synchronization Adjustment	\$ (25,048,244)		\$ (26,821,065)
6	State Income Tax	5.00%		5.00%
7	Taxable Income for Federal Income Tax	\$ 1,252,412	\$ 88,641	\$ 1,341,053
8	Federal Taxable	\$ (23,795,832)		\$ (25,480,012)
9	Federal Income Tax Rate	21%		21%
10	Federal Income Tax Expense	\$ 4,997,125	\$ 353,678	\$ 5,350,803
11	Total Income Taxes	\$ 6,249,537	\$ 442,319	\$ 6,691,856
12	Impact to Operating Income	\$ 6,249,537	\$ (442,319)	\$ 6,691,856

Notes and Sources

Column A: Garrett Schedule WPD-2, sheet 5 of 5
 Line 1: Schedule 1.1
 Line 2: Schedule 2

Kentucky Public Service Commission

Case No. 2018-00295

Louisville Gas and Electric Company—Electric

List of Schedules

Line #	Schedule #	Description
1	LG&E-E Schedule 1	Summary Comparison of Revenue Requirement
2	LG&E-E Schedule 1.1	Revenue Requirements with OAG's Recommended Adjustments
3	LG&E-E Schedule 1.2	Computation of Gross-Up Conversion Factor
4	LG&E-E Schedule 1.2.1	Effect of Recommended Gross-Up Conversion Factor on Company's Revenue Deficiency
5	LG&E-E Schedule 2	Rate of Return Calculation
6	LG&E-E Schedule 2.1	Effect of Proxy ROE on Company's Revenue Deficiency
7	LG&E-E Schedule 3	Ratemaking Adjustments
8	LG&E-E Schedule 3.1	Adjustment 1 Slippage
9	LG&E-E Schedule 3.2	This schedule intentionally left blank to maintain numbering with other utilities.
10	LG&E-E Schedule 3.3	This schedule intentionally left blank to maintain numbering with other utilities.
11	LG&E-E Schedule 3.4	This schedule intentionally left blank to maintain numbering with other utilities.
12	LG&E-E Schedule 3.5	Adjustment 5 Working Capital
13	LG&E-E Schedule 3.5.1	Adjustment 5 Cash Working Capital Workpaper
14	LG&E-E Schedule 3.6	Adjustment 6 Late Payment Credit
15	LG&E-E Schedule 3.7	Adjustment 7 Employee Retirement Plans
16	LG&E-E Schedule 3.8	Adjustment 8 Directors and Officers Liability Insurance
17	LG&E-E Schedule 3.9	Adjustment 9 Dues for EEI and EPRI
18	LG&E-E Schedule 3.10	Adjustment 10 Outside Counsel Expense
19	LG&E-E Schedule 3.11	Adjustment 11 Credit Card Rebate
20	LG&E-E Schedule 3.12	Adjustment 12 Economic Development
21	LG&E-E Schedule 3.13	Adjustment 13 Customer Education
22	LG&E-E Schedule 3.14	This schedule intentionally left blank to maintain numbering with other utilities.
23	LG&E-E Schedule 3.15	Adjustment 15 Merger Mitigation Depancaking
24	LG&E-E Schedule 3.16	Adjustment 16 Amortization of Storm Damage Regulatory Asset
25	LG&E-E Schedule 3.17	Adjustment 17 Amortization of Tax Reform Regulatory Liability
26	LG&E-E Schedule 3.18	Adjustment 18 Interest Synchronization

Kentucky Public Service Commission

Case No. 2018-0029
 LG&E-E Schedule 1

Louisville Gas and Electric Company—Electric

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Summary Comparison of Revenue Requirement

<u>Line</u>	<u>Description</u>	<u>Company</u>	<u>Recommended</u>	<u>Difference</u>
		<u>(A)</u>	<u>(B)</u>	<u>(C)</u>
1	Jurisdictional Capitalization	\$2,593,434,547	\$2,539,439,136	\$(53,995,411)
2	Rate of Return	7.62%	7.24%	-0.38%
3	Return Requirement	197,563,876	183,789,913	(13,773,963)
4	Adjusted Net Operating Income	171,415,400	184,228,468	12,813,068
5	Deficiency	26,148,476	(438,555)	(26,587,031)
6	Income Tax Effect	8,826,536	(148,189.26)	(8,974,725)
7	Revenue (Sufficiency) Deficiency	34,975,012	(586,744)	(35,561,756)
8	Solar Share and Electric Vehicle Rounding	(87,527)	(87,527)	-
9	Revenue Increase (Decrease)	<u>\$ 34,887,485</u>	<u>\$ (674,271)</u>	<u>\$ (35,561,756)</u>

Notes and Sources

Schedule 1.1

Kentucky Public Service Commission

Case No. 2018-00295

LG&E-E Schedule 1.1

Page 1 of 1

Louisville Gas and Electric Company—Electric

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Revenue Requirements with OAG's Recommended Adjustments

Line	Description	Company	Recommended Adjustments	Adjusted Total
		(A)	(B)	(C)
1	Rate Base			
2	Plant in Service	\$ 4,709,619,047	\$(10,460,477)	\$ 4,699,158,570
3	Property Held for Future Use	3,120,150	-	3,120,150
4	Accumulated Depreciation	<u>(1,768,064,904)</u>	-	<u>(1,768,064,904)</u>
5	Net Plant in Service	\$ 2,944,674,293		\$ 2,934,213,816
6	Construction Work in Progress	81,468,643	-	81,468,643
7	Net Plant	\$ 3,026,142,936		\$ 3,015,682,459
8	Cash Working Capital	114,229,325	(30,337,019)	83,892,306
9	Other Working Capital Allowances	86,291,871	(13,197,915)	73,093,956
10	Customers' Advances for Construction	(6,462,455)	-	(6,462,455)
11	Deferred Income Tax	(672,124,527)	-	(672,124,527)
12	Investment Tax Credits	-	-	-
13	Other Items	-	-	-
14	Total Jurisdictional Rate Base	\$ 2,548,077,150	\$(53,995,411)	\$ 2,494,081,739
15	Jurisdictional Capitalization	\$ 2,593,434,547	\$(53,995,411)	2,539,439,136
16	Used for Return Requirement	\$ 2,593,434,547	\$(53,995,411)	2,539,439,136
17	Rate of Return	7.62%		7.24%
18	Return Requirement	\$ 197,563,876	\$(13,773,963)	\$ 183,789,913
19	Revenues			
20	Electric Sales Revenues	\$ 991,948,599	\$ (1,521)	\$ 991,947,078
21	Other Operating Revenues	21,774,257	231,059	22,005,316
22	Total Revenues	\$ 1,013,722,855	\$ 229,538	\$ 1,013,952,393
23	Expenses			
24	O&M Expenses	\$ 627,292,494	\$(13,748,133)	\$ 613,544,361
25	Depreciation and Amortization	155,800,380	(2,774,443)	153,025,937
26	Regulatory Debits	-	-	-
27	Taxes other than Income Taxes	34,932,925	(66,860)	34,866,065
28	Income Taxes	25,285,777	4,005,906	29,291,683
29	Investment Tax Credits	(1,004,121)	-	(1,004,121)
30	Total Operating Expenses	\$ 842,307,455	\$(12,583,530)	\$ 829,723,925
31	Net Operating Income	\$ 171,415,400	\$ 12,813,068	\$ 184,228,468
32	Deficiency	\$ 26,148,476	\$(26,587,031)	\$ (438,555)
33	Gross-Up Conversion Factor	1.337554		1.337904
34	Revenue (Sufficiency) Deficiency	\$ 34,975,012	\$(35,561,756)	\$ (586,744)
35	Solar Share and Electric Vehicle Rounding	(87,527)		(87,527)
36	Revenue Increase (Decrease)	\$ 34,887,485	\$(35,561,756)	\$ (674,271)
	Percent of Request			-101.93%

Notes and Sources

- Column A, Lines 1-14: Garrett, Schedule B-1
- Column A, Line 15 and 17, Schedule 2
- Column A, Lines 19-30: Garrett, Schedule C-1
- Column A, Line 32: Schedule 1.2
- Column A, Line 35: Testimony of Robert M. Conroy, page 11, line 18–page 12, line 4.

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-E Schedule 1.2
 Page 1 of 1

Louisville Gas and Electric Company—Electric

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Computation of Gross- Up Conversion Factor

<u>Line</u>	<u>Description</u>	<u>Company</u>	<u>Adjustment</u>	<u>Adjusted Amount</u>
		(A)	(B)	(C)
1	Bad Debt Expense	0.18%	0.026%	0.208%
2	PSC Fees	0.20%		0.20%
3	Subtotal	0.38%		0.41%
4	Percent Income Before State Income Taxes	99.62%		99.59%
5	Statutory Rate-State	5.00%		5.00%
6	Effective Rate-State	4.98%		4.98%
7	Percent Income Before Federal Income Taxes	94.64%		94.61%
8	Statutory Rate-Federal	21.00%		21.00%
9	Effective Rate-Federal	19.87%		19.87%
10	Total Composite Tax rate	25.2367%		25.2562%
11	Tax Gross Up Factor	74.7633%		74.7438%
12	Gross-Up Conversion Factor	1.337554	0.000349	1.337904

Notes and Sources

Column A: Garrett, Schedule H-1

Column A, Line 1: Uncollectibles based on five year average net charge off % (OAG-LGE DR 1.85)

Column B, Line 1: Response to OAG-LGE DR 2-79

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-E Schedule 1.2.1

Louisville Gas and Electric Company—Electric

Page 1 of 1

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Effect of Recommended **Gross-Up Conversion Factor** on Company's Revenue Deficiency

Line	Description	Company Proposed (A)	Adjustment (B)	Total (C)
1	Capitalization	\$ 2,593,434,547		\$ 2,593,434,547
2	Rate of Return	7.6178%		7.62%
3	Return Requirement	\$ 197,563,876		\$ 197,563,876
4	Net Operating Income	\$ 171,415,400		\$ 171,415,400
5	Deficiency	\$ 26,148,476		\$ 26,148,476
6	Gross-Up Conversion Factor	1.33755	0.00035	1.33790
7	Revenue Deficiency	\$ 34,975,012	\$ 9,131	\$ 34,984,143

Notes and Sources

Column A: Summary Totals from Schedule 1
 Line : Schedule 1.2

Check 34,975,012

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-E Schedule 2
 Page 1 of 1

Louisville Gas and Electric Company—Electric

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Rate of Return Calculation

Line	Description	Jurisdictional Adjusted Capital (A)	Capital Structure (B)	Cost % (C)	Weighted Cost % (D)
<u>Company Proposed Rate of Return</u>					
1	Short-Term Debt	49,111,557	1.89%	3.25%	0.062%
2	Long-Term Debt	1,174,033,050	45.27%	4.53%	2.05%
3	Common Equity	1,370,289,941	52.84%	10.42%	5.51%
4	Total	<u>2,593,434,547</u>	<u>100.00%</u>		<u>7.62%</u>
<u>Proxy Rate of Return</u>					
5	Short-Term Debt	49,111,557	1.89%	3.25%	0.062%
6	Long-Term Debt	1,174,033,050	45.27%	4.53%	2.05%
7	Common Equity	1,370,289,941	52.84%	9.70%	5.13%
8	Total	<u>2,593,434,547</u>	<u>100.00%</u>		<u>7.24%</u>

Notes and Sources

Column A and B, lines 1-4: Arbough, Schedule J-1.1/J-1.2, Page 1 (13 Month Average)

Column C, line 7: Proxy ROE from Case No. 2016-00371, Order dated June 22, 2017, page 20

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 LG&E-E Schedule 2.1

Louisville Gas and Electric Company—Electric

Page 1 of 1

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Effect of Proxy ROE on Company's Revenue Deficiency

<u>Line</u>	<u>Description</u>	<u>Company Proposed</u> (A)	<u>Adjustment</u> (B)	<u>Total</u> (C)
1	<u>ROE of 9.7%</u>			
2	Capitalization	\$ 2,593,434,547		\$ 2,593,434,547
3	Rate of Return	7.6178%	-0.38%	7.24%
4	Return Requirement	\$ 197,563,876	\$ (9,866,088)	\$ 187,697,789
5	Net Operating Income	\$ 171,415,400		\$ 171,415,400
6	Deficiency	\$ 26,148,476		\$ 16,282,389
7	Revenue Conversion Factor	1.33755		1.33790
8	Revenue Deficiency	\$ 34,975,012	\$ (13,190,744)	\$ 21,784,268

Notes and Sources

Column A: Summary Totals from Schedule 1

Check 34,975,012

-

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-E Schedule 3
 Page 1 of 2

Louisville Gas and Electric Company—Electric

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020
 Ratemaking Adjustments

Line	Description	Company Company (A)	Adjustment 1 (B) LG&E-E Schedule 3.1	Adjustment 5 (C) LG&E-E Schedule 3.5	Adjustment 6 (D) LG&E-E Schedule 3.6	Adjustment 7 (E) LG&E-E Schedule 3.7	Adjustment 8 (F) LG&E-E Schedule 3.8	Adjustment 9 (G) LG&E-E Schedule 3.9	Adjustment 10 (H) LG&E-E Schedule 3.10	Adjustment 11 (I) LG&E-E Schedule 3.11	Adjustment Subtotal (J)
Reference Schedule											
1	Rate Base										
2	Plant in Service	\$4,709,619,047	\$ (10,460,477)								\$ (10,460,477)
3	Property Held for Future Use	3,120,150									-
4	Accumulated Depreciation	(1,768,064,904)									-
5	Net Plant in Service	\$2,944,674,293	\$ (10,460,477)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (10,460,477)
6	Construction Work in Progress	81,468,643									-
7	Net Plant	\$3,026,142,936	\$ (10,460,477)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (10,460,477)
8	Cash Working Capital	114,229,325		(30,337,019)							(30,337,019)
9	Other Working Capital Allowances	86,291,871		(13,197,915)							(13,197,915)
10	Customers' Advances for Construction	(6,462,455)									-
11	Accumulated Deferred Income Tax	(672,124,527)									-
12	Investment Tax Credits	-									-
13	Other Items	-									-
14	Total Rate Base	\$2,548,077,150	\$ (10,460,477)	\$ (43,534,934)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (53,995,411)
15	Jurisdictional Capitalization	\$2,593,434,547									\$ -
16	Used for Return Requirement	\$2,593,434,547	\$ (10,460,477)	\$ (43,534,934)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (53,995,411)
17	Rate of Return	7.62%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%
18	Return Requirement	\$ 197,563,876	\$ (757,069)	\$ (3,150,807)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (3,907,875)
19	Revenues										
20	Electric Sales Revenues	\$ 991,948,599	\$ (1,521)								\$ (1,521)
21	Other Operating Revenues	21,774,257		231,059							231,059
22	Total Revenues	\$1,013,722,856	\$ (1,521)	\$ -	\$ 231,059	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 229,538
23	Operating Expenses										
24	O&M Expenses	\$ 627,292,494				\$ (1,369,708)	\$ (98,216)	\$ (1,361,007)	\$ (337,972)	\$ (239,870)	\$ (3,406,774)
25	Depreciation and Amortization	155,800,380	(320,798)								(320,798)
26	Regulatory Debits	-									-
27	Taxes other than Income Taxes	34,932,925	(66,860)								(66,860)
28	Income Taxes	25,285,777	142,963	57,649	341,742	24,505	406,605	84,324	59,847		1,117,635
29	Investment Tax Credits	(1,004,121)									-
30	Total Operating Expenses	\$ 842,307,455	\$ (244,695)	\$ -	\$ 57,649	\$ (1,027,966)	\$ (73,711)	\$ (954,402)	\$ (253,648)	\$ (180,023)	\$ (2,676,797)
31	Net Operating Income	\$ 171,415,401	\$ 243,174	\$ -	\$ 173,410	\$ 1,027,966	\$ 73,711	\$ 954,402	\$ 253,648	\$ 180,023	\$ 2,906,335
32	Income Deficiency	\$ 26,148,475	\$ (1,000,243)	\$ (3,150,807)	\$ (173,410)	\$ (1,027,966)	\$ (73,711)	\$ (954,402)	\$ (253,648)	\$ (180,023)	\$ (6,814,211)
33	Gross-up Conversion Factor	1.33755	1.33790	1.33790	1.33790	1.33790	1.33790	1.33790	1.33790	1.33790	1.33790
34	Revenue Deficiency	\$ 34,975,012	\$ (1,338,229)	\$ (4,215,476)	\$ (232,006)	\$ (1,375,319)	\$ (98,619)	\$ (1,276,899)	\$ (339,357)	\$ (240,853)	\$ (9,116,757)
35	Percent of Total	34,975,012	-3.8%	-12.1%	-0.7%	-3.9%	-0.3%	-3.7%	-1.0%	-0.7%	
	Adjustment 1	Slippage					Adjustment 8	Directors and Officers Liability Insurance			
	Adjustment 5	Working Capital					Adjustment 9	Dues for EEI and EPRI			
	Adjustment 6	Late Payment Credit					Adjustment 10	Outside Counsel Expense			
	Adjustment 7	Employee Retirement Plans					Adjustment 11	Credit Card Rebate			

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E Schedule 3
 Page 2 of 2

Louisville Gas and Electric Company—Electric

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020
 Ratemaking Adjustments

(in thousands)

Line	Description (A)	Carry Forward (B)	Adjustment 12 (C)	Adjustment 13 (D)	Adjustment 15 (E)	Adjustment 16 (F)	Adjustment 17 (G)	Adjustment 18 (H)	Adjustment Subtotal (I)	Approved Totals (J)
			LG&E-E Schedule 3.12	LG&E-E Schedule 3.13	LG&E-E Schedule 3.15	LG&E-E Schedule 3.16	LG&E-E Schedule 3.17	LG&E-E Schedule 3.18		
Reference Schedule										
1	Rate Base									
2	Plant in Service	\$ (10,460,477)							\$ (10,460,477)	\$ 4,699,158,570
3	Property Held for Future Use	-							-	3,120,150
4	Accumulated Depreciation	-							-	(1,768,064,904)
5	Net Plant in Service	\$ (10,460,477)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (10,460,477)	\$ 2,934,213,816
6	Construction Work in Progress	-							-	81,468,643
7	Net Plant	\$ (10,460,477)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (10,460,477)	\$ 3,015,682,459
8	Cash Working Capital	(30,337,019)							(30,337,019)	83,892,306
9	Other Working Capital Allowances	(13,197,915)							(13,197,915)	73,093,956
10	Customers' Advances for Construction	-							-	(6,462,455)
11	Accumulated Deferred Income Tax	-							-	(672,124,527)
12	Investment Tax Credits	-							-	-
13	Other Items	-							-	-
14	Total Rate Base	\$ (53,995,411)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (53,995,411)	\$ 2,494,081,739
15	Jurisdictional Capitalization	\$ -							\$ -	\$ 2,593,434,547
16	Used for Return Requirement	\$ (53,995,411)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (53,995,411)	\$ 2,539,439,136
17	Rate of Return	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%
18	Return Requirement	\$ (3,907,875)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (3,907,875)	\$ 183,789,913
19	Revenues									
20	Electric Sales Revenues	\$ (1,521)							\$ (1,521)	991,947,078
21	Other Operating Revenues	231,059							231,059	22,005,316
22	Total Revenues	\$ 229,538	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 229,538	\$ 1,013,952,394
23	Operating Expenses									
24	O&M Expenses	\$ (3,406,774)	\$ (551,983)	\$ (579,695)	\$ (8,977,509)	\$ (232,172)			\$ (13,748,133)	\$ 613,544,361
25	Depreciation and Amortization	(320,798)					\$ (2,453,645)		(2,774,443)	153,025,937
26	Regulatory Debits	-							-	-
27	Taxes other than Income Taxes	(66,860)							(66,860)	34,866,065
28	Income Taxes	1,117,635	137,720	144,634	2,239,888	57,928	23,542	284,559	4,005,906	29,291,683
29	Investment Tax Credits	-							-	(1,004,121)
30	Total Operating Expenses	\$ (2,676,797)	\$ (414,263)	\$ (435,061)	\$ (6,737,621)	\$ (174,244)	\$ (2,430,103)	\$ 284,559	\$ (12,583,530)	\$ 829,723,925
31	Net Operating Income	\$ 2,906,335	\$ 414,263	\$ 435,061	\$ 6,737,621	\$ 174,244	\$ 2,430,103	\$ (284,559)	\$ 12,813,068	\$ 184,228,469
32	Income Deficiency	\$ (6,814,211)	\$ (414,263)	\$ (435,061)	\$ (6,737,621)	\$ (174,244)	\$ (2,430,103)	\$ 284,559	\$ (16,720,944)	\$ (438,556)
33	Gross-up Conversion Factor	1.33790	1.33790	1.33790	1.33790	1.33790	1.33790	1.33790	1.33790	1.33790
34	Revenue Deficiency	\$ (9,116,757)	\$ (554,244)	\$ (582,070)	\$ (9,014,288)	\$ (233,122)	\$ (3,251,244)	\$ 380,713	\$ (22,371,012)	\$ (586,744)
35	Percent of Total		-1.6%	-1.7%	-25.8%	-0.7%	-9.3%	1.1%		(586,744) 0

Check

Adjustment 12 Economic Development
 Adjustment 13 Customer Education
 Adjustment 15 Merger Mitigation Depancaking
 Adjustment 16 Amortization of Storm Damage Regulatory Asset
 Adjustment 17 Amortization of Tax Reform Regulatory Liability
 Adjustment 18 Interest Synchronization

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-E Schedule 3.1
 Page 1 of 1

Louisville Gas and Electric Company—Electric
 Adjustment 1
 Slippage

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	<u>Rate Base</u>			
2	Plant	\$ 2,593,434,547	\$ (10,460,477)	\$ 2,582,974,070
3	Impact to Rate Base	\$ 2,593,434,547	\$ (10,460,477)	\$ 2,582,974,070
4	<u>Revenues</u>			
5	Electric Sales Revenues	\$ 991,948,599	\$ (1,521)	\$ 991,947,078
6	Other Operating Revenues	21,774,257	\$ -	21,774,257
		<u>\$ 1,013,722,855</u>		<u>\$ 1,013,721,334</u>
7	<u>Expenses</u>			
8	O&M Expenses	\$ 627,292,494	\$ -	\$ 627,292,494
9	Depreciation and Amortization	155,800,380	(320,798)	155,479,582
10	Taxes Other Than Income Taxes	34,932,925	(66,860)	34,866,065
11	Total Income Taxes	25,285,777	142,963	25,428,740
12	Investment Tax Credit	(1,004,121)	-	(1,004,121)
13	Total Operating Expenses	<u>\$ 842,307,455</u>	<u>\$ (244,695)</u>	<u>\$ 842,062,760</u>
14	Impact to Operating Income	\$ 171,415,400	\$ 243,174	\$ 171,658,574

Notes and Sources

Column A, line 1: MFR Schedule A
 Column A, line 5–14 1: MFR Schedule C-1
 Column C: Response to PSC-LGE 2.075, Attachments Schedule A and Schedule C-1

Kentucky Public Service Commission

Case No. 2018-00295

Louisville Gas and Electric Company—Electric

LG&E-E Schedule 3.2

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Kentucky Public Service Commission

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Louisville Gas and Electric Company—Electric

LG&E-E Schedule 3.3

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Kentucky Public Service Commission

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Louisville Gas and Electric Company—Electric

LG&E-E Schedule 3.4

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Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-E Schedule 3.5
 Page 1 of 1

Louisville Gas and Electric Company—Electric

Adjustment 5

Working Capital

Line	Description	Company Proposed (A)	Operating Expenses (B)	Average Daily (C)	Net (Lead)/Lag Days (D)	CWC Adjustment (E)	Adjusted Amount (F)
1	Cash Working Capital	\$ 114,229,325				\$ (30,712,840)	\$ 83,516,485
2	<u>Update for Adjustments</u>						
3	O&M Expense		<u>\$ (13,748,133)</u>				
4	Employee Retirement		(1,369,708)	(3,742)	20.66	(77,320)	(77,320)
5	D&O Insurance		(98,216)	(268)	18.25	(4,898)	(4,898)
6	Outside Counsel		337,972	923	18.25	16,854	16,854
7	Remaining O&M Expense		(12,618,181)	(34,476)	(9.93)	342,358	342,358
8	Depreciation and Amortization		(2,774,443)	(7,580)	-	-	-
9	Taxes Other Than Income Taxes		(66,860)	(183)	(172.61)	31,533	31,533
10	Income Taxes (without Interest Synchronization)		3,721,347	10,168	6.15	62,514	62,514
11	Interest Synchronization		<u>284,559</u>	777	6.15	4,780	4,780
12	Total Operating Expenses		<u>(12,583,530)</u>				
	<i>Check from Schedule 3</i>						
13	Cash Working Capital	\$ 114,229,325				<u>\$ (30,337,019)</u>	\$ 83,892,306
14	Prepayments	\$ 13,197,915				<u>\$ (13,197,915)</u>	\$ -
15	Impact to Rate Base	<u>\$ 127,427,240</u>				<u>\$ (43,534,934)</u>	<u>\$ 83,892,306</u>

Notes and Sources

Column A, lines 1 and 15: Garrett, Schedule B-5, page 2 of 2
 Column E, line 1: CWC WP
 Column B, lines 2-10: Schedule 3
 Column B, line 10: Schedule 3.18
 Column C: Net (Lead)/Lag Days Schedule 3.5.1 CWC WP

	w/o Int Sync	w/ Int Sync	Int Sync	
Interest Synchronization				
Income Taxes	3,721,347	4,005,906	<u>284,559</u>	Schedule 3
		<i>Check</i>	\$ 284,559	

Kentucky Public Service Commission

Louisville Gas and Electric Company—Electric
 Adjustment 5
 Cash Working Capital Workpaper

Case No. 2018-00295
 LG&E Schedule 3.5.1

Line	Description	As Filed by Company							Adjusted							Adjustment	
		Total Company - Electric	Allocation Factor	Base Period Jurisdictional	Average Daily Amount	Revenue Lag Days	Expense (Lead)/Lag Days	Net (Lead)/Lag Days	Working Capital (Provided)/ Required	Total Company - Electric	Allocation Factor	Base Period Jurisdictional	Average Daily Amount	Revenue Lag Days	Expense (Lead)/La g Days		Net (Lead)/Lag Days
1	Fuel: Coal	\$ 245,108,929	100.000%	\$ 245,108,929	\$ 669,697	43.65	(24.36)	19.29	\$ 12,917,330	\$ 245,108,929	100.000%	\$ 245,108,929	\$ 669,697	43.65	(24.36)	19.29	\$ 12,917,330
2	Fuel: Gas	\$ 52,691,800	100.000%	\$ 52,691,800	\$ 143,967	43.65	(38.99)	4.66	\$ 670,645	\$ 52,691,800	100.000%	\$ 52,691,800	\$ 143,967	43.65	(38.99)	4.66	\$ 670,645
3	Fuel: Oil	\$ -	100.000%	\$ -	\$ -	43.65	(8.40)	35.25	\$ -	\$ -	100.000%	\$ -	\$ -	43.65	(8.40)	35.25	\$ -
4	Other Non-Fuel Commodities	\$ 6,709,117	100.000%	\$ 6,709,117	\$ 18,331	43.65	(26.87)	16.78	\$ 307,562	\$ 6,709,117	100.000%	\$ 6,709,117	\$ 18,331	43.65	(26.87)	16.78	\$ 307,562
5	Purchased Power	\$ 49,827,806	100.000%	\$ 49,827,806	\$ 136,142	43.65	(28.37)	15.28	\$ 2,080,175	\$ 49,827,806	100.000%	\$ 49,827,806	\$ 136,142	43.65	(28.37)	15.28	\$ 2,080,175
6	Payroll Expense	\$ 32,280,444	100.000%	\$ 32,280,444	\$ 88,198	43.65	(12.00)	31.65	\$ 2,791,437	\$ 32,280,444	100.000%	\$ 32,280,444	\$ 88,198	43.65	(12.00)	31.65	\$ 2,791,437
7	Pension Expense	\$ (798,993)	100.000%	\$ (798,993)	\$ (2,183)	43.65	-	43.65	\$ (98,286)	\$ (798,993)	100.000%	\$ (798,993)	\$ (2,183)	43.65	-	43.65	\$ (98,286)
8	OPFB Expense	\$ 1,476,409	100.000%	\$ 1,476,409	\$ 4,034	43.65	-	43.65	\$ 176,073	\$ 1,476,409	100.000%	\$ 1,476,409	\$ 4,034	43.65	-	43.65	\$ 176,073
9	Team Incentive Award Compensation	\$ 2,780,573	100.000%	\$ 2,780,573	\$ 7,597	43.65	(245.22)	(201.57)	\$ (1,531,379)	\$ 2,780,573	100.000%	\$ 2,780,573	\$ 7,597	43.65	(245.22)	(201.57)	\$ (1,531,379)
10	401k Match Expense	\$ 1,513,056	100.000%	\$ 1,513,056	\$ 4,134	43.65	(22.99)	20.66	\$ 85,412	\$ 1,513,056	100.000%	\$ 1,513,056	\$ 4,134	43.65	(22.99)	20.66	\$ 85,412
11	Retirement Income Account Expense	\$ 707,984	100.000%	\$ 707,984	\$ 1,934	43.65	(283.50)	(239.85)	\$ (463,965)	\$ 707,984	100.000%	\$ 707,984	\$ 1,934	43.65	(283.50)	(239.85)	\$ (463,965)
12	Uncollectible Expense	\$ 2,034,192	100.000%	\$ 2,034,192	\$ 5,558	43.65	(174.20)	(130.55)	\$ (725,566)	\$ 2,034,192	100.000%	\$ 2,034,192	\$ 5,558	43.65	(174.20)	(130.55)	\$ (725,566)
13	Major Storm Damage Expense	\$ 3,350,132	100.000%	\$ 3,350,132	\$ 9,153	43.65	(35.32)	8.33	\$ 76,234	\$ 3,350,132	100.000%	\$ 3,350,132	\$ 9,153	43.65	(35.32)	8.33	\$ 76,234
14	Charges from Affiliates	\$ 102,884,506	100.000%	\$ 102,884,506	\$ 281,105	43.65	(25.40)	18.25	\$ 5,130,628	\$ 102,884,506	100.000%	\$ 102,884,506	\$ 281,105	43.65	(25.40)	18.25	\$ 5,130,628
15	Other O&M	\$ 134,540,324	100.000%	\$ 134,540,324	\$ 367,597	43.65	(49.19)	(5.54)	\$ (2,038,010)	\$ 134,540,324	100.000%	\$ 134,540,324	\$ 367,597	43.65	(49.19)	(5.54)	\$ (2,038,010)
16	Total O&M Expenses	\$ 635,106,277		\$ 635,106,277					\$ 19,381,290	\$ 635,106,277		\$ 635,106,277					\$ 17,688,150
17	Depreciation and Amortization Expense																
18	Depreciation and Amortization	\$ 221,495,055	100.000%	\$ 221,495,055	\$ 605,178	43.65	-	43.65	\$ 26,415,000	\$ 221,495,055	100.000%	\$ 221,495,055	\$ 605,178	43.65	-	43.65	\$ 26,415,000
19	Regulatory Debits	\$ 1,546,257	100.000%	\$ 1,546,257	\$ 4,225	43.65	-	43.65	\$ 184,403	\$ 1,546,257	100.000%	\$ 1,546,257	\$ 4,225	43.65	-	43.65	\$ 184,403
20	Amortization of Regulatory Assets	\$ 6,155,772	100.000%	\$ 6,155,772	\$ 16,819	43.65	-	43.65	\$ 734,123	\$ 6,155,772	100.000%	\$ 6,155,772	\$ 16,819	43.65	-	43.65	\$ 734,123
21	Amortization of Regulatory Liabilities	\$ (309,697)	100.000%	\$ (309,697)	\$ (846)	43.65	-	43.65	\$ (36,934)	\$ (309,697)	100.000%	\$ (309,697)	\$ (846)	43.65	-	43.65	\$ (36,934)
22	Total Depreciation and Amortization Expense	\$ 228,887,386		\$ 228,887,386					\$ 27,296,593	\$ 228,887,386		\$ 228,887,386					\$ 27,296,593
23	Income Tax Expense:																
24	Current: Federal	\$ 27,404,209	100.000%	\$ 27,404,209	\$ 74,875	43.65	(37.50)	6.15	\$ 460,356	\$ 27,404,209	100.000%	\$ 27,404,209	\$ 74,875	43.65	(37.50)	6.15	\$ 460,356
25	Current: State	\$ 1,743,135	100.000%	\$ 1,743,135	\$ 4,763	43.65	(37.50)	6.15	\$ 29,282	\$ 1,743,135	100.000%	\$ 1,743,135	\$ 4,763	43.65	(37.50)	6.15	\$ 29,282
26	Deferred: Federal and State (Including ITC)	\$ 14,448,605	100.000%	\$ 14,448,605	\$ 39,477	43.65	-	43.65	\$ 1,723,108	\$ 14,448,605	100.000%	\$ 14,448,605	\$ 39,477	43.65	-	43.65	\$ 1,723,108
27	Total Income Tax Expense	\$ 43,595,949		\$ 43,595,949					\$ 2,212,746	\$ 43,595,949		\$ 43,595,949					\$ 489,638
28	Taxes Other Than Income																
29	Property Tax Expense	\$ 27,675,001	100.000%	\$ 27,675,001	\$ 75,615	43.65	(216.26)	(172.61)	\$ (13,052,194)	\$ 27,675,001	100.000%	\$ 27,675,001	\$ 75,615	43.65	(216.26)	(172.61)	\$ (13,052,194)
30	Payroll Tax Expense	\$ 6,794,886	100.000%	\$ 6,794,886	\$ 18,565	43.65	(35.48)	8.17	\$ 151,734	\$ 6,794,886	100.000%	\$ 6,794,886	\$ 18,565	43.65	(35.48)	8.17	\$ 151,734
31	Other Taxes	\$ 2,304,006	100.000%	\$ 2,304,006	\$ 6,295	43.65	148.70	192.35	\$ 1,210,866	\$ 2,304,006	100.000%	\$ 2,304,006	\$ 6,295	43.65	148.70	192.35	\$ 1,210,866
32	Total Taxes Other Than Income	\$ 36,773,893		\$ 36,773,893					\$ (11,689,594)	\$ 36,773,893		\$ 36,773,893					\$ (11,689,594)
33	AFUDC	\$ -	0.000%	\$ -	\$ -	43.65	(43.65)	-	\$ -	\$ -	0.000%	\$ -	\$ -	43.65	(43.65)	-	\$ -
34	(Gain)/Loss on Disposition of Property	\$ -	0.000%	\$ -	\$ -	43.65	(43.65)	-	\$ -	\$ -	0.000%	\$ -	\$ -	43.65	(43.65)	-	\$ -
35	(Gain)/Loss on Disposition of Allowances	\$ -	0.000%	\$ (17,793)	\$ (48.61)	43.65	(43.65)	-	\$ -	\$ (17,793)	0.000%	\$ (17,793)	\$ (48.61)	43.65	(43.65)	-	\$ -
36	Charitable Donations	\$ 2,367,259	0.000%	\$ -	\$ -	43.65	(43.65)	-	\$ -	\$ 2,367,259	0.000%	\$ -	\$ -	43.65	(43.65)	-	\$ -
37	Interest on Customer Deposits	\$ 329,165	0.000%	\$ -	\$ -	-	-	-	\$ -	\$ 329,165	0.000%	\$ -	\$ -	-	-	-	\$ -
38	Other (Income)/Expense	\$ (436,899)	0.000%	\$ -	\$ -	43.65	(43.65)	-	\$ -	\$ (436,899)	0.000%	\$ -	\$ -	43.65	(43.65)	-	\$ -
39	Other Interest Expense/(Income)	\$ (121,078)	0.000%	\$ -	\$ -	43.65	(43.65)	-	\$ -	\$ (121,078)	0.000%	\$ -	\$ -	43.65	(43.65)	-	\$ -
40	Interest Expense	\$ 80,826,420	100.000%	\$ 80,826,420	\$ 220,837	43.65	(87.50)	(43.85)	\$ (9,684,080)	\$ 80,826,420	100.000%	\$ 80,826,420	\$ 220,837	43.65	(87.50)	(43.85)	\$ (9,684,080)
41	Income Available for Common Equity	\$ 177,460,423		\$ 195,795,377	\$ 534,960	43.65	(43.65)	-	\$ -	\$ 177,460,423		\$ 195,795,377	\$ 534,960	43.65	(43.65)	-	\$ -
42	Total	\$ 1,204,788,795		\$ 1,220,967,509	\$ 755,749				\$ 27,516,955	\$ 1,204,788,795		\$ 1,220,967,509	\$ 755,749				\$ (3,195,886)
43	Sales Taxes	\$ 25,716,731	100.000%	\$ 25,716,731	\$ 70,264	43.65	(39.83)	3.82	\$ 268,255	\$ 25,716,731	100.000%	\$ 25,716,731	\$ 70,264	43.65	(39.83)	3.82	\$ 268,255
44	School Taxes	\$ 2,711,761	100.000%	\$ 2,711,761	\$ 7,409	43.65	(35.05)	8.59	\$ 63,681	\$ 2,711,761	100.000%	\$ 2,711,761	\$ 7,409	43.65	(35.05)	8.59	\$ 63,681
45	Franchise Fees	\$ 126,189	100.000%	\$ 126,189	\$ 345	43.65	(100.24)	(56.59)	\$ (19,510)	\$ 126,189	100.000%	\$ 126,189	\$ 345	43.65	(100.24)	(56.59)	\$ (19,510)
46	Cash Working Capital (Lead/Lag)								\$ 27,829,381								\$ (2,883,459)
47	Additional Cash Working Capital Items (Page 2)								\$ 87,262,950								\$ 87,262,950
48	Total Cash Working Capital								\$ 115,092,331								\$ 84,379,491
49	ECR Cash Working Capital (Page 3)								\$ 863,005								\$ 863,005
50	Jurisdictional Cash Working Capital (Line 48 - 49)								\$ 114,229,325								\$ 83,516,485 \$ (30,712,840)

Notes and Sources
 Garret, Schedule B.5.2, page 4 of 6

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E Schedule 3.5.1

Louisville Gas and Electric Company—Electric
 Adjustment 5
 Cash Working Capital Workpaper

As Filed by Company

Line No.	Vendor Name	Expenditure Type	Invoice Date	Invoice Amount	Service Date/From	To	Service Lead/ Mid-Point	LG&E Payment Date	Payment Lead	Total Lead	Weighted Lead	Adjusted			
												(3)	(4)	(5)	(6)
1	AT&T MOBILITY	CELLULAR/PAGING SERVICES	02/10/2017	\$ 114	02/10/2017		-	02/28/2017	18.00	18.00	\$ 2,056	15.0	18.0	33.0	3,769
2	AT&T MOBILITY	CELLULAR/PAGING SERVICES	06/12/2017	\$ 95	06/12/2017		-	06/30/2017	18.00	18.00	\$ 1,719	15.0	18.0	33.0	3,151
3	AT&T MOBILITY	CELLULAR/PAGING SERVICES	07/11/2017	\$ 117	07/11/2017		-	07/28/2017	17.00	17.00	\$ 1,982	15.0	17.00	32.0	3,720
4	KENTUCKY STATE TREASURER	PM - OTHER	05/31/2017	\$ 7	05/17/2017		-	06/23/2017	37.00	37.00	\$ 263	15.0	37.00	52.0	370
5	US BANK NATIONAL ASSOCIATION ND	PM - OTHER	04/27/2017	\$ 1,000	03/30/2017	04/11/2017	6.00	05/03/2017	22.00	28.00	\$ 28,012	6.0	22.00	28.0	28,012
6	STUART STEEL PROTECTION CORP	PM - OTHER	05/16/2017	\$ 10,550	05/15/2017		-	07/21/2017	67.00	67.00	\$ 706,850	15.0	67.00	82.0	865,100
7	KENTUCKY STATE TREASURER	PM - OTHER	04/30/2017	\$ 1	03/31/2017		-	05/25/2017	55.00	55.00	\$ 73	15.0	55.00	70.0	93
8	KENTUCKY STATE TREASURER	PM - OTHER	02/28/2017	\$ 80	01/20/2017	02/16/2017	13.00	03/30/2017	42.00	55.00	\$ 4,419	13.5	42.00	55.5	4,419
9	KENTUCKY STATE TREASURER	PM - OTHER	02/28/2017	\$ 118	01/17/2017	01/25/2017	4.00	03/30/2017	64.00	68.00	\$ 7,997	4.0	64.00	68.0	7,997
10	ALSTOM POWER INC	PM - OTHER	04/08/2017	\$ 61,500	04/06/2017		-	05/08/2017	32.00	32.00	\$ 1,968,000	15.0	32.00	47.0	2,890,500
11	ARVOS LJUNGSTROM LLC	PM - OTHER	03/30/2017	\$ 54,685	03/30/2017		-	05/01/2017	32.00	32.00	\$ 1,749,920	15.0	32.00	47.0	2,570,195
12	CLYDE BERGEMANN POWER GROUP AMERICAS INC	PM - OTHER	03/02/2017	\$ 4,075	01/30/2017		-	04/03/2017	63.00	63.00	\$ 256,730	15.0	63.00	78.0	317,856
13	KENTUCKY STATE TREASURER	PM - OTHER	01/31/2017	\$ 28	12/16/2016		-	02/27/2017	73.00	73.00	\$ 2,015	15.0	73.00	88.0	2,429
14	INDIANA GRATINGS INC	PM - OTHER	12/29/2016	\$ 49,898	12/29/2016		-	01/30/2017	32.00	32.00	\$ 1,596,736	15.0	32.00	47.0	2,345,206
15	SCREENING SYSTEMS INTERNATIONAL INC	PM - OTHER	02/28/2017	\$ 38,804	02/24/2017		-	03/31/2017	35.00	35.00	\$ 1,359,140	15.0	35.00	50.0	1,940,200
16	ROTATING EQUIPMENT REPAIR INC	PM - OTHER	02/08/2017	\$ 54,025	02/08/2017		-	03/13/2017	33.00	33.00	\$ 1,782,825	15.0	33.00	48.0	2,593,200
17	MOTION INDUSTRIES INC	PM - OTHER	09/29/2017	\$ 7,875	09/29/2017		-	11/20/2017	52.00	52.00	\$ 409,518	15.0	52.00	67.0	527,648
18	FERGUSON ENTERPRISES INC	PM - OTHER	06/01/2017	\$ 277	06/01/2017		-	07/11/2017	40.00	40.00	\$ 11,080	15.0	40.00	55.0	15,234
19	CONSOLIDATED ELECTRICAL DISTRIBUTORS INC	PM - OTHER	09/22/2017	\$ 2,922	09/07/2017		-	10/23/2017	46.00	46.00	\$ 134,419	15.0	46.00	61.0	178,251
20	MAGOTTEAUX INC	PM - OTHER	03/31/2017	\$ 107,100	03/31/2017		-	05/01/2017	31.00	31.00	\$ 3,320,100	15.0	31.00	46.0	4,926,600
21	METSO MINERALS INDUSTRIES INC	PM - OTHER	11/06/2017	\$ 54,594	11/03/2017		-	12/07/2017	34.00	34.00	\$ 1,856,196	15.0	34.00	49.0	2,675,106
22	SAS GLOBAL CORP	PM - OTHER	03/17/2017	\$ 77,256	03/17/2017		-	04/14/2017	28.00	28.00	\$ 2,163,168	15.0	28.00	43.0	3,322,008
23	SAS GLOBAL CORP	PM - OTHER	10/23/2017	\$ 86,414	10/23/2017		-	11/03/2017	11.00	11.00	\$ 950,551	15.0	11.00	26.0	2,246,758
24	ALSTOM POWER INC	PM - OTHER	02/10/2017	\$ 119	02/10/2017		-	03/13/2017	31.00	31.00	\$ 3,695	15.0	31.00	46.0	5,483
25	THE BABCOCK AND WILCOX COMPANY	PM - OTHER	10/19/2017	\$ 73,215	10/19/2017		-	11/20/2017	32.00	32.00	\$ 2,342,880	15.0	32.00	47.0	3,441,105
26	THE BABCOCK AND WILCOX COMPANY	PM - OTHER	10/31/2017	\$ 122,025	10/31/2017		-	12/01/2017	31.00	31.00	\$ 3,782,775	15.0	31.00	46.0	5,613,150
27	FERGUSON ENTERPRISES INC	PM - OTHER	10/23/2017	\$ 82	10/23/2017		-	11/13/2017	21.00	21.00	\$ 1,721	15.0	21.00	36.0	2,950
28	FISCHER PROCESS INDUSTRIES	PM - OTHER	03/29/2017	\$ 61,459	03/29/2017		-	05/01/2017	33.00	33.00	\$ 2,028,147	15.0	33.00	48.0	2,950,032
29	NEWARK CORPORATION	PM - OTHER	06/28/2017	\$ 66	06/28/2017		-	10/30/2017	32.00	32.00	\$ 2,108	15.0	32.00	47.0	3,097
30	CARDINAL TOOL SUPPLY INC	PM - OTHER	04/24/2017	\$ 4,082	04/18/2017		-	05/25/2017	37.00	37.00	\$ 151,047	15.0	37.00	52.0	212,282
31	US BANK NATIONAL ASSOCIATION ND	PM - OTHER	02/24/2017	\$ 2,447	01/30/2017	02/20/2017	10.50	03/03/2017	11.00	21.50	\$ 52,617	10.5	11.00	21.5	52,617
32	KENTUCKY STATE TREASURER	PM - OTHER	08/31/2017	\$ 26	08/16/2017		-	09/25/2017	40.00	40.00	\$ 1,042	15.0	40.00	55.0	1,433
33	KENTUCKY STATE TREASURER	PM - OTHER	12/31/2017	\$ 226	01/11/2017		-	01/25/2018	379.00	379.00	\$ 86,582	15.0	379.00	394.0	86,969
34	TOOLE AND ROSE SUPPLY	PM - OTHER	01/04/2017	\$ 231	01/04/2017		-	01/20/2017	16.00	16.00	\$ 3,689	15.0	16.00	31.0	7,147
35	KENTUCKY STATE TREASURER	PM - OTHER	09/30/2017	\$ 66	07/11/2017		-	10/25/2017	106.00	106.00	\$ 6,945	15.0	106.00	121.0	7,928
36	ATLAS MANUFACTURING COMPANY INC	PM - OTHER	07/31/2017	\$ 96,073	07/31/2017		-	08/30/2017	30.00	30.00	\$ 2,882,194	15.0	30.00	45.0	4,323,290
37	ALSTOM POWER INC	PM - OTHER	11/30/2017	\$ 106,500	11/30/2017		-	01/02/2018	33.00	33.00	\$ 3,514,500	15.0	33.00	48.0	5,112,000
38	KENTUCKY STATE TREASURER	PM - OTHER	03/31/2017	\$ 32	03/08/2017		-	04/25/2017	48.00	48.00	\$ 1,512	15.0	48.00	63.0	1,985
39	INDUSTRIAL CONTROLS DISTRIBUTORS LLC	PM - OTHER	10/09/2017	\$ 215	09/18/2017		-	11/09/2017	52.00	52.00	\$ 11,184	15.0	52.00	67.0	14,410
40	ALSTOM POWER INC	PM - OTHER	02/02/2017	\$ 82,545	02/02/2017		-	03/06/2017	32.00	32.00	\$ 2,641,440	15.0	32.00	47.0	3,879,615
41	KENTUCKY STATE TREASURER	PM - SAFETY SUPPLIES	02/28/2017	\$ 14	01/13/2017	02/22/2017	11.00	03/30/2017	36.00	47.00	\$ 679	11.0	36.00	47.0	679
42	US BANK NATIONAL ASSOCIATION ND	PM - SMALL TOOLS	06/28/2017	\$ 440	06/19/2017	06/20/2017	0.50	07/03/2017	13.00	13.50	\$ 5,946	0.5	13.00	13.5	5,946
43	MOTION INDUSTRIES INC	PM - SPARE PARTS	04/19/2017	\$ 1,192	04/11/2017		-	05/01/2017	20.00	20.00	\$ 23,834	15.0	20.00	35.0	41,710
44	BROWNSTOWN ELECTRIC SUPPLY CO INC	PM - VENDOR DIRECT SHIP	01/31/2017	\$ 292	01/31/2017		-	03/03/2017	31.00	31.00	\$ 9,043	15.0	31.00	46.0	13,419
45	FEDERAL ENERGY REGULATORY COMM	CORPORATE DEFAULT	07/18/2017	\$ 90,647	01/01/2017	12/31/2017	182.00	09/01/2017	(121.00)	61.00	\$ 5,529,491	182.00	(121.00)	61.00	5,529,491
46	ONE TIME VENDOR	CUSTOMER INCENTIVE PROGRAMS	11/21/2017	\$ 368	11/21/2017		-	12/06/2017	15.00	15.00	\$ 5,520	15.0	15.00	30.0	11,040
47	Wood, Gabriel R	EDUCATION & TRAINING - COURSE FEES	02/27/2017	\$ 175	02/27/2017		-	03/06/2017	7.00	7.00	\$ 1,225	15.0	7.00	22.0	3,850
48	NITEC LLC	ENGINEERING SERVICES	01/31/2017	\$ 65,920	01/31/2017		-	03/06/2017	34.00	34.00	\$ 2,241,280	15.0	34.00	49.0	3,200,080
49	LOUISVILLE METRO AIR POLLUTION	FEES, PERMITS & LICENSES	03/03/2017	\$ 519	03/03/2017		-	05/01/2017	59.00	59.00	\$ 30,612	15.0	59.00	74.0	38,395
50	KENTUCKY STATE TREASURER	FREIGHT - OTHER	02/28/2017	\$ 1	02/22/2017		-	03/30/2017	36.00	36.00	\$ 43	15.0	36.00	51.0	61
51	HACH COMPANY	FREIGHT - OTHER	10/09/2017	\$ 76	10/09/2017		-	11/09/2017	31.00	31.00	\$ 2,364	15.0	31.00	46.0	3,508
52	KENTUCKY STATE TREASURER	FREIGHT - OTHER	10/31/2017	\$ 15	10/04/2017	10/26/2017	11.00	12/11/2017	46.00	57.00	\$ 882	11.0	46.00	57.00	882
53	KENTUCKY STATE TREASURER	FREIGHT - OTHER	06/30/2017	\$ 1	06/27/2017		-	07/25/2017	28.00	28.00	\$ 27	15.0	28.00	43.0	42
54	RPS COMPOSITES OHIO INC	FREIGHT - OTHER	03/15/2017	\$ 159	02/27/2017		-	05/05/2017	67.00	67.00	\$ 10,621	15.0	67.00	82.0	12,999
55	MEADE EQUIPMENT LLC	FREIGHT - OTHER	06/12/2017	\$ 12	06/12/2017		-	07/12/2017	30.00	30.00	\$ 348	15.0	30.00	45.0	522
56	SCEPTRE MECHANICAL INC	FREIGHT - OTHER	07/11/2017	\$ 27	07/11/2017		-	08/10/2017	30.00	30.00	\$ 816	15.0	30.00	45.0	1,224
57	KENTUCKY STATE TREASURER	FREIGHT - OTHER	01/31/2017	\$ 1	12/15/2016		-	02/27/2017	74.00	74.00	\$ 67	15.0	74.00	89.0	80
58	KENTUCKY STATE TREASURER	FREIGHT - OTHER	04/30/2017	\$ 5	04/17/2017		-	05/25/2017	38.00	38.00	\$ 176	15.0	38.00	53.0	245
59	PUMPMEISTERS INC	FREIGHT - OTHER	07/31/2017	\$ 62	07/27/2017		-	08/30/2017	34.00	34.00	\$ 2,123	15.0	34.00	49.0	3,059
60	SICK INC	FREIGHT - OTHER	08/14/2017	\$ 215	08/14/2017		-	09/13/2017	30.00	30.00	\$ 6,450	15.0	30.00	45.0	9,675
61	edelin, Ohio	MEALS - FULLY DEDUCTIBLE	07/20/2017	\$ 1	07/20/2017		-	07/27/2017	7.00	7.00	\$ 22.0	15.0	7.00	22.0	7.00
62	Limberg, Brian	MEALS,ENTER-PARTIALLY DEDUCTIBLE	08/21/2017	\$ 287	07/28/2017	08/21/2017	12.00	09/13/2017	23.00	35.00	\$ 10,058	12.00	23.00	35.00	10,058
63	NALCO COMPANY	MERCURY MITIGATION	01/27/2017	\$ 155,345	01/27/2017		-	02/27/2017	31.00						

85	Litton, Terry Allen	MILEAGE REIMBURSEMENT	08/08/2017	\$	124	08/07/2017	08/08/2017	0.50	09/28/2017	51.00	51.50	\$	6,392	0.5	51.0	51.5	6,392
86	Benge, Eric C	MILEAGE REIMBURSEMENT	12/07/2017	\$	40	12/07/2017			12/14/2017	7.00	7.00	\$	277	15.0	7.0	22.0	871
87	Simmons, Damien	MISCELLANEOUS	03/13/2017	\$	241	03/13/2017			03/28/2017	15.00	15.00	\$	3,609	15.0	15.0	30.0	7,217
88	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	02/07/2017	\$	64,801	01/10/2017	01/28/2017	13.50	03/10/2017	41.00	54.50	\$	3,520,729	13.5	41.0	54.5	3,520,729
89	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	03/03/2017	\$	54,251	01/29/2017	02/25/2017	13.50	04/04/2017	38.00	51.50	\$	2,793,919	13.5	38.0	51.5	2,793,919
90	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/07/2017	\$	65,591	02/26/2017	04/01/2017	17.00	05/08/2017	37.00	54.00	\$	3,541,898	17.0	37.0	54.0	3,541,898
91	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	07/07/2017	\$	56,784	06/04/2017	07/01/2017	13.50	08/07/2017	37.00	50.50	\$	2,867,592	13.5	37.0	50.5	2,867,591
92	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	08/04/2017	\$	59,947	07/02/2017	07/29/2017	13.50	09/08/2017	41.00	54.50	\$	3,267,107	13.5	41.0	54.5	3,267,107
93	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	09/08/2017	\$	72,436	07/30/2017	09/02/2017	17.00	10/10/2017	38.00	55.00	\$	3,984,000	17.0	38.0	55.0	3,984,000
94	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	09/13/2017	\$	59,289	07/28/2017	10/28/2017	13.50	12/06/2017	37.00	52.50	\$	3,059,145	13.5	37.0	52.5	3,059,145
95	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/08/2017	\$	81,039	10/29/2017	12/02/2017	17.00	01/08/2018	37.00	54.00	\$	4,376,119	17.0	37.0	54.0	4,376,119
96	STRATEGIC COMMUNICATIONS LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/29/2016	\$	76,522	12/29/2016			01/30/2017	32.00	32.00	\$	2,448,712	15.0	32.0	47.0	3,596,546
97	ASPLUNDH TREE EXPERT LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	09/08/2017	\$	4,600	08/26/2017			10/10/2017	45.00	45.00	\$	206,999	15.0	45.0	60.0	275,999
98	INTEGRATED GLOBAL SERVICES INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/14/2017	\$	59,404	04/02/2017	04/06/2017	2.00	05/15/2017	39.00	41.00	\$	2,435,549	2.00	39.0	41.0	2,435,549
99	PETROCHEM INSULATION INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	05/05/2017	\$	75,516	05/02/2017	05/05/2017	1.50	06/05/2017	31.00	32.50	\$	2,454,255	1.5	31.0	32.5	2,454,255
100	CTI INDUSTRIES	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/25/2017	\$	91,400	04/19/2017			05/26/2017	37.00	37.00	\$	3,381,800	15.0	37.0	52.0	4,752,800
101	WHITEHEAD CONSTRUCTION INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/26/2017	\$	4,863	04/15/2017			05/22/2017	31.00	32.00	\$	158,557	3.0	31.0	34.0	158,557
102	MEINERS MEDICAL FIRE AND SAFETY	O/S - MATERIAL & EQUIPMENT (INSTALLED)	02/02/2017	\$	266	02/02/2017			03/06/2017	32.00	32.00	\$	8,509	15.0	32.0	47.0	12,497
103	PIC GROUP INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	07/20/2017	\$	(461)	06/01/2017	06/29/2017	14.00	07/31/2017	32.00	46.00	\$	(21,190)	14.0	32.0	46.0	(21,190)
104	CHARAH LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	11/30/2017	\$	16,105	11/01/2017	11/30/2017	14.50	01/02/2018	33.00	47.50	\$	764,982	14.5	33.0	47.5	764,982
105	ATLAS MACHINE AND SUPPLY INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	11/28/2017	\$	6,558	11/28/2017			12/29/2017	31.00	31.00	\$	203,291	15.0	31.0	46.0	301,658
106	CHARAH LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/31/2016	\$	59,454	12/01/2016	12/31/2016	15.00	01/31/2017	31.00	46.00	\$	2,734,878	15.0	31.0	46.0	2,734,878
107	CHARAH LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	01/31/2017	\$	59,076	01/10/2017	01/31/2017	15.00	03/03/2017	31.00	46.00	\$	2,717,509	15.0	31.0	46.0	2,717,509
108	PEAK INDUSTRIAL COATINGS AND LININGS INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/23/2017	\$	84,500	12/23/2017			01/23/2018	31.00	31.00	\$	2,619,500	15.0	31.0	46.0	3,887,000
109	KLEIN BROS SAFE AND LOCK	O/S - MATERIAL & EQUIPMENT (INSTALLED)	08/31/2017	\$	957	08/31/2017			10/02/2017	32.00	32.00	\$	30,632	15.0	32.0	47.0	44,991
110	PIKE ELECTRIC LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	03/15/2017	\$	268	03/12/2017			04/13/2017	32.00	32.00	\$	8,580	15.0	32.0	47.0	12,602
111	PIKE ELECTRIC LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	08/04/2017	\$	106	07/23/2017			09/26/2017	65.00	65.00	\$	6,880	15.0	65.0	80.0	8,467
112	PIKE ELECTRIC LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	11/24/2017	\$	715	11/12/2017			12/22/2017	40.00	40.00	\$	28,606	15.0	40.0	55.0	39,334
113	PIKE ELECTRIC LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	07/14/2017	\$	219	07/02/2017			08/30/2017	59.00	59.00	\$	12,907	15.0	59.0	74.0	16,198
114	DONALDSON COMPANY INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	02/04/2017	\$	80,134	02/04/2017			01/05/2018	32.00	32.00	\$	2,564,272	15.0	32.0	47.0	3,769,272
115	MPW INDUSTRIAL SERVICES INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	11/29/2017	\$	67,866	10/01/2017	10/31/2017	15.00	12/29/2017	59.00	74.00	\$	5,022,094	15.0	59.0	74.0	5,022,094
116	THOMPSON INDUSTRIAL SERVICES LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/19/2017	\$	616	03/28/2017			05/05/2017	38.00	38.00	\$	23,419	15.0	38.0	53.0	32,663
117	SICK INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/28/2016	\$	10,897	10/27/2016			02/24/2017	120.00	120.00	\$	1,307,640	15.0	120.0	135.0	1,471,095
118	ELSTER AMERICAN METER	O/S - OTHER-LABOR-3RD PARTY	09/11/2017	\$	5,032	07/18/2017	07/19/2017	0.50	10/25/2017	98.00	98.50	\$	495,667	0.5	98.0	98.5	495,667
119	ROSEN USA	O/S - OTHER-LABOR-3RD PARTY	05/24/2017	\$	147,725	05/24/2017			08/03/2017	71.00	71.00	\$	10,488,440	15.0	71.0	86.0	12,704,307
120	ROSEN USA	O/S - OTHER-LABOR-3RD PARTY	08/17/2017	\$	76,101	08/17/2017			11/03/2017	75.00	78.00	\$	5,935,639	15.0	75.0	93.0	7,077,347
121	QUEST INTEGRITY USA LLC	O/S - OTHER-LABOR-3RD PARTY	10/31/2017	\$	206,990	10/05/2017	10/22/2017	8.50	12/21/2017	60.00	68.50	\$	14,178,815	8.5	60.0	68.5	14,178,815
122	QUEST INTEGRITY USA LLC	O/S - OTHER-LABOR-3RD PARTY	11/15/2017	\$	66,469	11/15/2017			12/21/2017	36.00	36.00	\$	2,392,886	15.0	36.0	51.0	3,389,922
123	APPLUS RTD USA INC	O/S - OTHER-LABOR-3RD PARTY	04/19/2017	\$	73,720	04/19/2017			05/22/2017	33.00	33.00	\$	2,432,760	15.0	33.0	48.0	3,538,560
124	INCRP INDUSTRIES LLC	O/S - OTHER-LABOR-3RD PARTY	11/10/2017	\$	134,857	11/10/2017			12/11/2017	31.00	31.00	\$	4,180,567	15.0	31.0	46.0	6,203,422
125	STRUCTURAL INTEGRITY ASSOC INC	O/S - OTHER-LABOR-3RD PARTY	12/12/2017	\$	132,000	11/22/2017			01/12/2018	51.00	51.00	\$	6,732,000	15.0	51.0	66.0	8,712,000
126	TI H2B ANALYTICAL SERVICES USA LLC	O/S - OTHER-LABOR-3RD PARTY	04/27/2017	\$	110	04/27/2017			05/30/2017	33.00	33.00	\$	3,630	15.0	33.0	48.0	5,260
127	S D MYERS INC	O/S - OTHER-LABOR-3RD PARTY	12/27/2016	\$	136,254	12/27/2016			02/06/2017	41.00	41.00	\$	5,586,414	15.0	41.0	56.0	7,830,224
128	PRECISION SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	12/05/2016	\$	64,654	10/30/2016	11/11/2016	6.00	01/17/2017	67.00	73.00	\$	4,719,742	6.0	67.0	73.0	4,719,742
129	READY ELECTRIC CO INC	O/S - OTHER-LABOR-3RD PARTY	11/29/2017	\$	4,175	11/29/2017			01/02/2018	34.00	34.00	\$	141,945	15.0	34.0	49.0	204,566
130	CONTROL COMPONENTS INC	O/S - OTHER-LABOR-3RD PARTY	10/19/2017	\$	101,093	09/29/2017	10/18/2017	9.50	12/01/2017	44.00	53.50	\$	5,408,480	9.5	44.0	53.5	5,408,480
131	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	03/24/2017	\$	178	03/24/2017			04/10/2017	17.00	17.00	\$	3,028	15.0	17.0	32.0	5,700
132	EMERSON PROCESS MGT PWR AND WTR SOLUTIONS INC	O/S - OTHER-LABOR-3RD PARTY	01/02/2017	\$	70,101	01/02/2017			02/02/2017	31.00	31.00	\$	2,173,131	15.0	31.0	46.0	3,224,646
133	TEAM INDUSTRIAL SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	10/18/2017	\$	31,270	10/03/2017	10/12/2017	4.50	12/21/2017	70.00	74.50	\$	2,329,581	4.5	70.0	74.5	2,339,591
134	MARINE SOLUTIONS INC	O/S - OTHER-LABOR-3RD PARTY	04/05/2017	\$	287,525	03/21/2017	04/03/2017	6.50	05/08/2017	35.00	41.50	\$	11,832,288	6.5	35.0	41.5	11,932,288
135	POWER PLANT SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	05/31/2017	\$	84,240	03/06/2017			09/28/2017	206.00	206.00	\$	17,353,440	15.0	206.0	221.0	18,617,040
136	POWER PLANT SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	09/25/2017	\$	159,155	02/25/2017	03/09/2017	6.00	10/26/2017	231.00	237.00	\$	37,719,842	6.0	231.0	237.0	37,719,842
137	PRECISION SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	04/13/2017	\$	356,687	01/13/2017	02/05/2017	11.50	05/15/2017	99.00	110.50	\$	39,413,880	11.5	99.0	110.5	39,413,880
138	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	01/20/2017	\$	293	01/20/2017			02/06/2017	17.00	17.00	\$	4,973	15.0	17.0	32.0	9,361
139	PETROCHEM INSULATION INC	O/S - OTHER-LABOR-3RD PARTY	05/02/2017	\$	228,392	05/02/2017	05/05/2017	1.50	06/05/2017	31.00	32.50	\$	7,422,430	1.5	31.0	32.5	7,422,430
140	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	04/18/2017	\$	56,377	04/18/2017			05/04/2017	16.00	16.00	\$	903,031	15.0	16.0	31.0	1,747,684
141	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	04/27/2017	\$	110,941	04/27/2017			05/15/2017	18.00	18.00	\$	1,996,936	15.0	18.0	33.0	3,661,050
142	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	05/03/2017	\$	116,816	05/03/2017			05/19/2017	16.00	16.00	\$	1,869,062	15.0	16.0	31.0	3,621,308
143	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	05/11/2017	\$	105,117	05/11/2017			05/30/2017	19.00	19.00	\$	1,997,223	15.0	19.0	34.0	3,573,978
144	UNITED DYNAMICS ADVANCED	O/S - OTHER-LABOR-3RD PARTY	05/11/2017	\$	53,610	04/04/2017	04/21/2017	8.50	06/12/2017	52.00	60.50	\$	3,243,405	8.5	52.0	60.5	3,243,405
145	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	05/03/2017	\$	53,387	05/03/2017			05/19/2017	16.00	16.00	\$	854,195	15.0	16.0	31.0	1,655,003
146	CTI INDUSTRIES	O/S - OTHER-LABOR-3RD PARTY	04/19/2017	\$	54,509	04/19/2017			05/26/2017	37.00	37.00	\$	2,615,620	15.0	37.0	52.0	3,230,590
147	PROFESSIONAL POWER GROUP INC	O/S - OTHER-LABOR-3RD PARTY	04/04/2017	\$	276,415	04/04/2017			05/05/2017	31.00	31.00	\$	8,568,885	15.0	31.0	46.0	12,715,090
148	PROFESSIONAL POWER GROUP INC	O/S - OTHER-LABOR-3RD PARTY	04/26/2017	\$	221,133	04/26/2017			05/30/2017	34.00	34.00	\$	7,518,				

184	MECHANICAL DYNAMICS AND ANALYSIS LLC	O/S - OTHER-LABOR-3RD PARTY	11/15/2017	\$ 87,275	11/15/2017	-	12/29/2017	44.00	44.00	\$ 3,840,100	15.0	44.0	59.0	5,149,225	
185	MECHANICAL DYNAMICS AND ANALYSIS LLC	O/S - OTHER-LABOR-3RD PARTY	11/21/2017	\$ 848,709	11/21/2017	-	12/21/2017	30.00	30.00	\$ 25,461,263	15.0	30.0	45.0	38,191,894	
186	MECHANICAL DYNAMICS AND ANALYSIS LLC	O/S - OTHER-LABOR-3RD PARTY	11/22/2017	\$ 75,000	10/11/2017	10/25/2017	7.00	12/22/2017	58.00	65.00	\$ 4,875,000	17.0	58.0	65.0	4,875,000
187	MECHANICAL DYNAMICS AND ANALYSIS LLC	O/S - OTHER-LABOR-3RD PARTY	11/30/2017	\$ 286,070	11/30/2017	-	01/03/2018	34.00	34.00	\$ 9,728,300	15.0	34.0	49.0	14,017,430	
188	A AND D CONSTRUCTORS LLC	O/S - OTHER-LABOR-3RD PARTY	11/28/2017	\$ 204,417	10/20/2017	11/22/2017	16.50	12/28/2017	36.00	52.50	\$ 10,731,887	16.5	36.0	52.5	10,731,887
189	KDR SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	12/01/2017	\$ 450	12/01/2017	-	01/02/2018	32.00	32.00	\$ 14,400	15.0	32.0	47.0	21,150	
190	MOHLER TECHNOLOGY INC	O/S - OTHER-LABOR-3RD PARTY	11/10/2017	\$ 132,471	11/10/2017	-	12/11/2017	31.00	31.00	\$ 4,106,599	15.0	31.0	46.0	6,093,663	
191	WHITEHEAD CONSTRUCTION INC	O/S - OTHER-LABOR-3RD PARTY	03/27/2017	\$ 109,583	03/20/2017	03/23/2017	1.50	05/01/2017	39.00	40.50	\$ 4,438,117	1.5	39.0	40.5	4,438,117
192	THE ATLANTIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	05/19/2017	\$ 68,576	05/19/2017	-	06/19/2017	31.00	31.00	\$ 2,128,866	15.0	31.0	46.0	3,154,510	
193	CONSOLIDATED METAL SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	03/17/2017	\$ 102,327	03/27/2017	-	03/28/2017	31.00	31.00	\$ 293,200	15.0	31.0	46.0	4,510,430	
194	MAXIM CRANE WORKS	O/S - OTHER-LABOR-3RD PARTY	03/24/2017	\$ 8,945	03/13/2017	03/18/2017	2.50	04/05/2017	18.00	20.50	\$ 183,373	2.5	18.0	20.5	283,373
195	GE INTERNATIONAL INC	O/S - OTHER-LABOR-3RD PARTY	07/10/2017	\$ 270,000	07/10/2017	-	08/11/2017	32.00	32.00	\$ 8,640,000	15.0	32.0	47.0	12,690,000	
196	C AND B MARINE TRIMBLE CO LLC	O/S - OTHER-LABOR-3RD PARTY	02/27/2017	\$ 347	02/16/2017	02/17/2017	0.50	05/24/2017	96.00	96.50	\$ 33,475	0.5	96.0	96.5	33,475
197	C AND B MARINE TRIMBLE CO LLC	O/S - OTHER-LABOR-3RD PARTY	02/27/2017	\$ 347	02/21/2017	-	05/24/2017	92.00	92.00	\$ 31,914	15.0	92.0	107.0	37,117	
198	EXAMINETICS INC	O/S - OTHER-LABOR-3RD PARTY	03/21/2017	\$ 56,933	02/02/2017	02/10/2017	4.00	04/20/2017	69.00	73.00	\$ 4,156,073	4.0	69.0	73.0	4,156,073
199	EXAMINETICS INC	O/S - PHYSICAL AND MEDICAL EXAMS	04/20/2017	\$ 60,000	03/08/2017	03/17/2017	4.50	05/22/2017	66.00	70.50	\$ 4,230,000	4.5	66.0	70.5	4,230,000
200	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	05/05/2017	\$ 153,036	04/02/2017	04/29/2017	13.50	03/06/2017	37.00	50.50	\$ 6,329,238	13.5	37.0	50.5	10,562,186
201	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	02/07/2017	\$ 193,802	01/01/2017	01/28/2017	13.50	03/10/2017	41.00	54.50	\$ 10,562,186	13.5	41.0	54.5	10,562,186
202	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	03/03/2017	\$ 162,753	01/29/2017	02/25/2017	13.50	04/04/2017	38.00	51.50	\$ 8,381,757	13.5	38.0	51.5	8,381,757
203	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	03/02/2017	\$ 152,555	01/29/2017	02/25/2017	13.50	04/03/2017	37.00	50.50	\$ 7,704,022	13.5	37.0	50.5	7,704,022
204	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	04/07/2017	\$ 196,772	02/26/2017	04/01/2017	17.00	05/08/2017	37.00	54.00	\$ 10,625,693	17.0	37.0	54.0	10,625,693
205	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	04/08/2017	\$ 153,652	02/26/2017	04/01/2017	17.00	05/08/2017	37.00	54.00	\$ 8,297,200	17.0	37.0	54.0	8,297,200
206	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	05/05/2017	\$ 153,036	04/02/2017	04/29/2017	13.50	06/06/2017	38.00	51.50	\$ 7,861,332	13.5	38.0	51.5	7,861,332
207	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	05/04/2017	\$ 143,478	04/02/2017	04/29/2017	13.50	06/05/2017	37.00	50.50	\$ 7,245,646	13.5	37.0	50.5	7,245,646
208	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	06/08/2017	\$ 203,260	04/30/2017	06/03/2017	17.00	07/10/2017	37.00	54.00	\$ 10,976,029	17.0	37.0	54.0	10,976,029
209	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	06/07/2017	\$ 148,024	04/30/2017	06/03/2017	17.00	07/13/2017	40.00	57.00	\$ 8,437,386	17.0	40.0	57.0	8,437,386
210	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	07/07/2017	\$ 170,352	06/04/2017	07/01/2017	13.50	08/07/2017	37.00	50.50	\$ 8,602,775	13.5	37.0	50.5	8,602,775
211	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	07/06/2017	\$ 98,949	06/04/2017	06/30/2017	13.50	08/07/2017	38.00	51.00	\$ 5,046,374	13.0	38.0	51.0	5,046,374
212	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$ 181,631	07/02/2017	07/29/2017	13.50	09/08/2017	41.00	54.50	\$ 9,898,903	13.5	41.0	54.5	9,898,903
213	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	08/03/2017	\$ 115,641	07/02/2017	07/29/2017	13.50	09/08/2017	41.00	54.50	\$ 6,296,980	13.5	41.0	54.5	6,296,980
214	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	09/08/2017	\$ 217,309	07/30/2017	09/02/2017	17.00	10/10/2017	38.00	55.00	\$ 11,952,001	17.0	38.0	55.0	11,952,001
215	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	09/07/2017	\$ 89,905	07/30/2017	09/02/2017	17.00	10/10/2017	38.00	55.00	\$ 4,944,755	17.0	38.0	55.0	4,944,755
216	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	10/06/2017	\$ 93,825	09/03/2017	09/30/2017	13.50	11/06/2017	37.00	50.50	\$ 4,738,179	13.5	37.0	50.5	4,738,179
217	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	11/03/2017	\$ 177,795	10/01/2017	10/28/2017	13.50	12/06/2017	39.00	52.50	\$ 9,334,219	13.5	39.0	52.5	9,334,219
218	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	12/08/2017	\$ 305,295	10/29/2017	12/02/2017	17.00	01/08/2018	37.00	54.00	\$ 16,485,400	17.0	37.0	54.0	16,485,400
219	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	12/02/2017	\$ 55,724	10/29/2017	12/02/2017	17.00	01/03/2018	32.00	49.00	\$ 2,730,461	17.0	32.0	49.0	2,730,461
220	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	02/14/2017	\$ 90,169	01/01/2017	01/28/2017	13.50	03/17/2017	48.00	61.50	\$ 5,545,363	13.5	48.0	61.5	5,545,363
221	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	03/09/2017	\$ 100,327	01/29/2017	02/25/2017	13.50	04/10/2017	44.00	57.50	\$ 5,768,788	13.5	44.0	57.5	5,768,788
222	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	04/12/2017	\$ 103,397	02/26/2017	04/01/2017	17.00	05/15/2017	44.00	61.00	\$ 6,307,240	17.0	44.0	61.0	6,307,240
223	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	04/27/2017	\$ 64,704	01/01/2017	04/01/2017	45.00	05/30/2017	59.00	104.00	\$ 6,729,224	45.0	59.0	104.0	6,729,224
224	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	05/09/2017	\$ 77,110	04/02/2017	04/29/2017	13.50	06/20/2017	52.00	65.50	\$ 5,050,697	13.5	52.0	65.5	5,050,697
225	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	06/09/2017	\$ 62,400	04/30/2017	05/27/2017	13.50	07/10/2017	44.00	57.50	\$ 4,728,824	13.5	44.0	57.5	4,728,824
226	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	07/07/2017	\$ 85,102	05/28/2017	07/07/2017	17.00	08/07/2017	37.00	54.00	\$ 4,595,488	17.0	37.0	54.0	4,595,488
227	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	08/08/2017	\$ 85,334	07/02/2017	07/29/2017	13.50	09/08/2017	41.00	54.50	\$ 4,650,695	13.5	41.0	54.5	4,650,695
228	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	09/12/2017	\$ 109,301	07/30/2017	09/02/2017	17.00	10/13/2017	41.00	58.00	\$ 6,339,458	17.0	41.0	58.0	6,339,458
229	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	10/10/2017	\$ 90,396	09/03/2017	09/30/2017	13.50	11/10/2017	41.00	54.50	\$ 4,926,599	13.5	41.0	54.5	4,926,599
230	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	11/10/2017	\$ 105,533	10/01/2017	10/28/2017	13.50	12/11/2017	44.00	57.50	\$ 6,068,148	13.5	44.0	57.5	6,068,148
231	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	12/07/2017	\$ 119,231	10/29/2017	12/02/2017	17.00	01/08/2018	37.00	54.00	\$ 6,438,499	17.0	37.0	54.0	6,438,499
232	GE POWER ENGINEERED SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	01/20/2017	\$ 6,474	01/02/2017	01/15/2017	6.50	02/21/2017	37.00	43.00	\$ 281,609	6.5	37.0	43.0	281,609
233	GE POWER ENGINEERED SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/15/2017	\$ 688	10/23/2017	11/05/2017	6.50	12/18/2017	43.00	49.50	\$ 34,052	6.5	43.0	49.5	34,052
234	STOLL CONSTRUCTION AND PAVING CO INC	O/S SUPPLEMENTAL CONTRACTOR	07/27/2017	\$ 4,433	07/05/2017	07/25/2017	10.00	08/28/2017	34.00	44.00	\$ 195,055	10.0	34.0	44.0	195,055
235	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	06/01/2017	\$ 62,822	05/01/2017	05/30/2017	14.50	07/03/2017	34.00	48.50	\$ 3,046,887	14.5	34.0	48.5	3,046,887
236	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	07/05/2017	\$ 65,413	05/29/2017	07/02/2017	17.00	08/07/2017	36.00	53.00	\$ 3,466,871	17.0	36.0	53.0	3,466,871
237	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$ 56,878	07/03/2017	07/30/2017	13.50	09/01/2017	33.00	46.50	\$ 2,644,805	13.5	33.0	46.5	2,644,805
238	GE POWER ENGINEERED SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/04/2017	\$ 62,400	04/30/2017	05/27/2017	6.50	12/05/2017	44.00	50.50	\$ 7,908	6.5	44.0	50.5	7,908
239	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	05/08/2017	\$ 67,219	04/03/2017	04/30/2017	13.50	07/07/2017	68.00	81.50	\$ 5,478,328	13.5	68.0	81.5	5,478,328
240	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	06/01/2017	\$ 60,247	05/01/2017	05/28/2017	13.50	07/07/2017	40.00	53.50	\$ 3,223,218	13.5	40.0	53.5	3,223,218
241	TDW SERVICES INC	O/S SUPPLEMENTAL CONTRACTOR	11/03/2017	\$ 56,140	11/03/2017	-	12/07/2017	34.00	34.00	\$ 1,908,760	15.0	34.0	49.0	2,750,860	
242	OLAMETER CORPORATION	O/S SUPPLEMENTAL CONTRACTOR	11/30/2016	\$ 276,869	11/01/2016	11/30/2016	14.50	01/18/2017	49.00	63.50	\$ 17,581,168	14.5	49.0	63.5	17,581,168
243	OLAMETER CORPORATION	O/S SUPPLEMENTAL CONTRACTOR	12/31/2016	\$ 282,733	12/01/2016	12/31/2016	15.00	02/01/2017	32.00	47.00	\$ 13,288,451	15.0	32.0	47.0	13,288,451
244	OLAMETER CORPORATION	O/S SUPPLEMENTAL CONTRACTOR	01/31/2017	\$ 284,363	01/01/2017	01/31/2017	15.00	03/08/2017	36.00	51.00	\$ 14,502,519	15.0	36.0	51.0	14,502,519
245	OLAMETER CORPORATION	O/S SUPPLEMENTAL CONTRACTOR	02/28/2017	\$ 285,420	02/01/2017	02/28/2017	13.50	03/13/2017	31.00	44.50	\$ 12,865,020	13.5	31.0	44.5	12,865,020
246	OLAMETER CORPORATION	O/S SUPPLEMENTAL CONTRACTOR	03/31/2017	\$ 288,888	03/01/2017	03/31/2017	15.00	05/08/2017	38.00	53.00	\$ 14,887,067	15.0	38.0	53.0	14,887,067
247	OLAMETER CORPORATION	O/S SUPPLEMENTAL CONTRACTOR	04/30/2017	\$ 298,240	04/01/2017	04/30/2017	14.50	06/01/2017	32.00	46.50	\$ 13,868,155	14.5	32.0	46.5	13,868,155
248	OLAMETER CORPORATION	O													

283	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	08/18/2017	\$ 3,023	08/18/2017	-	09/01/2017	14.00	14.00	\$ 42,324	15.00	14.00	29.00	4,659,676	
284	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	12/07/2016	\$ 78,067	11/01/2016	11/30/2016	14.50	01/24/2017	55.00	69.50	\$ 5,425,674	14.50	55.00	69.50	5,425,674
285	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	12/07/2016	\$ 124,342	11/01/2016	11/30/2016	14.50	01/24/2017	55.00	69.50	\$ 8,641,734	14.50	55.00	69.50	8,641,734
286	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	01/05/2017	\$ 73,761	12/01/2016	12/30/2016	14.50	02/15/2017	47.00	61.50	\$ 4,536,317	14.50	47.00	61.50	4,536,317
287	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	01/05/2017	\$ 116,976	12/01/2016	12/30/2016	14.50	02/15/2017	47.00	61.50	\$ 7,194,021	14.50	47.00	61.50	7,194,021
288	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	02/07/2017	\$ 65,267	01/01/2017	01/31/2017	15.00	03/15/2017	43.00	58.00	\$ 3,785,486	15.00	43.00	58.00	3,785,486
289	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	02/07/2017	\$ 103,435	01/01/2017	01/31/2017	15.00	03/15/2017	43.00	58.00	\$ 5,999,233	15.00	43.00	58.00	5,999,233
290	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	03/03/2017	\$ 111,161	02/01/2017	02/28/2017	13.50	05/04/2017	65.00	78.50	\$ 8,726,131	13.50	65.00	78.50	8,726,131
291	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	03/03/2017	\$ 68,431	02/01/2017	02/28/2017	13.50	05/04/2017	65.00	78.50	\$ 5,371,794	13.50	65.00	78.50	5,371,794
292	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	04/21/2017	\$ 120,000	03/01/2017	03/31/2017	15.00	05/23/2017	53.00	68.00	\$ 6,400,458	15.00	53.00	68.00	6,400,458
293	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	04/21/2017	\$ 130,181	03/01/2017	03/31/2017	15.00	05/23/2017	53.00	68.00	\$ 8,852,284	15.00	53.00	68.00	8,852,284
294	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	05/12/2017	\$ 57,094	04/01/2017	04/30/2017	14.50	06/12/2017	43.00	57.50	\$ 3,282,919	14.50	43.00	57.50	3,282,919
295	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	05/12/2017	\$ 91,930	04/01/2017	04/30/2017	14.50	06/12/2017	43.00	57.50	\$ 5,285,978	14.50	43.00	57.50	5,285,978
296	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	06/16/2017	\$ 62,517	05/01/2017	05/31/2017	15.00	07/17/2017	47.00	62.00	\$ 3,876,070	15.00	47.00	62.00	3,876,070
297	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	06/16/2017	\$ 103,267	05/01/2017	05/31/2017	15.00	07/17/2017	47.00	62.00	\$ 6,402,560	15.00	47.00	62.00	6,402,560
298	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	07/10/2017	\$ 106,306	06/01/2017	06/30/2017	14.50	08/01/2017	41.00	55.50	\$ 5,899,997	14.50	41.00	55.50	5,899,997
299	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	07/10/2017	\$ 71,051	06/01/2017	06/30/2017	14.50	08/01/2017	41.00	55.50	\$ 3,943,303	14.50	41.00	55.50	3,943,303
300	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	08/03/2017	\$ 63,671	07/01/2017	07/31/2017	15.00	09/05/2017	36.00	51.00	\$ 3,247,234	15.00	36.00	51.00	3,247,234
301	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	08/03/2017	\$ 102,184	07/01/2017	07/31/2017	15.00	09/05/2017	36.00	51.00	\$ 5,211,384	15.00	36.00	51.00	5,211,384
302	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	09/11/2017	\$ 125,109	08/01/2017	08/31/2017	15.00	10/12/2017	42.00	57.00	\$ 7,131,227	15.00	42.00	57.00	7,131,227
303	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	09/11/2017	\$ 77,300	08/01/2017	08/31/2017	15.00	10/12/2017	42.00	57.00	\$ 4,406,114	15.00	42.00	57.00	4,406,114
304	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	10/05/2017	\$ 105,376	09/01/2017	09/30/2017	14.50	11/06/2017	37.00	51.50	\$ 5,426,867	14.50	37.00	51.50	5,426,867
305	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/09/2017	\$ 79,636	10/01/2017	10/31/2017	15.00	12/11/2017	41.00	56.00	\$ 4,459,616	15.00	41.00	56.00	4,459,616
306	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/09/2017	\$ 132,419	10/01/2017	10/31/2017	15.00	12/11/2017	41.00	56.00	\$ 7,415,472	15.00	41.00	56.00	7,415,472
307	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/30/2017	\$ 64,952	11/01/2017	11/30/2017	14.50	01/02/2018	33.00	47.50	\$ 3,085,196	14.50	33.00	47.50	3,085,196
308	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/30/2017	\$ 108,739	11/01/2017	11/30/2017	14.50	01/02/2018	33.00	47.50	\$ 5,165,100	14.50	33.00	47.50	5,165,100
309	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	04/18/2017	\$ 56,537	03/01/2017	04/01/2017	15.50	05/19/2017	48.00	63.50	\$ 3,590,091	15.50	48.00	63.50	3,590,091
310	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	07/05/2017	\$ 64,291	06/05/2017	07/02/2017	13.50	08/07/2017	36.00	49.50	\$ 3,182,425	13.50	36.00	49.50	3,182,425
311	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	10/04/2017	\$ 55,455	08/28/2017	10/01/2017	17.00	11/06/2017	36.00	53.00	\$ 2,939,135	17.00	36.00	53.00	2,939,135
312	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	05/13/2017	\$ 56,138	07/13/2017	08/08/2017	4.00	11/02/2017	86.00	90.00	\$ 5,052,388	4.00	86.00	90.00	5,052,388
313	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	02/09/2017	\$ 940	02/09/2017	-	-	02/27/2017	18.00	18.00	\$ 16,911	15.00	18.00	33.00	31,004
314	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	02/17/2017	\$ 1,064	02/17/2017	-	-	03/06/2017	17.00	17.00	\$ 18,090	15.00	17.00	32.00	34,052
315	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	05/01/2017	\$ 5,397	05/01/2017	-	-	05/17/2017	16.00	16.00	\$ 86,344	15.00	16.00	31.00	167,292
316	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	03/17/2017	\$ 333	03/17/2017	-	-	04/03/2017	17.00	17.00	\$ 5,668	15.00	17.00	32.00	10,670
317	INCOPI INDUSTRIES LLC	O/S SUPPLEMENTAL CONTRACTOR	12/13/2017	\$ 161	12/13/2017	-	-	12/22/2017	9.00	9.00	\$ 1,451	15.00	9.00	24.00	3,869
318	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	01/26/2017	\$ 670	01/26/2017	-	-	02/13/2017	18.00	18.00	\$ 12,054	15.00	18.00	33.00	22,099
319	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	06/30/2017	\$ 1,057	06/30/2017	-	-	07/17/2017	17.00	17.00	\$ 17,961	15.00	17.00	32.00	33,809
320	SUL4R PLUS LLC	O/S SUPPLEMENTAL CONTRACTOR	06/30/2017	\$ 777	06/01/2017	06/28/2017	13.50	09/08/2017	72.00	85.50	\$ 66,454	13.50	72.00	85.50	66,454
321	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	11/16/2017	\$ 86	11/16/2017	-	-	12/04/2017	18.00	18.00	\$ 1,547	15.00	18.00	33.00	2,836
322	FACILITIES PERFORMANCE GROUP LLC	O/S SUPPLEMENTAL CONTRACTOR	05/26/2017	\$ 9,081	05/26/2017	-	-	07/11/2017	46.00	46.00	\$ 417,729	15.00	46.00	61.00	553,945
323	FACILITIES PERFORMANCE GROUP LLC	O/S SUPPLEMENTAL CONTRACTOR	06/07/2017	\$ 10,118	06/07/2017	-	-	07/24/2017	47.00	47.00	\$ 475,547	15.00	47.00	62.00	627,317
324	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	07/28/2017	\$ 5,814	07/28/2017	-	-	08/14/2017	17.00	17.00	\$ 98,833	15.00	17.00	32.00	186,038
325	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$ 2,774	08/04/2017	-	-	08/21/2017	17.00	17.00	\$ 47,160	15.00	17.00	32.00	88,771
326	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	08/25/2017	\$ 5,424	08/25/2017	-	-	09/11/2017	17.00	17.00	\$ 92,211	15.00	17.00	32.00	173,574
327	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	11/03/2017	\$ 1,593	11/03/2017	-	-	11/20/2017	17.00	17.00	\$ 27,083	15.00	17.00	32.00	50,980
328	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	02/24/2017	\$ 673	02/24/2017	-	-	03/13/2017	17.00	17.00	\$ 11,446	15.00	17.00	32.00	21,546
329	FACILITIES PERFORMANCE GROUP LLC	O/S SUPPLEMENTAL CONTRACTOR	07/06/2017	\$ 438	07/06/2017	-	-	08/21/2017	46.00	46.00	\$ 20,160	15.00	46.00	61.00	26,733
330	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$ 1,865	07/03/2017	07/30/2017	13.50	09/10/2017	33.00	46.50	\$ 86,713	13.50	33.00	46.50	86,713
331	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	02/06/2017	\$ 987	02/06/2017	-	-	04/03/2017	36.00	36.00	\$ 70,751	15.00	36.00	51.00	100,291
332	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	07/14/2017	\$ 376	06/11/2017	-	-	08/17/2017	67.00	67.00	\$ 25,173	15.00	67.00	82.00	30,809
333	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$ 2,536	07/23/2017	-	-	09/01/2017	40.00	40.00	\$ 101,445	15.00	40.00	55.00	139,487
334	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	03/03/2017	\$ 7,825	03/03/2017	-	-	04/03/2017	31.00	31.00	\$ 242,581	15.00	31.00	46.00	359,959
335	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	04/04/2017	\$ 1,676	03/26/2017	04/01/2017	3.00	05/08/2017	37.00	40.00	\$ 67,024	3.00	37.00	40.00	67,024
336	WILLIAM E GROVES CONSTRUCTION INC	O/S SUPPLEMENTAL CONTRACTOR	06/20/2017	\$ 5,327	06/05/2017	06/06/2017	0.50	07/21/2017	45.00	45.50	\$ 242,382	0.50	45.00	45.50	242,382
337	UNITED ELECTRIC CO INC	O/S SUPPLEMENTAL CONTRACTOR	06/02/2017	\$ 987	06/02/2017	-	-	07/03/2017	31.00	31.00	\$ 30,585	15.00	31.00	45.00	45,096
338	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	11/24/2017	\$ 3,863	11/19/2017	-	-	12/22/2017	33.00	33.00	\$ 120,891	15.00	33.00	48.00	175,841
339	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	12/29/2016	\$ 253	12/25/2016	-	-	01/30/2017	36.00	36.00	\$ 9,116	15.00	36.00	51.00	12,914
340	UNITED ELECTRIC CO INC	O/S SUPPLEMENTAL CONTRACTOR	05/10/2017	\$ 38	05/09/2017	-	-	06/12/2017	34.00	34.00	\$ 1,303	15.00	34.00	49.00	1,877
341	FACILITIES PERFORMANCE GROUP LLC	O/S SUPPLEMENTAL CONTRACTOR	01/27/2017	\$ 258	01/27/2017	-	-	03/14/2017	46.00	46.00	\$ 11,847	15.00	46.00	61.00	15,711
342	MELVIN AND SONS BUSHHOOGING	O/S SUPPLEMENTAL CONTRACTOR	06/05/2017	\$ 53,528	06/05/2017	06/30/2017	12.50	06/12/2017	(18.00)	(5.50)	\$ (294,404)	12.50	(18.00)	(5.50)	(294,404)
343	THE ATLANTIC GROUP INC														

381 Total	<u>\$ 29,643,395</u>	<u>\$ 1,458,232,225</u>	<u>\$ 1,588,254,132</u>
382 Other O&M Expense Lead		<u>49.19</u>	<u>53.58</u>

Notes: Sample size of 381 payments based on 95% confidence level, 5% confidence interval, and 40,330 LG&E payments in population. Selected the highest 228 payment amounts and determined the number of payments by expenditure type for random sampling based on the % of total payments times 153 (population for random sample). Payment to OFFICE OF NATURAL RESOURCES REVENUE for \$108,406 covered 4 year period, which is not representative of normal operating results; thus, this payment was excluded from our analysis.

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Louisville Gas and Electric Company—Electric
Adjustment 6

Late Payment Credit

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Other Operating Revenues	\$ -	\$ 231,059	\$ 231,059
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ -	\$ 11,553	\$ 11,553
4	Federal Taxable	\$ -		\$ 219,506
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ -	\$ 46,096	\$ 46,096
7	Total Income Taxes	\$ -	\$ 57,649	\$ 57,649
8	Impact to Operating Income	\$ -	\$ 173,410	\$ 173,410

Notes and Sources

Line 1: Seelye, page 66, lines 13–15 and Exhibit WSS-14

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Louisville Gas and Electric Company—Electric
Adjustment 7

Employee Retirement Plans

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	401(k) Match	\$ 1,369,708	\$ (1,369,708)	\$ -
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ (68,485)	\$ 68,485	\$ -
4	Federal Taxable	\$ 1,301,223		\$ -
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ (273,257)	\$ 273,257	\$ -
7	Total Income Taxes	\$ (341,742)	\$ 341,742	\$ -
8	Impact to Operating Income	\$ (1,027,966)	\$ 1,027,966	\$ -

Notes and Sources

Response to KIUC-LGE 1.052

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 LG&E-E Schedule 3.8
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Louisville Gas and Electric Company—Electric
Adjustment 8

Directors and Officers Liability Insurance

<u>Line</u>	<u>Description</u>	<u>Company Proposed</u> <u>(A)</u>	<u>Adjustment</u> <u>(B)</u>	<u>Adjusted Amount</u> <u>(C)</u>
1	LG&E D&O Insurance	\$ 240,936		
2	Total Utility Plant Assets Ratio-Electric	81.5%		
3	Allocated D&O Insurance	\$ 196,433	\$ (98,216)	\$ 98,216
4	State Income Tax	5.00%		5.00%
5	Taxable Income for Federal Income Tax	\$ (9,822)	\$ 4,911	\$ (4,911)
6	Federal Taxable	\$ 186,611		\$ 93,305
7	Federal Income Tax Rate	21%		21%
8	Federal Income Tax Expense	\$ (39,188)	\$ 19,594	\$ (19,594)
9				
10	Total Income Taxes	\$ (49,010)	\$ 24,505	\$ (24,505)
11	Impact to Operating Income	\$ (147,423)	\$ 73,711	\$ (73,711)

Notes and Sources

Column A, Line 1: Response to OAG-LGE 1.081

Column A, Line 2: Allocation between LG&E Gas and Electric based on Total Utility Plant Assets Ratio per CAM [Filing Requirement 807 KAR 5:001 Section 16(7)(u)(1)16, pages 16 and 29]

Total Utility Plant Assets Ratio (Garrett, Schedule B-8, page 3 of 4, line 3)			
2017 LG&E-Electric Gross Utility Plant	5,581,939,046		81.5%
2017 LG&E-Gas Gross Utility Plant	1,264,627,534		18.5%
	<u>6,846,566,580</u>		<u>100.0%</u>

Column B, line 3: 50% of D&O Insurance

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Louisville Gas and Electric Company—Electric
Adjustment 9

Dues for EEI and EPRI

<u>Line</u>	<u>Description</u>	<u>Company Proposed</u>	<u>Adjustment</u>	<u>Adjusted Amount</u>
		<u>(A)</u>	<u>(B)</u>	<u>(C)</u>
1	EEI Dues	\$ 306,563	\$ (143,703)	\$ 162,859
2	EPRI Dues	1,217,304	(1,217,304)	-
3	Steptoe & Johnson LLC (Midwest Ozone Group)	24,063	(24,063)	-
4	Utility Air Regulatory Group (UARG)	128,800	(128,800)	-
5	Utility Water Act Group (UWAG)	52,440	(52,440)	-
6	Midwest Ozone Group (MOG)	31,625	(31,625)	-
7	Utility Solid Waste Activities Group (USWAG)	31,740	(31,740)	-
8	Total Covered Activity Dues	\$ 1,792,535	\$ (1,361,007)	\$ 162,859
9	State Income Tax	5.00%		5.00%
10	Taxable Income for Federal Income Tax	\$ (89,627)	\$ 81,484	\$ (8,143)
11	Federal Taxable	\$ 1,702,908		\$ 154,716
12	Federal Income Tax Rate	21%		21%
13	Federal Income Tax Expense	\$ (357,611)	\$ 325,121	\$ (32,490)
14	Total Income Taxes	\$ (447,238)	\$ 406,605	\$ (40,633)
15	Impact to Operating Income	\$ (1,345,297)	\$ 954,402	\$ (122,226)

Notes and Sources

Column A, line 1–7: Garrett, Schedule F-1

Column C, line 2: EEI Dues

Recoverable (Schedule F-1)	\$ 306,563
Non Recoverable (Schedule F-1)	52,554
Total EEI Dues	\$ 359,116
Recommended Exclusion per Commission (Order Case No. 2003-00433)	45.35%
Recoverable EEI Dues	\$ 162,859
Jurisdictional Allocation (Schedule F-1)	100.00%
Jurisdictional Recoverable EEI Dues	\$ 162,859

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 LG&E-E Schedule 3.10
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Louisville Gas and Electric Company—Electric
Adjustment 10

Outside Counsel Expense

<u>Line</u>	<u>Description</u>	<u>Company Proposed</u>	<u>Adjustment</u>	<u>Adjusted Amount</u>
		(A)	(B)	(C)
1	Outside Counsel	\$ 1,560,000		
2	Ratio of Coal Generation	43.3%		
3	Allocated D&O Insurance	\$ 675,945	\$ (337,972)	\$ 337,972
4	State Income Tax	5.00%		5.00%
5	Taxable Income for Federal Income Tax	\$ (33,797)	\$ 16,898	\$ (16,899)
6	Federal Taxable	\$ 642,148		\$ 321,073
7	Federal Income Tax Rate	21%		21%
8	Federal Income Tax Expense	\$ (134,851)	\$ 67,426	\$ (67,425)
9				
10	Total Income Taxes	\$ (168,648)	\$ 84,324	\$ (84,324)
11	Impact to Operating Income	\$ (507,297)	\$ 253,648	\$ (253,648)

Notes and Sources

Column A, line 1: Response to AG-LGE 2-52

Column A, Line 2: Allocation between KU and LG&E Electric based on Coal Generation Ratio [Filing Requirement 807 KAR 5:001 Section 16(7)(h)(7)]

2018 Coal GWh		
KU	15,998	56.7%
LG&E	12,232	43.3%
	<u>28,230</u>	<u>100.0%</u>

<u>Coal Generation GWh</u>	<u>KU</u>	<u>LG&E</u>	<u>Total</u>
Brown 1	320	-	320
Brown 2	661	-	661
Brown 3	1,260	-	1,260
Ghent 1	2,898	-	2,898
Ghent 2	3,241	-	3,241
Ghent 3	2,276	-	2,276
Ghent 4	2,714	-	2,714
Mill Creek 1	-	1,990	1,990
Mill Creek 2	-	1,490	1,490
Mill Creek 3	-	2,476	2,476
Mill Creek 4	-	2,641	2,641
OVEC	243	558	801
Trimble County 1	-	2,518	2,518
Trimble County 2	2,385	559	2,944
	<u>15,998</u>	<u>12,232</u>	<u>28,230</u>

Kentucky Public Service Commission

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 LG&E-E Schedule 3.11
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Louisville Gas and Electric Company—Electric

Adjustment 11
 Credit Card Rebate

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Credit Card Rebate	\$ 242,837		
2	M&S and Stores Allocation	98.78%		
3	Allocated Credit Card Rebate	\$ 239,870	\$ (239,870)	\$ -
4	State Income Tax	5.00%		5.00%
5	Taxable Income for Federal Income Tax	\$ (11,993)	\$ 11,993	\$ -
6	Federal Taxable	\$ 227,877		\$ -
7	Federal Income Tax Rate	21%		21%
8	Federal Income Tax Expense	\$ (47,854)	\$ 47,854	\$ -
9	Total Income Taxes	\$ (59,847)	\$ 59,847	\$ -
10	Impact to Operating Income	\$ (180,023)	\$ 180,023	\$ -

Notes and Sources

Response to OAG-LGE 1-084

Schedule B-8, page 3 of 4

Allocated among utilities based on Plant Materials and Operating Supplies plus Stores Expense Undistributed for 2018

	LG&E-Electric	LG&E-Gas	Total LG&E
M&S	35,470,297	10,258	35,480,555
Stores	7,137,329	516,791	7,654,120
	42,607,626	527,049	43,134,675
	98.78%	1.22%	

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 LG&E-E Schedule 3.12
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Louisville Gas and Electric Company—Electric

Adjustment 12

Economic Development

<u>Line</u>	<u>Description</u>	<u>Company Proposed (A)</u>	<u>Adjustment (B)</u>	<u>Adjusted Amount (C)</u>
1	Economic Development	\$ 990,283		
2	Number of Customers Assets Ratio-Electric	55.7%		
3	Allocated Economic Development	\$ 551,983	\$ (551,983)	\$ -
4	State Income Tax	5.00%		5.00%
5	Taxable Income for Federal Income Tax	\$ (27,599)	\$ 27,599	\$ -
6	Federal Taxable	\$ 524,384		\$ -
7	Federal Income Tax Rate	21%		21%
8	Federal Income Tax Expense	\$ (110,121)	\$ 110,121	\$ -
9	Total Income Taxes	\$ (137,720)	\$ 137,720	\$ -
10	Impact to Operating Income	\$ (414,263)	\$ 414,263	\$ -

Notes and Sources

Column A, Line 1: Response to AG-LGE 2-49

Column A, Line 2: Allocation between LG&E Gas and Electric based on Number of Customers Ratio per CAM
 [Filing Requirement 807 KAR 5:001 Section 16(7)(u)(1)16, pages 9 and 27]

Total Number of Customers Ratio (Arbough, Schedule I-1, page 3)		
2017 LG&E-Electric	410,876	55.7%
2017 LG&E-Gas	326,255	44.3%
	<u>737,131</u>	<u>100.0%</u>

Kentucky Public Service Commission

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 LG&E-E Schedule 3.13
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Louisville Gas and Electric Company—Electric

Adjustment 13

Customer Education

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Customer Education	\$ 1,040,000		
2	Number of Customers Assets Ratio-Electric	55.7%		
3	Allocated Customer Education	\$ 579,695	\$ (579,695)	\$ -
4	State Income Tax	5.00%		5.00%
5	Taxable Income for Federal Income Tax	\$ (28,985)	\$ 28,985	\$ -
6	Federal Taxable	\$ 550,710		\$ -
7	Federal Income Tax Rate	21%		21%
8	Federal Income Tax Expense	\$ (115,649)	\$ 115,649	\$ -
9				
10	Total Income Taxes	\$ (144,634)	\$ 144,634	\$ -
11	Impact to Operating Income	\$ (435,061)	\$ 435,061	\$ -

Notes and Sources

Column A, Line 1: Response to OAG-LGE 1.073

Column A, Line 2: Allocation between LG&E Gas and Electric based on Number of Customers Ratio per CAM
 [Filing Requirement 807 KAR 5:001 Section 16(7)(u)(1)16, pages 10 and 27]

Total Number of Customers Ratio (Arbough, Schedule I-1, page 3)		
2017 LG&E-Electric	410,876	55.7%
2017 LG&E-Gas	326,255	44.3%
	737,131	100.0%

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Louisville Gas and Electric Company—Electric

This schedule intentionally left blank to maintain numbering with other utilities.

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 LG&E-E Schedule 3.15
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Louisville Gas and Electric Company—Electric
Adjustment 15

Merger Mitigation Depancaking

<u>Line</u>	<u>Description</u>	<u>Company Proposed (A)</u>	<u>Adjustment (B)</u>	<u>Adjusted Amount (C)</u>
1	Misc. Transmission Expenses	\$ 8,977,509	\$ (8,977,509)	\$ -
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ (448,875)	\$ 448,875	\$ -
4	Federal Taxable	\$ 8,528,634		\$ -
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ (1,791,013)	\$ 1,791,013	\$ -
7	Total Income Taxes	\$ (2,239,888)	\$ 2,239,888	\$ -
8	Impact to Operating Income	\$ (6,737,621)	\$ 6,737,621	\$ -

Notes and Sources

Column A, Line 1: Garret, LG&E Schedule D-1, page 4 or 8, line 72; AOG-LGE DR 2-29c
 Response to OAG-LGE 1.049

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-E Schedule 3.16
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Louisville Gas and Electric Company—Electric
Adjustment 16

Amortization of Storm Damage Regulatory Asset

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Employee Labor	\$ 511,604	\$ 943	\$ 512,547
2	Contract Labor	1,636,449	143,852	1,780,301
3	Materials	142,334	(109,210)	33,124
4	Miscellaneous	46,900	32,750	79,650
5	Transportation	53,186	413	53,599
6	Total Regulatory Asset	\$ 2,390,472	\$ 68,747	\$ 2,459,220
7	Amortization Period	5.0	5.0	10.0
8	Annual Amortization	\$ 478,094	\$ (232,172)	\$ 245,922
9	State Income Tax	5.00%		5.00%
10	Taxable Income for Federal Income Tax	\$ (23,905)	\$ 11,609	\$ (12,296)
11	Federal Taxable	\$ 454,189		\$ 233,626
12	Federal Income Tax Rate	21%		21%
13	Federal Income Tax Expense	\$ (95,380)	\$ 46,319	\$ (49,061)
14	Total Income Taxes	\$ (119,285)	\$ 57,928	\$ (61,357)
18	Impact to Operating Income	\$ (358,809)	\$ 174,244	\$ (184,565)

Notes and Sources

Column A, lines 1–6: Case No. 2018-00304, Application dated September 12, 2018, Exhibit 4

Column A, line 7: Direct Testimony of Christopher M. Garrett, page 38, lines 16–17

Column B, lines 1-5: Response to KIUC-KU DR 1.65, which refers to Case No. 2018-00304, PSC-KU DR 1-8

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 LG&E-E Schedule 3.17
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Louisville Gas and Electric Company—Electric
Adjustment 17

Amortization of Tax Reform Regulatory Liability

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	State Tax Reform			
2	Total Regulatory Liability-Excess ADIT	\$ (1,121,030)		\$ (1,121,030)
3	Amortization Period	15.0	(9.0)	6.0
4	Annual Amortization	\$ (74,735)	\$ (112,103)	\$ (186,838)
5	State Income Tax			
6	Taxable Income for Federal Income Tax	\$ -	\$ -	\$ -
7	Federal Taxable	\$ (74,735)		\$ (186,838)
8	Federal Income Tax Rate	21%		21%
9	Federal Income Tax Expense	\$ 15,694	\$ 23,542	\$ 39,236
10	Total Income Taxes	\$ 15,694	\$ 23,542	\$ 39,236
11	Federal Tax Reform			
12	Total Regulatory Liability-Excess ADIT	\$ (16,593,150)		\$ (16,593,150)
13	Amortization Period	13.7	(9.0)	4.7
14	Annual Amortization	\$ (1,214,133)	\$ (2,341,542)	\$ (3,555,675)
15	State Income Tax			
16	Taxable Income for Federal Income Tax	\$ -	\$ -	\$ -
17	Federal Taxable			
18	Federal Income Tax Rate			
19	Federal Income Tax Expense	\$ -	\$ -	\$ -
20	Total Income Taxes	\$ -	\$ -	\$ -
21	State and Federal Annual Amortization	\$ (1,288,868)	\$ (2,453,645)	\$ (3,742,513)
22	State and Federal Total Income Taxes	\$ 15,694	\$ 23,542	\$ 39,236
23	Impact to Operating Income	\$ 1,273,174	\$ 2,430,103	\$ 3,703,277

Notes and Sources

Column A, line 2: Case No. 2018-00304, Application dated September 12, 2018, Exhibit 3
 Column A, line 3: Direct Testimony of Christopher M. Garrett, page 35, lines 12–13
 Column A, line 12: EDIT RMA Workpaper derived from Case No. 2018-00034 PSC DR 2-1

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-E Schedule 3.18
 Page 1 of 1

Louisville Gas and Electric Company—Electric
Adjustment 18

Interest Synchronization

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Capitalization	\$2,593,434,547	(53,995,411)	2,539,439,136
2	Debt Component of Rate of Return	2.11%		2.11%
3	Interest Synchronization	\$ 54,779,664		\$ 53,639,150
4	Interest Per Books	79,720,142		79,720,142
5	Interest Synchronization Adjustment	\$ (24,940,478)		\$ (26,080,992)
6	State Income Tax	5.00%		5.00%
7	Taxable Income for Federal Income Tax	\$ 1,247,024	\$ 57,026	\$ 1,304,050
8	Federal Taxable	\$ (23,693,454)		\$ (24,776,942)
9	Federal Income Tax Rate	21%		21%
10	Federal Income Tax Expense	\$ 4,975,625	\$ 227,533	\$ 5,203,158
11	Total Income Taxes	\$ 6,222,649	\$ 284,559	\$ 6,507,208
12	Impact to Operating Income	\$ 6,222,649	\$ (284,559)	\$ 6,507,208

Notes and Sources

Column A: Garrett Schedule WPD-2, sheet 5 of 5
 Line 1: Schedule 1.1
 Line 2: Schedule 2

Kentucky Public Service Commission

Case No. 2018-00295

Louisville Gas and Electric Company—Gas

List of Schedules

Line #	Schedule #	Description
1	LG&E-G Schedule 1	Summary Comparison of Revenue Requirement
2	LG&E-G Schedule 1.1	Revenue Requirements with OAG's Recommended Adjustments
3	LG&E-G Schedule 1.2	Computation of Gross Up Conversion Factor
4	LG&E-G Schedule 1.2.1	Effect of Recommended Gross-Up Conversion Factor on Company's Revenue Deficiency
5	LG&E-G Schedule 2	Rate of Return Calculation
6	LG&E-G Schedule 2.1	Effect of Proxy ROE on Company's Revenue Deficiency
7	LG&E-G Schedule 3	Ratemaking Adjustments
8	LG&E-G Schedule 3.1	Adjustment 1 Slippage
9	LG&E-G Schedule 3.2	Adjustment 2 Uniform Diameter Transmission Line Replacement
10	LG&E-G Schedule 3.3	Adjustment 3 Nelson County Gas Line Extension Project
11	LG&E-G Schedule 3.4	This schedule intentionally left blank to maintain numbering with other utilities.
12	LG&E-G Schedule 3.5	Adjustment 5 Working Capital
13	LG&E-G Schedule 3.5.1	Adjustment 5 Cash Working Capital Workpaper
14	LG&E-G Schedule 3.6	Adjustment 6 Late Payment Credit
15	LG&E-G Schedule 3.7	Adjustment 7 Employee Retirement Plans
16	LG&E-G Schedule 3.8	Adjustment 8 Directors and Officers Liability Insurance
17	LG&E-G Schedule 3.9	This schedule intentionally left blank to maintain numbering with other utilities.
18	LG&E-G Schedule 3.10	This schedule intentionally left blank to maintain numbering with other utilities.
19	LG&E-G Schedule 3.11	Adjustment 11 Credit Card Rebate
20	LG&E-G Schedule 3.12	Adjustment 12 Economic Development
21	LG&E-G Schedule 3.13	Adjustment 13 Customer Education
22	LG&E-G Schedule 3.14	This schedule intentionally left blank to maintain numbering with other utilities.
23	LG&E-G Schedule 3.15	This schedule intentionally left blank to maintain numbering with other utilities.
24	LG&E-G Schedule 3.16	This schedule intentionally left blank to maintain numbering with other utilities.
25	LG&E-G Schedule 3.17	Adjustment 17 Amortization of Tax Reform Regulatory Liability
26	LG&E-G Schedule 3.18	Adjustment 18 Interest Synchronization

Kentucky Public Service Commission

Case No. 2018-0029
 LG&E-G Schedule 1

Louisville Gas and Electric Company—Gas

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Summary Comparison of Revenue Requirement

<u>Line</u>	<u>Description</u>	<u>Company</u> <u>(A)</u>	<u>Recommended</u> <u>(B)</u>	<u>Difference</u> <u>(C)</u>
1	Jurisdictional Capitalization	\$ 788,382,062	\$ 766,050,078	\$(22,331,984)
2	Rate of Return	7.62%	7.24%	-0.38%
3	Return Requirement	60,057,739	55,442,273	(4,615,467)
4	Adjusted Net Operating Income	41,422,432	42,791,454	1,369,022
5	Deficiency	18,635,307	12,650,819	(5,984,489)
6	Income Tax Effect	6,290,432	4,255,576	(2,034,856)
7	Revenue (Sufficiency) Deficiency	24,925,739	16,906,395	(8,019,344)
8	Rounding	(865)	(865)	-
9	Revenue Increase	<u>\$ 24,924,874</u>	<u>\$ 16,905,530</u>	<u>\$ (8,019,344)</u>

Notes and Sources

Schedule 1.1

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-G Schedule 1.1
 Page 1 of 1

Louisville Gas and Electric Company—Gas

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020
 Revenue Requirements with OAG's Recommended Adjustments

<u>Line</u>	<u>Description</u>	<u>Company</u>	<u>Recommended Adjustments</u>	<u>Adjusted Total</u>
		<u>(A)</u>	<u>(B)</u>	<u>(C)</u>
1	Rate Base			
2	Plant in Service	\$ 1,316,522,576	\$ (3,704,304)	\$ 1,312,818,272
3	Property Held for Future Use	-	-	-
4	Accumulated Depreciation	<u>(408,499,313)</u>	-	<u>(408,499,313)</u>
5	Net Plant in Service	\$ 908,023,263		\$ 904,318,959
6	Construction Work in Progress	<u>50,685,952</u>	(9,631,619)	<u>41,054,333</u>
7	Net Plant	\$ 958,709,216		\$ 945,373,293
8	Cash Working Capital	22,465,273	(5,817,360)	16,647,913
9	Other Working Capital Allowances	24,995,968	(3,178,701)	21,817,267
10	Customers' Advances for Construction	(7,666,910)	-	(7,666,910)
11	Deferred Income Tax	(223,219,910)	-	(223,219,910)
12	Investment Tax Credits	-	-	-
13	Other Items	-	-	-
14	Total Jurisdictional Rate Base	<u>\$ 775,283,637</u>	<u>\$ (22,331,984)</u>	<u>\$ 752,951,653</u>
15	Jurisdictional Capitalization	\$ 788,382,062	\$ (22,331,984)	766,050,078
16	Used for Return Requirement	\$ 788,382,062	\$ (22,331,984)	766,050,078
17	Rate of Return	7.62%		7.24%
18	Return Requirement	<u>\$ 60,057,739</u>	<u>\$ (4,615,467)</u>	<u>\$ 55,442,273</u>
19	Revenues			
20	Gas Sales Revenues	\$ 181,727,258	\$ -	\$ 181,727,258
21	Other Operating Revenues	<u>8,821,125</u>	<u>97,753</u>	<u>8,918,878</u>
22	Total Revenues	<u>\$ 190,548,383</u>	<u>\$ 97,753</u>	<u>\$ 190,646,136</u>
23	Expenses			
24	O&M Expenses	\$ 93,616,747	\$ (1,356,363)	\$ 92,260,384
25	Depreciation and Amortization	38,418,048	(418,864)	37,999,184
26	Regulatory Debits	-	-	-
27	Taxes other than Income Taxes	11,768,640	(22,287)	11,746,353
28	Income Taxes	5,327,169	526,245	5,853,414
29	Investment Tax Credits	<u>(4,653)</u>	-	<u>(4,653)</u>
30	Total Operating Expenses	<u>\$ 149,125,951</u>	<u>\$ (1,271,269)</u>	<u>\$ 147,854,682</u>
31	Net Operating Income	<u>\$ 41,422,432</u>	<u>\$ 1,369,022</u>	<u>\$ 42,791,454</u>
32	Deficiency	\$ 18,635,307	\$ (5,984,489)	\$ 12,650,819
33	Gross-Up Conversion Factor	<u>1.337554</u>		<u>1.336387</u>
34	Revenue (Sufficiency) Deficiency	\$ 24,925,739	\$ (8,019,344)	\$ 16,906,395
35	Rounding	<u>(865)</u>	-	<u>(865)</u>
36	Revenue Increase	<u>\$ 24,924,874</u>	<u>\$ (8,019,344)</u>	<u>\$ 16,905,530</u>
37	Percent of Request			-32.17%

Notes and Sources

Column A, Lines 1-14: Garrett, Schedule B-1
 Column A, Line 15 and 17, Schedule 2
 Column A, Lines 19-30: Garrett, Schedule C-1
 Column A, Line 33: Schedule 1.2

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-G Schedule 1.2
 Page 1 of 1

Louisville Gas and Electric Company—Gas

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Computation of Gross Up Conversion Factor

Line	Description	Company	Adjustment	Adjusted Amount
		(A)	(B)	(C)
1	Bad Debt Expense	0.18%	-0.09%	0.095%
2	PSC Fees	0.20%		0.20%
3	Subtotal	0.38%		0.30%
4	Percent Income Before State Income Taxes	99.62%		99.71%
5	Statutory Rate-State	5.00%		5.00%
6	Effective Rate-State	4.98%		4.99%
7	Percent Income Before Federal Income Taxes	94.64%		94.72%
8	Statutory Rate-Federal	21.00%		21.00%
9	Effective Rate-Federal	19.87%		19.89%
10	Total Composite Tax rate	25.2367%		25.1714%
11	Tax Gross Up Factor	74.7633%		74.8286%
12	Gross-Up Conversion Factor	1.337554	-0.001167	1.336387

Notes and Sources

Column A: Garrett, Schedule H-1

Column A, Line 1: Uncollectibles based on five year average net charge off % (OAG-LGE DR 1.85)

Column B, Line 1: Response to OAG-LGE DR 2-79

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-G Schedule 1.2.1

Louisville Gas and Electric Company—Gas

Page 1 of 1

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Effect of Recommended **Gross-Up Conversion Factor** on Company's Revenue Deficiency

Line	Description	Company Proposed (A)	Adjustment (B)	Total (C)
1	Capitalization	\$ 788,382,062		\$ 788,382,062
2	Rate of Return	7.62%		7.62%
3	Return Requirement	\$ 60,057,739		\$ 60,057,739
4	Net Operating Income	\$ 41,422,432		\$ 41,422,432
5	Deficiency	\$ 18,635,307		\$ 18,635,307
6	Gross-Up Conversion Factor	1.33755	-0.001167	1.33639
7	Revenue Deficiency	\$ 24,925,739	\$ (21,751)	\$ 24,903,989

Notes and Sources

Column A: Summary Totals from Schedule 1
 Line : Schedule 1.2

Check 24,925,739

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-G Schedule 2
 Page 1 of 1

Louisville Gas and Electric Company—Gas

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Rate of Return Calculation

<u>Line</u>	<u>Description</u>	<u>Jurisdictional Adjusted Capital (A)</u>	<u>Capital Structure (B)</u>	<u>Cost % (C)</u>	<u>Weighted Cost % (D)</u>
<u>Company Proposed Rate of Return</u>					
1	Short-Term Debt	14,929,496	1.89%	3.25%	0.062%
2	Long-Term Debt	356,896,070	45.27%	4.53%	2.05%
3	Common Equity	416,556,497	52.84%	10.42%	5.51%
4	Total	<u>788,382,062</u>	<u>100.00%</u>		<u>7.62%</u>
<u>Proxy Rate of Return</u>					
5	Short-Term Debt	14,929,496	1.89%	3.25%	0.062%
6	Long-Term Debt	356,896,070	45.27%	4.53%	2.05%
7	Common Equity	416,556,497	52.84%	9.70%	5.13%
8	Total	<u>788,382,062</u>	<u>100.00%</u>		<u>7.24%</u>

Notes and Sources

Column A and B, lines 1-4: Arbough, Schedule J-1.1/J-1.2, Page 1 (13 Month Average)

Column C, line 7: Proxy ROE from Case No. 2016-00371, Order dated June 22, 2017, page 20

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LG&E-G Schedule 2.1

Louisville Gas and Electric Company—Gas

Page 1 of 1

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020

Effect of Proxy ROE on Company's Revenue Deficiency

<u>Line</u>	<u>Description</u>	<u>Company Proposed (A)</u>	<u>Adjustment (B)</u>	<u>Total (C)</u>
1	<u>ROE of 9.7%</u>			
2	Capitalization	\$ 788,382,062		\$ 788,382,062
3	Rate of Return	7.62%	-0.38%	7.24%
4	Return Requirement	\$ 60,057,739	\$ (2,999,207)	\$ 57,058,533
5	Net Operating Income	\$ 41,422,432		\$ 41,422,432
6	Deficiency	\$ 18,635,307		\$ 15,636,101
7	Revenue Conversion Factor	1.33755		1.33639
8	Revenue Deficiency	\$ 24,925,739	\$ (4,029,853)	\$ 20,895,887

Notes and Sources

Column A: Summary Totals from Schedule 1

Check 24,925,739

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-G Schedule 3
 Page 1 of 2

Louisville Gas and Electric Company—Gas

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020
 Ratemaking Adjustments

Line	Description	Company (A)	Adjustment 1 (B) LG&E-G Schedule 3.1	Adjustment 2 (C) LG&E-G Schedule 3.2	Adjustment 3 (D) LG&E-G Schedule 3.3	Adjustment 5 (E) LG&E-G Schedule 3.5	Adjustment 6 (F) LG&E-G Schedule 3.6	Adjustment 7 (G) LG&E-G Schedule 3.7	Adjustment 8 (H) LG&E-G Schedule 3.8	Adjustment 11 (I) LG&E-G Schedule 3.11	Adjustment Subtotal (J)
Reference Schedule											
1	Rate Base										
2	Plant in Service	\$ 1,316,522,576	\$ (3,704,304)								\$ (3,704,304)
3	Property Held for Future Use	-									-
4	Accumulated Depreciation	(408,499,313)									-
5	Net Plant in Service	\$ 908,023,263	\$ (3,704,304)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (3,704,304)
6	Construction Work in Progress	50,685,952		(9,600,000)	(31,619)						(9,631,619)
7	Net Plant	\$ 958,709,215	\$ (3,704,304)	\$ (9,600,000)	\$ (31,619)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (13,335,923)
8	Cash Working Capital	22,465,273				(5,817,360)					(5,817,360)
9	Other Working Capital Allowances	24,995,968				(3,178,701)					(3,178,701)
10	Customers' Advances for Construction	(7,666,910)									-
11	Accumulated Deferred Income Tax	(223,219,910)									-
12	Investment Tax Credits	-									-
13	Other Items	-									-
14	Total Rate Base	\$ 775,283,636	\$ (3,704,304)	\$ (9,600,000)	\$ (31,619)	\$ (8,996,061)	\$ -	\$ -	\$ -	\$ -	\$ (22,331,984)
15	Jurisdictional Capitalization	\$ 788,382,062	\$ (3,704,304)	\$ (9,600,000)	\$ (31,619)	\$ (8,996,061)	\$ -	\$ -	\$ -	\$ -	\$ (22,331,984)
16	Used for Return Requirement	\$ 788,382,062	\$ (3,704,304)	\$ (9,600,000)	\$ (31,619)	\$ (8,996,061)	\$ -	\$ -	\$ -	\$ -	\$ (22,331,984)
17	Rate of Return	7.62%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%
18	Return Requirement	\$ 60,057,739	\$ (268,096)	\$ (694,792)	\$ (2,288)	\$ (651,083)	\$ -	\$ -	\$ -	\$ -	\$ (1,616,260)
19	Revenues										
20	Gas Sales Revenues	\$ 181,727,258									\$ -
21	Other Operating Revenues	8,821,125					97,753				97,753
22	Total Revenues	\$ 190,548,383	\$ -	\$ -	\$ -	\$ -	\$ 97,753	\$ -	\$ -	\$ -	\$ 97,753
23	Operating Expenses										
24	O&M Expenses	\$ 93,616,747						\$ (432,539)	\$ (22,252)	\$ (2,967)	\$ (457,758)
25	Depreciation and Amortization	38,418,048	\$ (81,182)								(81,182)
26	Regulatory Debits	-									-
27	Taxes other than Income Taxes	11,768,640	(22,287)								(22,287)
28	Income Taxes	5,327,169	42,753				\$ 24,390	\$ 107,919	\$ 5,551	\$ 740	181,353
29	Investment Tax Credits	(4,653)									-
30	Total Operating Expenses	\$ 149,125,951	\$ (60,716)	\$ -	\$ -	\$ -	\$ 24,390	\$ (324,620)	\$ (16,701)	\$ (2,227)	\$ (379,874)
31	Net Operating Income	\$ 41,422,432	\$ 60,716	\$ -	\$ -	\$ -	\$ 73,363	\$ 324,620	\$ 16,701	\$ 2,227	\$ 477,627
32	Income Deficiency	\$ 18,635,307	\$ (328,812)	\$ (694,792)	\$ (2,288)	\$ (651,083)	\$ (73,363)	\$ (324,620)	\$ (16,701)	\$ (2,227)	\$ (2,093,887)
33	Gross-Up Conversion Factor	1.33755	1.33639	1.33639	1.33639	1.33639	1.33639	1.33639	1.33639	1.33639	1.33639
34	Revenue (Sufficiency) Deficiency	\$ 24,925,739	\$ (439,420)	\$ (928,512)	\$ (3,058)	\$ (870,099)	\$ (98,041)	\$ (433,818)	\$ (22,318)	\$ (2,976)	\$ (2,798,244)
35	Percent of Total	Check \$ 24,925,739	1.8%	3.7%	0.0%	3.5%	0.4%	1.7%	0.1%	0.0%	
		Adjustment 1	Slippage				Adjustment 6	Late Payment Credit			
		Adjustment 2	Uniform Diameter Transmission Line Replacement				Adjustment 7	Employee Retirement Plans			
		Adjustment 3	Uniform Diameter Transmission Line Replacement				Adjustment 8	Directors and Officers Liability Insurance			
		Adjustment 5	Working Capital				Adjustment 11	Credit Card Rebate			

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-G Schedule 3
 Page 2 of 2

Louisville Gas and Electric Company—Gas

Base Period ending December 31, 2018; Fully Forecasted Test Period ending April 30, 2020
 Rate-making Adjustments

(in thousands)

Line	Description (A)	Carry Forward (B)	Adjustment 12 (C)	Adjustment 13 (D)	Adjustment 17 (E)	Adjustment 18 (F)	Adjustment Subtotal (G)	Approved Totals (H)
	Reference Schedule		LG&E-G Schedule 3.12	LG&E-G Schedule 3.13	LG&E-G Schedule 3.17	LG&E-G Schedule 3.18		
1	Rate Base							
2	Plant in Service	\$ (3,704,304)					\$ (3,704,304)	\$ 1,312,818,272
3	Property Held for Future Use	-					-	-
4	Accumulated Depreciation	-					-	(408,499,313)
5	Net Plant in Service	\$ (3,704,304)	\$ -	\$ -	\$ -	\$ -	\$ (3,704,304)	\$ 904,318,959
6	Construction Work in Progress	(9,631,619)					(9,631,619)	41,054,333
7	Net Plant	\$ (13,335,923)	\$ -	\$ -	\$ -	\$ -	\$ (13,335,923)	\$ 945,373,292
8	Cash Working Capital	(5,817,360)					(5,817,360)	16,647,913
9	Other Working Capital Allowances	(3,178,701)					(3,178,701)	21,817,267
10	Customers' Advances for Construction	-					-	(7,666,910)
11	Accumulated Deferred Income Tax	-					-	(223,219,910)
12	Investment Tax Credits	-					-	-
13	Other Items	-					-	-
14	Total Rate Base	\$ (22,331,984)	\$ -	\$ -	\$ -	\$ -	\$ (22,331,984)	\$ 752,951,652
15	Jurisdictional Capitalization	\$ (22,331,984)	\$ -	\$ -	\$ -	\$ -	\$ (22,331,984)	\$ 766,050,078
16	Used for Return Requirement	\$ (22,331,984)	\$ -	\$ -	\$ -	\$ -	\$ (22,331,984)	\$ 766,050,078
17	Rate of Return	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%	7.24%
18	Return Requirement	\$ (1,616,260)	\$ -	\$ -	\$ -	\$ -	\$ (1,616,260)	\$ 55,442,273
19	Revenues							
20	Gas Sales Revenues	\$ -					\$ -	\$ 181,727,258
21	Other Operating Revenues	97,753					97,753	8,918,878
22	Total Revenues	\$ 97,753	\$ -	\$ -	\$ -	\$ -	\$ 97,753	\$ 190,646,136
23	Operating Expenses							
24	O&M Expenses	\$ (457,758)	\$ (438,300)	\$ (460,305)			\$ (1,356,363)	\$ 92,260,384
25	Depreciation and Amortization	(81,182)			\$ (337,682)		(418,864)	37,999,184
26	Regulatory Debits	-					-	-
27	Taxes other than Income Taxes	(22,287)					(22,287)	11,746,353
28	Income Taxes	181,353	109,356	114,846	3,000	117,690	526,245	5,853,414
29	Investment Tax Credits	-					-	(4,653)
30	Total Operating Expenses	\$ (379,874)	\$ (328,944)	\$ (345,459)	\$ (334,682)	\$ 117,690	\$ (1,271,269)	\$ 147,854,682
31	Net Operating Income	\$ 477,627	\$ 328,944	\$ 345,459	\$ 334,682	\$ (117,690)	\$ 1,369,022	\$ 42,791,454
32	Income Deficiency	\$ (2,093,887)	\$ (328,944)	\$ (345,459)	\$ (334,682)	\$ 117,690	\$ (2,985,282)	\$ 12,650,819
33	Gross-Up Conversion Factor	1.33639	1.33639	1.33639	1.33639	1.33639	1.33639	1.33639
34	Revenue (Sufficiency) Deficiency	\$ (2,798,244)	\$ (439,597)	\$ (461,667)	\$ (447,264)	\$ 157,279	\$ (3,989,493)	\$ 16,906,395
35	Percent of Total		1.8%	1.9%	1.8%	-0.6%		-

Adjustment 12 Economic Development
 Adjustment 13 Customer Education
 Adjustment 17 Amortization of Tax Reform Regulatory Liability
 Adjustment 18 Interest Synchronization

Kentucky Public Service Commission

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 LG&E-G Schedule 3.1
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Louisville Gas and Electric Company—Gas

Adjustment 1

Slippage

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	<u>Rate Base</u>			
2	Plant	\$ 788,382,062	\$ (3,704,304)	\$ 784,677,758
3	Impact to Rate Base	<u>\$ 788,382,062</u>	<u>\$ (3,704,304)</u>	<u>\$ 784,677,758</u>
4	<u>Revenues</u>			
5	Electric Sales Revenues	\$ 181,727,258	\$ -	\$ 181,727,258
6	Other Operating Revenues	8,821,125	\$ -	8,821,125
		<u>\$ 190,548,383</u>		<u>\$ 190,548,383</u>
7	<u>Expenses</u>			
8	O&M Expenses	\$ 93,616,747	\$ -	\$ 93,616,747
9	Depreciation and Amortization	38,418,048	(81,182)	38,336,866
10	Taxes Other Than Income Taxes	11,768,640	(22,287)	11,746,353
11	Total Income Taxes	5,327,169	42,753	5,369,922
12	Investment Tax Credit	(4,653)	-	(4,653)
13	Total Operating Expenses	<u>\$ 149,125,951</u>	<u>\$ (60,715)</u>	<u>\$ 149,065,236</u>
14	Impact to Operating Income	<u>\$ 41,422,432</u>	<u>\$ 60,715</u>	<u>\$ 41,483,147</u>

Notes and Sources

Column A, line 1: MFR Schedule A

Column A, line 5–14: MFR Schedule C-1

Column C: Response to PSC-LGE 2.075, Attachments Schedule A and Schedule C-1

Kentucky Public Service Commission

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 LG&E-G Schedule 3.2
 Page 1 of 1

Louisville Gas and Electric Company—Gas

Adjustment 2

Uniform Diameter Transmission Line Replacement

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	<u>Rate Base</u>			
2	CWIP	\$ 9,600,000	\$ (9,600,000)	\$ -
3	Impact to Rate Base	<u>\$ 9,600,000</u>	<u>\$ (9,600,000)</u>	<u>\$ -</u>

Notes and Sources

Response to LGE-AG 1.55c

Kentucky Public Service Commission

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 LG&E-G Schedule 3.3
 Page 1 of 1

Louisville Gas and Electric Company—Gas

Adjustment 3

Nelson County Gas Line Extension Project

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	<u>Rate Base</u>			
2	CWIP	\$ 31,619	\$ (31,619)	\$ -
3	Impact to Rate Base	\$ 31,619	\$ (31,619)	\$ -

Notes and Sources

Response to LGE-AG 1.57c

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Kentucky Public Service Commission

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Louisville Gas and Electric Company—Gas

LG&E-G Schedule 3.4

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This schedule intentionally left blank to maintain numbering with other utilities.

Kentucky Public Service Commission

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Louisville Gas and Electric Company—Gas
 Adjustment 5
 Working Capital

Line	Description	Company Proposed (A)	Operating Expenses (B)	Average Daily (C)	Net (Lead)/Lag Days (D)	CWC Adjustment (E)	Adjusted Amount (F)
1	Cash Working Capital	\$ 22,465,273				\$ (5,838,074)	\$ 16,627,200
2	<u>Update for Adjustments</u>						
3	O&M Expense		\$ (1,356,363)				
4	Employee Retirement		(432,539)	(1,182)	20.76	(24,535)	(24,535)
5	D&O Insurance		(22,252)	(61)	(25.40)	1,544	1,544
6	Remaining O&M Expense		(901,573)	(2,463)	(9.83)	24,215	24,215
7	Depreciation and Amortization		(418,864)	(1,144)	-	-	-
8	Taxes Other Than Income Taxes		(22,287)	(61)	(172.51)	10,505	10,505
9	Income Taxes (without Interest Synchronization)		408,555	1,116	6.25	6,975	6,975
10	Interest Synchronization		<u>117,690</u>	322	6.25	2,009	2,009
11	Total Operating Expenses		<u>(1,271,269)</u>				
	<i>Check from Schedule 3</i>						
12	Cash Working Capital	<u>\$ 22,465,273</u>				<u>\$ (5,817,360)</u>	\$ 16,647,913
14	Prepayments	<u>\$ 3,178,701</u>				<u>\$ (3,178,701)</u>	\$ -
15	Impact to Rate Base	<u>\$ 25,643,974</u>				<u>\$ (8,996,061)</u>	<u>\$ 16,647,913</u>

Notes and Sources

Column A, lines 1 and 15: Garrett, Schedule B-5, page 2 of 2
 Column E, line 1: CWC WP
 Column B, line 10: Schedule 3.18
 Column B, line 10: Schedule 3.18
 Column C: Net (Lead)/Lag Days Schedule 3.5.1 CWC WP

Interest Synchronization	w/o Int Sync	w/ Int Sync	Int Sync	
Income Taxes	408,555	526,245	<u>117,690</u>	Schedule 3

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-G Schedule 3.5.1

Louisville Gas and Electric Company—Gas
 Adjustment 5
 Cash Working Capital Workpaper

Line	Description	As Filed by Company								Adjusted								Adjustment	
		Total Company - Gas	Allocation Factor	Base Period Jurisdictional	Average Daily Amount	Revenue Lag Days	Expense (Lead)/Lag Days	Net (Lead)/Lag Days	Working Capital (Provided)/Required	Total Company - Gas	Allocation Factor	Base Period Jurisdictional	Average Daily Amount	Revenue Lag Days	Expense (Lead)/Lag Days	Net (Lead)/Lag Days	Working Capital (Provided)/Required		
1	O&M Expenses:																		
1	Purchased Gas	\$ 124,395,377	100.000%	\$ 124,395,377	\$ 339,878	43.75	(39.66)	4.09	\$ 1,389,660	\$ 124,395,377	100.000%	\$ 124,395,377	\$ 339,878	43.75	(39.66)	4.09	\$ 1,389,660		
2	No-Notice Storage Injections and Withdrawals	\$ (1,235,161)	100.000%	\$ (1,235,161)	\$ (3,375)	43.75	-	43.75	\$ (147,640)	\$ (1,235,161)	100.000%	\$ (1,235,161)	\$ (3,375)	43.75	-	43.75	\$ (147,640)		
3	Payroll Expense	\$ 17,293,652	100.000%	\$ 17,293,652	\$ 47,250	43.75	(12.00)	31.75	\$ 1,500,186	\$ 17,293,652	100.000%	\$ 17,293,652	\$ 47,250	43.75	(12.00)	31.75	\$ 1,500,186		
4	Pension Expense	\$ (314,310)	100.000%	\$ (314,310)	\$ (859)	43.75	-	43.75	\$ (37,570)	\$ (314,310)	100.000%	\$ (314,310)	\$ (859)	43.75	-	43.75	\$ (37,570)		
5	OPEB Expense	\$ 623,600	100.000%	\$ 623,600	\$ 1,704	43.75	-	43.75	\$ 74,540	\$ 623,600	100.000%	\$ 623,600	\$ 1,704	43.75	-	43.75	\$ 74,540		
6	Team Incentive Award Compensation	\$ 1,528,143	100.000%	\$ 1,528,143	\$ 4,175	43.75	(245.22)	(201.47)	\$ (841,195)	\$ 1,528,143	100.000%	\$ 1,528,143	\$ 4,175	43.75	(245.22)	(201.47)	\$ (841,195)		
7	401k Match Expense	\$ 680,734	100.000%	\$ 680,734	\$ 1,860	43.75	(22.99)	20.76	\$ 38,613	\$ 680,734	100.000%	\$ 680,734	\$ 1,860	43.75	(22.99)	20.76	\$ 38,613		
8	Retirement Income Account Expense	\$ 317,677	100.000%	\$ 317,677	\$ 868	43.75	(283.50)	(239.75)	\$ (208,098)	\$ 317,677	100.000%	\$ 317,677	\$ 868	43.75	(283.50)	(239.75)	\$ (208,098)		
9	Uncollectible Expense	\$ 592,257	100.000%	\$ 592,257	\$ 1,618	43.75	(256.34)	(212.59)	\$ (344,016)	\$ 592,257	100.000%	\$ 592,257	\$ 1,618	43.75	(256.34)	(212.59)	\$ (344,016)		
10	Major Storm Damage Expense	\$ -	100.000%	\$ -	\$ -	43.75	(35.32)	8.43	\$ -	\$ -	100.000%	\$ -	\$ -	43.75	(35.32)	8.43	\$ -		
11	Charges from Affiliates	\$ 28,443,760	100.000%	\$ 28,443,760	\$ 77,715	43.75	(25.40)	18.35	\$ 1,426,200	\$ 28,443,760	100.000%	\$ 28,443,760	\$ 77,715	43.75	(25.40)	18.35	\$ 1,426,200		
12	Other O&M	\$ 49,625,064	100.000%	\$ 49,625,064	\$ 135,588	43.75	(49.19)	(5.44)	\$ (738,159)	\$ 49,625,064	100.000%	\$ 49,625,064	\$ 135,588	43.75	(53.58)	(9.83)	\$ (1,332,874)		
13	Total O&M Expenses	\$ 221,950,793		\$ 221,950,793					\$ 2,112,521	\$ 221,950,793		\$ 221,950,793					\$ 1,628,477		
14	Depreciation and Amortization Expense																		
15	Depreciation and Amortization	\$ 40,200,199	100.000%	\$ 40,200,199	\$ 109,837	43.75	-	43.75	\$ 4,805,169	\$ 40,200,199	100.000%	\$ 40,200,199	\$ 109,837	43.75	-	43.75	\$ 4,805,169		
16	Regulatory Debits	\$ -	100.000%	\$ -	\$ -	43.75	-	43.75	\$ -	\$ -	100.000%	\$ -	\$ -	43.75	-	43.75	\$ -		
17	Amortization of Regulatory Assets	\$ 261,556	100.000%	\$ 261,556	\$ 715	43.75	-	43.75	\$ 31,264	\$ 261,556	100.000%	\$ 261,556	\$ 715	43.75	-	43.75	\$ 31,264		
18	Amortization of Regulatory Liabilities	\$ -	100.000%	\$ -	\$ -	43.75	-	43.75	\$ -	\$ -	100.000%	\$ -	\$ -	43.75	-	43.75	\$ -		
19	Total Depreciation and Amortization Expense	\$ 40,461,755		\$ 40,461,755					\$ 4,836,433	\$ 40,461,755		\$ 40,461,755					\$ -		
20	Income Tax Expense:																		
21	Current: Federal	\$ 3,678,350	100.000%	\$ 3,678,350	\$ 10,050	43.75	(37.50)	6.25	\$ 62,797	\$ 3,678,350	100.000%	\$ 3,678,350	\$ 10,050	43.75	(37.50)	6.25	\$ 62,797		
22	Current: State	\$ (26,158)	100.000%	\$ (26,158)	\$ (71)	43.75	(37.50)	6.25	\$ (447)	\$ (26,158)	100.000%	\$ (26,158)	\$ (71)	43.75	(37.50)	6.25	\$ (447)		
23	Deferred: Federal and State (Including ITC)	\$ 4,330,232	100.000%	\$ 4,330,232	\$ 11,831	43.75	-	43.75	\$ 517,597	\$ 4,330,232	100.000%	\$ 4,330,232	\$ 11,831	43.75	-	43.75	\$ 517,597		
24	Total Income Tax Expense	\$ 7,982,424		\$ 7,982,424					\$ 579,947	\$ 7,982,424		\$ 7,982,424					\$ 62,350		
25	Taxes Other Than Income																		
26	Property Tax Expense	\$ 9,410,574	100.000%	\$ 9,410,574	\$ 25,712	43.75	(216.26)	(172.51)	\$ (4,435,681)	\$ 9,410,574	100.000%	\$ 9,410,574	\$ 25,712	43.75	(216.26)	(172.51)	\$ (4,435,681)		
27	Payroll Tax Expense	\$ 2,576,768	100.000%	\$ 2,576,768	\$ 7,040	43.75	(35.48)	8.27	\$ 58,245	\$ 2,576,768	100.000%	\$ 2,576,768	\$ 7,040	43.75	(35.48)	8.27	\$ 58,245		
28	Other Taxes	\$ 597,248	100.000%	\$ 597,248	\$ 1,632	43.75	148.70	192.45	\$ 314,046	\$ 597,248	100.000%	\$ 597,248	\$ 1,632	43.75	148.70	192.45	\$ 314,046		
29	Total Taxes Other Than Income	\$ 12,584,590		\$ 12,584,590					\$ (4,063,390)	\$ 12,584,590		\$ 12,584,590					\$ (4,063,390)		
30	AFUDC	\$ -	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -	\$ -	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -		
31	(Gain)/Loss on Disposition of Property	\$ -	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -	\$ -	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -		
32	(Gain)/Loss on Disposition of Allowances	\$ -	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -	\$ -	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -		
33	Charitable Donations	\$ 519,642	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -	\$ 519,642	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -		
34	Interest on Customer Deposits	\$ 72,256	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -	\$ 72,256	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -		
35	Other (Income)/Expense	\$ (95,905)	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -	\$ (95,905)	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -		
36	Other Interest Expense/(Income)	\$ (26,578)	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -	\$ (26,578)	0.000%	\$ -	\$ -	43.75	(43.75)	-	\$ -		
37	Interest Expense	\$ 17,742,385	100.000%	\$ 17,742,385	\$ 48,476	43.75	(87.50)	(43.75)	\$ (2,120,926)	\$ 17,742,385	100.000%	\$ 17,742,385	\$ 48,476	43.75	(87.50)	(43.75)	\$ (2,120,926)		
38	Income Available for Common Equity	\$ 30,981,366		\$ 31,719,569	\$ 86,665	43.75	(43.75)	-	\$ -	\$ 30,981,366		\$ 31,719,569	\$ 86,665	43.75	(43.75)	-	\$ -		
39	Total	\$ 332,172,729		\$ 332,441,517	\$ 135,142				\$ 1,344,584	\$ 332,172,729		\$ 332,441,517	\$ 135,142				\$ (4,493,490)		
40	Sales Taxes	\$ 5,645,136	100.000%	\$ 5,645,136	\$ 15,424	43.75	(39.83)	3.92	\$ 60,428	\$ 5,645,136	100.000%	\$ 5,645,136	\$ 15,424	43.75	(39.83)	3.92	\$ 60,428		
41	School Taxes	\$ 595,265	100.000%	\$ 595,265	\$ 1,626	43.75	(35.05)	8.69	\$ 14,141	\$ 595,265	100.000%	\$ 595,265	\$ 1,626	43.75	(35.05)	8.69	\$ 14,141		
42	Franchise Fees	\$ -	100.000%	\$ -	\$ -	43.75	(100.24)	(56.49)	\$ -	\$ -	100.000%	\$ -	\$ -	43.75	(100.24)	(56.49)	\$ -		
43	Cash Working Capital (Lead/Lag)								\$ 1,419,153								\$ (4,418,920)		
44	Additional Cash Working Capital Items (Page 2)								\$ 21,046,119								\$ 21,046,119		
45	Total Cash Working Capital								\$ 22,465,273								\$ 16,627,200	\$ (5,838,074)	

Kentucky Public Service Commission
 Louisville Gas and Electric Company—Gas
 Adjustment 5
 Cash Working Capital Workpaper

Case No. 2018-00295
 LG&E-G Schedule 3.5.1

As Filed by Company											Adjusted				
Line No.	Vendor Name	Expenditure Type	Invoice Date	Invoice Amount	Service Date/From	To	Service Lead/ Mid-Point	LG&E Payment Date	Payment Lead	Total Lead	Weighted Lead	Service Lead/ Mid-Point	Payment Lead	Total Lead	Weighted Lead
(1)	(2)	(3)	(4)	(5)	(6)	(7) = zero or (6-5)/2	(8)	(9)=(8-5) or (8-6)	(10)=(7+9)	(11)=(4*10)					
1	AT&T MOBILITY	CELLULAR/PAGING SERVICES	02/10/2017	\$ 114	02/10/2017		-	02/28/2017	18.00	18.00	\$ 2,056	15.0	18.0	33.0	3,769
2	AT&T MOBILITY	CELLULAR/PAGING SERVICES	06/12/2017	\$ 95	06/12/2017		-	06/30/2017	18.00	18.00	\$ 1,719	15.0	18.0	33.0	3,151
3	AT&T MOBILITY	CELLULAR/PAGING SERVICES	07/11/2017	\$ 117	07/11/2017		-	07/28/2017	17.00	17.00	\$ 1,982	15.0	17.0	32.0	3,730
4	KENTUCKY STATE TREASURER	PM - OTHER	05/31/2017	\$ 7	05/17/2017		-	06/23/2017	37.00	37.00	\$ 263	15.0	37.0	52.0	370
5	US BANK NATIONAL ASSOCIATION ND	PM - OTHER	04/27/2017	\$ 1,000	03/30/2017	04/11/2017	-	05/03/2017	22.00	28.00	\$ 26,012	6.0	22.0	28.0	28,012
6	STUART STEEL PROTECTION CORP	PM - OTHER	05/16/2017	\$ 10,550	05/15/2017		6.00	07/12/2017	67.00	67.00	\$ 706,850	15.0	67.0	82.0	865,100
7	KENTUCKY STATE TREASURER	PM - OTHER	04/30/2017	\$ 1	03/31/2017		-	05/25/2017	55.00	55.00	\$ 73	15.0	55.0	70.0	93
8	KENTUCKY STATE TREASURER	PM - OTHER	02/28/2017	\$ 80	01/20/2017	02/16/2017	13.50	03/30/2017	42.00	55.50	\$ 4,419	13.5	42.0	55.5	4,419
9	KENTUCKY STATE TREASURER	PM - OTHER	02/28/2017	\$ 118	01/17/2017	01/25/2017	4.00	03/30/2017	64.00	68.00	\$ 7,997	4.0	64.0	68.0	7,997
10	ALSTOM POWER INC	PM - OTHER	04/06/2017	\$ 61,500	04/06/2017		-	05/08/2017	32.00	32.00	\$ 1,968,000	15.0	32.0	47.0	2,890,500
11	ARVOS LJUNGSTROM LLC	PM - OTHER	03/30/2017	\$ 54,885	03/30/2017		-	05/01/2017	32.00	32.00	\$ 1,749,920	15.0	32.0	47.0	2,570,195
12	CLYDE BERGEMANN POWER GROUP AMERICAS INC	PM - OTHER	03/02/2017	\$ 4,075	01/30/2017		-	04/03/2017	63.00	63.00	\$ 256,730	15.0	63.0	78.0	317,856
13	KENTUCKY STATE TREASURER	PM - OTHER	01/31/2017	\$ 28	12/16/2016		-	02/27/2017	73.00	73.00	\$ 2,015	15.0	73.0	88.0	2,429
14	INDIANA GRATINGS INC	PM - OTHER	12/29/2016	\$ 49,898	12/29/2016		-	01/30/2017	32.00	32.00	\$ 1,596,736	15.0	32.0	47.0	2,345,206
15	SCREENING SYSTEMS INTERNATIONAL INC	PM - OTHER	02/28/2017	\$ 38,804	02/24/2017		-	03/31/2017	35.00	35.00	\$ 1,358,140	15.0	35.0	50.0	1,940,200
16	ROTATING EQUIPMENT REPAIR INC	PM - OTHER	02/08/2017	\$ 54,025	02/08/2017		-	03/13/2017	33.00	33.00	\$ 1,782,825	15.0	33.0	48.0	2,593,200
17	MOTION INDUSTRIES INC	PM - OTHER	09/29/2017	\$ 7,875	09/29/2017		-	11/20/2017	52.00	52.00	\$ 409,518	15.0	52.0	67.0	527,648
18	FERGUSON ENTERPRISES INC	PM - OTHER	06/01/2017	\$ 277	06/01/2017		-	07/11/2017	40.00	40.00	\$ 11,069	15.0	40.0	55.0	15,234
19	CONSOLIDATED ELECTRICAL DISTRIBUTORS INC	PM - OTHER	09/22/2017	\$ 2,922	09/07/2017		-	10/23/2017	46.00	46.00	\$ 134,419	15.0	46.0	61.0	178,251
20	MAGOTTEAUX INC	PM - OTHER	03/31/2017	\$ 107,100	03/31/2017		-	05/01/2017	31.00	31.00	\$ 3,320,100	15.0	31.0	46.0	4,926,600
21	METSO MINERALS INDUSTRIES INC	PM - OTHER	11/06/2017	\$ 54,594	11/03/2017		-	12/07/2017	34.00	34.00	\$ 1,856,196	15.0	34.0	49.0	2,675,106
22	SAS GLOBAL CORP	PM - OTHER	03/17/2017	\$ 77,256	03/17/2017		-	04/14/2017	28.00	28.00	\$ 2,163,168	15.0	28.0	43.0	3,322,008
23	SAS GLOBAL CORP	PM - OTHER	10/23/2017	\$ 86,414	10/23/2017		-	11/03/2017	11.00	11.00	\$ 950,551	15.0	11.0	26.0	2,246,758
24	ALSTOM POWER INC	PM - OTHER	02/10/2017	\$ 119	02/10/2017		-	03/13/2017	31.00	31.00	\$ 3,695	15.0	31.0	46.0	5,483
25	THE BABCOCK AND WILCOX COMPANY	PM - OTHER	10/19/2017	\$ 73,215	10/19/2017		-	11/20/2017	32.00	32.00	\$ 2,342,860	15.0	32.0	47.0	3,441,105
26	THE BABCOCK AND WILCOX COMPANY	PM - OTHER	10/31/2017	\$ 122,025	10/31/2017		-	12/01/2017	31.00	31.00	\$ 3,782,775	15.0	31.0	46.0	5,613,150
27	FERGUSON ENTERPRISES INC	PM - OTHER	10/23/2017	\$ 82	10/23/2017		-	11/13/2017	21.00	21.00	\$ 1,721	15.0	21.0	36.0	2,050
28	FISCHER PROCESS INDUSTRIES	PM - OTHER	03/29/2017	\$ 61,459	03/29/2017		-	05/01/2017	33.00	33.00	\$ 2,028,147	15.0	33.0	48.0	2,950,032
29	NEWARK CORPORATION	PM - OTHER	09/28/2017	\$ 66	09/28/2017		-	10/30/2017	32.00	32.00	\$ 2,108	15.0	32.0	47.0	3,097
30	CARDINAL TOOL SUPPLY INC	PM - OTHER	04/24/2017	\$ 4,082	04/18/2017		-	05/25/2017	37.00	37.00	\$ 151,047	15.0	37.0	52.0	212,282
31	US BANK NATIONAL ASSOCIATION ND	PM - OTHER	02/24/2017	\$ 2,447	01/30/2017	02/20/2017	10.50	03/03/2017	32.00	42.50	\$ 52,617	10.5	32.0	42.5	51,000
32	KENTUCKY STATE TREASURER	PM - OTHER	08/31/2017	\$ 26	08/16/2017		-	09/25/2017	40.00	40.00	\$ 1,042	15.0	40.0	55.0	1,433
33	KENTUCKY STATE TREASURER	PM - OTHER	12/31/2017	\$ 226	01/11/2017		-	05/25/2018	379.00	379.00	\$ 85,582	15.0	379.0	394.0	88,969
34	TOOLE AND ROSE SUPPLY	PM - OTHER	01/04/2017	\$ 231	01/04/2017		-	01/20/2017	16.00	16.00	\$ 3,689	15.0	16.0	31.0	7,147
35	KENTUCKY STATE TREASURER	PM - OTHER	09/30/2017	\$ 66	07/11/2017		-	10/25/2017	106.00	106.00	\$ 6,945	15.0	106.0	121.0	7,928
36	ATLAS MANUFACTURING COMPANY INC	PM - OTHER	07/31/2017	\$ 98,073	07/31/2017		-	08/30/2017	30.00	30.00	\$ 2,882,194	15.0	30.0	45.0	4,323,290
37	ALSTOM POWER INC	PM - OTHER	11/30/2017	\$ 106,500	11/30/2017		-	01/02/2018	33.00	33.00	\$ 3,514,500	15.0	33.0	48.0	5,112,000
38	KENTUCKY STATE TREASURER	PM - OTHER	03/31/2017	\$ 32	03/08/2017		-	04/25/2017	48.00	48.00	\$ 1,512	15.0	48.0	63.0	1,985
39	INDUSTRIAL CONTROLS DISTRIBUTORS LLC	PM - OTHER	10/09/2017	\$ 215	09/18/2017		-	11/09/2017	52.00	52.00	\$ 11,184	15.0	52.0	67.0	14,410
40	ALSTOM POWER INC	PM - OTHER	02/02/2017	\$ 82,545	02/02/2017		-	03/06/2017	32.00	32.00	\$ 2,641,440	15.0	32.0	47.0	3,879,615
41	KENTUCKY STATE TREASURER	PM - SAFETY SUPPLIES	02/28/2017	\$ 14	01/31/2017	02/22/2017	11.00	03/30/2017	36.00	47.00	\$ 679	11.0	36.0	47.0	679
42	US BANK NATIONAL ASSOCIATION ND	PM - SMALL TOOLS	06/28/2017	\$ 440	06/19/2017	06/20/2017	0.50	07/03/2017	13.00	13.50	\$ 5,946	0.5	13.0	13.5	5,946
43	MOTION INDUSTRIES INC	PM - SPARE PARTS	04/19/2017	\$ 1,192	04/11/2017		-	05/01/2017	20.00	20.00	\$ 23,834	15.0	20.0	35.0	41,710
44	BROWNSTOWN ELECTRIC SUPPLY CO INC	PM - VENDOR DIRECT SHIP	01/31/2017	\$ 292	01/31/2017		-	03/03/2017	31.00	31.00	\$ 9,043	15.0	31.0	46.0	13,419
45	FEDERAL ENERGY REGULATORY COMM	CORPORATE DEFAULT	07/18/2017	\$ 90,647	01/01/2017	12/31/2017	182.00	09/01/2017	(121.00)	61.00	\$ 5,529,491	182.0	(121.0)	61.0	5,529,491
46	ONE TIME VENDOR	CUSTOMER INCENTIVE PROGRAMS	11/21/2017	\$ 368	11/21/2017		-	12/06/2017	15.00	15.00	\$ 5,520	15.0	15.0	30.0	11,040
47	Wood, Gabriel R	EDUCATION & TRAINING - COURSE FEES	02/27/2017	\$ 175	02/27/2017		-	03/06/2017	7.00	7.00	\$ 1,225	15.0	7.0	22.0	3,850
48	NITEC LLC	ENGINEERING SERVICES	01/31/2017	\$ 65,920	01/31/2017		-	03/06/2017	34.00	34.00	\$ 2,241,280	15.0	34.0	49.0	3,230,080
49	LOUISVILLE METRO AIR POLLUTION	FEES, PERMITS & LICENSES	03/03/2017	\$ 519	03/03/2017		-	05/01/2017	59.00	59.00	\$ 30,612	15.0	59.0	74.0	38,395
50	KENTUCKY STATE TREASURER	FREIGHT - OTHER	02/28/2017	\$ 1	02/22/2017		-	03/30/2017	36.00	36.00	\$ 43	15.0	36.0	51.0	61
51	HACH COMPANY	FREIGHT - OTHER	10/09/2017	\$ 76	10/09/2017		-	11/09/2017	31.00	31.00	\$ 2,364	15.0	31.0	46.0	3,508
52	KENTUCKY STATE TREASURER	FREIGHT - OTHER	10/31/2017	\$ 15	10/04/2017	10/26/2017	11.00	12/11/2017	46.00	57.00	\$ 882	11.0	46.0	57.0	882
53	KENTUCKY STATE TREASURER	FREIGHT - OTHER	06/30/2017	\$ 1	06/27/2017		-	07/25/2017	28.00	28.00	\$ 27	15.0	28.0	43.0	42
54	RPS COMPOSITES OHIO INC	FREIGHT - OTHER	03/15/2017	\$ 159	02/27/2017		-	05/05/2017	67.00	67.00	\$ 10,621	15.0	67.0	82.0	12,999
55	MEADE EQUIPMENT LLC	FREIGHT - OTHER	06/12/2017	\$ 12	06/12/2017		-	07/12/2017	30.00	30.00	\$ 348	15.0	30.0	45.0	522
56	SCEPTRE MECHANICAL INC	FREIGHT - OTHER	07/11/2017	\$ 27	07/11/2017		-	08/10/2017	30.00	30.00	\$ 816	15.0	30.0	45.0	1,224
57	KENTUCKY STATE TREASURER	FREIGHT - OTHER	01/31/2017	\$ 1	12/15/2016		-	02/27/2017	74.00	74.00	\$ 67	15.0	74.0	89.0	80
58	KENTUCKY STATE TREASURER	FREIGHT - OTHER	04/30/2017	\$ 5	04/17/2017		-	05/25/2017	38.00	38.00	\$ 176	15.0	38.0	53.0	245
59	PUMPMEISTERS INC	FREIGHT - OTHER	07/31/2017	\$ 62	07/27/2017		-	08/30/2017	34.00	34.00	\$ 2,123	15.0	34.0	49.0	3,059
60	SICK INC	FREIGHT - OTHER	08/14/2017	\$ 215	08/14/2017		-	09/13/2017	30.00	30.00	\$ 6,450	15.0	30.0	45.0	9,675
61	Edelen, Olivia	MEALS - FULLY DEDUCTIBLE	07/20/2017	\$ 33	07/20/2017		-	07/27/2017	7.00	7.00	\$ 228	15.0	7.0	22.0	716
62	Limberg, Brian	MEALS JENTER-PARTIALLY DEDUCTIBLE	08/21/2017	\$ 287	07/28/2017	08/21/2017	12.00	09/19/2017	23.00	35.00	\$ 10,058	12.0	23.0	35.0	10,058
63	NALCO COMPANY	MERCURY MITIGATION	01/27/2017	\$ 155,345	01/27/2017		-	02/27/2017	31.00	31.00	\$ 4,855,689	15.0	31.0	46.0	7,145,861
64	NALCO COMPANY	MERCURY MITIGATION	02/24/2017												

84	NALCO COMPANY	MERCURY MITIGATION	11/28/2017	\$	172,937	11/02/2017	\$	172,937	11/02/2017	9.50	12/28/2017	37.00	46.50	\$	8,041,589	9.5	37.0	46.5	8,041,589
85	Litton, Terry Allen	MILEAGE REIMBURSEMENT	08/08/2017	\$	124	08/07/2017	\$	124	08/08/2017	0.50	09/28/2017	51.00	51.50	\$	6,392	0.5	51.0	51.5	6,392
86	Benige, Eric C	MILEAGE REIMBURSEMENT	12/07/2017	\$	40	12/07/2017	\$	40	12/07/2017	-	12/14/2017	7.00	7.00	\$	277	15.0	7.0	277	277
87	Simmons, Damien	MISCELLANEOUS	03/13/2017	\$	241	03/13/2017	\$	241	03/13/2017	-	03/28/2017	15.00	15.00	\$	3,609	15.0	15.0	3,609	3,609
88	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	02/07/2017	\$	64,601	01/01/2017	\$	64,601	01/28/2017	13.50	03/10/2017	41.00	54.50	\$	3,520,729	13.5	41.0	54.5	3,520,729
89	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	03/03/2017	\$	54,251	01/29/2017	\$	54,251	02/25/2017	13.50	04/04/2017	38.00	51.50	\$	2,793,919	13.5	38.0	51.5	2,793,919
90	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/07/2017	\$	65,991	02/26/2017	\$	65,991	04/01/2017	17.00	05/08/2017	37.00	54.00	\$	3,541,898	17.0	37.0	54.0	3,541,898
91	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	07/07/2017	\$	56,784	06/04/2017	\$	56,784	07/01/2017	13.50	08/07/2017	37.00	50.50	\$	2,867,592	13.5	37.0	50.5	2,867,592
92	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	08/04/2017	\$	59,947	07/02/2017	\$	59,947	07/29/2017	13.50	09/08/2017	41.00	54.50	\$	3,267,107	13.5	41.0	54.5	3,267,107
93	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	07/14/2017	\$	17,266	07/14/2017	\$	17,266	09/02/2017	17.00	01/20/2018	31.00	37.00	\$	3,954,000	17.0	31.0	37.0	3,954,000
94	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	11/03/2017	\$	58,289	10/01/2017	\$	58,289	10/28/2017	13.50	12/06/2017	39.00	52.50	\$	3,058,145	13.5	39.0	52.5	3,058,145
95	WRIGHT TREE SERVICE INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/08/2017	\$	81,039	10/29/2017	\$	81,039	12/02/2017	17.00	01/08/2018	37.00	54.00	\$	4,376,119	17.0	37.0	54.0	4,376,119
96	STRATEGIC COMMUNICATIONS LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/29/2016	\$	76,522	12/29/2016	\$	76,522	12/29/2016	-	01/30/2017	32.00	32.00	\$	2,448,712	15.0	32.0	47.0	3,596,546
97	ASPLUNDH TREE EXPERT LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	09/08/2017	\$	4,600	08/26/2017	\$	4,600	08/26/2017	-	10/10/2017	45.00	45.00	\$	206,999	15.0	45.0	60.0	275,999
98	INTEGRATED GLOBAL SERVICES INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/14/2017	\$	59,404	04/02/2017	\$	59,404	04/06/2017	2.00	05/15/2017	39.00	41.00	\$	2,435,549	2.0	39.0	41.0	2,435,549
99	PETROCHEM INSULATION INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	05/05/2017	\$	75,516	05/02/2017	\$	75,516	05/05/2017	1.50	06/05/2017	31.00	32.50	\$	2,454,255	1.5	31.0	32.5	2,454,255
100	CTI INDUSTRIES	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/25/2017	\$	91,400	04/19/2017	\$	91,400	04/19/2017	-	05/26/2017	37.00	37.00	\$	3,381,800	15.0	37.0	52.0	4,716,600
101	WHITEHEAD CONSTRUCTION INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/28/2017	\$	4,663	04/15/2017	\$	4,663	04/21/2017	3.00	05/22/2017	31.00	34.00	\$	158,557	3.0	31.0	34.0	158,557
102	MEINERS MEDICAL FIRE AND SAFETY	O/S - MATERIAL & EQUIPMENT (INSTALLED)	02/02/2017	\$	266	02/02/2017	\$	266	02/02/2017	-	03/06/2017	32.00	32.00	\$	8,509	15.0	32.0	47.0	12,497
103	PIC GROUP INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	07/20/2017	\$	(461)	06/01/2017	\$	(461)	06/29/2017	14.00	07/31/2017	32.00	46.00	\$	(21,190)	14.0	32.0	46.0	(21,190)
104	CHARAH LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	11/30/2017	\$	16,105	11/01/2017	\$	16,105	11/30/2017	14.50	01/02/2018	33.00	47.50	\$	764,982	14.5	33.0	47.5	764,982
105	ATLAS MACHINE AND SUPPLY INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	11/28/2017	\$	6,558	11/28/2017	\$	6,558	11/28/2017	15.00	12/29/2017	31.00	31.00	\$	203,291	15.0	31.0	46.0	301,658
106	CHARAH LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/31/2016	\$	59,454	12/01/2016	\$	59,454	12/31/2016	14.00	01/31/2017	31.00	46.00	\$	2,734,878	14.0	31.0	46.0	2,734,878
107	CHARAH LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	01/31/2017	\$	59,076	01/01/2017	\$	59,076	01/31/2017	15.00	03/03/2017	31.00	46.00	\$	2,717,509	15.0	31.0	46.0	2,717,509
108	PEAK INDUSTRIAL COATINGS AND LININGS INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/23/2017	\$	84,500	12/23/2017	\$	84,500	12/23/2017	-	01/23/2018	31.00	31.00	\$	2,619,500	15.0	31.0	46.0	3,887,000
109	KLEIN BROS SAFE AND LOCK	O/S - MATERIAL & EQUIPMENT (INSTALLED)	08/31/2017	\$	957	08/31/2017	\$	957	08/31/2017	-	10/02/2017	32.00	32.00	\$	30,632	15.0	32.0	47.0	44,991
110	PIKE ELECTRIC LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	03/15/2017	\$	268	03/12/2017	\$	268	03/12/2017	-	04/13/2017	32.00	32.00	\$	8,580	15.0	32.0	47.0	12,602
111	PIKE ELECTRIC LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	08/04/2017	\$	106	07/23/2017	\$	106	07/23/2017	-	09/26/2017	65.00	65.00	\$	6,880	15.0	65.0	80.0	8,467
112	PIKE ELECTRIC LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	11/24/2017	\$	715	11/12/2017	\$	715	11/12/2017	-	12/22/2017	40.00	40.00	\$	28,606	15.0	40.0	55.0	39,334
113	PIKE ELECTRIC LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	07/14/2017	\$	219	07/14/2017	\$	219	07/14/2017	-	08/30/2017	59.00	59.00	\$	12,907	15.0	59.0	74.0	16,440
114	DONALDSON COMPANY INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/04/2017	\$	80,134	12/04/2017	\$	80,134	12/04/2017	-	01/05/2018	32.00	32.00	\$	2,564,272	15.0	32.0	47.0	3,766,275
115	MPW INDUSTRIAL SERVICES INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	11/29/2017	\$	67,866	10/01/2017	\$	67,866	10/31/2017	15.00	12/29/2017	59.00	74.00	\$	5,022,094	15.0	59.0	74.0	5,022,094
116	THOMPSON INDUSTRIAL SERVICES LLC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	04/19/2017	\$	616	03/28/2017	\$	616	03/28/2017	-	05/05/2017	38.00	38.00	\$	23,419	15.0	38.0	53.0	32,663
117	SICK INC	O/S - MATERIAL & EQUIPMENT (INSTALLED)	12/28/2016	\$	10,897	10/27/2016	\$	10,897	10/27/2016	-	02/24/2017	120.00	120.00	\$	1,307,640	15.0	120.0	135.0	1,471,095
118	ELSTER AMERICAN METER	O/S - OTHER-LABOR-3RD PARTY	09/11/2017	\$	5,032	07/18/2017	\$	5,032	07/19/2017	0.50	10/25/2017	98.00	98.50	\$	495,667	0.5	98.0	98.5	495,667
119	ROSEN USA	O/S - OTHER-LABOR-3RD PARTY	05/24/2017	\$	147,725	05/24/2017	\$	147,725	05/24/2017	-	08/03/2017	71.00	71.00	\$	10,486,440	15.0	71.0	86.0	12,704,307
120	ROSEN USA	O/S - OTHER-LABOR-3RD PARTY	08/17/2017	\$	76,101	08/17/2017	\$	76,101	08/17/2017	-	11/03/2017	78.00	78.00	\$	5,935,839	15.0	78.0	93.0	7,077,347
121	QUEST INTEGRITY USA LLC	O/S - OTHER-LABOR-3RD PARTY	10/31/2017	\$	206,990	10/05/2017	\$	206,990	10/22/2017	8.50	12/21/2017	60.00	68.50	\$	14,178,815	8.5	60.0	68.5	14,178,815
122	QUEST INTEGRITY USA LLC	O/S - OTHER-LABOR-3RD PARTY	11/15/2017	\$	66,469	11/15/2017	\$	66,469	11/15/2017	-	12/21/2017	36.00	36.00	\$	2,392,886	15.0	36.0	51.0	3,389,922
123	APPLUS RTD USA INC	O/S - OTHER-LABOR-3RD PARTY	04/19/2017	\$	73,720	04/19/2017	\$	73,720	04/19/2017	-	05/22/2017	33.00	33.00	\$	2,432,760	15.0	33.0	48.0	3,538,560
124	INCOPI INDUSTRIES LLC	O/S - OTHER-LABOR-3RD PARTY	11/10/2017	\$	134,857	11/10/2017	\$	134,857	11/10/2017	-	12/11/2017	31.00	31.00	\$	4,180,567	15.0	31.0	46.0	6,203,422
125	STRUCTURAL INTEGRITY ASSOC INC	O/S - OTHER-LABOR-3RD PARTY	12/12/2017	\$	132,000	11/22/2017	\$	132,000	11/22/2017	-	01/12/2018	51.00	51.00	\$	6,732,000	15.0	51.0	66.0	8,712,000
126	TJ HGB ANALYTICAL SERVICES USA LLC	O/S - OTHER-LABOR-3RD PARTY	04/27/2017	\$	110	04/27/2017	\$	110	04/27/2017	-	05/30/2017	33.00	33.00	\$	8,500	15.0	33.0	48.0	12,000
127	S D MYERS INC	O/S - OTHER-LABOR-3RD PARTY	12/27/2016	\$	136,254	12/27/2016	\$	136,254	12/27/2016	-	02/06/2017	41.00	41.00	\$	5,586,414	15.0	41.0	56.0	7,630,224
128	PRECISION SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	12/05/2016	\$	64,654	10/30/2016	\$	64,654	11/11/2016	6.00	01/17/2017	67.00	73.00	\$	4,719,742	6.0	67.0	73.0	4,719,742
129	READY ELECTRIC CO INC	O/S - OTHER-LABOR-3RD PARTY	11/29/2017	\$	4,175	11/29/2017	\$	4,175	11/29/2017	-	01/02/2018	34.00	34.00	\$	141,945	15.0	34.0	49.0	204,568
130	CONTROL COMPONENTS INC	O/S - OTHER-LABOR-3RD PARTY	10/31/2017	\$	101,093	09/29/2017	\$	101,093	10/18/2017	9.50	12/01/2017	44.00	53.50	\$	5,408,480	9.5	44.0	53.5	5,408,480
131	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	03/24/2017	\$	178	03/24/2017	\$	178	03/24/2017	-	04/10/2017	17.00	17.00	\$	3,028	15.0	17.0	32.0	5,700
132	EMERSON PROCESS MGT PWR AND WTR SOLUTIONS INC	O/S - OTHER-LABOR-3RD PARTY	01/20/2017	\$	76,101	01/20/2017	\$	76,101	01/20/2017	-	02/02/2017	31.00	31.00	\$	2,173,131	15.0	31.0	46.0	3,294,646
133	TEAM INDUSTRIAL SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	10/18/2017	\$	31,270	10/03/2017	\$	31,270	10/12/2017	4.50	12/21/2017	70.00	74.50	\$	2,329,591	4.5	70.0	74.5	2,329,591
134	MARINE SOLUTIONS INC	O/S - OTHER-LABOR-3RD PARTY	04/05/2017	\$	287,525	03/21/2017	\$	287,525	04/03/2017	6.50	05/08/2017	35.00	41.50	\$	11,932,288	6.5	35.0	41.5	11,932,288
135	POWER PLANT SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	05/31/2017	\$	84,240	03/06/2017	\$	84,240	03/06/2017	-	09/28/2017	206.00	206.00	\$	17,353,440	15.0	206.0	221.0	18,617,040
136	POWER PLANT SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	09/25/2017	\$	159,155	02/25/2017	\$	159,155	03/09/2017	6.00	10/26/2017	231.00	237.00	\$	37,719,842	6.0	231.0	237.0	37,719,842
137	PRECISION SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	04/13/2017	\$	356,687	01/13/2017	\$	356,687	02/05/2017	11.50	05/15/2017	99.00	110.50	\$	39,413,880	11.5	99.0	110.5	39,413,880
138	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	01/20/2017	\$	293	01/20/2017	\$	293	01/20/2017	-	02/06/2017	17.00	17.00	\$	4,975	15.0	17.0	32.0	5,700
139	PETROCHEM INSULATION INC	O/S - OTHER-LABOR-3RD PARTY	05/05/2017	\$	228,382	05/02/2017	\$	228,382	05/05/2017	1.50	06/05/2017	31.00	32.50	\$	7,422,430	1.5	31.0	32.5	7,422,430
140	PIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	04/18/2017	\$	56,377	04/18/2017	\$	56,377	04/18/2017	-	05/04/2017	16.00	16.00	\$	902,031	15.0	16.0	31.0	1,474,684
141	P																		

103	MECHANICAL DYNAMICS AND ANALYSIS LLC	O/S - OTHER-LABOR-3RD PARTY	10/19/2017	\$	1,070,877	10/19/2017		-	12/04/2017	46.00	46.00	\$	49,260,342	15.00	46.00	61.00	65,323,497	
104	MECHANICAL DYNAMICS AND ANALYSIS LLC	O/S - OTHER-LABOR-3RD PARTY	11/15/2017	\$	87,275	11/15/2017		-	12/29/2017	44.00	44.00	\$	3,840,100	15.00	44.00	59.00	5,149,225	
185	MECHANICAL DYNAMICS AND ANALYSIS LLC	O/S - OTHER-LABOR-3RD PARTY	11/21/2017	\$	848,709	11/21/2017		-	12/21/2017	30.00	30.00	\$	25,461,263	15.00	30.00	45.00	38,191,894	
186	MECHANICAL DYNAMICS AND ANALYSIS LLC	O/S - OTHER-LABOR-3RD PARTY	11/22/2017	\$	75,000	10/11/2017	10/25/2017	7.00	-	12/22/2017	58.00	65.00	\$	4,875,000	7.00	58.00	65.00	4,875,000
187	MECHANICAL DYNAMICS AND ANALYSIS LLC	O/S - OTHER-LABOR-3RD PARTY	11/30/2017	\$	286,070	11/30/2017		-	01/03/2018	34.00	34.00	\$	9,726,380	15.00	34.00	49.00	14,017,430	
188	A AND D CONSTRUCTORS LLC	O/S - OTHER-LABOR-3RD PARTY	11/28/2017	\$	204,417	10/20/2017	11/22/2017	16.50	-	12/28/2017	36.00	52.50	\$	10,731,887	16.50	36.00	52.50	16,731,887
189	KDR SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	12/01/2017	\$	450	12/01/2017		-	01/02/2018	32.00	32.00	\$	14,400	15.00	32.00	47.00	21,150	
190	MOHLER TECHNOLOGY INC	O/S - OTHER-LABOR-3RD PARTY	11/10/2017	\$	132,471	11/10/2017		-	12/11/2017	31.00	31.00	\$	4,106,599	15.00	31.00	46.00	6,093,663	
191	WHITEHEAD CONSTRUCTION INC	O/S - OTHER-LABOR-3RD PARTY	03/27/2017	\$	109,583	03/20/2017	03/23/2017	1.50	-	05/01/2017	39.00	40.50	\$	4,438,117	1.50	39.00	40.50	4,438,117
192	THE ATLANTIC GROUP INC	O/S - OTHER-LABOR-3RD PARTY	05/19/2017	\$	105,350	05/19/2017		-	05/19/2017	31.00	31.00	\$	3,150	31.00	31.00	31.00	3,150	
193	CONSOLIDATED METAL SERVICES INC	O/S - OTHER-LABOR-3RD PARTY	03/17/2017	\$	102,594	02/27/2017		-	03/28/2017	29.00	29.00	\$	2,975,117	15.00	29.00	44.00	4,514,123	
194	MAXIM CRANE WORKS	O/S - OTHER-LABOR-3RD PARTY	03/24/2017	\$	8,945	03/13/2017	03/18/2017	2.50	-	04/05/2017	18.00	20.50	\$	183,373	2.50	18.00	20.50	183,373
195	GE INTERNATIONAL INC	O/S - OTHER-LABOR-3RD PARTY	07/10/2017	\$	270,000	07/10/2017		-	08/11/2017	32.00	32.00	\$	8,640,000	15.00	32.00	47.00	12,690,000	
196	C AND B MARINE TRIMBLE CO LLC	O/S - OTHER-LABOR-3RD PARTY	02/27/2017	\$	347	02/16/2017	02/17/2017	0.50	-	05/24/2017	96.00	96.50	\$	33,475	0.50	96.00	96.50	33,475
197	C AND B MARINE TRIMBLE CO LLC	O/S - OTHER-LABOR-3RD PARTY	02/27/2017	\$	347	02/21/2017		-	05/24/2017	92.00	92.00	\$	31,914	0.50	92.00	107.00	37,117	
198	EXAMINETICS INC	O/S - OTHER-LABOR-3RD PARTY	03/21/2017	\$	56,933	02/02/2017	02/10/2017	4.00	-	04/20/2017	69.00	73.00	\$	4,156,073	4.00	69.00	73.00	4,156,073
199	EXAMINETICS INC	O/S - PHYSICAL AND MEDICAL EXAMS	04/06/2017	\$	60,000	03/08/2017	04/01/2017	17.00	-	05/08/2017	54.00	54.00	\$	8,297,200	17.00	54.00	54.00	8,297,200
200	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	02/03/2017	\$	125,331	01/01/2017	01/28/2017	13.50	-	03/06/2017	37.00	50.50	\$	6,329,238	13.50	37.00	50.50	6,329,238
201	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	02/07/2017	\$	193,802	01/01/2017	01/28/2017	13.50	-	03/10/2017	41.00	54.50	\$	10,562,186	13.50	41.00	54.50	10,562,186
202	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	03/03/2017	\$	162,753	01/29/2017	02/25/2017	13.50	-	04/04/2017	38.00	51.50	\$	8,381,757	13.50	38.00	51.50	8,381,757
203	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	03/02/2017	\$	152,555	01/29/2017	02/25/2017	13.50	-	04/03/2017	37.00	50.50	\$	7,704,022	13.50	37.00	50.50	7,704,022
204	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	04/07/2017	\$	196,772	02/26/2017	04/01/2017	17.00	-	05/08/2017	37.00	54.00	\$	10,625,693	17.00	37.00	54.00	10,625,693
205	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	05/05/2017	\$	153,036	04/02/2017	04/29/2017	13.50	-	06/06/2017	38.00	51.50	\$	7,881,332	13.50	38.00	51.50	7,881,332
206	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	05/04/2017	\$	143,478	04/02/2017	04/29/2017	13.50	-	06/05/2017	37.00	50.50	\$	7,245,646	13.50	37.00	50.50	7,245,646
208	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	06/08/2017	\$	203,260	04/30/2017	06/03/2017	17.00	-	07/10/2017	37.00	54.00	\$	10,976,029	17.00	37.00	54.00	10,976,029
209	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	06/07/2017	\$	148,024	04/30/2017	06/03/2017	17.00	-	07/13/2017	40.00	57.00	\$	8,437,386	17.00	40.00	57.00	8,437,386
210	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	07/07/2017	\$	170,352	06/04/2017	07/01/2017	13.50	-	08/07/2017	37.00	50.50	\$	8,602,775	13.50	37.00	50.50	8,602,775
211	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	07/06/2017	\$	88,949	06/04/2017	06/30/2017	13.50	-	08/07/2017	36.00	51.00	\$	5,046,374	13.50	36.00	51.00	5,046,374
212	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$	181,313	07/04/2017	07/29/2017	13.50	-	09/08/2017	41.00	54.50	\$	9,896,920	13.50	41.00	54.50	9,896,920
213	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	08/03/2017	\$	115,541	07/02/2017	07/29/2017	13.50	-	09/08/2017	41.00	54.50	\$	6,296,980	13.50	41.00	54.50	6,296,980
214	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	09/08/2017	\$	217,309	07/30/2017	09/02/2017	17.00	-	10/10/2017	38.00	55.00	\$	11,952,001	17.00	38.00	55.00	11,952,001
215	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	09/07/2017	\$	89,905	07/30/2017	09/02/2017	17.00	-	10/10/2017	38.00	55.00	\$	4,944,755	17.00	38.00	55.00	4,944,755
216	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	10/06/2017	\$	93,825	09/03/2017	09/30/2017	13.50	-	11/06/2017	37.00	50.50	\$	4,738,179	13.50	37.00	50.50	4,738,179
217	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	11/03/2017	\$	177,795	10/01/2017	10/28/2017	13.50	-	12/06/2017	39.00	52.50	\$	9,334,219	13.50	39.00	52.50	9,334,219
218	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	12/08/2017	\$	305,285	10/29/2017	12/02/2017	17.00	-	01/08/2018	37.00	54.00	\$	16,485,400	17.00	37.00	54.00	16,485,400
219	TOWNSEND TREE SERVICE COMPANY INC	O/S SUPPLEMENTAL CONTRACTOR	12/02/2017	\$	55,724	10/29/2017	12/02/2017	17.00	-	01/03/2018	32.00	49.00	\$	2,730,491	17.00	32.00	49.00	2,730,491
220	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	02/14/2017	\$	90,169	01/01/2017	01/28/2017	13.50	-	03/17/2017	48.00	61.50	\$	5,545,363	13.50	48.00	61.50	5,545,363
221	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	03/09/2017	\$	100,327	01/29/2017	02/25/2017	13.50	-	04/10/2017	44.00	57.50	\$	5,768,788	13.50	44.00	57.50	5,768,788
222	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	04/12/2017	\$	103,397	02/26/2017	04/01/2017	17.00	-	05/15/2017	44.00	61.00	\$	6,307,240	17.00	44.00	61.00	6,307,240
223	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	04/27/2017	\$	64,704	01/01/2017	04/01/2017	45.00	-	05/30/2017	59.00	104.00	\$	6,729,224	45.00	59.00	104.00	6,729,224
224	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	05/09/2017	\$	77,110	04/02/2017	04/29/2017	13.50	-	06/20/2017	52.00	65.50	\$	5,050,697	13.50	52.00	65.50	5,050,697
225	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	06/09/2017	\$	82,240	04/30/2017	05/25/2017	13.50	-	07/10/2017	44.00	67.50	\$	4,728,824	13.50	44.00	67.50	4,728,824
226	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	07/07/2017	\$	85,102	05/28/2017	07/01/2017	17.00	-	08/07/2017	37.00	54.00	\$	4,595,488	17.00	37.00	54.00	4,595,488
227	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	08/08/2017	\$	85,334	07/02/2017	07/29/2017	13.50	-	09/08/2017	41.00	54.50	\$	4,650,695	13.50	41.00	54.50	4,650,695
228	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	09/12/2017	\$	109,301	07/30/2017	09/02/2017	17.00	-	10/13/2017	41.00	58.00	\$	6,339,458	17.00	41.00	58.00	6,339,458
229	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	10/10/2017	\$	90,396	09/03/2017	09/30/2017	13.50	-	11/10/2017	41.00	54.50	\$	4,926,599	13.50	41.00	54.50	4,926,599
230	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	11/10/2017	\$	105,533	10/01/2017	10/28/2017	13.50	-	12/11/2017	44.00	57.50	\$	6,068,148	13.50	44.00	57.50	6,068,148
231	NELSON TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	12/07/2017	\$	119,231	10/29/2017	12/02/2017	17.00	-	01/08/2018	37.00	54.00	\$	6,436,499	17.00	37.00	54.00	6,436,499
232	CE POWER ENGINEERED SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	01/20/2017	\$	6,474	01/02/2017	01/15/2017	6.50	-	02/21/2017	37.00	43.50	\$	281,609	6.50	37.00	43.50	281,609
233	CE POWER ENGINEERED SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/15/2017	\$	688	10/23/2017	11/05/2017	6.50	-	12/18/2017	43.00	49.50	\$	34,052	6.50	43.00	49.50	34,052
234	STOLL CONSTRUCTION AND PAVING CO INC	O/S SUPPLEMENTAL CONTRACTOR	07/27/2017	\$	4,433	07/05/2017	07/25/2017	10.00	-	08/28/2017	34.00	44.00	\$	195,055	10.00	34.00	44.00	195,055
235	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	06/01/2017	\$	62,822	05/01/2017	05/30/2017	14.50	-	07/03/2017	34.00	48.50	\$	3,046,887	14.50	34.00	48.50	3,046,887
236	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	07/05/2017	\$	65,413	05/29/2017	07/02/2017	17.00	-	08/07/2017	36.00	53.00	\$	3,466,871	17.00	36.00	53.00	3,466,871
237	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$	56,878	07/03/2017	07/31/2017	13.50	-	09/01/2017	33.00	48.50	\$	2,644,480	13.50	33.00	48.50	2,644,480
238	CE POWER ENGINEERED SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/04/2017	\$	157	10/09/2017	10/22/2017	6.50	-	12/05/2017	44.00	50.50	\$	7,908	6.50	44.00	50.50	7,908
239	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	05/06/2017	\$	67,219	04/03/2017	04/30/2017	13.50	-	07/07/2017	68.00	81.50	\$	5,478,328	13.50	68.00	81.50	5,478,328
240	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	06/01/2017	\$	60,247	05/01/2017	05/28/2017	13.50	-	07/07/2017	40.00	53.50	\$	3,223,218	13.50	40.00	53.50	3,223,218
241	TDW SERVICES INC	O/S SUPPLEMENTAL CONTRACTOR	11/03/2017	\$	56,140	11/03/2017		-	12/07/2017	34.00	34.00	\$	1,908,760	15.00	34.00	49.00	2,570,860	
242	OLAMETER CORPORATION	O/S SUPPLEMENTAL CONTRACTOR	11/30/2016	\$	276,869	11/01/2016	11/30/2016	14.50	-	01/18/2017	49.00	63.50	\$	17,581,168	14.50	49.00	63.50	17,581,168
243	OLAMETER CORPORATION	O/S SUPPLEMENTAL CONTRACTOR	12/31/2016	\$	282,733	12/01/2016	12/31											

282	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	01/13/2017	\$	589	01/13/2017	-	01/30/2017	17.00	17.00	\$	10,017	15.0	17.0	32.0	18,855	
283	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	08/18/2017	\$	3,023	08/18/2017	-	09/01/2017	14.00	14.00	\$	42,324	15.0	14.0	29.0	87,670	
284	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	12/07/2016	\$	78,067	11/01/2016	11/30/2016	14.50	01/24/2017	55.00	69.50	\$	5,425,674	14.5	55.0	69.5	5,425,674
285	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	12/07/2016	\$	124,342	11/01/2016	11/30/2016	14.50	01/24/2017	55.00	69.50	\$	8,641,734	14.5	55.0	69.5	8,641,734
286	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	01/05/2017	\$	73,761	12/01/2016	12/30/2016	14.50	02/15/2017	47.00	61.50	\$	4,536,317	14.5	47.0	61.5	4,536,317
287	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	01/05/2017	\$	116,976	12/01/2016	12/30/2016	14.50	02/15/2017	47.00	61.50	\$	7,194,021	14.5	47.0	61.5	7,194,021
288	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	02/07/2017	\$	65,267	01/01/2017	01/31/2017	15.00	03/15/2017	43.00	58.00	\$	3,785,486	15.0	43.0	58.0	3,785,486
289	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	02/07/2017	\$	103,435	01/01/2017	01/31/2017	15.00	03/15/2017	43.00	58.00	\$	5,999,233	15.0	43.0	58.0	5,999,233
290	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	03/03/2017	\$	111,161	02/01/2017	02/28/2017	13.50	05/04/2017	65.00	78.50	\$	8,726,131	13.5	65.0	78.5	8,726,131
291	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	03/03/2017	\$	69,419	03/01/2017	03/31/2017	13.50	05/04/2017	65.00	78.50	\$	5,371,750	13.5	65.0	78.5	5,371,750
292	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	04/21/2017	\$	79,419	03/01/2017	03/31/2017	15.00	05/23/2017	53.00	68.00	\$	5,400,458	15.0	53.0	68.0	5,400,458
293	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	04/21/2017	\$	130,181	03/01/2017	03/31/2017	15.00	05/23/2017	53.00	68.00	\$	8,852,284	15.0	53.0	68.0	8,852,284
294	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	05/12/2017	\$	57,094	04/01/2017	04/30/2017	14.50	06/12/2017	43.00	57.50	\$	3,282,919	14.5	43.0	57.5	3,282,919
295	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	05/12/2017	\$	91,930	04/01/2017	04/30/2017	14.50	06/12/2017	43.00	57.50	\$	5,285,978	14.5	43.0	57.5	5,285,978
296	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	06/16/2017	\$	62,517	05/01/2017	05/31/2017	15.00	07/17/2017	47.00	62.00	\$	3,876,070	15.0	47.0	62.0	3,876,070
297	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	06/16/2017	\$	103,267	05/01/2017	05/31/2017	15.00	07/17/2017	47.00	62.00	\$	6,402,560	15.0	47.0	62.0	6,402,560
298	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	07/10/2017	\$	106,306	06/01/2017	06/30/2017	14.50	08/10/2017	41.00	55.50	\$	5,899,997	14.5	41.0	55.5	5,899,997
299	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	07/10/2017	\$	71,051	06/01/2017	06/30/2017	14.50	08/10/2017	41.00	55.50	\$	3,943,303	14.5	41.0	55.5	3,943,303
300	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	08/03/2017	\$	63,671	07/01/2017	07/31/2017	15.00	09/05/2017	36.00	51.00	\$	3,247,234	15.0	36.0	51.0	3,247,234
301	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	08/03/2017	\$	102,184	07/01/2017	07/31/2017	15.00	09/05/2017	36.00	51.00	\$	5,211,384	15.0	36.0	51.0	5,211,384
302	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	09/11/2017	\$	125,109	08/01/2017	08/31/2017	15.00	10/12/2017	42.00	57.00	\$	7,131,227	15.0	42.0	57.0	7,131,227
303	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	09/11/2017	\$	77,300	08/01/2017	08/31/2017	15.00	10/12/2017	42.00	57.00	\$	4,406,114	15.0	42.0	57.0	4,406,114
304	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	10/05/2017	\$	105,376	09/01/2017	09/30/2017	14.50	11/06/2017	37.00	51.50	\$	5,426,867	14.5	37.0	51.5	5,426,867
305	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/09/2017	\$	79,636	10/01/2017	10/31/2017	15.00	12/11/2017	41.00	56.00	\$	4,459,616	15.0	41.0	56.0	4,459,616
306	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/09/2017	\$	132,419	10/01/2017	10/31/2017	15.00	12/11/2017	41.00	56.00	\$	7,415,472	15.0	41.0	56.0	7,415,472
307	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/30/2017	\$	64,952	11/01/2017	11/30/2017	14.50	01/02/2018	33.00	47.50	\$	3,085,196	14.5	33.0	47.5	3,085,196
308	USIC LOCATING SERVICES LLC	O/S SUPPLEMENTAL CONTRACTOR	11/30/2017	\$	108,739	11/01/2017	11/30/2017	14.50	01/02/2018	33.00	47.50	\$	5,165,100	14.5	33.0	47.5	5,165,100
309	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	04/18/2017	\$	56,537	03/01/2017	04/01/2017	15.50	05/19/2017	48.00	63.50	\$	3,590,091	15.5	48.0	63.5	3,590,091
310	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	07/05/2017	\$	64,291	06/05/2017	07/02/2017	13.50	08/07/2017	36.00	49.50	\$	3,182,425	13.5	36.0	49.5	3,182,425
311	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	10/04/2017	\$	55,455	08/04/2017	09/01/2017	17.00	11/06/2017	36.00	53.00	\$	2,939,195	17.0	36.0	53.0	2,939,195
312	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	10/02/2017	\$	58,138	07/31/2017	08/08/2017	4.00	11/02/2017	86.00	90.00	\$	5,052,388	4.0	86.0	90.0	5,052,388
313	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	02/09/2017	\$	940	02/09/2017	-	02/27/2017	18.00	18.00	\$	16,911	15.0	18.0	33.0	31,004	
314	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	02/17/2017	\$	1,064	02/17/2017	-	03/06/2017	17.00	17.00	\$	18,090	15.0	17.0	32.0	34,052	
315	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	05/01/2017	\$	5,397	05/01/2017	-	05/17/2017	16.00	16.00	\$	86,344	15.0	16.0	31.0	167,292	
316	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	03/17/2017	\$	333	03/17/2017	-	04/03/2017	17.00	17.00	\$	5,688	15.0	17.0	32.0	10,670	
317	INCORP INDUSTRIES LLC	O/S SUPPLEMENTAL CONTRACTOR	12/13/2017	\$	161	12/13/2017	-	12/22/2017	9.00	9.00	\$	1,461	15.0	9.0	24.0	3,869	
318	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	01/26/2017	\$	670	01/26/2017	-	02/13/2017	18.00	18.00	\$	12,054	15.0	18.0	33.0	22,099	
319	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	06/30/2017	\$	1,057	06/30/2017	-	07/17/2017	17.00	17.00	\$	17,961	15.0	17.0	32.0	33,809	
320	SUL4R PLUS LLC	O/S SUPPLEMENTAL CONTRACTOR	06/30/2017	\$	777	06/01/2017	06/28/2017	13.50	09/08/2017	72.00	85.50	\$	66,454	13.5	72.0	85.5	66,454
321	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	11/16/2017	\$	86	11/16/2017	-	12/04/2017	18.00	18.00	\$	1,547	15.0	18.0	33.0	2,836	
322	FACILITIES PERFORMANCE GROUP LLC	O/S SUPPLEMENTAL CONTRACTOR	05/26/2017	\$	9,081	05/26/2017	-	07/11/2017	46.00	48.00	\$	417,729	15.0	46.0	61.0	553,945	
323	FACILITIES PERFORMANCE GROUP LLC	O/S SUPPLEMENTAL CONTRACTOR	06/07/2017	\$	10,118	06/07/2017	-	07/24/2017	47.00	47.00	\$	476,547	15.0	47.0	62.0	627,317	
324	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	07/28/2017	\$	5,814	07/28/2017	-	08/14/2017	17.00	17.00	\$	98,833	15.0	17.0	32.0	186,038	
325	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$	2,774	08/04/2017	-	08/21/2017	17.00	17.00	\$	47,160	15.0	17.0	32.0	88,771	
326	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	08/25/2017	\$	5,424	08/25/2017	-	09/11/2017	17.00	17.00	\$	92,211	15.0	17.0	32.0	173,574	
327	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	11/03/2017	\$	1,593	11/03/2017	-	11/20/2017	17.00	17.00	\$	27,083	15.0	17.0	32.0	50,980	
328	PIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	02/24/2017	\$	673	02/24/2017	-	03/13/2017	17.00	17.00	\$	11,446	15.0	17.0	32.0	21,546	
329	FACILITIES PERFORMANCE GROUP LLC	O/S SUPPLEMENTAL CONTRACTOR	07/06/2017	\$	438	07/06/2017	-	08/21/2017	46.00	46.00	\$	20,160	15.0	46.0	61.0	26,733	
330	MILLER PIPELINE CORP	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$	1,865	07/03/2017	07/30/2017	13.50	09/01/2017	33.00	48.50	\$	66,713	13.5	33.0	48.5	46,513
331	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	03/03/2017	\$	1,865	02/26/2017	-	04/03/2017	36.00	36.00	\$	70,751	15.0	36.0	51.0	100,231	
332	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	07/14/2017	\$	376	06/11/2017	-	08/17/2017	67.00	67.00	\$	25,173	15.0	67.0	82.0	30,809	
333	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	08/04/2017	\$	2,536	07/23/2017	-	09/01/2017	40.00	40.00	\$	101,445	15.0	40.0	55.0	139,487	
334	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	03/03/2017	\$	7,825	03/03/2017	-	04/03/2017	31.00	31.00	\$	242,581	15.0	31.0	46.0	359,959	
335	WRIGHT TREE SERVICE INC	O/S SUPPLEMENTAL CONTRACTOR	04/04/2017	\$	1,676	03/26/2017	04/01/2017	3.00	05/08/2017	37.00	40.00	\$	67,024	3.0	37.0	40.0	67,024
336	WILLIAM E GROVES CONSTRUCTION INC	O/S SUPPLEMENTAL CONTRACTOR	06/20/2017	\$	5,327	06/05/2017	06/06/2017	0.50	07/21/2017	45.00	45.50	\$	242,382	0.50	45.0	45.5	242,382
337	UNITED ELECTRIC CO INC	O/S SUPPLEMENTAL CONTRACTOR	06/02/2017	\$	987	06/02/2017	-	07/03/2017	31.00	31.00	\$	30,585	15.0	31.0	46.0	46,384	
338	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	11/24/2017	\$	3,863	11/19/2017	-	12/22/2017	33.00	33.00	\$	120,891	15.0	33.0	48.0	175,841	
339	PIKE ELECTRIC LLC	O/S SUPPLEMENTAL CONTRACTOR	12/29/2016	\$	253	12/25/2016	-	01/30/2017	36.00	36.00	\$	9,116	15.0	36.0	51.0	12,914	
340	UNITED ELECTRIC CO INC	O/S SUPPLEMENTAL CONTRACTOR	05/10/2017	\$	38	05/09/2017	-	06/12/2017	34.00	34.00	\$	1,303	15.0	34.0	49.0	1,877	
341	FACILITIES PERFORMANCE GROUP LLC	O/S SUPPLEMENTAL CONTRACTOR	01/27/2017	\$	258	01/27/2017	-	03/14/2017	46.00	46.00	\$	11,847	15.0	46.0	61.0	15,711	
342	MELVIN AND SONS BUSHHOOGING	O/S SUPPLEMENTAL CONTRACTOR	06/05/2017	\$	53,528	06/05/2017	06/30/2017	12.50	06/12/2017	(18.00)	(5.50)	\$	(294,404)	12.5	(18.0)	(5.5)	(294,404)
343	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	11/12/2017	\$	3,539	11/12/2017	-	12/13/2017	31.00	31.00	\$	31,917	15.0	31.0	46.0	162,808	
344	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	07/20/2017	\$	1,547	07/20/2017	-	08/21/2017	32.00	32.00	\$	49,519	15.0	32.0	47.0	72,731	
345	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	12/13/2017	\$	2,317	12/13/2017	-	01/16/2018	34.00	34.00	\$	78,771	15.0	34.0	49.0	113,522	
346	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	20/04/2017	\$	20	04/07/2017	-	05/08/2017	31.00	31.00	\$	616	15.0	31.0	46.0	914	
347	THE ATLANTIC GROUP INC	O/S SUPPLEMENTAL CONTRACTOR	03/10/2017	\$	1,518	03/10/2017	-	04/10/201									

381 Total	<u>\$ 29,643,395</u>	<u>\$ 1,458,232,225</u>	<u>\$ 1,588,254,132</u>
382 Other O&M Expense Lead		<u>49.19</u>	<u>53.58</u>

Notes: Sample size of 381 payments based on 95% confidence level, 5% confidence interval, and 40,330 LG&E payments in population. Selected the highest 228 payment amounts and determined the number of payments by expenditure type for random sampling based on the % of total payments times 153 (population for random sample). Payment to OFFICE OF NATURAL RESOURCES REVENUE for \$108,406 covered 4 year period, which is not representative of normal operating results; thus, this payment was excluded from our analysis.

Kentucky Public Service Commission

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 LG&E-G Schedule 3.6
 Page 1 of 1

Louisville Gas and Electric Company—Gas

Adjustment 6

Late Payment Credit

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Other Operating Revenues	\$ -	\$ 97,753	\$ 97,753
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ -	\$ 4,888	\$ 4,888
4	Federal Taxable	\$ -		\$ 92,865
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ -	\$ 19,502	\$ 19,502
7	Total Income Taxes	\$ -	\$ 24,390	\$ 24,390
	Impact to Operating Income	\$ -	\$ 73,363	\$ 73,363

Notes and Sources

Line 1: Seelye, page 66, lines 13–15 and Exhibit WSS-14

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-G Schedule 3.7
 Page 1 of 1

Louisville Gas and Electric Company—Gas
Adjustment 7

Employee Retirement Plans

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	401(k) Match	\$ 432,539	\$ (432,539)	\$ -
2	State Income Tax	5.00%		5.00%
3	Taxable Income for Federal Income Tax	\$ (21,627)	\$ 21,627	\$ -
4	Federal Taxable	\$ 410,912		\$ -
5	Federal Income Tax Rate	21%		21%
6	Federal Income Tax Expense	\$ (86,292)	\$ 86,292	\$ -
7	Total Income Taxes	\$ (107,919)	\$ 107,919	\$ -
8	Impact to Operating Income	\$ (324,620)	\$ 324,620	\$ -

Notes and Sources

Response to KIUC-LGE 1.052

Kentucky Public Service Commission

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 LG&E-G Schedule 3.8
 Page 1 of 1

Louisville Gas and Electric Company—Gas
Adjustment 8

Directors and Officers Liability Insurance

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	LG&E D&O Insurance	\$ 240,936		
2	Total Utility Plant Assets Ratio-Gas	18.5%		
3	Allocated D&O Insurance	\$ 44,503	\$ (22,252)	\$ 22,252
4	State Income Tax	5.00%		5.00%
5	Taxable Income for Federal Income Tax	\$ (2,225)	\$ 1,112	\$ (1,113)
6	Federal Taxable	\$ 42,278		\$ 21,139
7	Federal Income Tax Rate	21%		21%
8	Federal Income Tax Expense	\$ (8,878)	\$ 4,439	\$ (4,439)
9				
10	Total Income Taxes	\$ (11,103)	\$ 5,551	\$ (5,552)
11	Impact to Operating Income	\$ (33,400)	\$ 16,701	\$ (16,700)

Notes and Sources

Column A, Line 1: Response to OAG-LGE 1.081

Column A, Line 2: Allocation between LG&E Gas and Electric based on Total Utility Plant Assets Ratio per CAM

Total Utility Plant Assets Ratio (Garrett, Schedule B-8, page 3 of 4, line 3)		
2017 LG&E-Electric Gross Utility Plant	5,581,939,046	81.5%
2017 LG&E-Gas Gross Utility Plant	1,264,627,534	18.5%
	<u>6,846,566,580</u>	<u>100.0%</u>

Column B, line 3: 50% of D&O Insurance

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Kentucky Public Service Commission

Case No. 2018-00295

Louisville Gas and Electric Company—Gas

LG&E-G Schedule 3.9

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Louisville Gas and Electric Company—Gas

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Kentucky Public Service Commission

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 LG&E-G Schedule 3.11
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Louisville Gas and Electric Company-Gas

Adjustment 11
 Credit Card Rebate

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Credit Card Rebate	\$ 242,837		
2	M&S and Stores Allocation	1.22%		
3	Allocated Credit Card Rebate	\$ 2,967	\$ (2,967)	\$ -
4	State Income Tax	5.00%		5.00%
5	Taxable Income for Federal Income Tax	\$ (148)	\$ 148	\$ -
6	Federal Taxable	\$ 2,819		\$ -
7	Federal Income Tax Rate	21%		21%
8	Federal Income Tax Expense	\$ (592)	\$ 592	\$ -
9	Total Income Taxes	\$ (740)	\$ 740	\$ -
10	Impact to Operating Income	\$ (2,227)	\$ 2,227	\$ -

Notes and Sources

Response to OAG-LGE 1-084

Schedule B-8, page 3 of 4

Allocated among utilities based on Plant Materials and Operating Supplies plus Stores Expense Undistributed for 2018

	LG&E-Electric	LG&E-Gas	Total LG&E
M&S	35,470,297	10,258	35,480,555
Stores	7,137,329	516,791	7,654,120
	42,607,626	527,049	43,134,675
	98.78%	1.22%	

Kentucky Public Service Commission

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 LG&E-G Schedule 3.12
 Page 1 of 1

Louisville Gas and Electric Company—Gas

Adjustment 12

Economic Development

<u>Line</u>	<u>Description</u>	<u>Company Proposed</u> <u>(A)</u>	<u>Adjustment</u> <u>(B)</u>	<u>Adjusted Amount</u> <u>(C)</u>
1	Economic Development	\$ 990,283		
2	Number of Customers Assets Ratio-Electric	44.3%		
3	Allocated Economic Development	\$ 438,300	\$ (438,300)	\$ -
4	State Income Tax	5.00%		5.00%
5	Taxable Income for Federal Income Tax	\$ (21,915)	\$ 21,915	\$ -
6	Federal Taxable	\$ 416,385		\$ -
7	Federal Income Tax Rate	21%		21%
8	Federal Income Tax Expense	\$ (87,441)	\$ 87,441	\$ -
9				
10	Total Income Taxes	\$ (109,356)	\$ 109,356	\$ -
11	Impact to Operating Income	\$ (328,944)	\$ 328,944	\$ -

Notes and Sources

Column A, Line 1: Response to AG-LGE 2-49

Column A, Line 2: Allocation between LG&E Gas and Electric based on Number of Customers Ratio per CAM

Total Number of Customers Ratio (Arbough, Schedule I-1, page 3)		
2017 LG&E-Electric	410,876	55.7%
2017 LG&E-Gas	326,255	44.3%
	<u>737,131</u>	<u>100.0%</u>

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-G Schedule 3.13
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Louisville Gas and Electric Company—Gas

Adjustment 13

Customer Education

<u>Line</u>	<u>Description</u>	<u>Company Proposed (A)</u>	<u>Adjustment (B)</u>	<u>Adjusted Amount (C)</u>
1	Customer Education	\$ 1,040,000		
2	Number of Customers Assets Ratio-Electric	44.3%		
3	Allocated Customer Education	\$ 460,305	\$ (460,305)	\$ -
4	State Income Tax	5.00%		5.00%
5	Taxable Income for Federal Income Tax	\$ (23,015)	\$ 23,015	\$ -
6	Federal Taxable	\$ 437,290		\$ -
7	Federal Income Tax Rate	21%		21%
8	Federal Income Tax Expense	\$ (91,831)	\$ 91,831	\$ -
9				
10	Total Income Taxes	\$ (114,846)	\$ 114,846	\$ -
11	Impact to Operating Income	\$ (345,459)	\$ 345,459	\$ -

Notes and Sources

Column A, Line 1: Response to OAG-LGE 1.073

Column A, Line 2: Allocation between LG&E Gas and Electric based on Number of Customers Ratio per CAM

Total Number of Customers Ratio (Arbough, Schedule I-1, page 3)		
2017 LG&E-Electric	410,876	55.7%
2017 LG&E-Gas	326,255	44.3%
	<u>737,131</u>	<u>100.0%</u>

Kentucky Public Service Commission

Louisville Gas and Electric Company—Gas

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Kentucky Public Service Commission

Louisville Gas and Electric Company—Gas

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Louisville Gas and Electric Company—Gas

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Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-G Schedule 3.17
 Page 1 of 1

Louisville Gas and Electric Company—Gas

Adjustment 17

Amortization of Tax Reform Regulatory Liability

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	State Tax Reform			
2	Total Regulatory Liability-Excess ADIT	\$ (142,818)		\$ (142,818)
3	Amortization Period	15.0	(9.0)	6.0
4	Annual Amortization	\$ (9,521)	\$ (14,282)	\$ (23,803)
5	State Income Tax			
6	Taxable Income for Federal Income Tax	\$ -	\$ -	\$ -
7	Federal Taxable	\$ (9,521)		\$ (23,803)
8	Federal Income Tax Rate	21%		21%
9	Federal Income Tax Expense	\$ 1,999	\$ 3,000	\$ 4,999
10	Total Income Taxes	\$ 1,999	\$ 3,000	\$ 4,999
11	Federal Tax Reform			
12	Total Regulatory Liability-Excess ADIT	\$ (2,291,747)		\$ (2,291,747)
13	Amortization Period	13.7	(9.0)	4.7
14	Annual Amortization	\$ (167,689)	\$ (323,400)	\$ (491,089)
15	State Income Tax			
16	Taxable Income for Federal Income Tax	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
17	Federal Taxable			
18	Federal Income Tax Rate			
19	Federal Income Tax Expense	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
20	Total Income Taxes	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
21	State and Federal Annual Amortization	\$ (177,210)	\$ (337,682)	\$ (514,892)
22	State and Federal Total Income Taxes	\$ 1,999	\$ 3,000	\$ 4,999
23	Impact to Operating Income	<u>\$ 175,211</u>	<u>\$ 334,682</u>	<u>\$ 509,893</u>

Notes and Sources

Column A, line 2: Case No. 2018-00304, Application dated September 12, 2018, Exhibit 3
 Column A, line 3: Direct Testimony of Christopher M. Garrett, page 35, lines 12–13
 Column A, line 12: EDIT RMA Workpaper derived from Case No. 2018-00034 PSC DR 2-1

Kentucky Public Service Commission

Case No. 2018-00295
 LG&E-G Schedule 3.18
 Page 1 of 1

Louisville Gas and Electric Company—Gas
Adjustment 18

Interest Synchronization

Line	Description	Company Proposed (A)	Adjustment (B)	Adjusted Amount (C)
1	Capitalization	\$ 788,382,062	(22,331,984)	766,050,078
2	Debt Component of Rate of Return	2.11%		2.11%
3	Interest Synchronization	\$ 16,652,552		\$ 16,180,846
4	Interest Per Books	17,499,543		17,499,543
5	Interest Attributable to Rate Base	\$ (846,991)		\$ (1,318,697)
6	State Income Tax	5.00%		5.00%
7	Taxable Income for Federal Income Tax	\$ 42,350	\$ 23,585	\$ 65,935
8	Federal Taxable	\$ (804,641)		\$ (1,252,762)
9	Federal Income Tax Rate	21%		21%
10	Federal Income Tax Expense	\$ 168,975	\$ 94,105	\$ 263,080
11	Total Income Taxes	\$ 211,326	\$ 117,690	\$ 329,016
12	Impact to Operating Income	\$ 211,326	\$ (117,690)	\$ 329,016

Notes and Sources

Column A: Garrett Schedule WPD-2, sheet 5 of 5
 Line 1: Schedule 1.1
 Line 2: Schedule 2

KENTUCKY UTILITIES COMPANY

**Response to Attorney General’s Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00294

Question No. 85

Responding Witness: Christopher M. Garrett

Q-85. Regarding uncollectibles:

- a. Explain how the Bad Debt Expense of 0.18% used in the development of Schedule H-1 was derived. Provide the supporting documentation for the derivation.
- b. Why is KU and LG&E (gas and electric) bad debt expense used on Schedule H-1 the same if the actual history of bad debt is different as shown in the response to PSC-1-49?
- c. Refer to the 2015 Gas Operations % of bad debt to revenue: Explain why the Reserve Account balance was significantly higher in 2015 than the Reserve in 2016 and 2017.

A-85. a. The KU Bad Debt Expense on Schedule H-1 is 0.316%.

<u>Year</u>	<u>Retail Revenues</u>	<u>Net Charge Offs</u>	<u>Net Charge Off %</u>
2013	1,475,359,565	3,690,691	0.250%
2014	1,595,639,675	6,721,700	0.421%
2015	1,584,248,424	5,537,467	0.350%
2016	1,582,449,743	4,426,557	0.280%
2017	1,561,731,101	4,347,134	0.278%
5-YR Avg	7,799,428,508	24,723,549	0.316%

- b. KU and LG&E (gas and electric) bad debt expense used on Schedule H-1 is not the same. The KU “Uncollectible Accounts Expense” as reported on Schedule H-1 is 0.316% (also shown in item a. above), whereas the LG&E (gas and electric) “Uncollectible Accounts Expense” as reported on Schedule H-1 is 0.182%.
- c. Not applicable. KU does not have Gas Operations.

Response to Question No. 85
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Garrett

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00295

Question No. 85

Responding Witness: Christopher M. Garrett

Q-85. Regarding uncollectibles:

- a. Explain how the Bad Debt Expense of 0.18% used in the development of Schedule H-1 was derived. Provide the supporting documentation for the derivation.
- b. Why is KU and LG&E (gas and electric) bad debt expense used on Schedule H-1 the same if the actual history of bad debt is different as shown in the response to PSC-1-49?
- c. Refer to the 2015 Gas Operations % of bad debt to revenue: Explain why the Reserve Account balance was significantly higher in 2015 than the Reserve in 2016 and 2017.

A-85.

a.

<u>Year</u>	<u>Retail Revenues</u>	<u>Net Charge Offs</u>	<u>Net Charge Off %</u>
2013	1,314,194,010	1,863,407	0.142%
2014	1,403,783,006	3,623,462	0.258%
2015	1,395,053,719	2,698,427	0.193%
2016	1,373,169,377	2,083,763	0.152%
2017	1,377,548,223	2,271,999	0.165%
5-YR Avg	6,863,748,335	12,541,058	0.182%

- b. KU and LG&E (gas and electric) bad debt expense used on Schedule H-1 is not the same. The KU "Uncollectible Accounts Expense" as reported on Schedule H-1 is 0.316% (see the response to Q-85 for KU for derivation), whereas the LG&E (gas and electric) "Uncollectible Accounts Expense as reported on Schedule H-1 is 0.182%.
- c. The "Reserve Balance at Beginning of Year" for Gas Operations in 2015 was high as a result of the polar vortex that occurred in the first quarter of 2014. This weather event drove customer bills high and thus resulted in a higher

Response to Question No. 85

Page 2 of 2

Garrett

percentage of customer charge-offs related to non-payment. The calculation used to generate the reserve for uncollectibles is driven by a historical net charge-off percentage that decreased in 2016 and 2017, as depicted in part a.

Response to AG-2 Question No. 79
Page 1 of 2
Garrett

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General's Supplemental Data Requests for Information
Dated December 13, 2018

Case No. 2018-00295

Question No. 79

Responding Witness: Christopher M. Garrett

- Q-79. Reference the Company's response to AG DR 1-85.
- a. If the actual history of bad debt is different as shown on PSC-LGE 1-49, explain why the LG&E gas (0.18%) and electric (0.18%) bad debt expense used on Schedule H-1 is the same.
 - b. Provide the Retail Revenues and Net Charge Offs and Net Charge Off's percent broken down between electric and gas for 2013–2017.

A-79.

- a. The difference between the electric and gas net charge-off percentage in PSC 1-49 is the result of the removal of the Gas Supply Clause (GSC) bad debt expense. For example, the GSC bad debt provision for 2017 is \$225K which increases the gas bad debt percentage by 0.07% to align with the electric net charge-off percentage.

The Company does not maintain a separate account balance for electric and gas uncollectible accounts, because LG&E customers receive one bill regardless of whether or not they receive gas service. Therefore, the Company used the same net charge-off percentage for electric and gas when developing the revenue requirements.

- b. For purposes of responding to this question, the Company has performed an allocation similar to the one used in PSC 1-49 to derive the electric and gas net charge-off percentage split based on revenues.

Response to AG-2 Question No. 79
Page 2 of 2
Garrett

LG&E Total Company Summary

Year	Retail Revenues	Net Charge Offs	Net Charge Off %
2013	1,314,194,010	1,863,407	0.142%
2014	1,403,783,006	3,623,462	0.258%
2015	1,395,053,719	2,698,427	0.193%
2016	1,373,169,377	2,083,763	0.152%
2017	1,377,548,223	2,271,999	0.165%
5-YR Avg			0.182%

LG&E Electric Summary

Year	Retail Revenues	Net Charge Offs	Net Charge Off %
2013	1,003,167,539	1,640,284	0.164%
2014	1,047,607,991	3,197,686	0.305%
2015	1,079,677,731	2,452,508	0.227%
2016	1,095,756,004	1,823,622	0.166%
2017	1,076,596,028	1,937,028	0.180%
5-YR Avg			0.208%

LG&E Gas Summary

Year	Retail Revenues	Net Charge Offs	Net Charge Off %
2013	311,026,471	223,123	0.072%
2014	356,175,015	425,776	0.120%
2015	315,375,988	245,919	0.078%
2016	277,413,373	260,141	0.094%
2017	300,952,195	334,971	0.111%
5-YR Avg			0.095%

Response to PSC-2 Question No. 65

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Arbough/Garrett/Seelye

KENTUCKY UTILITIES COMPANY

**Response to Commission Staff's Second Request for Information
Dated November 13, 2018**

Case No. 2018-00294

Question No. 65

Responding Witness: Daniel K. Arbough / Christopher M. Garrett / William Steven Seelye

Q-65. Refer to KU's Responses to Staff's First Request, Item 13.b. The 10-year average ratio of actual to budgeted capital construction (slippage factors) for 2008 through 2017 is 96.027 percent for the Non-Mechanism Capital Construction Projects.

- a. Assuming all other factors are unchanged, recalculate KU's forecasted revenue requirement, rate base, capital structure and cost-of-service study to take into account the use of a slippage factor of 96.027 for all monthly Non-Mechanism Capital Construction Projects expenditures beginning July 1, 2018, through the end of the forecasted period, April 30, 2020.
- b. Provide copies of all workpapers, state all assumptions, and show all calculations used to determine the effect of the slippage factor to each forecasted element of revenue requirement, rate base, and cost-of-service study.
- c. Provide copies of all schedules, supporting calculations, and documentation requested in Item 1.b in Excel spreadsheet format with formulas intact and unprotected, and all rows and columns fully accessible.

A-65. As stated in response to PSC 1-13, KU did not recognize a Slippage Factor for capital additions in either the base period or the forecasted test period. The requested calculations of the slippage factor of 96.027% for KU on capital projects that are recovered in base rates continue to demonstrate the reasonableness of KU's accuracy in projecting capital additions. Given the reasonable accuracy demonstrated, the need to apply a Slippage Factor does not exist and the Commission should decline to do so for the reasons identified in KU's Response to PSC 1-13.

- a. The impact on the KU revenue requirement for the forecasted test year is a reduction of \$2,685,522.
- b. The assumptions used, except for the application of the slippage factor requested, have not changed from those contained in the written direct testimony of Daniel K. Arbough and David S. Sinclair and provided in the

Response to PSC-2 Question No. 65

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Arbough/Garrett/Seelye

Filing Requirement Section 16(7)(c). For copies of all workpapers see the attachments being provided in Excel format in part c.

- c. See the attachments being provided in Excel format.

Response to Question No. 13

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Blake/Bellar

KENTUCKY UTILITIES COMPANY

**Response to Commission Staff's First Request for Information
Dated September 19, 2018**

Case No. 2018-00294

Question No. 13

Responding Witness: Kent W. Blake / Lonnie E. Bellar

Q-13. Concerning the utility's construction projects:

- a. For each project started during the last ten calendar years, provide the information requested in the format contained in Schedule 13a. For each project, include the amount of any cost variance and delay encountered, and explain in detail the reasons for such variances and delays.
- b. Using the data included in Schedule 13a, calculate the annual "Slippage Factor" associated with those construction projects. The Slippage Factor should be calculated as shown in Schedule 13b.
- c. In determining the capital additions reflected in the base period and forecasted test period, explain whether the utility recognized a Slippage Factor.

A-13.

- a. See attached. The Company has provided the requested data for both Mechanism Capital Construction Projects and Non-Mechanism Capital Construction Projects. Due to the voluminous number of projects over a 10-year period (over 12,000 individual projects), the Company has provided the variance explanations included in the last rate case for portions of the ten year period included therein and have added explanations for variances greater than \$500,000 for the additional two periods.
- b. See attached for the requested calculations of the Slippage Factor. The Company recommends the weighted average, as opposed to the simple average, be used in the requested calculation to reflect the relationship of the size of the budget and associated variance.
- c. No. KU did not recognize a Slippage Factor for capital additions in either the base period or the forecasted test period. The requested calculations of the slippage factors (96.027% for KU and 97.153% for LG&E) on capital projects that are recovered in base rates demonstrate the reasonableness of KU and LG&E's accuracy in projecting capital additions. In addition, through August 2018, non-mechanism capital spend is trending over budget by 3%. Given the

Response to Question No. 13

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Blake/Bellar

reasonable accuracy demonstrated with years of being both over and under budget, the need to apply a Slippage Factor does not exist and the Commission should decline to do so. If a purely numeric slippage factor calculation based on historic results is used to either reduce or increase the projected capital construction costs, it can provide a disincentive for utilities to continue their efforts to reduce capital costs after having established its annual budget. In forward-looking test period rate cases, a utility is required to provide their actual forecast for capital spend “made in good faith”. If a utility has historically been successful in managing down capital cost estimates, it would not be allowed to recover its then best estimate of capital spend for its forward-looking test period. In contrast, a utility that has been less effective in managing to or below its costs estimates and have incurred significant overruns on capital projects would actually be rewarded by being provided a revenue requirement above its best estimate of capital construction costs.

The Slippage Factors for the mechanism capital are different than base rate capital because mechanism projects are typically larger projects that are subject to delays caused by environmental permitting; ongoing, frequent, and contentious environmental regulation; and greater exposure to commodity and skilled labor availability variables. The projects to be included in base rates, with the exception of new base load generation, are typically smaller in size and are not subject to the same exposure by such variables. In addition, mechanism projects are explicitly reviewed and approved as part of the operation of the respective mechanism. To the extent there are delays or the Company is able to complete those projects at costs less than original estimates, that unexpected available capital is not redeployed to other prudent projects as the Company may do with respect to base rate capital projects.

Finally, mechanism capital slippage is irrelevant for ratemaking in a base rate case. The cost of base rate capital projects is recovered through forecasted amounts in future test period rate cases. In contrast, the cost of mechanism capital projects (e.g., KU and LG&E’s Environmental Cost Recovery mechanism) is recovered based on actual amounts spent. Therefore, any consideration of a slippage factor, if any, should be limited to capital projects to be recovered in base rates. For the reasons previously stated, the Company believes the need to apply a Slippage Factor does not exist and the Commission should decline to do so.

Kentucky Utilities Company
 Case No. 2018-00294

Schedule 13b(1)

Calculation of Capital Construction Project Slippage Factor -Non-Mechanism Construction Projects

Source: Schedule 13a - Construction Projects

Years	Base Rate Capital Actual Cost	Base Rate Capital Budget Cost	Variance in Dollars	Variance as a percent	Slippage Factor
2017	331,452,600	353,148,308	(21,695,708)	-6.144%	93.856%
2016	257,316,496	247,479,708	9,836,788	3.975%	103.975%
2015	240,247,704	254,705,926	(14,458,222)	-5.676%	94.324%
2014	258,672,601	285,655,724	(26,983,123)	-9.446%	90.554%
2013	467,930,147	442,723,204	25,206,943	5.694%	105.694%
2012	250,621,314	298,013,293	(47,391,979)	-15.903%	84.097%
2011	203,042,999	215,256,373	(12,213,373)	-5.674%	94.326%
2010	209,036,428	183,198,611	25,837,818	14.104%	114.104%
2009	247,393,650	254,530,196	(7,136,546)	-2.804%	97.196%
2008	299,810,659	364,973,077	(65,162,418)	-17.854%	82.146%
Totals	2,765,524,598	2,899,684,420	(134,159,822)	-4.627%	95.373%

10 Year Average Slippage Factor (Mathematic Average of the Yearly Slippage Factors / 10 Years)	96.027%
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The Base Rate Capital Actual Cost is the Annual Actual Cost per Schedule 13(a)Non-Mechanism Construction Projects . The Base Rate Capital Budget Cost is the Annual Original Budget per Schedule 13(a)Non-Mechanism Construction Projects .

The Slippage Factor is calculated by dividing the Base Rate Capital Actual Cost by the Base Rate Capital Budget Cost. Calculate a Slippage Factor for each year and the Totals line. Carry Slippage Factor percentages to 3 decimal places

2012¹ = Removed the budgeted amount related to the acquisition of the Bluegrass CTs. Based on the mitigation measures required by FERC for approval LG&E and KU determined that the options were not commercially justifiable. In June 2012, LG&E and KU terminated the asset purchase agreement for the Bluegrass CTs in accordance with its terms and made applicable filings with the KPSC and FERC.

Kentucky Utilities Company
 Case No. 2018-00294

Schedule 13b (2)

Calculation of Capital Construction Project Slippage Factor - Mechanisms Construction Projects Only

Source: Schedule 13a - Construction Projects

	A	B	C=A+B	D	E	F=D+E	G=C-F	H=G/F	I=C/F
Years	Actual ECR	Actual DSM	Mechanism Capital Actual Total	Budget ECR	Budget DSM	Mechanism Capital Budget Total	Variance in Dollars	Variance as a percent	Slippage Factor
2017	113,633,138	902,940	114,536,077	155,701,578	1,931,766	157,633,344	(43,097,267)	-27.340%	72.660%
2016	65,003,671	1,716,079	66,719,750	133,378,623	2,332,374	135,710,997	(68,991,246)	-50.837%	49.163%
2015	202,607,589	3,226,169	205,833,758	221,828,814	1,546,665	223,375,478	(17,541,720)	-7.853%	92.147%
2014	325,250,119	1,235,843	326,485,962	311,941,339	2,102,322	314,043,661	12,442,301	3.962%	103.962%
2013	357,471,329	1,808,343	359,279,672	331,193,876	1,307,386	332,501,262	26,778,410	8.054%	108.054%
2012	249,935,786	304,046	250,239,832	319,312,275	1,604,339	320,916,614	(70,676,782)	-22.023%	77.977%
2011	122,599,687	-	122,599,687	222,559,895	1,853,002	224,412,896	(101,813,209)	-45.369%	54.631%
2010	136,407,834	-	136,407,834	232,331,970	-	232,331,970	(95,924,136)	-41.288%	58.712%
2009	227,067,458	-	227,067,458	260,647,784	-	260,647,784	(33,580,326)	-12.883%	87.117%
2008	381,490,690	-	381,490,690	441,357,545	-	441,357,545	(59,866,855)	-13.564%	86.436%
Totals	2,181,467,302	9,193,420	2,190,660,722	2,630,253,699	12,677,852	2,642,931,551	(452,270,829)	-17.112%	82.888%

10 Year Average Slippage Factor (Mathematic Average of the Yearly Slippage Factors / 10 Years) 79.086%

The Mechanism Capital Actual Total, Mechanism Capital Budget Total, Variance in Dollars, and Variance as Percent are to be taken from Schedule 13a Mechanism Construction Projects. Total all projects for a given year.

The Slippage Factor is calculated by dividing the Mechanism Capital Actual Total by the Mechanism Capital Budget Total. Calculate a Slippage Factor for each year and the Totals line. Carry Slippage Factor percentages to 3 decimal places.

Explanation for significant variances from budget:

2017 – Under budget due to Brown Landfill phase II being delayed and also due to delays in the Trimble Co landfill and CCRT construction.

2016 – Lower costs on the Trimble landfill due to delays in the permitting process. In addition, there was a shift in spend related to CCR Pond Closures from 2016 to future years.

2015 – Lower costs on the Trimble landfill due to delays in the permitting process.

2014 – The Ghent Environmental Air project was above budget due to change orders with the primary contractor KBR primarily related to the unit 3 and 4 economizers, partially offset by lower costs on the Brown landfill due to the shifting of milestones on the transport system from 2014 to 2015.

2013 – Better than expected customer engagement in the DSM Direct Load Control program.

2012 – Continued permitting delays on the Trimble County landfill and a later start to the Environmental Air projects under the 2011 ECR plan than had been expected in the budget.

With regards to DSM, lower costs were the result of the approval of Case No. 2011-00134 being later than originally expected. The original budget assumed capitalizing the expenses starting in January but the Company had existing expensed inventory that had to be used before starting to use the newly approved DSM Rate of Return for capital projects within the DSM mechanism.

2011 – Permanent savings on the Brown 3 SCR, a later start to the Environmental Air projects under the 2011 ECR plan than had been expected in the budget, and permitting delays on the Trimble County landfill.

With regards to DSM, lower costs were the result of the approval of Case No. 2011-00134 being later than originally expected.

2010 – Permanent savings toward the end of the KU FGD installations, a delay in the start of the Brown ash pond/landfill due to the shift from an ash pond to a landfill under the 2011 ECR plan.

Response to PSC-2 Question No. 75

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Arbough/Garrett/Seelye

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's Second Request for Information
Dated November 13, 2018**

Case No. 2018-00295

Question No. 75

Responding Witness: Daniel K. Arbough / Christopher M. Garrett / William Steven Seelye

- Q-75. Refer to LG&E's Responses to Staff's First Request, Item 13.b. The 10-year average ratio of actual to budgeted capital construction (slippage factors) for 2008 through 2017 is 97.153 percent for the Non-Mechanism Capital Construction Projects.
- a. Assuming all other factors are unchanged, recalculate LG&E Electric's forecasted revenue requirement, rate base, capital structure and cost-of-service study to take into account the use of a slippage factor of 97.153 for all monthly Non-Mechanism Capital Construction Projects expenditures beginning July 1, 2018, through the end of the forecasted period, April 30, 2020.
 - b. Assuming all other factors are unchanged, recalculate LG&E-Gas's forecasted revenue requirement, rate base, capital structure, and cost-of-service study to take into account the use of a slippage factor of 97.153 for all monthly Non-Mechanism Capital Construction Projects expenditures beginning July 1, 2018, through the end of the forecasted period, April 30, 2020.
 - c. Provide copies of all workpapers, state all assumptions, and show all calculations used to determine the effect of the slippage factor to each forecasted element of revenue requirement, rate base, and cost-of-service study.
 - d. Provide copies of all schedules, supporting calculations, and documentation requested in Item 1.c in Excel spreadsheet format with formulas intact and unprotected, and all rows and columns fully accessible.
- A-75. As stated in the response to PSC 1-13, LG&E did not recognize a Slippage Factor for capital additions in either the base period or the forecasted test period. The requested calculations of the slippage factor of 97.153% for LG&E on capital projects that are recovered in base rates demonstrate the reasonableness of LG&E's accuracy in projecting capital additions. Given the reasonable accuracy demonstrated with years of being both over and under budget, the need to apply a Slippage Factor does not exist and the Commission should decline to do so for the reasons identified in LG&E's response to PSC 1-13.

Response to PSC-2 Question No. 75

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Arbough/Garrett/Seelye

- a. The impact on the LG&E Electric revenue requirement for the forecasted test year is a reduction of \$1,304,937.
- b. The impact on the LG&E Gas revenue requirement for the forecasted test year is a reduction of \$432,475.
- c. The assumptions used, except for the application of the slippage factor requested, have not changed from those contained in the written direct testimony of Daniel K. Arbough and David S. Sinclair and provided in the Filing Requirement Section 16(7)(c). For copies of all workpapers see the attachments being provided in Excel format in part d.
- d. See the attachments being provided in Excel format.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated September 19, 2018**

Case No. 2018-00295

Question No. 13

Responding Witness: Kent W. Blake / Lonnie E. Bellar

Q-13. Concerning the utility's construction projects:

- a. For each project started during the last 10 calendar years, provide the information requested in the format contained in Schedule 13a for electric and gas operations separately. For each project, include the amount of any cost variance and delay encountered, and explain in detail the reasons for such variances and delays.
- b. Using the data included in Schedule 13a, calculate the annual "Slippage Factor" associated with those construction projects for electric and gas operations separately. The Slippage Factor should be calculated as shown in Schedule 13b.
- c. In determining the capital additions reflected in the base period and forecasted test period, explain whether the utility recognized a Slippage Factor.

A-13.

- a. See attached. The Company has provided the requested data for both Mechanism Capital Construction Projects and Non-Mechanism Capital Construction Projects. Due to the voluminous number of projects over a 10-year period (over 12,000 individual projects), the Company has provided the variance explanations included in the last rate case for portions of the ten year period included therein and have added explanations for variances greater than \$500,000 for the additional two periods.
- b. See attached for the requested calculations of the Slippage Factor. The Company recommends the weighted average, as opposed to the simple average, be used in the requested calculation to reflect the relationship of the size of the budget and associated variance.
- c. No. LG&E did not recognize a Slippage Factor for capital additions in either the base period or the forecasted test period. The requested calculations of the slippage factors (96.027% for KU and 97.153% for LG&E) on capital projects that are recovered in base rates demonstrate the reasonableness of KU and

LG&E's accuracy in projecting capital additions. In addition, through August 2018, non-mechanism capital spend is trending over budget by 3%. Given the reasonable accuracy demonstrated with years of being both over and under budget, the need to apply a Slippage Factor does not exist and the Commission should decline to do so. If a purely numeric slippage factor calculation based on historic results is used to either reduce or increase the projected capital construction costs, it can provide a disincentive for utilities to continue their efforts to reduce capital costs after having established its annual budget. In forward-looking test period rate cases, a utility is required to provide their actual forecast for capital spend "made in good faith". If a utility has historically been successful in managing down capital cost estimates, it would not be allowed to recover its then best estimate of capital spend for its forward-looking test period. In contrast, a utility that has been less effective in managing to or below its costs estimates and have incurred significant overruns on capital projects would actually be rewarded by being provided a revenue requirement above its best estimate of capital construction costs.

The Slippage Factors for the mechanism capital are different than base rate capital because mechanism projects are typically larger projects that are subject to delays caused by environmental permitting; ongoing, frequent, and contentious environmental regulation; and greater exposure to commodity and skilled labor availability variables. The projects to be included in base rates, with the exception of new base load generation, are typically smaller in size and are not subject to the same exposure by such variables. In addition, mechanism projects are explicitly reviewed and approved as part of the operation of the respective mechanism. To the extent there are delays or the Company is able to complete those projects at costs less than original estimates, that unexpected available capital is not redeployed to other prudent projects as the Company may do with respect to base rate capital projects.

Finally, mechanism capital slippage is irrelevant for ratemaking in a base rate case. The cost of base rate capital projects is recovered through forecasted amounts in future test period rate cases. In contrast, the cost of mechanism capital projects (e.g., KU and LG&E's Environmental Cost Recovery mechanism) is recovered based on actual amounts spent. Therefore, any consideration of a slippage factor, if any, should be limited to capital projects to be recovered in base rates. For the reasons previously stated, the Company believes the need to apply a Slippage Factor does not exist and the Commission should decline to do so.

Louisville Gas and Electric Company
 Case No. 2018-00295

Schedule 13b(1)

Calculation of Capital Construction Project Slippage Factor -Non-Mechanism Construction Projects

Source: Schedule 13a - Construction Projects

Year	Base Rate Capital Actual Cost	Base Rate Capital Budget Cost	Variance in Dollars	Variance as a percent	Slippage Factor
2017	273,814,739	314,514,052	(40,699,313)	-12.940%	87.060%
2016	201,820,465	205,916,322	(4,095,857)	-1.989%	98.011%
2015	213,433,085	213,558,521	(125,436)	-0.059%	99.941%
2014	233,542,915	246,109,548	(12,566,633)	-5.106%	94.894%
2013	301,411,194	297,836,538	3,574,656	1.200%	101.200%
2012	198,826,795	214,793,287	(15,966,492)	-7.433%	92.567%
2011	197,524,642	226,223,175	(28,698,533)	-12.686%	87.314%
2010	203,125,349	170,001,291	33,124,058	19.485%	119.485%
2009	167,411,673	179,893,509	(12,481,836)	-6.938%	93.062%
2008	212,232,535	216,569,290	(4,336,754)	-2.002%	97.998%
Totals	2,203,143,393	2,285,415,533	(82,272,140)	-3.600%	96.400%

10 Year Average Slippage Factor (Mathematic Average of the Yearly Slippage Factors / 10 Years)	97.153%
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The Slippage Factor is calculated by dividing the Base Rate Capital Actual Cost by the Base Rate Capital Budget Cost. Calculate a Slippage Factor for each year and the Totals line. Carry Slippage Factor percentages to 3 decimal places

2012¹ = Removed the budgeted amount related to the acquisition of the Bluegrass CTs. Based on the mitigation measures required by FERC for approval LG&E and KU determined that the options were not commercially justifiable. In June 2012, LG&E and KU terminated the asset purchase agreement for the Bluegrass CTs in accordance with its terms and made applicable filings with the KPSC and FERC.

Louisville Gas and Electric Company
 Case No. 2018-00295

Schedule 13b (2)

Calculation of Capital Construction Project Slippage Factor -Mechanism Construction Projects Only

Source: Schedule 13a - Construction Projects

	A	B	C	D = A+B+C	E	F	G	H=E+F+G	I=D-H	J=I/H	K=D/H
Year	Actual ECR	Actual DSM	Actual GLT	Mechanism Capital Actual Total	ECR	DSM	GLT	Mechanism Capital Budget Total	Variance in Dollars	Variance as a percent	Slippage Factor
2017	152,550,358	901,116	43,068,468	196,519,941	137,392,654	1,931,766	49,518,353	188,842,773	7,677,168	4.065%	104.065%
2016	118,080,979	2,032,812	56,811,210	176,925,001	213,541,391	2,332,374	57,452,364	273,326,130	(96,401,129)	-35.270%	64.730%
2015	332,975,913	2,956,595	54,787,547	390,720,056	328,957,067	1,546,665	52,747,681	383,251,413	7,468,643	1.949%	101.949%
2014	404,522,580	1,407,752	51,358,901	457,289,233	286,241,263	2,102,330	54,601,467	342,945,060	114,344,172	33.342%	133.342%
2013	247,148,691	1,530,891	44,368,114	293,047,695	323,761,867	1,307,381	48,259,066	373,328,314	(80,280,619)	-21.504%	78.496%
2012	80,423,350	248,316	15,858,155	96,529,822	231,552,739	1,603,839	14,753,636	247,910,213	(151,380,392)	-61.063%	38.937%
2011	9,605,232	-	-	9,605,232	77,034,797	1,900,012	-	78,934,809	(69,329,578)	-87.831%	12.169%
2010	7,859,154	-	-	7,859,154	17,203,191	-	-	17,203,191	(9,344,037)	-54.316%	45.684%
2009	17,420,492	-	-	17,420,492	11,793,861	-	-	11,793,861	5,626,631	47.708%	147.708%
2008	25,900,841	-	-	25,900,841	26,519,109	-	-	26,519,109	(618,268)	-2.331%	97.669%
Totals	1,396,487,590	9,077,481	266,252,395	1,671,817,466	1,653,997,940	12,724,366	277,332,567	1,944,054,874	(272,237,408)	-14.004%	85.996%

10 Year Average Slippage Factor (Mathematic Average of the Yearly Slippage Factors / 10 Years)	82.475%
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The Slippage Factor is calculated by dividing the Mechanism Capital Actual Total by the Mechanism Capital Budget Total. Calculate a Slippage Factor for each year and the Totals line. Carry Slippage Factor percentages to 3 decimal places.

Explanation for significant variances from budget:

2017 – Over budget due to Mill Creek Gypsum Dewatering and Process Water Systems construction.

2016 – Lower costs on the Trimble landfill due to delays in the permitting process. In addition, there was a shift in spend related to CCR Pond Closures from 2016 to future years.

2015 – The Mill Creek Environmental Air project was above budget due to change orders and higher actual costs against the target pricing contract in place with the primary contractor Zachry, partially offset by lower costs on the Trimble landfill due to delays in

2014 – The Mill Creek Environmental Air project was well above budget due to change orders and higher actual costs against the target pricing contract in place with the primary contractor Zachry.

2013 – Continued permitting delays on the Trimble County landfill and less work completed on the Mill Creek Environmental Air Project than had been expected in the budget.

2012 – Continued permitting delays on the Trimble County landfill and a later start to the Mill Creek environmental air projects under the 2011 ECR plan than had been expected in the budget.

With regards to DSM, lower costs were the result of the approval of Case No. 2011-00134 being later than originally expected. The original budget assumed capitalizing the expenses starting in January but the Company had existing expensed inventory that had to be used before starting to use the newly approved DSM Rate of Return for capital projects within the DSM mechanism.

2011 – Later start to the Mill Creek environmental air projects under the 2011 ECR plan than had been expected in the budget, and permitting delays on the Trimble County landfill.

With regards to DSM, lower costs were the result of the approval of Case No. 2011-00134 being later than originally expected.

2010 – Delay in the Trimble County barge Loading (Holcim) project, and the Mill Creek SAM mitigation cancelled.

2009 – More costs incurred on the Trimble County Bottom Ash Pond that had been expected in the budget.

Response to Question No. 55

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Bellar/Conroy

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00295

Question No. 55

Responding Witness: Lonnie E. Bellar / Robert M. Conroy

Q-55. Refer to the direct testimony of Lonnie E. Bellar, pages 59-60, wherein he described the \$91.2 million transmission line replacement/upgrade.

- a. Provide the Company's analyses which evidences that the portion of the project wherein the Company "will replace segments of predominately 16-inch pipeline with 20-inch diameter pipeline, to achieve the uniform diameter," is a cost-beneficial investment.
- b. Cite to the Company's application for a CPCN for this 13.2 mile transmission line upgrade.
- c. Explain what portion of the \$91.2 million price tag that the 13.2 mile transmission line replacement represents.
- d. Explain the need for the 1.45 mile replacement of the pipeline connecting the Western Kentucky and Magnolia pipelines. Any response should explain the condition of the current pipeline, including why it is no longer adequate for service.

A-55.

- a. While a formal analysis has not been completed, replacing the 13.2 miles is cost beneficial based on the following assessment:
 - The replacements will enable each enhanced inline inspection tool to be run from one end of the pipeline to the other end in each of the WK A and WK B pipelines.
 - Some multi-diameter enhanced inline inspection tools are not currently offered. As a result, the alternative to replacing the 13.2 miles of pipeline to achieve uniform diameter would be to complete a separate set of inline inspection tool runs for each change in pipeline diameter. To accomplish this, over 20 segments would be inspected separately in total between the WK A and WK B pipelines. The cost for an enhanced inline inspection assessment of a single-diameter pipeline is

Response to Question No. 55

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Bellar/Conroy

projected to be \$2.5 million. Inline inspections are repeated every seven years.

- The WKA and WKB pipelines are equipped with above ground facilities at each end to launch and receive tools. Separate tool runs in the middle of the pipeline would require separating the pipelines and installing temporary tool launching and receiving equipment, then removing the temporary equipment after the tool to reconnect the pipelines. This would require isolating at least a portion of the pipeline each time.
 - Replacing the 13.2 miles to get a uniform diameter for both lines facilitates coordination with tool vendors for inspecting the WKA and WKB pipelines as only one set of single-diameter tools would be needed to inspect each line versus coordination of multiple sets of single-diameter tool runs to accommodate each segment with different pipeline diameters.
 - 20-inch diameter pipeline makes up approximately 70% of the current pipeline for the WKA and WKB pipelines and greater than 50% for each pipeline. Replacements allowing conformity to 20-inch diameter pipe required the least amount of replacement to get to a single diameter. The 20-inch diameter is also adequate from a system planning perspective.
- b. LG&E has not requested a CPCN for the transmission line upgrades. As explained in Mr. Bellar's testimony, this project involves the replacement of existing transmission line segments, and is in the ordinary course of business. The upgrades pertain to ten separate segments in two transmission lines and were described cumulatively.
- c. Approximately \$77.4 million has been included for the 13.2 miles. Of this amount, \$9.6 million is included in the forecasted test period.
- d. The pipeline is being replaced because its short length makes running enhanced ILI tools cost prohibitive for the length of pipe inspected.

Response to Question No. 57
Page 1 of 2
Bellar

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00295

Question No. 57

Responding Witness: Lonnie E. Bellar

Q-57. Refer to the direct testimony of Lonnie E. Bellar, pages 61-61, wherein he describes the Nelson County Reinforcement Project. Mr. Bellar states that “the primary driver for this project is to extend an additional gas supply to the west side of the existing distribution system to accommodate additional growth. Mr. Bellar further states that the “existing system could support some modest commercial and residential growth.”

- a. Explain how much additional growth the existing system could accommodate.
- b. Provide the studies or forecasts the Company depended on when assuming that growth in the short or medium term will outpace the capacity available on this portion of the system.
- c. Are any costs associated with this project included in the Company's forecasted period in this matter? If so, cite to same.

A-57.

- a. The west side of the Bardstown Gas System is fed from the medium pressure distribution system that extends from the current gas supplies coming primarily from (2) regulator stations located along highway 62 north of Hwy 245 and along Hwy 245 just to the south of CR-1615 (Glenwood Dr). With current supplies the existing west side of the system can support some additional small commercial and residential growth requiring lower loads and delivery pressures. However, due to the supplies being on the east side of the system, the west side of the system would be limited to support larger commercial or industrial requests requiring higher loads and potentially higher delivery pressures. The Nelson County Reinforcement Project will bring a high pressure distribution system to this corridor to support planned and future development in the area. The new pipeline will be sized to have pressure to support future residential, commercial and industrial growth on the west side of the system, in addition to providing an additional supply to the existing Bardstown distribution system.

Response to Question No. 57
Page 2 of 2
Bellar

- b. As discussed in the response to part (a) of the question, system planning analysis has shown that the west side of the Bardstown system would be limited in supporting larger commercial or industrial load requests without the proposed pipeline reinforcement. Factors considered supporting the need for reinforcement to provide additional capacity include:
- (1) The Company has been approached by an existing commercial gas customer with substantial load that will be moving to the western area of Nelson County.
 - (2) The Company has been approached in the past by another business with a commercial load request (capacity is currently available for this load). The business opted not to pay for the main extension at that time.
 - (3) In discussions with officials, Nelson County is focusing commercial and industrial development on the northwest area of the county as development in the industrial park has reached near capacity.
 - (4) The Kentucky Department of Transportation has presented two corridor options for a bypass that will provide a western route around Bardstown that will support future traffic flow and development. The proposed pipeline will terminate in the location of the proposed bypass near Hwy 245.
 - (5) Since 2015, the Company has received 28 commercial load requests from the Bardstown area and 12 have occurred along and to the north and west of Highways 62 and 150 in Bardstown. Commercial loads in this area will continue to diminish available capacity on the western side of Bardstown.
- c. Yes, there is \$31,619 of capital in the forecasted test period for the Nelson County Reinforcement Project.

Response to Lou Metro-2 Question No. 38
Page 1 of 2
Bellar

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Second Request for Information of the Louisville Metro Government
Dated December 13, 2018

Case No. 2018-00295

Question No. 38

Responding Witness: Lonnie E. Bellar

Q-38. Please refer to the answer to Louisville Metro 1-93(c).

- a. Have the Bullitt County and Nelson County pipeline growth projects been started?
- b. How much is the expected cost of each project?
- c. Is the purpose for the projects for future expansion or to accommodate current growth?
- d. Were the projects required by an outside authority? If the response is affirmative, what authority required the projects? If the response is negative, what is the justification for the expansion projects?

A-38.

- a. The Company has started engineering, design, permitting and easement acquisition for the Bullitt County project, but construction has not started. See the testimony of Mr. Bellar at page 60, lines 9-22 for a project status report. The Nelson Co. pipeline project has not begun.
- b. See the testimony of Mr. Bellar on page 60 lines 21-22 for the expected cost of the Bullitt County project, and on page 62 lines 7-8 for the expected cost of the Nelson County project.
- c. See the testimony of Mr. Bellar on page 60 beginning at line 13 for a description of the Bullitt County project.

See the testimony of Mr. Bellar on page 61 beginning at line 21 for a description of the Nelson County project.

- d. See response to part c of this question.

Response to Lou Metro-2 Question No. 38
Page 1 of 2
Bellar

The Bullitt County project received a CPCN from the Commission in Case No. 2016-00371.

For the Nelson County project, see the response to AG 1-57.

KENTUCKY UTILITIES COMPANY

**Response to Commission Staff's First Request for Information
Dated September 19, 2018**

Case No. 2018-00294

Question No. 21

Responding Witness: Christopher M. Garrett

- Q-21. Provide the following information for each item of property or plant held for future use at the beginning of the base period:
- a. Description of property;
 - b. Location;
 - c. Date purchased;
 - d. Cost;
 - e. Estimated date to be placed in service;
 - f. Brief description of the intended use; and
 - g. Current status of each project.
- A-21. See attached.

**Kentucky Utilities Company
 Plant Held for Future Use
 January 1, 2018**

(a) Description of Property	(b) Location	(c) Date Purchased	(d) Cost	(e) Estimated Date to be Placed in Service	(f) Brief Description of Intended Use	(g) Current Status of Project
Land and site prep	Pennington Gap ¹	28-Dec-11	\$ 324,088	2019-2020	69-12 KV Substation	Property Acquired
Land	Green River Station	1-Jul-14	\$ 309,541	2029	Generation - Combined Cycle Gas Turbine	Property Acquired
Land and site prep	Kevil Service Center	22-Dec-15	\$ 131,956	2019-2020	Service Center	Property Acquired
Land and site prep	London Substation	1-Aug-11	\$ 113,882	2022	69-12 KV Substation	Property Acquired
Land and site prep	Lonesome Pine Substation ¹	1-Feb-17	\$ 240,853	2019-2020	69-12 KV Substation	Property Acquired
Land and site prep	Polo Club Substation	28-Feb-10	\$ 792,599	2025	69-12 KV Substation	Property Acquired
Plant Held for Future Use Total			<u><u>\$ 1,912,920</u></u>			

¹Pennington Gap and Lonesome Pine are located in Virginia.

KENTUCKY UTILITIES COMPANY

**Response to Attorney General's Supplemental Data Requests for Information
Dated December 13, 2018**

Case No. 2018-00294

Question No. 77

Responding Witness: Christopher M. Garrett / John K. Wolfe

Q-77. Reference the Company's response to Staff DR 1-21. The Company's response indicates that Pennington Gap 28-Dec-11 \$324,088 2019-2020 69-12 KV Substation and Lonesome Pine Substation 1-Feb-17 \$240,853 2019-2020 69-12 KV Substation are both physically located in Virginia.

- a. How do the future substations at these locations benefit KY customers?
- b. How will the cost of the land and future 69kv-12kv substation be divided between KY and Virginia Utility Plant?

A-77.

- a. These future substations will be located in the Virginia service territory and do not directly benefit Kentucky customers.
- b. The 69kv-12kv substation distribution property is directly assigned to the jurisdiction of physical location. The Lonesome Pine Substation was inadvertently assigned to the Kentucky Jurisdiction on Schedule B-2.6.

KENTUCKY UTILITIES COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00294

Question No. 64

Responding Witness: William Steven Seelye

- Q-64. Refer to Exhibit WSS-36 which presents the individual revenue lags and expense leads developed for each Company.
- a. For each item with an expense lead of 0 (e.g., pension and OPEB expense, depreciation, amortization, and deferred taxes), clarify whether the intention is to reflect an exclusion from cash working capital or an actual expense lead of 0 days in the computation.
 - b. If the item with an expense lead of 0 should be reflected in the computation as shown in Schedule B-5.2, explain and provide supporting workpapers for the determination of 0 days.
- A-64.
- a. The intention of including an expense lead of 0 for the referenced items shown on Exhibit WSS-36 is to exclude these items from the calculation of cash working capital.
 - b. See the response to part a.

KENTUCKY UTILITIES COMPANY

**Response to Attorney General’s Supplemental Data Requests for Information
 Dated December 13, 2018**

Case No. 2018-00294

Question No. 21

Responding Witness: Christopher M. Garrett / William Steven Seelye

- Q-21. Reference the Companies’ response to AG DR 1-64(a). The response states, “The intention of including an expense lead of 0 for the referenced items as shown on Exhibit WSS-36 is to exclude these items from cash working capital.”
- a. Explain the theoretical basis for why the items with an expense lead of 0 (e.g., Pension, OPEB, Depreciation, and Amortization, etc.) are excluded from cash working capital.
 - b. Explain why the following component (provisions)/requirements should not be removed from the calculated allowance on Schedule B-5.2.

**CASH WORKING CAPITAL COMPONENTS
 FORECAST PERIOD FOR THE 12 MONTHS ENDED APRIL 30, 2020**

	Expense (Lead)/Lag	Working Capital (Provided)/Required		
		KU	LG&E-E	LG&E-G
No-Notice Storage Injections and Withdrawals	-			(147,640)
Pension Expense	-	(214,820)	(95,286)	(37,570)
OPEB Expense	-	49,558	176,073	74,540
Depreciation and Amortization	-	41,549,335	26,415,000	4,805,169
Regulatory Debits	-	1,051,265	184,403	-
Amortization of Regulatory Assets	-	823,067	734,123	31,264
Amortization of Regulatory Liabilities	-	(393,968)	(36,934)	-
Deferred: Federal and State (Including ITC)	-	4,188,150	1,723,108	517,597
		47,052,586	29,100,488	5,243,359

Source: Schedules B-5.2

- A-21.
- a. The expense items referenced are intentionally excluded from the calculation of cash working capital from an expense standpoint because they do not have a current cash outlay when the expense is recorded. The revenue requirements for these expense items included in revenue do however have a revenue lag due to the time it takes to recover the expenses from customers.
 - b. See the response to part a.

Response to Question No. 58

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McFarland / Seelye

KENTUCKY UTILITIES COMPANY

**Response to Lexington-Fayette Urban County
Government's Request for Information
Dated November 13, 2018**

Case No. 2018-00294

Question No. 58

Responding Witness: Elizabeth J. McFarland / William Steven Seelye

- Q-58. Please refer to Mr. Seelye's testimony beginning on page 66.
- a. Explain the procedure for how the Late Payment Credit will be applied to a customer's account. Include within your response a statement on whether a customer will be required to speak with the Company's customer service representatives, or whether the request for the Credit will be accepted through a customer account accessible on the Company's website.
 - b. Explain how the Companies calculated the reduction in revenue identified on lines 14-15.
 - c. Confirm that the reduction in revenue identified on lines 14-15 presumes that 100% of customers who would be eligible for the Late Payment Credit actually requested the Credit be applied.
 - d. Provide any documentation or study supporting the percentage of customers who would make a request for a Late Payment Credit to be applied.
- A-58.
- a. The Late Payment Credit will be manually applied to an eligible customer's account. Customers will be required to contact a customer service representative and request the late payment credit.
 - b. The Company identified each residential late payment charge for the 12 months ended December 31, 2017 and determined the amount for each such late payment charge for any residential customers who had only one late payment charge during the current and previous 11 months. The total reduction in revenue represented the sum of all such residential late payment charges for the 12-month period.
 - c. Confirmed.

Response to Question No. 58

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McFarland / Seelye

- d. The Company is unable to conduct such a study until the waiver program is implemented.

KENTUCKY UTILITIES COMPANY

**Response to Commission Staff's Third Request for Information
Dated December 13, 2018**

Case No. 2018-00294

Question No. 27

Responding Witness: Elizabeth J. McFarland

- Q-27. Refer to KU's Response to the Lexington-Fayette Urban County Government's First Request for Information, Item 58.
- a. Explain why a paperless customer cannot apply for the Late Payment Credit online.
 - b. Explain how KU will advertise the Late Payment Credit option.
- A-27.
- a. Customers will be able to request the Late Payment Credit online through the Contact Us form on the website.
 - b. The Company is not planning on advertising the Late Payment Credit option.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's Third Request for Information
Dated December 13, 2018**

Case No. 2018-00295

Question No. 26

Responding Witness: Elizabeth J. McFarland

- Q-26. Refer to LG&E's Response to Louisville Metro Government's First Request for Information, Item 52.
- a. Explain why a paperless customer cannot apply for the Late Payment Credit online.
 - b. Explain how LG&E will advertise of the Late Payment Credit option.
- A-26.
- a. Customers will be able to request the Late Payment Credit online through the Contact Us form on the website.
 - b. The Company is not planning on advertising the Late Payment Credit option.

KENTUCKY UTILITIES COMPANY

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated November 13, 2018**

Case No. 2018-00294

Question No. 60

Responding Witness: Gregory J. Meiman

Q.1-60. Refer to the disallowance of costs referenced on pages 13-15 of the June 22, 2017 Order in Kentucky Utilities, Inc. Case No. 2016-00370 and to pages 16-17 of the June 22, 2017 Order in Louisville Gas and Electric Company Case No. 2016-00371. For employees who participate in a defined benefit plan, please provide the total and jurisdictional amount of matching contributions made on behalf of employees who also participate in any 401(k) retirement savings account if the Commission applied the same methodology for a similar disallowance in the instant proceeding.

A.1-60. In response to the Commission's order, the Company commissioned two independent studies to assess (1) the reasonableness of the benefit offerings and (2) the level of retirement benefits. Based upon those studies, the Company believes that the cost of providing retirement benefits is not excessive and should be a recoverable expense.

Although the Company disagrees with the assertion that this should be disallowed, in order to be responsive to this question the total match for employees who also participate in a defined benefit plan is \$2,152,591. Of this amount, the KU jurisdictional piece is \$2,018,838.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated November 13, 2018**

Case No. 2018-00295

Question No. 52

Responding Witness: Gregory J. Meiman

Q.1-52. Refer to the disallowance of costs referenced on pages 13-15 of the June 22, 2017 Order in Kentucky Utilities, Inc. Case No. 2016-00370 and to pages 16-17 of the June 22, 2017 Order in Louisville Gas and Electric Company Case No. 2016-00371. For employees who participate in a defined benefit plan, please provide the total and jurisdictional amount of matching contributions made on behalf of employees who also participate in any 401(k) retirement savings account if the Commission applied the same methodology for a similar disallowance in the instant proceeding. Further distinguish jurisdictional costs between gas and electric operations.

A.1-52. In response to the Commission's order, the Company commissioned two independent studies to assess (1) the reasonableness of the benefit offerings and (2) the level of retirement benefits. Based upon those studies, the Company believes that the cost of providing retirement benefits is not excessive and should be a recoverable expense.

Although the Company disagrees with the assertion that this should be disallowed, in order to be responsive to this question the total match for employees who also participate in a defined benefit plan is \$1,802,247. Of this amount, \$1,369,708 dollars are allocated to electric and \$432,539 are allocated to gas.

Response to Question No. 114
Page 1 of 2
Meiman

KENTUCKY UTILITIES COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00294

Question No. 114

Responding Witness: Gregory J. Meiman

Q-114. Refer to the direct testimony of Gregory J. Meiman, page 6, wherein he testifies that the three-year average turnover rate in the call center was 13.4%, excluding retirements. Mr. Meiman also testifies that the Companies determined compensation paid to those individuals was below market (page 6, line 17) and that adjusting their wages "to become market competitive . . . will reduce turnover costs and allow for uninterrupted service for our customers."

- a. Explain in detail how Mr. Meiman determined that call center employees' pay was below market. Provide all supporting documentation.
- b. Explain how Mr. Meiman determined that the below-market compensation was the cause of the turnover rate (e.g., exit interviews or surveys)? Any response should provide all supporting documentation.

A-114.

- a. Below is the assessment of the Companies' starting pay rates:

Response to Question No. 114
Page 2 of 2
Meiman

Key	Business Information	Location	Advertised Hourly Pay Rate	Other Information
1	Global outsourcer call center	Lexington	\$12.00	
2	LKE Current Offer	Lexington & Louisville	\$12.00	
3	Retail & foodservice	Lexington & Louisville	\$12.00	
4	Global outsourcer call center	Louisville	\$13.00	
5	National utility call center	Louisville	\$14.00	Free/Discounted on company provided services
6	Utility outsourcer call center	Lexington	\$14.00	
7	Medical collections call center	Louisville	\$15.50	bonus averaging \$1,000/month and \$0.50 increase every 6 months
8	Recommended LKE Salary Offer		\$16.00	
9	Regional utility call center	Plainfield, IN	\$16.00	
10	Large retail call center	New Albany, IN	\$16.45	
11	Local utility call center	Louisville	\$18.00	

Corresponding adjustments were made to maintain internal equity and assist in retention of existing employees.

- b. The exit interview scores (1-5, with 5 the highest) for the Call Center area are reflected below:

	Call Center Pay	LKE Pay
2017	2.50	3.55
2016	3.17	4.23
2015	3.25	4.16

As illustrated above, satisfaction with pay decreases over the period. Additionally, the Call Center scores are lower than the rest of the company for pay.

Response to Question No. 114
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Meiman

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00295

Question No. 114

Responding Witness: Gregory J. Meiman

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Response to Question No. 114
Page 2 of 2
Meiman

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As illustrated above, satisfaction with pay decreases over the period. Additionally, the Call Center scores are lower than the rest of the company for pay.

Response to Question No. 81
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Arbough

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00295

Question No. 81

Responding Witness: Daniel K. Arbough

Q-81. Directors' and Officers' ("D&O") Liability Insurance: Does the cost of service include any premium costs for D&O insurance either direct charged or allocated? If the response is in the affirmative, provide the following items:

- a. Amount included in the base year and forecasted period. If the amount is allocated, provide the allocations.
- b. List of officers and directors covered by the insurance.
- c. List of acts covered by the insurance.

A-81. Yes, the cost of service includes premium costs for D&O insurance.

- a. The amount included in the base year for LG&E is \$246,454. The amount included in the forecasted period for LG&E is \$240,936. One third of the premium is first allocated from PPL to LG&E and KU Energy LLC ("LKE"). LKE further allocates 46% of the LKE portion of the premium to LG&E.
- b. All directors and officers of PPL Corporation and each subsidiary, and employees regardless of job title, if employee is involved in an outside non-profit board or industry association at the request of PPL Corporation or a subsidiary are covered by this insurance.
- c. PPL maintains broad directors and officers liability insurance that is designed to indemnify the directors and officers of PPL Corporation and each of its subsidiaries against any liability (including legal expenses, settlements and judgments) arising out of alleged wrongful acts, errors or omissions committed while managing corporate affairs.

PPL's D&O insurance is comprised of Corporate Indemnification and Side A coverages. Corporate Indemnification coverage will reimburse a company for payments made to directors and officers under the indemnification provisions of the company's bylaws. In situations where a company is unable to indemnify a director or officer, such as in the case of a derivative claim

Response to Question No. 81
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Arbough

brought on behalf of the company by a third party, or in the case of the company's financial inability to pay, Side A coverage provides, on a direct basis and with no deductible, payments for legal expenses, settlements and judgments.

Response to Question No. 81
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Arbough

KENTUCKY UTILITIES COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00294

Question No. 81

Responding Witness: Daniel K. Arbough

Q-81. Directors' and Officers' ("D&O") Liability Insurance: Does the cost of service include any premium costs for D&O insurance either direct charged or allocated? If the response is in the affirmative, provide the following items:

- a. Amount included in the base year and forecasted period. If the amount is allocated, provide the allocations.
- b. List of officers and directors covered by the insurance.
- c. List of acts covered by the insurance.

A-81. Yes, the cost of service includes premium costs for D&O insurance.

- a. The amount included in the base year for KU is \$283,961. The amount included in the forecasted period for KU is \$277,596. One third of the premium is first allocated from PPL to LG&E and KU Energy LLC ("LKE"). LKE further allocates 53% of the LKE portion of the premium to KU.
- b. All directors and officers of PPL Corporation and each subsidiary, and employees, regardless of job title, if employee is involved in an outside non-profit board or industry association at the request of PPL Corporation or a subsidiary are covered by this insurance.
- c. PPL maintains broad directors and officers liability insurance that is designed to indemnify the directors and officers of PPL Corporation and each of its subsidiaries against any liability (including legal expenses, settlements and judgments) arising out of alleged wrongful acts, errors or omissions committed while managing corporate affairs.

PPL's D&O insurance is comprised of Corporate Indemnification and Side A coverages. Corporate Indemnification coverage will reimburse a company for payments made to directors and officers under the indemnification provisions of the company's bylaws. In situations where a company is unable to indemnify a director or officer, such as in the case of a derivative claim brought on behalf

Response to Question No. 81
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Arbough

of the company by a third party, or in the case of the company's financial inability to pay, Side A coverage provides, on a direct basis and with no deductible, payments for legal expenses, settlements and judgments.

Response to Question No. 92
Page 1 of 2
Garrett

KENTUCKY UTILITIES COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00294

Question No. 92

Responding Witness: Christopher M. Garrett

- Q-92. Reference FR 16(8)(f), Sch. F-1 of the current application.
- a. Confirm that in the base period, KU paid \$400,967 in jurisdictional dues to EEI, and excluded \$64,343.85.
 - b. Confirm that for the forecasted period, KU seeks to recover \$420,215.55 of the jurisdictional dues it believes it will pay to EEI, and to exclude \$70,071.48.
 - c. Confirm that for both the base period and the forecasted test period, EEI has engaged in, and will continue to engage in, inter alia, covered activities.
 - d. Confirm that all portions of the EEI dues KU proposes to exclude for the forecasted period are non-jurisdictional.
 - e. If subpart (d), above is so confirmed, explain why the non-recoverable portions of EEI dues identified here are not recoverable in KU's other jurisdictions.
 - f. Since EEI no longer breaks out its activities by NARUC operating expense category, provide the basis for KU's proposed exclusion of \$70,071.48 in EEI dues from the forecasted test period. Provide copies of all documents supporting both the amount of KU's proposed exclusion, and the amounts of EEI dues KU suggests should be included for recovery.
 - g. Confirm that based on Commission precedent of excluding 45.35% of EEI dues, KU should exclude \$190,567.76 from the forecasted period.
- A-92.
- a. Yes, amounts are confirmed.
 - b. Yes, amounts are confirmed.
 - c. KU cannot confirm the activity of EEI, but it is assumed in the forecast they will continue their current activities.

Response to Question No. 92
Page 2 of 2
Garrett

- d. Confirmed. The non-recoverable portion of the EEI dues KU excluded for the forecasted period are non-jurisdictional.
- e. No, the Company does not agree with this position. KU excluded the appropriate amount of unrecoverable dues based on the information provided on the 2018 invoice from EEI. See the response to Question No. 91(b).
- f. Based on the invoice for the EEI membership in 2018, 13% of membership dues and 24% of industry issues should be excluded from the cost of service as those expenses relate to influencing legislation. The combined exclusion of the invoice amount is 14%, which is appropriately applied to the forecasted test period. See the response to Question No. 98 for a copy of the invoice.

The 2019 estimate was provided by PPL. The amount excluded for the forecasted test period was 14% of the amount provided.

- g. No, the Company does not agree with this position. KU excluded the appropriate amount of unrecoverable dues based on the information provided on the 2018 invoice from EEI. See the response to Question No. 91(b).

Response to Question No. 92
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LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00295

Question No. 92

Responding Witness: Christopher M. Garrett

- Q-92. Reference FR 16(8)(f), Sch. F-1 of the current application.
- c. Confirm that in the base period, LG&E paid \$309,928.90 in dues to EEI, and excluded \$46,792.28.
 - d. Confirm that for the forecasted period, LG&E seeks to recover \$306,562.76 of the dues it believes it will pay to EEI, and to exclude \$52,553.68.
 - e. Confirm that for both the base period and the forecasted test period, EEI has engaged in, and will continue to engage in, inter alia, covered activities.
 - f. Since EEI no longer breaks out its activities by NARUC operating expense category, provide the basis for LG&E's proposed exclusion of \$52,553.68 in EEI dues from the forecasted test period. Provide copies of all documents supporting both the amount of LG&E's proposed exclusion, and the amounts of EEI dues LG&E suggests should be included for recovery.
 - g. Confirm that based on Commission precedent of excluding 45.35% of EEI dues, LG&E should exclude \$167,536.55 from the forecasted period.
- A-92.
- c. Yes, amounts are confirmed.
 - d. Yes, amounts are confirmed.
 - e. LG&E cannot confirm the activity of EEI, but it is assumed in the forecast they will continue their current activities.
 - f. Based on the invoice for the EEI membership in 2018, 13% of membership dues and 24% of industry issues should be excluded from the cost of service as those expenses relate to influencing legislation. The combined exclusion of the invoice amount is 14%, which is appropriately applied to the forecasted test period. See the response to question 98 for a copy of the invoice.

Response to Question No. 92
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Garrett

The 2019 estimate was provided by PPL. The amount excluded for the forecasted test period was 14% of the amount provided.

- g. No, the Company does not agree with this position. LG&E excluded the appropriate amount of unrecoverable dues based on the information provided on the 2018 invoice from EEI. See the response to Question No. 91(b).

KENTUCKY UTILITIES COMPANY

**Response to Attorney General’s Initial Data Requests for Information
 Dated November 13, 2018**

Case No. 2018-00294

Question No. 91

Responding Witness: Christopher M. Garrett

Q-91. Confirm that since 2007, EEI no longer prepares the same breakout of its activities by NARUC operating expense category.

- a. For each rate case since 2007, provide the allocation the Companies utilized in determining the exclusion of particular EEI dues.
- b. Provide a narrative explanation of the bases used for each rate case allocation provided in response to subpart a., above.

A-91. KU does not rely upon any NARUC reports or other studies for the exclusion from or inclusion in rates of a portion of any organizations dues. KU relies on information provided on the invoices received from any organization in order to determine the portion of dues that should be excluded from rates.

- a. Following are the allocations that KU has used since 2007:

Per books	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	18%	18%	22%	27%	23%	20%	15%	14%	14%	14%
Per rate cases	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	18%			27%		20%		14%		14%

- b. The invoices received from EEI are used to determine the allocation used for ratemaking purposes.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Attorney General’s Initial Data Requests for Information
 Dated November 13, 2018**

Case No. 2018-00295

Question No. 91

Responding Witness: Christopher M. Garrett

Q-91. Confirm that since 2007, EEI no longer prepares the same breakout of its activities by NARUC operating expense category.

- a. For each rate case since 2007, provide the allocation the Companies utilized in determining the exclusion of particular EEI dues.
- b. Provide a narrative explanation of the bases used for each rate case allocation provided in response to subpart a., above.

A-91. LG&E does not rely upon any NARUC reports or other studies for the exclusion from or inclusion in rates of a portion of any organizations dues. LG&E relies on information provided on the invoices received from any organization in order to determine the portion of dues that should be excluded from rates.

a. Following are the allocations that LG&E has used since 2007:

Per books	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	18%	18%	22%	27%	23%	20%	15%	14%	14%	14%
Per rate cases	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	18%			27%		20%		14%		14%

- b. The invoices received from EEI are used to determine the allocation used for ratemaking purposes.

KENTUCKY UTILITIES COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00294

Question No. 98

Responding Witness: Christopher M. Garrett

- Q-98. Provide a complete copy of invoices received from each Dues Requiring Organization since the conclusion of the Company's last rate case.
- A-98. See attached copies of 2017 and 2018 invoices received from Organization Memberships as presented in FR 16(8)(f), Sch. F-1.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00295

Question No. 98

Responding Witness: Christopher M. Garrett

- Q-98. Provide a complete copy of invoices received from each Dues Requiring Organization since the conclusion of the Company's last rate case.
- A-98. See attached copies of 2017 and 2018 invoices received from Organization Memberships as presented in FR 16(8)(f), Sch. F-1.

Response to AG-2 Question No. 63
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Sinclair

KENTUCKY UTILITIES COMPANY

Response to Attorney General's Supplemental Data Requests for Information
Dated December 13, 2018

Case No. 2018-00294

Question No. 63

Responding Witness: David S. Sinclair

Q-63. Reference the Commission's order dated May 16, 1984 in Case No. 8924,⁷ at pp. 43, wherein the Commission placed the following conditions on LG&E's membership in EPRI:

“At this time, LG&E has not performed a definitive cost-benefit analysis regarding its potential membership in EPRI. Absent such an analysis, the Commission is limited as to the response it can give Mr. Royer concerning this matter. However, LG&E is hereby apprised that should it decide to become a member of EPRI it will bear the burden in future cases of justifying the cost of its membership. To do so, LG&E must present clear documentation of the benefits available through membership, its utilization of these benefits and its inability to obtain such benefits at a lower cost. The Commission is also concerned that a substantial portion of EPRI's research concerns nuclear power which is of no direct concern in Kentucky. In future cases, should it decide to join EPRI, LG&E must document whether it could receive all nonnuclear related benefits if it reduced its dues by the portion related to nuclear research. The Commission wishes to emphasize that these are the conditions LG&E must meet should it decide to become a member of EPRI.⁸ These conditions in no way represent a prior endorsement of such membership.”

- a. Provide copies of any and all cost-benefit analyses the Companies have prepared pertaining to their membership in EPRI for the past five (5) years.
- b. Provide a breakdown of the amount of LG&E-KU dues paid to EPRI which are related to nuclear energy generation.
- c. Have LG&E-KU attempted to reduce the dues they seek to recover from ratepayers by the proportion of the dues they pay to EPRI which relate to nuclear energy generation? If so, provide that sum. If they have not attempted to reduce the dues they pay, explain in full why not.

⁷ In Re: General Adjustment in Electric and Gas Rates of Louisville Gas & Electric Co.

⁸ Emphasis in original.

Response to AG-2 Question No. 63
Page 2 of 3
Sinclair

A-63.

- a. Although no formal cost-benefit analyses have been prepared pertaining to the Companies' membership in EPRI during the past five years, the Companies do conduct annual evaluations of each EPRI program based on its potential to bring value to customers to determine whether future participation is warranted. EPRI research brings value to ratepayers by promoting environmental protection and reduces costs by training staff to improve fuel efficiency, reduce operations and maintenance costs, and avoid future capital expenditures. Topics addressed by EPRI programs in which the Companies invest include Air Quality; Water Quality; Integrated Environmental Controls; Heat Rate Improvement; Cyber Security; and Boiler Life and Availability Improvement.

EPRI also provides collaborative leverage on the Companies' investment of approximately 20 to 1. By partnering with utilities across the country in EPRI research programs, the Companies gain access to about \$70 million in research value for their roughly \$3.5 million investment. Many EPRI research projects are operationalized. The Companies were recently awarded an EPRI Tech Transfer Award for demonstrating at the Ghent Station the ability to run a generating unit at a lower load than the manufacturer's recommended operating point while continuing to utilize the selective catalytic reduction to reduce nitrous oxide emissions.

The Companies also note the Commission's long-standing interest in seeing research and development investments be maintained, including through larger organizations:

The Applicants state that they will continue funding research and development ("R&D") programs as long as the programs produce benefits. The Commission concurs with this position because such programs produce a myriad of benefits, including advances in fuel and generation technology, environmental technology, and transmission grid technologies. However, many new technologies take several years to develop and successfully implement. Thus, the Commission is concerned that as electricity prices become more competitive, utilities will intensify cost cutting efforts and reduce spending on R&D. Reducing R&D spending would be short-sighted and not in the customers' long-term interest.

The Commission strongly supports research and development and commends the Applicants for their commitments to such programs. Benefits can be realized whether research is sponsored solely by one utility or through a larger organization funded by multiple utilities or stakeholders. The benefits of

Response to AG-2 Question No. 63
Page 3 of 3
Sinclair

R&D may well help the Applicants in fulfilling their commitments to preserve LG&E's and KU's low rates and high quality service.

To assist the Commission in its efforts to monitor this commitment, the Applicants should provide written notice of any material changes in their level of participation or funding for R&D 30 days prior to the proposed change. This includes any change in R&D funding equal to or greater than 5 percent of the previous year's budget. The written notice should include an explanation and justification for the change in policy.⁹

The Commission's final order in the Companies' most recent change of control proceeding explicitly continues the requirement for the Companies to notify the Commission of any material (equal to greater than 5%) change in research and development funding from year to year for each of the Companies.¹⁰

- b. The Companies do not fund EPRI research related to nuclear energy generation.
- c. Not applicable.

⁹ *In the Matter of: Joint Application of Powergen PLC, LG&E Energy Corp., Louisville Gas and Electric Company, and Kentucky Utilities Company for Approval of a Merger*, Case No. 2000-00095, Order at 34-35 (May 15, 2000).

¹⁰ *In the Matter of: Joint Application of PPL Corporation, E.ON AG, E.ON U.S. Investments Corp., E.ON U.S. LLC, Louisville Gas and Electric Company, and Kentucky Utilities Company for Approval of an Acquisition of Ownership and Control of Utilities*, Case No. 2010-00204, Order at Appx. C page 8 (Sept. 30, 2010).

Response to AG-2 Question No. 63
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Sinclair

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General's Supplemental Data Requests for Information
Dated December 13, 2018

Case No. 2018-00295

Question No. 63

Responding Witness: David S. Sinclair

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- a. Provide copies of any and all cost-benefit analyses the Companies have prepared pertaining to their membership in EPRI for the past five (5) years.
- b. Provide a breakdown of the amount of LG&E-KU dues paid to EPRI which are related to nuclear energy generation.
- c. Have LG&E-KU attempted to reduce the dues they seek to recover from ratepayers by the proportion of the dues they pay to EPRI which relate to nuclear energy generation? If so, provide that sum. If they have not attempted to reduce the dues they pay, explain in full why not.

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⁸ Emphasis in original.

Response to AG-2 Question No. 63
Page 2 of 3
Sinclair

A-63.

- a. Although no formal cost-benefit analyses have been prepared pertaining to the Companies' membership in EPRI during the past five years, the Companies do conduct annual evaluations of each EPRI program based on its potential to bring value to customers to determine whether future participation is warranted. EPRI research brings value to ratepayers by promoting environmental protection and reduces costs by training staff to improve fuel efficiency, reduce operations and maintenance costs, and avoid future capital expenditures. Topics addressed by EPRI programs in which the Companies invest include Air Quality; Water Quality; Integrated Environmental Controls; Heat Rate Improvement; Cyber Security; and Boiler Life and Availability Improvement.

EPRI also provides collaborative leverage on the Companies' investment of approximately 20 to 1. By partnering with utilities across the country in EPRI research programs, the companies gain access to about \$70 million in research value for their roughly \$3.5 million investment. Many EPRI research projects are operationalized. The Companies were recently awarded an EPRI Tech Transfer Award for demonstrating at the Ghent Station the ability to run a generating unit at a lower load than the manufacturer's recommended operating point while continuing to utilize the selective catalytic reduction to reduce nitrous oxide emissions.

The Companies also note the Commission's long-standing interest in seeing research and development investments be maintained, including through larger organizations:

The Applicants state that they will continue funding research and development ("R&D") programs as long as the programs produce benefits. The Commission concurs with this position because such programs produce a myriad of benefits, including advances in fuel and generation technology, environmental technology, and transmission grid technologies. However, many new technologies take several years to develop and successfully implement. Thus, the Commission is concerned that as electricity prices become more competitive, utilities will intensify cost cutting efforts and reduce spending on R&D. Reducing R&D spending would be short-sighted and not in the customers' long-term interest.

The Commission strongly supports research and development and commends the Applicants for their commitments to such programs. Benefits can be realized whether research is sponsored solely by one utility or through a larger organization funded by multiple utilities or stakeholders. The benefits of

Response to AG-2 Question No. 63
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Sinclair

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- b. The Companies do not fund EPRI research related to nuclear energy generation.
- c. Not applicable.

⁹ *In the Matter of: Joint Application of Powergen PLC, LG&E Energy Corp., Louisville Gas and Electric Company, and Kentucky Utilities Company for Approval of a Merger*, Case No. 2000-00095, Order at 34-35 (May 15, 2000).

¹⁰ *In the Matter of: Joint Application of PPL Corporation, E.ON AG, E.ON U.S. Investments Corp., E.ON U.S. LLC, Louisville Gas and Electric Company, and Kentucky Utilities Company for Approval of an Acquisition of Ownership and Control of Utilities*, Case No. 2010-00204, Order at Appx. C page 8 (Sept. 30, 2010).

KENTUCKY UTILITIES COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00294

Question No. 78

Responding Witness: Daniel K. Arbough

Q-78. Refer to Attachment to Filing Requirement 807 KAR 5:001 Section 16(7)(c) I. Page 214 of 235.

- a. Explain why the Companies expect a \$3.5M increase in "Total O&M Expense – Mgmt. View" between actual 2017 and forecast 2018. Any response should explain the more than \$2M increase in "Outside Counsel" between the two periods.

A-78.

- a. Labor savings in 2017 were driven by one vacant position in legal that was being held due to assessment of need; and, due to timing of the hiring of the new Executive Vice President -General Counsel. Both of these positions have now been filled.

Outside Counsel spend for 2017 were atypical due to total spend being \$1.2 million less than the average of the prior five years. There were extended periods of minimal activity due to timing issues in two litigation matters that were beyond the Company's control.

Outside Services/Legal Expert Fees are significantly higher in 2018 due primarily to two matters.

KENTUCKY UTILITIES COMPANY

**Response to Attorney General's Supplemental Data Requests for Information
Dated December 13, 2018**

Case No. 2018-00294

Question No. 52

Responding Witness: Daniel K. Arbough

- Q-52. Reference the Companies' response to AG DR 1-78.
- a. Provide the nature of the two litigation matters, and explain why they are beyond the Company's control.
 - b. Explain why ratepayers should bear these costs.
 - c. What is the status of these two litigation matters, and when are these two litigation matters expected to be resolved?
 - d. How much is included in the forecast for these two litigation matters?
 - e. How much of the outside services' costs associated with these matters could be recovered through insurance?
- A-52.
- a. These litigation matters both involve challenges based on alleged environmental impacts from operations at two of our coal-fired generating stations. The Company is a defendant in these actions, and denies any liability for the matters complained of by the plaintiffs.
 - b. The expenses associated with defending these suits are a normal cost of doing business.
 - c. Both matters are in the pretrial stage. With no trial date set in either case, a date of resolution cannot be predicted at this time.
 - d. \$1,560,000 is included in the forecast for outside services related to these matters.
 - e. We have placed our carriers on notice in both of these suits, but it is presently unknown how much, if any, coverage will be available in either case.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00295

Question No. 78

Responding Witness: Daniel K. Arbough

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Outside Counsel spend for 2017 was atypical due to total spend being \$1.2 million less than the average of the prior five years. There were extended periods of minimal activity due to timing issues in two litigation matters that were beyond the Company's control.

Outside Services/Legal Expert Fees are significantly higher in 2018 due primarily to two matters.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Attorney General's Supplemental Data Requests for Information
Dated December 13, 2018**

Case No. 2018-00295

Question No. 52

Responding Witness: Daniel K. Arbough

- Q-52. Reference the Companies' response to AG DR 1-78.
- a. Provide the nature of the two litigation matters, and explain why they are beyond the Company's control.
 - b. Explain why ratepayers should bear these costs.
 - c. What is the status of these two litigation matters, and when are these two litigation matters expected to be resolved?
 - d. How much is included in the forecast for these two litigation matters?
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 - b. The expenses associated with defending these suits are a normal cost of doing business.
 - c. Both matters are in the pretrial stage. With no trial date set in either case, a date of resolution cannot be predicted at this time.
 - d. \$1,560,000 is included in the forecast for outside services related to these matters.
 - e. We have placed our carriers on notice in both of these suits, but it is presently unknown how much, if any, coverage will be available in either case.

KENTUCKY UTILITIES COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00294

Question No. 84

Responding Witness: Daniel K. Arbough

- Q-84. Does the Company use credit cards that include rebates? If the response is in the affirmative, provide the following items:
- a. Amount of rebate reflected in the cost of service base year and forecasted period. If the amount is allocated, provide the allocations.
 - b. Actual credit card rebates by year for 2016, 2017, and 2018 YTD. For each year, state the expense accounts where these credit card rebates are reflected and provide a detailed breakdown of those expense accounts.
- A-84. Yes.
- a. Zero is reflected in the cost of service for the base and forecasted period.
 - b. The rebate for 2016 was \$205,999.93 and the 2017 rebate was \$210,764.05. The rebates are recorded in account 921. The rebate for 2018 has not yet been received.

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00295

Question No. 84

Responding Witness: Daniel K. Arbough

Q-84. Does the Company use credit cards that include rebates? If the response is in the affirmative, provide the following items:

- a. Amount of rebate reflected in the cost of service base year and forecasted period. If the amount is allocated, provide the allocations.
- b. Actual credit card rebates by year for 2016, 2017, and 2018 YTD. For each year, state the expense accounts where these credit card rebates are reflected and provide a detailed breakdown of those expense accounts.

A-84. Yes.

- a. Zero is reflected in the cost of service for the base and forecasted period.
- b. The rebate for 2016 was \$237,347.75 and the 2017 rebate was \$242,836.84. The rebates are recorded in account 921. The rebate for 2018 has not yet been received.

Response to PSC-3 Question No. 23

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Bellar/Garrett

KENTUCKY UTILITIES COMPANY

**Response to Commission Staff's Third Request for Information
Dated December 13, 2018**

Case No. 2018-00294

Question No. 23

Responding Witness: Lonnie E. Bellar / Christopher M. Garrett

Q-23. Refer to KU's Response to the Attorney General's Initial Request for Information, Item 73.b.

- a. Explain why KU forecasts \$1.26 million in Customer Education advertising given that the program was removed from KU's DSM offerings for its lack of cost-effectiveness.
- b. Provide Customer Education advertisement expenditures for the past five years.

A-23.

- a. The Company proposes to include the cited funding for energy-efficiency education because it provides a material benefit to customers. The Commission's advertising regulation states at 807 KAR 5:016 Section 3, "Advertising expenditures by gas or electric utilities which produce a 'material benefit' include, but are not limited to the following: (a) Advertising limited exclusively to demonstration of means for ratepayers to reduce their bills or conserve energy" The cited costs are for customer education efforts designed and intended to provide that material benefit. The Companies have long provided this benefit to customers with Commission approval.

With regard to the Customer Education and Public Information ("CEPI") Program, the Commission approved the program in Case Nos. 2007-00319 and 2014-00003. The program, which ended December 31, 2018, provided education and increased public awareness and understanding of the need for more efficient use of energy. The Companies included CEPI in their DSM portfolio to help drive DSM program participation, although no energy savings were attributed to CEPI. Previously, on a portfolio basis (including CEPI costs but no energy savings), the DSM portfolio had a positive cost-benefit ratio. As the Companies noted in their most recent DSM-EE proceeding, because the Companies proposed to scale back their DSM-EE programs to reflect changed conditions, it was prudent to discontinue the CEPI in DSM-EE, which was largely used to highlight and advertise the

Response to PSC-3 Question No. 23
Page 2 of 2
Bellar/Garrett

Companies' DSM-EE programs.¹⁰ But the Companies noted also that, although they proposed to let the program expire, they were committed to continuing education efforts regarding the benefits of reduced energy consumption.¹¹ The proposed customer education advertising cost cited in this response is consistent with that position.

Also, the elimination of the CEPI Program as a separate program from the Company's DSM-EE portfolio has not resulted in eliminating energy-efficiency education from the Companies' Commission-approved DSM-EE programming. For example, the WeCare program approved by the Commission in the Company's most recent DSM-EE proceeding contains an explicit energy education component, which the Commission cited in its order approving the program in October 2018: "WeCare provides energy audits, energy education, and the installation of weatherization and energy conservation measures for those customers meeting certain income requirements."¹² The Companies believe this education provides a material benefit and that the Commission correctly approved it.

In addition, the Companies' customers have demonstrated significant interest in energy-efficiency and conservation information created by the Companies. For example, for the 12 months ending and including November 2018, seven of the Companies' top ten most-watched videos (all with views in the tens of thousands) are energy-efficiency related. Similarly, four of the top 25 LG&E-KU corporate website pages in terms of non-employee visits (again, all with views in the tens of thousands) are energy-efficiency related. That includes a page on energy-efficiency tips not related to any DSM-EE program that received over 42,000 views. Therefore, customers have shown a strong and clear interest in receiving the kind of energy-efficiency information and education the Companies propose to provide using the cited funds.

b.

Customer Education & Public Information	2017	2016	2015	2014	2013
Amounts in (\$000)	2,356	2,257	2,262	2,400	2,023

¹⁰ See, e.g., Case No. 2017-00441, Direct Testimony of Gregory S. Lawson at 15 (Dec. 6, 2017).

¹¹ *Id.*

¹² Case No. 2017-00441, Order at 5 (Oct. 5, 2018).

Response to PSC-3 Question No. 21

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Bellar/Garrett

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's Third Request for Information
Dated December 13, 2018**

Case No. 2018-00295

Question No. 21

Responding Witness: Lonnie E. Bellar / Christopher M. Garrett

Q-21. Refer to LG&E's Response to the Attorney General's First Request for Information, Item 73.b.

- a. Explain why LG&E forecasts \$1.04 million in Customer Education advertising given that the program was removed from LG&E's DSM offerings for its lack of cost-effectiveness.
- b. Provide Customer Education advertisement expenditures for the past five years.

A-21.

- a. The Company proposes to include the cited funding for energy-efficiency education because it provides a material benefit to customers. The Commission's advertising regulation states at 807 KAR 5:016 Section 3, "Advertising expenditures by gas or electric utilities which produce a 'material benefit' include, but are not limited to the following: (a) Advertising limited exclusively to demonstration of means for ratepayers to reduce their bills or conserve energy" The cited costs are for customer education efforts designed and intended to provide that material benefit. The Companies have long provided this benefit to customers with Commission approval.

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Response to PSC-3 Question No. 21
Page 2 of 2
Bellar/Garrett

Companies' DSM-EE programs.¹⁰ But the Companies noted also that, although they proposed to let the program expire, they were committed to continuing education efforts regarding the benefits of reduced energy consumption.¹¹ The proposed customer education advertising cost cited in this response is consistent with that position.

Also, the elimination of the CEPI Program as a separate program from the Company's DSM-EE portfolio has not resulted in eliminating energy-efficiency education from the Companies' Commission-approved DSM-EE programming. For example, the WeCare program approved by the Commission in the Company's most recent DSM-EE proceeding contains an explicit energy education component, which the Commission cited in its order approving the program in October 2018: "WeCare provides energy audits, energy education, and the installation of weatherization and energy conservation measures for those customers meeting certain income requirements."¹² The Companies believe this education provides a material benefit and that the Commission correctly approved it.

In addition, the Companies' customers have demonstrated significant interest in energy-efficiency and conservation information created by the Companies. For example, for the 12 months ending and including November 2018, seven of the Companies' top ten most-watched videos (all with views in the tens of thousands) are energy-efficiency related. Similarly, four of the top 25 LG&E-KU corporate website pages in terms of non-employee visits (again, all with views in the tens of thousands) are energy-efficiency related. That includes a page on energy-efficiency tips not related to any DSM-EE program that received over 42,000 views. Therefore, customers have shown a strong and clear interest in receiving the kind of energy-efficiency information and education the Companies propose to provide using the cited funds.

b.

Customer Education & Public Information	2017	2016	2015	2014	2013
Amounts in (\$000)	1,727	1,738	1,618	1,729	1,656

¹⁰ See, e.g., Case No. 2017-00441, Direct Testimony of Gregory S. Lawson at 15 (Dec. 6, 2017).

¹¹ *Id.*

¹² Case No. 2017-00441, Order at 5 (Oct. 5, 2018).

Response to Question No. 73
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KENTUCKY UTILITIES COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00294

Question No. 73

Responding Witness: Christopher M. Garrett

E. Operating Expenses

Q-73. Refer to the direct testimony of Chris M. Garrett, page 32, wherein he discusses advertising expenses.

- a. Did the Companies remove all advertising expense, or only that advertising expense that did not produce a "material benefit" to ratepayers.
- b. If the response to subpart a., above, indicates the latter, provide the advertising expense not removed for ratemaking purpose, including the rationale for each expense that it produces a "material benefit" for ratepayers. If necessary, break out these expenses and explanations by utility.

A-73.

- a. The Companies removed advertising related to institutional and promotional expenses and only included safety and educational advertising.
- b.

Advertising Category	Forecast Period	Benefit
Customer Newsletters & Direct Mailings	\$ 316,400	The customer newsletter, which is included with the bill, and other direct mailings are the primary way in which KU reaches its customer to explain items related to their service including, but not limited to, safety, saving money, reducing energy, and changes to their service.
Customer Education	\$ 1,260,000	KU believes it is important to ensure that customers understand how they can reduce energy and save

Response to Question No. 73
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Garrett

		money on their electric bills. In the absence of many residential demand side management programs that helped customers understand the importance of energy management, KU is educating customers on various techniques they can do on their own to reduce the amount of energy they consume. The education process comes in a variety of forms to ensure we meet our customers in their varied ways they consume information.
Telephone Book Listings & Customer Information	\$ 225,720	Telephone book listing and other directory services remain essential to ensuring our customers have the information they need to contact us.
Other Safety & Education	\$ 57,028	Safety is our number one priority and educating our customers, beginning at an early age, improves the chances that they will behave safely around electricity.

Response to Question No. 73
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Garrett

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00295

Question No. 73

Responding Witness: Christopher M. Garrett

E. Operating Expenses

Q-73. Refer to the direct testimony of Chris M. Garrett, page 32, wherein he discusses advertising expenses.

- a. Did the Companies remove all advertising expense, or only that advertising expense that did not produce a "material benefit" to ratepayers.
- b. If the response to subpart a., above, indicates the latter, provide the advertising expense not removed for ratemaking purpose, including the rationale for each expense that it produces a "material benefit" for ratepayers. If necessary, break out these expenses and explanations by utility.

A-73.

- a. The Companies removed advertising related to institutional and promotional expenses and only included safety and educational advertising.
- b.

Advertising Category	Forecast Period	Benefit
Customer Newsletters & Direct Mailings	\$ 262,600	The customer newsletter, which is included with the bill, and other direct mailings are the primary way in which LG&E reaches its customer to explain items related to their service including, but not limited to, safety, saving money, reducing energy, and changes to their service.
Customer Education	\$1,040,000	LG&E believes it is important to ensure that customers understand how they can reduce energy and save money on their gas and electric bills. In the absence of many residential demand side

Response to Question No. 73
Page 2 of 2
Garrett

		management programs that helped customers understand the importance of energy management, LG&E is educating customers on various techniques they can do on their own to reduce the amount of energy they consume. The education process comes in a variety of forms to ensure we meet our customers in their varied ways they consume information.
Telephone Book Listings & Customer Information	\$ 192,280	Telephone book listing and other directory services remain essential to ensuring our customers have the information they need to contact us.
Gas Safety	\$ 234,000	Given the inherent dangers of natural gas, it is vital to ensure our customers understand how to avoid issues with their natural gas service and steps to take in the event they smell natural gas.
Other Safety & Education	\$ 50,572	Safety is our number one priority and educating our customers, beginning at an early age, improves the chances that they will behave safely around natural gas and electricity.

KENTUCKY UTILITIES COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00294

Question No. 21

Responding Witness: Christopher M. Garrett

Q-21. Refer to the direct testimony of Christopher ("Chris") M. Garrett, page 25, wherein he discusses the proposed removal of the "baseline ECR beneficial reuse operating expense credit."

- a. Provide the genesis of this credit, including the Case No. of the matter in which it was first proposed.
- b. Explain the negative impact to KU if it continues the baseline credit.

A-21.

- a. KU is allowed to include expenses and revenues related to beneficial reuse projects through the Environmental Cost Recovery (ECR) Mechanism above the baseline amount included in base rates. Refer to page 7 in the PSC order in Case No. 2009-00197, *Application of Kentucky Utilities Company for Certificates of Public Convenience and Necessity and Approval of Its 2009 Compliance Plan for Recovery by Environmental Surcharge*.
- b. There is no negative impact to KU if it continues the baseline credit. The purpose of the proposed adjustment in the test year is to eliminate any baseline costs in base rates so that all expenses or revenues applicable to beneficial reuse projects are captured completely through the ECR mechanism.

Response to Question No. 9
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KENTUCKY UTILITIES COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00294

Question No. 9

Responding Witness: Lonnie E. Bellar / Robert M. Conroy

- Q-9. Refer to the direct testimony of Kent W. Blake, pages 10-11, wherein he discusses the Companies' Merger Mitigation Depancaking ("MMD") transmission rate mechanism.
- a. Does the MMD have the effect of reducing transmission revenues paid by certain municipalities, thus increasing the revenue requirement as compared to a scenario where the MMD does not exist?
 - b. How many years has the MMD been in effect?
 - c. Did the Kentucky Public Service Commission approve the MMD?
 - d. Is it fair to describe the MMD as a necessary effect of the Companies' merger activity and withdrawal from the Midcontinent Independent System Operator ("MISO")?
 - e. Should the Federal Energy Regulatory Commission ("FERC") approve the Companies' requested elimination of the MMD charges, explain what effect on retail rates the decision will have in the context of this case.
- A-9.
- a. MMD applies differently to exports to the Midcontinent Independent System Operator ("MISO") and imports from MISO. Under MMD, transmission charges for the combined transmission system of LG&E and KU for exports to MISO are waived for certain municipalities, reducing transmission revenues paid by those municipal customers. For imports of electricity from a source in MISO for delivery to load interconnected to the combined transmission system of LG&E and KU, under MMD, certain municipalities are billed for LG&E and KU transmission charges but LG&E and KU are obligated to credit to those municipal customers the MISO transmission charges associated with the delivery of the electricity to the MISO-LG&E/KU border. This typically results in a net payment to those municipal customers because the MISO transmission charges exceed the LG&E and KU transmission charges. As a result of these waived transmission charges and the crediting of MISO transmission charges,

Response to Question No. 9
Page 2 of 3
Bellar/Conroy

MMD causes an increase in the LG&E and KU transmission revenue requirement.

- b. 12 years. MMD has been in effect since 2006. However, not all parties eligible for MMD have had import and/or export transactions with MISO to date. The cities of Princeton, Paducah, Paris, Benham, and Owensboro Municipal Utilities have had such transactions and have incurred MMD costs that increase the revenue requirement. Starting in May 2019 additional KU wholesale municipal customers will have MMD transactions. Additionally, Owensboro Municipal Utilities has recently made a claim for applicability of MMD to certain of its MISO-related transactions, which claim is currently being contested by LG&E and KU and is pending before FERC.⁷
- c. MMD is a transmission rate mechanism that applies to certain specific customers that take transmission service under the Companies' Open Access Transmission Tariff on file with FERC. As this mechanism applies to FERC-jurisdictional transmission service, it is required to be, and is a rate on file with FERC and not the Kentucky Public Service Commission. That said, the Commission was aware of FERC's March 17, 2006, conditional approval of the Companies' withdrawal from MISO when the Commission issued its own May 31, 2005 order authorizing the Companies to withdraw.⁸ The Commission further demonstrated its awareness of, and its consent for the Companies to recover through rates, MISO-exit-related transmission costs in its final orders in the Companies' 2008 base-rate cases.⁹
- d. In 1998 when the Companies sought FERC approval for the LG&E and KU merger, FERC determined that the merger raised horizontal market power issues. Ultimately FERC approved the merger, citing to MISO participation as part of the basis for satisfying these horizontal market power concerns. When the Companies sought FERC approval to withdraw from MISO, FERC required continued mitigation for the horizontal market power concerns through some other kind of mechanism. MMD was proffered as an alternative means of continuing horizontal market power mitigation. As such, a more accurate description would be that MMD satisfies the Federal Power Act Section 203 mitigation requirements that FERC required when LG&E and KU merged in 1998, as modified by FERC's orders approving the Companies' withdrawal from MISO in 2006.
- e. As discussed in the testimony of Mr. Blake, the Companies' revenue requirement and the rates proposed in this proceeding reflect the MMD charges.

⁷ FERC Docket No. EL18-203-000.

⁸ Case No. 2003-00266, Order at 26 (May 31, 2005) ("On March 17, 2006, FERC granted conditional approval for LG&E and KU to withdraw from MISO.").

⁹ See Case No. 2008-00251, Order at 8-9 and 11 (Feb. 5, 2009); Case No. 2008-00252, Order at 9 and 12 (Feb. 5, 2009).

Response to Question No. 9

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Bellar/Conroy

If the FERC grants the Companies' request during the pendency of this proceeding, the Companies will address the effect on the revenue requirement. However, it is not known when FERC would issue such an order or when the elimination of MMD would be made effective.

Response to Question No. 49

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Bellar / Conroy

KENTUCKY UTILITIES COMPANY

**Response to Lexington-Fayette Urban County
Government's Request for Information
Dated November 13, 2018**

Case No. 2018-00294

Question No. 49

Responding Witness: Lonnie E. Bellar / Robert M. Conroy

- Q-49. Please refer to Mr. Blake's testimony at his answer to the question beginning on line 19 of page 10.
- a. Explain what costs will be added for KU under its Merger Mitigation Depancaking transmission rate mechanism.
 - b. On line 23 of page 10, Mr. Blake indicates that there will be added costs for only KU, but on lines 1-2 on page 11, he mentions added revenue requested by both KU and LG&E as a result of the MMD mechanism. Reconcile and explain this discrepancy.
 - c. Confirm that, if KU and LG&E receive FERC approval to eliminate the MMD charges, the Companies should not recover additional revenue for these costs that the Companies will not have.
 - d. Identify the total amount of costs related to the MMD mechanism that KU and LG&E has included to recover from customers in this case.
 - e. Identify the FERC Docket Number for the matter that has been established to review KU and LG&E's request to eliminate the MMD mechanism.
 - f. State the approximate date on which KU and LG&E anticipate FERC will render a decision on the above-referenced matter.
- A-49.
- a. See the response to KPSC 2-45(b).
 - b. The omission of LG&E on line 23 of page 10 was inadvertent; the MMD mechanism arises out of a joint LG&E and KU rate schedule under the FERC Open Access Transmission Tariff. The projections set forth in lines 1-2 of page 11, indicating costs for both LG&E and KU, are correct.
 - c. See the response to AG 1-9(e).

Response to Question No. 49

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Bellar / Conroy

- d. The costs related to the MMD mechanism included for recovery in this case are \$15.1 million from KU customers and \$9.0 million from LG&E customers.
- e. FERC Docket Nos. EC98-2-001 and ER18-2162-000.
- f. Under Section 203 of the Federal Power Act, FERC is required to issue an order within 180 days of a Section 203 filing (in this case January 30, 2019), but FERC is also permitted to issue a tolling order seeking an additional 180 days of time to consider the filing. In its order FERC could accept or reject LG&E and KU's request to eliminate the MMD mechanism, or FERC could order the parties to be sent to hearing and settlement procedures, which could delay a final disposition of the matter for an unspecified amount of time.

Response to AG-2 Question No. 29
Page 1 of 3
Conroy

KENTUCKY UTILITIES COMPANY

Response to Attorney General's Supplemental Data Requests for Information
Dated December 13, 2018

Case No. 2018-00294

Question No. 29

Responding Witness: Robert M. Conroy

- Q-29. Reference the Companies' response to AG DR 1-9.
- a. Confirm that the Commission's orders approving the settlement agreements in Case Nos. 2008-00251 & 2008-00252 cited by the Companies only refer to costs incurred and not ongoing costs related to the Companies' exit from MISO.
 - b. Provide a specific citations to the portions of the Commission's orders approving the settlement agreements in Case Nos. 2008-00251 & 2008-00252 cited by the Companies that discusses or evidences the Commission's consent to ongoing transmission costs as a result of the Companies' exit from MISO.
 - c. The Company's response to subpart (e) to AG DR 1-9, that "the Companies will address the effect on the revenue requirement" should FERC grant the "request during the pendency of the proceeding" was not responsive. Explain what effect on retail rates FERC's approval of the Companies' request will have. The Company's response should include what adjustments to the test period would be necessary and to what accounts those adjustments would be made.
- A-29. a. Not confirmed. The Commission demonstrated its awareness of ongoing transmission-related costs resulting from MISO exit in its May 31, 2006 final order approving the Companies' withdrawal from MISO:

The Dissenting Opinion also cites to the recent FERC decision imposing hold harmless conditions in conjunction with the LG&E and KU withdrawal from MISO. However, it is clear from that FERC opinion that the hold harmless conditions were imposed only in those circumstances where they had been expressly agreed to by LG&E and KU as part of their contractual agreement to join MISO. FERC actually rejected proposals that LG&E and KU should hold harmless future customers who are not currently served under an existing contract with a fixed rate, stating that, "The TO [Transmission Owners] Agreement plainly

Response to AG-2 Question No. 29
Page 2 of 3
Conroy

states that the hold harmless provision applies only to *existing* service, not *future* service, and only for the remaining term of the contract for existing service.” *Louisville Gas and Electric Company*, 114 FERC ¶ 61, 282, para. 49 (emphasis in original). In Kentucky, LG&E and KU have no contractual agreements to hold any retail customers harmless, and none of their customers are served under contracts with rates that are not subject to change by the Commission. In previously approving the request by Kentucky Power Company to join PJM, the Commission did not impose a hold harmless requirement in the event that the costs of membership in that RTO exceed the value of the benefits received.²

The dissent to which the majority was responding in that order was equally clear about understanding the nature of ongoing transmission-related costs resulting from MISO exit.³

The referenced orders in Case Nos. 2008-00251 and 2008-00252 addressed costs related to transmission service provided to East Kentucky Power Cooperative, Inc. (“EKPC”) resulting from the same FERC hold-harmless (depancaking) requirement to which the Commission referred in its Case No. 2003-00266 final order.⁴ The record of the 2008 proceedings was clear that the transmission-cost settlement agreement between the Companies and EKPC related to MISO exit and gave rise to the Companies’ requested regulatory asset.⁵ In short, it is clear the Commission understood in its February 2009 final orders in the Companies’ 2008 rate cases that the Companies had incurred and were continuing to incur transmission-related costs resulting from MISO exit, which was fully consistent with the Commission’s recognition of the issue when it approved MISO exit in 2006.

- b. See the response to part a. above and the citations provided in response to AG 1-9.
- c. The Company reiterates its response to AG 1-9(e), which is responsive to the question asked; the timing and substance of FERC’s final order regarding the Companies’ requested elimination of MMD charges will dictate whether the order will have any effect on the retail rates proposed in this proceeding. That

² Case No. 2003-00266, Order at 23-24 (May 31, 2006).

³ *Id.* at 35-37.

⁴ Case No. 2008-00251, Order at 8-9 and 11 (Feb. 5, 2009); Case No. 2008-00252, Order at 9 and 12 (Feb. 5, 2009).

⁵ *See, e.g.*, Case No. 2008-00251, Application at 5-6 (July 29, 2008); Case No. 2008-00251, Testimony of Valerie L. Scott at 5-6 (July 29, 2008); Case No. 2008-00251, Testimony of Lonnie E. Bellar at 8-9 (July 29, 2008); Case No. 2008-00251, KU responses to PSC 2-109(c) and (f) (Sept. 11, 2008); Case No. 2008-00252, Application at 6 (July 29, 2008); Case No. 2008-00252, Testimony of Valerie L. Scott at 5-6 (July 29, 2008); Case No. 2008-00252, Testimony of Lonnie E. Bellar at 12 (July 29, 2008).

Response to AG-2 Question No. 29
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Conroy

aside, if FERC issued a final order granting all relief the Companies requested while the effect thereof could be accounted for in this proceeding, the effects would be an adjustment to decrease Account 566 Misc. Transmission Expenses by \$15,101,486.

Response to AG-2 Question No. 29
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Conroy

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General's Supplemental Data Requests for Information
Dated December 13, 2018

Case No. 2018-00295

Question No. 29

Responding Witness: Robert M. Conroy

- Q-29. Reference the Companies' response to AG DR 1-9.
- a. Confirm that the Commission's orders approving the settlement agreements in Case Nos. 2008-00251 & 2008-00252 cited by the Companies only refer to costs incurred and not ongoing costs related to the Companies' exit from MISO.
 - b. Provide a specific citations to the portions of the Commission's orders approving the settlement agreements in Case Nos. 2008-00251 & 2008-00252 cited by the Companies that discusses or evidences the Commission's consent to ongoing transmission costs as a result of the Companies' exit from MISO.
 - c. The Company's response to subpart (e) to AG DR 1-9, that "the Companies will address the effect on the revenue requirement" should FERC grant the "request during the pendency of the proceeding" was not responsive. Explain what effect on retail rates FERC's approval of the Companies' request will have. The Company's response should include what adjustments to the test period would be necessary and to what accounts those adjustments would be made.
- A-29.
- a. Not confirmed. The Commission demonstrated its awareness of ongoing transmission-related costs resulting from MISO exit in its May 31, 2006 final order approving the Companies' withdrawal from MISO:

The Dissenting Opinion also cites to the recent FERC decision imposing hold harmless conditions in conjunction with the LG&E and KU withdrawal from MISO. However, it is clear from that FERC opinion that the hold harmless conditions were imposed only in those circumstances where they had been expressly agreed to by LG&E and KU as part of their contractual agreement to join MISO. FERC actually rejected proposals that LG&E and KU should hold harmless future customers who are not currently served under an existing contract with a fixed rate,

Response to AG-2 Question No. 29
Page 2 of 3
Conroy

stating that, “The TO [Transmission Owners] Agreement plainly states that the hold harmless provision applies only to *existing* service, not *future* service, and only for the remaining term of the contract for existing service.” *Louisville Gas and Electric Company*, 114 FERC ¶ 61, 282, para. 49 (emphasis in original). In Kentucky, LG&E and KU have no contractual agreements to hold any retail customers harmless, and none of their customers are served under contracts with rates that are not subject to change by the Commission. In previously approving the request by Kentucky Power Company to join PJM, the Commission did not impose a hold harmless requirement in the event that the costs of membership in that RTO exceed the value of the benefits received.²

The dissent to which the majority was responding in that order was equally clear about understanding the nature of ongoing transmission-related costs resulting from MISO exit.³

The referenced orders in Case Nos. 2008-00251 and 2008-00252 addressed costs related to transmission service provided to East Kentucky Power Cooperative, Inc. (“EKPC”) resulting from the same FERC hold-harmless (depancaking) requirement to which the Commission referred in its Case No. 2003-00266 final order.⁴ The record of the 2008 proceedings was clear that the transmission-cost settlement agreement between the Companies and EKPC related to MISO exit and gave rise to the Companies’ requested regulatory asset.⁵ In short, it is clear the Commission understood in its February 2009 final orders in the Companies’ 2008 rate cases that the Companies had incurred and were continuing to incur transmission-related costs resulting from MISO exit, which was fully consistent with the Commission’s recognition of the issue when it approved MISO exit in 2006.

- b. See the response to part a. above and the citations provided in response to AG 1-9.
- c. The Company reiterates its response to AG 1-9(e), which is responsive to the question asked; the timing and substance of FERC’s final order regarding the Companies’ requested elimination of MMD charges will dictate whether the

² Case No. 2003-00266, Order at 23-24 (May 31, 2006).

³ *Id.* at 35-37.

⁴ Case No. 2008-00251, Order at 8-9 and 11 (Feb. 5, 2009); Case No. 2008-00252, Order at 9 and 12 (Feb. 5, 2009).

⁵ *See, e.g.*, Case No. 2008-00251, Application at 5-6 (July 29, 2008); Case No. 2008-00251, Testimony of Valerie L. Scott at 5-6 (July 29, 2008); Case No. 2008-00251, Testimony of Lonnie E. Bellar at 8-9 (July 29, 2008); Case No. 2008-00251, KU responses to PSC 2-109(c) and (f) (Sept. 11, 2008); Case No. 2008-00252, Application at 6 (July 29, 2008); Case No. 2008-00252, Testimony of Valerie L. Scott at 5-6 (July 29, 2008); Case No. 2008-00252, Testimony of Lonnie E. Bellar at 12 (July 29, 2008).

Response to AG-2 Question No. 29
Page 3 of 3
Conroy

order will have any effect on the retail rates proposed in this proceeding. That aside, if FERC issued a final order granting all relief the Companies requested while the effect thereof could be accounted for in this proceeding, the effects would be an adjustment to decrease Account 566 Misc. Transmission Expenses by \$8,977,509.

KENTUCKY UTILITIES COMPANY

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated November 13, 2018**

Case No. 2018-00294

Question No. 65

Responding Witness: Christopher M. Garrett

- Q.1-65. Refer to page 38, lines 8-19, of Mr. Garrett's Direct Testimony wherein he describes storm damage expenses related to the storm on July 20, 2018 in Case No. 2018-00304. Please provide a summary of all costs incurred to date and estimated to be incurred summing to the estimate of \$4.7 million for KU, with all applicable updates included.
- A.1-65. See Case No. 2018-00304 response to PSC-1 Question No. 8(e) for an updated July 20, 2018 storm estimate.

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

**Response to Commission Staff's First Request for Information
Dated September 27, 2018**

Case No. 2018-00304

Question No. 8

Responding Witness: Christopher M. Garrett

- Q-8. Refer to the application, Exhibit 4.
- a. For "Estimated Amount Considered Normal Operations," provide the period on which the amounts are based and a detailed description of how these costs were determined and calculated.
 - b. Provide a detailed breakdown of miscellaneous costs, showing the actual amounts and estimated amounts separately.
 - c. Provide a detailed breakdown of any contingency costs, showing the actual amounts and estimated amounts separately.
 - d. State when KU/LG&E expect to know the amount of the final actual costs.
 - e. Provide an updated Exhibit 4 based on the most recent information available for estimated and actual costs. Show the date on which the updated costs are based.
- A-8.
- a. For employee labor, the normal operations adjustment was calculated by obtaining data from payroll detailing the days and hours worked on the July 20th storm by employee. For any employee who charged time to the storm, historical data was utilized from the second quarter of 2018 to determine how many hours each employee typically charged to O&M expense. For each employee who charged to the July 20th storm on a business day, the average hours typically charged to O&M were included in the normal operations adjustment, and the dollars were based on each employees fully burdened labor rate.

For contractor labor, the normal operations adjustment was developed by identifying those contractors who normally provide services to LG&E or KU ("supplemental contractors"). For those supplemental contractors, historical data for the O&M expenses was utilized from the second quarter of 2018 to develop an average daily amount of O&M expenses for each contractor. This figure was then multiplied by the number of business days each of those

contractors spent working on the July 20th storm. The total of that amount for each of the supplemental contractors was used as the normal operations adjustment for contractor labor.

For transportation costs, the normal operations adjustment was calculated by using the ratio of transportation costs charged to the July 20th storm to total internal labor charged to the July 20th storm. That rate was then applied to the normal operations labor adjustment to estimate the amount of transportation that would have normally been charged to O&M expense.

- b. Below are the miscellaneous costs updated through September 30, 2018 (consistent with the updated Exhibit 4 in response to part e).

Miscellaneous Expenses	LG&E	KU
Travel/Lodging Expenses	\$ 6,307	\$ 200,916
Meals	30,876	51,871
Staging Site Costs	9,339	68,722
Fleet Maintenance	11,635	4,426
Media Weather Crawls	8,330	600
Call Center Overflow Service	4,620	4,305
Tree/Debris Removal	8,543	
Total	\$ 79,650	\$ 330,840

- c. There are no contingency costs included the amounts in Exhibit 4.
- d. Assuming remaining contractor invoices are submitted for payment by November, all costs are expected to be final by November 30, 2018.
- e. See attached.

Case No. 2018-00304

Attachment to Response to PSC-1 Question No. 8(e)

**Kentucky Utilities Company
 Louisville Gas and Electric Company
 Exhibit 4 - Updated through September 30, 2018**

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 Garrett**

	<u>LG&E</u>	<u>KU</u>	<u>Total</u>
<u>Estimate of Total KY Storm Costs</u>			
Employee Labor	617,615	746,982	1,364,597
Contractor Labor	1,808,079	3,626,197	5,434,277
Materials	33,124	134,360	167,483
Miscellaneous	79,650	330,840	410,490
Transportation	62,048	105,920	167,969
Total	<u>2,600,516</u>	<u>4,944,299</u>	<u>7,544,816</u>
<u>Estimated Amount Considered Normal Operations</u>			
Employee Labor	(105,069)	(131,974)	(237,042)
Contractor Labor	(27,779)	(11,680)	(39,459)
Transportation	(8,449)	(15,799)	(24,248)
Total	<u>(141,297)</u>	<u>(159,452)</u>	<u>(300,749)</u>
<u>Total Regulatory Asset Request</u>			
Employee Labor	512,547	615,008	1,127,555
Contractor Labor	1,780,301	3,614,517	5,394,818
Materials	33,124	134,360	167,483
Miscellaneous	79,650	330,840	410,490
Transportation	53,599	90,122	143,720
Total	<u>2,459,220</u>	<u>4,784,847</u>	<u>7,244,066</u>

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

**Response to Commission Staff's Second Request for Information
Dated February 20, 2018**

Case No. 2018-00034

Question No. 1

Witness: Kent W. Blake / Christopher M. Garrett

- Q-1. For each utility, provide a schedule of Excess Accumulated Deferred Income Tax ("ADIT"), broken down between protected and unprotected Excess ADIT for the test year utilized in Case Nos. 2016-00370 and 2016-00371, and for the test year utilized in the proposed Offer of Acceptance and Satisfaction tendered on January 29, 2018. Provide a copy of the response in an Excel spreadsheet format with formulas intact and unprotected, and all rows and columns fully accessible.
- A-1. Under Generally Accepted Accounting Principles (GAAP), the tax effect of changes in tax laws must be recognized in the period in which the law is enacted. GAAP requires deferred tax assets and liabilities to be measured at the enacted tax rate expected to apply when temporary differences are to be realized or settled. Thus, at the date of enactment of the Tax Cuts and Job Act ("Tax Act") in December 2017, LG&E and KUs' deferred taxes were remeasured based upon the new U.S. federal corporate income tax rate of 21%. The difference between the 35% tax rate and the new 21% tax rate is Excess ADIT.

See attachment A provided in excel format for the Excess ADIT balances for the periods of December 2017 through April 2018 attributable to the Tax Act. A calculation of the Excess ADIT balances by temporary difference as of December 31, 2017 is provided to show the breakdown between protected and unprotected Excess ADIT balances.

Because LG&E and KU utilize the average rate assumption method required by the tax code to amortize protected Excess ADIT, LG&E and KU still have a small Excess ADIT balance attributable to the Tax Reform Act of 1986 and Kentucky Tax Act of 2005. Included in Attachment B are the protected Excess ADIT balances utilized in the previous test year in Case No. 2016-00370 and 2016-00371 for the periods of June 2017 through June 2018 attributable to changes in prior tax laws.

KENTUCKY UTILITIES COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00294

Question No. 132

Responding Witness: Christopher M. Garrett

Q-132. State Tax Reform. Refer to the direct testimony of Chris M. Garrett, page 35, wherein he states, "Like the Companies' treatment of the TCJA, KU and LG&E will account for the state corporate tax rate reduction by amortizing all protected excess ADIT using the Average Rate Assumption Method ("ARAM") and amortizing all unprotected excess ADIT over a 15-year amortization period. The Companies will continue to treat all property-related excess ADIT as protected."

- a. Cite the Kentucky law or tax code that defines "protected" excess ADIT.
- b. Cite the Kentucky law or tax code that requires using ARAM to amortize "protected" excess ADIT consistent with IRS requirements for electing federal accelerated depreciation.

A-132.

- a. Effective for tax years beginning on or after January 1, 2018, House Bill 366 section 53(14) amends Kentucky's income tax provisions for conformity to the Internal Revenue Code that was in effect on December 31, 2017 (includes Tax Cuts and Jobs Act and normalization section). However, Kentucky will continue to decouple from the full expensing deduction allowed for federal purposes under Internal Revenue Code Section 168(k). House Bill 366 was adopted in its entirety into House Bill 487.
- b. See the response to part a.

KENTUCKY UTILITIES COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00294

Question No. 127

Responding Witness: Christopher M. Garrett

Q-127. Tax Cuts and Jobs Act. Notwithstanding the regulatory treatment in Case No. 2018-00034, confirm that IRS normalization requirements for excess accumulated deferred income taxes ("ADIT") apply to only accelerated federal tax method-life depreciation, and that they do not apply to excess ADIT on other book-tax temporary differences, regardless of whether they have a basis in plant.

A-127. Confirmed. The normalization requirements apply to ADIT and excess ADIT attributable to differences in the method of computing depreciation and/or the depreciable life of an asset (method-life differences) used for federal income tax purposes versus those used for financial purposes. Federal ADIT and excess ADIT attributable to method-life differences are subject to the normalization rules and are generally referred to as "protected items." There is no prohibition against any other basis adjustments being treated in the same way (normalized) as method-life differences. The Company has, with past regulatory approval, consistently treated plant related basis adjustments arising from other than method-life differences as protected items. Furthermore, the Companies have classified net operating loss carryforward excess ADITs as "protected."

In this case customers actually benefit by including the other basis adjustments as protected items. The other basis adjustments are a net deferred income tax asset or additional "costs" to customers (rather than a deferred income tax liability that is refunded to customers) due to the income tax rate change. The customers benefit because they are "paying back" this deferred tax asset over a longer period of time as a protected item versus an unprotected item.

KENTUCKY UTILITIES COMPANY

**Response to Commission Staff's First Request for Information
Dated September 19, 2018**

Case No. 2018-00294

Question No. 53

**Responding Witness: Daniel K. Arbough / Lonnie E. Bellar /
Robert M. Conroy / Christopher M. Garrett / Adrien M. McKenzie /
William Steven Seelye / David S. Sinclair / John J. Spanos**

- Q-53. Provide a copy of all exhibits and schedules that were prepared in the utility's rate application in Excel spreadsheet format with all formulas intact and unprotected and with all columns and row accessible.
- A-53. Attached to this response is a listing of all Excel spreadsheets submitted in response to this question and the requested spreadsheets used for calculations. The label by which each file is to be identified on the Commission website, under the "File Number" heading, is listed in the second column of the attached list. The third column of the attached list specifies the actual name of the spreadsheet being submitted. The fourth column identifies the specific exhibit or schedule being submitted.

Case No. 2018-00294

Attachment to Response to PSC-1 Question No. 53

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Arbough/Bellar/Conroy/Garrett/McKenzie/Seelye/Sinclair/Spanos

Testimony Exhibits and Filing Requirement Schedules -- Electronic File Index for Attachments to PSC-1 Question No. 53

Sponsoring Witness	File Number	Spreadsheet name(s)	Exhibit(s) Included in Spreadsheet	Tab Name(s) in Spreadsheet	Notes
Testimony Exhibits					
Daniel K. Arbough	Att-PSC1-53-File01	Att_KU_LGE_PSC_1-53_Exhibit_DKA-6_Utility_Cost_of_Debt_Comparison.xls	Exhibit DKA-6 -- Utility Cost of Debt Comparison	1) Ranking 2) LG&E and KU 3) PPL Electric Utilities 4) PSEG 5) First Energy 6) Duke 7) Exelon 8) DTE 9) AEP 10) Ameren 11) Dayton P&L 12) Nisource	Exhibit DKA-6 is "Ranking" tab
Lonnie E. Bellar	Att-PSC1-53-File02	Att_KU_LGE_PSC_1-53_Exhibit_LEB-1_Summary_of_Generation_Plant.xls	Exhibit LEB-1 -- Summary of Generation Plant	LEB-1	
	Att-PSC1-53-File03	Att_KU_LGE_PSC_1-53_Exhibit_LEB-6_Smart_Grid_Investments.xlsx	Exhibit LEB-6 -- Smart Grid Investments	Summary	
Adrien M. McKenzie	Att-PSC1-53-File04	Att_KU_LGE_PSC_1-53_Exhibit_McKenzie-2-12.xlsm	1) Exhibit No. 2 -- Summary of Results 2) Exhibit No. 3 -- Regulatory Mechanisms - Utility Group 3) Exhibit No. 4 -- Capital Structure - Utility Group 4) Exhibit No. 5 -- DCF Model - Utility Group 5) Exhibit No. 6 -- Sustainable Growth Rate - Utility Group 6) Exhibit No. 7 -- Capital Asset Pricing Model 7) Exhibit No. 8 -- Empirical Capital Asset Pricing Model 8) Exhibit No. 9 -- Risk Premium Method 9) Exhibit No. 10 -- Expected Earnings Approach 10) Exhibit No. 11 -- Flotation Cost Study 11) Exhibit No. 12 -- DCF Model - Non-Utility Group	1) Utility Group Criteria 2) Utility Group 3) Exhibit List 4) Proxy Group Risk Measures 5) Tables 6) 2 7) 3 (1) 8) 3 (2-4) 9) 4 (1) 10) 4 (2-3) 11) 5 (1) 12) 5 (2) 13) 5 (3) 14) 6 15) 7 (1) 16) 7 (2) 17) 8 (1) 18) 8 (2) 19) 9 (1) 20) 9 (2) 21) 9 (3) 22) 9 (4) 23) 10 24) 11 25) 12 (1) 26) 12 (2) 27) 12 (3) 28) Stock Price (Utility) 29) Stock Price (Non-Utility) 30) 2018 08 Market DCF 31) Bond Yields 32) Graph - Projected Yields 33) Size Premium 34) Ordinal Ratings 35) Electric Utility Data 36) CS Data 37) Capital Structure - Op. Cos. 38) ECAPM Graph	1) Exhibit No. 2 is "2" tab 2) Exhibit No. 3 is "3 (1)" and "3 (2-4)" tabs 3) Exhibit No. 4 is "4 (1)" and "4 (2-3)" tabs 4) Exhibit No. 5 is "5 (1)", "5 (2)" and "5 (3)" tabs 5) Exhibit No. 6 is "6" tab 6) Exhibit No. 7 is "7 (1)" and "7 (2)" tabs 7) Exhibit No. 8 is "8 (1)" and "8 (2)" tabs 8) Exhibit No. 9 is "9 (1)", "9 (2)", "9 (3)" and "9 (4)" tabs 9) Exhibit No. 10 is "10" tab 10) 11) Exhibit No. 11 is "11" tab 12) Exhibit No. 12 is "12 (1)", "12 (2)" and "12 (3)" tabs
William Steven Seelye	Att-PSC1-53-File05	Att_KU_LGE_PSC_1-53_Exhibit_WSS-2_Cost_Components_for_RS.xlsx	Exhibit WSS-2 -- Cost Components for Residential Service Rate RS	1) RS Unit Costs (KU) p. 1 2) RS Unit Costs (LG&E) p.2	
	Att-PSC1-53-File06	Att_KU_LGE_PSC_1-53_Exhibit_WSS-4_WSS-5_LED_Cost_Support_and_Conversion_Fee.xlsx	1) Exhibit WSS-4 -- Cost Support for LED Fixtures and Underground Poles 2) Exhibit WSS-5 -- Cost Support for LED Conversion Fee	1) WSS-4 p.1 KU LED Fixture & Pole 2) WSS-4 p.2 LG&E LED Fix & Poles	
	Att-PSC1-53-File07	Att_KU_LGE_PSC_1-53_Exhibit_WSS-6_Solar_Share_Capacity_Charges.xlsx	Exhibit WSS-6 -- Cost Support for Solar Share Capacity Charges	1) WSS-6 p1 Solar Shr Levelized 2) WSS-6 p 2 Solar Shr Levelized	
	Att-PSC1-53-File08	Att_KU_LGE_PSC_1-53_Exhibit_WSS-7_EVSE_EVSE-R.xlsx	Exhibit WSS-7 -- Cost Support for Electric Vehicle Supply Equipment Rate and Rider	1) WSS-7 p1 (KU) 2) WSS-7 p2 (LG&E) 3) WSS-7 p3 (Rev Effect) 4) ECR FAC TCJA 5) WACC - Carrying Charges 6) 2017 EV Usage Data	
	Att-PSC1-53-File09	Att_KU_LGE_PSC_1-53_Exhibit_WSS-8_Redundant_Capacity_Charge.xlsx	Exhibit WSS-8 -- Cost Support for Redundant Capacity Charge	1) WSS-8 p1 2) WSS-8 p2 3) WSS-8 p3 4) WSS-8 p4	
	Att-PSC1-53-File10	Att_KU_LGE_PSC_1-53_Exhibit_WSS-13_Wireline_Attachment_Charge_Calculation.xlsx	Exhibit WSS-13 -- Cost Support for Pole Attachment Charges	WSS-13	
	Att-PSC1-53-File11	Att_KU_LGE_PSC_1-53_Exhibit_WSS-14_Late_Payment_Charge_Impact_on_Other_Oper_Rev.xlsx	Exhibit WSS-14 -- Change in Other Operating Revenues Due to Change in Late Payment Charge Policy	Exhibit WSS-15	
	Att-PSC1-53-File12	Att_KU_LGE_PSC_1-53_Exhibit_WSS-15_Excess_Facilities_KU.xls	Exhibit WSS-15 -- Cost Support for Excess Facilities Rider (KU Only)	WSS-15 p1 KU	

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Testimony Exhibits and Filing Requirement Schedules -- Electronic File Index for Attachments to PSC-1 Question No. 53

William Steven Seelye	Att-PSC1-53-File13	Att_KU_LGE_PSC_1-53_Exhibit_WSS-15_Excess_Facilities_LGE-E.xls	Exhibit WSS-15 -- Cost Support for Excess Facilities Rider (LG&E Electric Only)	WSS-15 p2 LG&E-E	
	Att-PSC1-53-File14	Att_KU_LGE_PSC_1-53_Exhibit_WSS-15_Excess_Facilities_LGE-G.xls	Exhibit WSS-15 -- Cost Support for Excess Facilities Rider (LG&E Gas Only)	WSS-15 p3 LG&E-G	
	Att-PSC1-53-File15	Att_KU_LGE_PSC_1-53_Exhibit_WSS-16_Excess_Facilities_Revenue_Impact.xlsx	Exhibit WSS-16 -- Change in Other Operating Revenues for Excess Facilities Rider	WSS-16	
	Att-PSC1-53-File16	Att_KU_LGE_PSC_1-53_Exhibit_WSS-17_Cost_Support_for_Misc_Charges.xlsx	Exhibit WSS-17 -- Cost Support for Miscellaneous Charges	1) WSS-17 p 1 - Returned Check Chg	
	Att-PSC1-53-File17	Att_KU_LGE_PSC_1-53_Exhibit_WSS-18_Operating_Revenues_for_Misc_Charges.xlsx	Exhibit WSS-18 -- Change in Other Operating Revenues for Other Miscellaneous Charges	1) WSS-18 p1 Summary 2) WSS-18 p2 3) WSS-18 p3	
	Att-PSC1-53-File18	Att_KU_LGE_PSC_1-53_Exhibit_WSS-19_LOLP.xlsx	Exhibit WSS-19 -- LOLP Analysis for Electric Cost of Service Study	1) KU 2) LGE	
	Att-PSC1-53-File19	Att_KU_PSC_1-53_Exhibit_WSS-20_KU_OH_Zero_Intercept.xls	Exhibit WSS-20 -- Zero Intercept Analysis for Overhead Conductor (KU Only)	1) WSS-20 p1-4 2) WSS-20 p5	
	Att-PSC1-53-File20	Att_KU_PSC_1-53_Exhibit_WSS-21_KU_UG_Zero_Intercept.xls	Exhibit WSS-21 -- Zero Intercept Analysis for Underground Conductor (KU Only)	1) WSS-21 p1-4 2) WSS-21 p5	
	Att-PSC1-53-File21	Att_KU_PSC_1-53_Exhibit_WSS-22_KU_Transformers_Zero_Intercept.xlsx	Exhibit WSS-22 -- Zero Intercept Analysis for Line Transformers (KU Only)	WSS-22	
	Att-PSC1-53-File22	Att_KU_PSC_1-53_Exhibit_WSS-26_WSS-28_KU_COSF_Functional_Assgmt_and_Class_Alloc.xlsx	1) Exhibit WSS-26 -- Electric Cost of Service Study Functional Assignment and Classification (KU Only) 2) Exhibit WSS-28 -- Electric Cost of Service Study Class Allocation (KU Only)	1) Jurisdictional Study 2) WSS-26 3) WSS-28	1) Jurisdictional Study provided for response to Question No. 10. 2 and 3) Cost of service study provided for response to Question No. 29.
	Att-PSC1-53-File23	Att_KU_LGE_PSC_1-53_Exhibit_WSS-36_Lead_Lag_Days_Summary.xlsx	Exhibit WSS-36 -- Summary Results of Lead-Lag Study	1) KU Lead Lag Days Summary 2) LG&E Lead Lag Days Summary	
David S. Sinclair	Att-PSC1-53-File24	Att_KU_PSC_1-53_Exhibit_DSS-1_Comparison_of_KU_Electric_Customers.xlsx	Exhibit DSS-1 -- Comparison of KU Electric Customers, Billing Demand, and Energy: Base Period vs. Forecasted Test Period	Data	
	Att-PSC1-53-File25	Att_KU_LGE_PSC_1-53_Exhibit_DSS-4_Economic_Inputs_to_Electric_and_Gas_Forecasts.xlsx	Exhibit DSS-4 -- Economic Inputs to Electric and Gas Forecasts	Data	
	Att-PSC1-53-File26	Att_KU_LGE_PSC_1-53_Exhibit_DSS-5_Generation_Variations.xlsx	Exhibit DSS-5 -- KU and LG&E Comparison of Generation Volume by Unit, Base Period vs. Forecasted Test Period	Exhibit DSS-5	
John J. Spanos	Att-PSC1-53-File27	Att_KU_PSC_1-53_Exhibit_JJS-KU-1_KU_Depreciation_Study.xlsx	Exhibit JJS-KU-1 -- KU Depreciation Study	KU-Steam	

Sponsoring Witness	File Number	Spreadsheet name(s)	Schedule(s) Included in Spreadsheet	Tab Name(s) in Spreadsheet	Notes
Filing Requirement Schedules					
Daniel K. Arbough	Att-PSC1-53-File28	Att_KU_PSC_1-53_Sch_J.xlsx	Schedule J	1) SCH B-1.1 B 2) SCH B-1.1 F 3) <<<IMPORT 4) Rate Case Constants 5) Index J 6) SCH J-1 7) SCH J-1.1J-1.2 8) SCH J-2 9) SCH J-3 10) DATA>>> 11) BS 12) Fixed interest rate 13) variable interest rate 14) Rates	Provided in Application Tab 63
Robert M. Conroy	Att-PSC1-53-File29	Att_KU_PSC_1-53_Elec_Schedule_N.xlsx	Schedule N	1) Rate Case Constants 2) INPUT 3) SCHEDULES====> 4) Rate RS-VFD 5) Rate RTOD Energy 6) Rate RTOD Demand 7) Rate AES Single Phase 8) Rate AES Three Phase 9) Rate GS Single Phase 10) Rate GS Three Phase 11) Rate PS Secondary 12) Rate PS Primary 13) Rate TOD Secondary 14) Rate TOD Primary 15) Rate RTS 16) Rate FLS Transmission 17) Rate FLS Primary 18) Rate LS-RLS 19) Rate LE 20) Rate TE 21) Rate OSL - Secondary 22) Rate OSL - Primary 23) Rate EVC 24) Rate PSA	Provided in Application Tab 67

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Testimony Exhibits and Filing Requirement Schedules -- Electronic File Index for Attachments to PSC-1 Question No. 53

Christopher M. Garrett	Att-PSC1-53-File30	Att_KU_PSC_1-53_Sch_A.xlsx	Schedule A	1) Rate Case Constants 2) Index A 3) SCH A 4) IMPORT>>> 5) SCH C-1 6) SCH H-1 7) SCH J-1	Provided in Application Tab 54
	Att-PSC1-53-File31	Att_KU_PSC_1-53_Sch_B.xlsx	Schedule B	1) SUPP SCH B-1.1 B 2) SUPP SCH B-1.1 F 3) <<<EXPORT 4) Rate Case Constants 5) Index B 6) SCH B-1 7) SCH B-2 8) SCH B-2.1 B 9) SCH B-2.1 F 10) SCH B-2.2 11) SCH B-2.3 B 12) SCH B-2.3 F 13) SCH B-2.4 14) SCH B-2.5 15) SCH B-2.6 16) SCH B-2.7 17) SCH B-3 B 18) SCH B-3 F 19) SCH B-3.1 20) SCH B-3.2 B 21) SCH B-3.2 F 22) SCH B-4 23) SCH B-4.1 24) SCH B-4.2 B 25) SCH B-4.2 F 26) SCH B-5 27) SCH B-5.1 28) SCH B-5.2 B (1) 29) SCH B-5.2 B (2) 30) SCH B-5.2 F (1) 31) SCH B-5.2 F (2) 32) SCH B-6 33) SCH B-7 B 34) SCH B-7 F 35) SCH B-7.1 B 36) SCH B-7.1 F 37) SCH B-7.2 B 38) SCH B-7.2 F 39) SCH B-8 TC 40) SCH B-8 KY 41) DATA>>> 42) BS 43) JURISSEP B 44) JURISSEP F 45) PIS B 46) FCPIS B 47) FC CWIP & RWIP B 48) PIS F 49) FCPIS F 50) FC CWIP & RWIP F 51) AFUDC 52) ECR Exclusion 53) ECR COR 54) ECR EXP B 55) ECR EXP F 56) ECR DEFTAX 57) DSM DEFTAX 58) ECR ALLOW 59) KU Depr Rates 60) KU Proposed Depr Rates	Provided in Application Tab 55

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Arbough/Bellar/Conroy/Garrett/McKenzie/Seelye/Sinclair/Spanos

Testimony Exhibits and Filing Requirement Schedules -- Electronic File Index for Attachments to PSC-1 Question No. 53

Christopher M. Garrett	Att-PSC1-53-File32	Att_KU_PSC_1-53_Sch_C_and_D.xlsx	Schedules C and D	<ol style="list-style-type: none"> 1) SCH B-1 2) SCH H-1 3) SCH J-1 4) SCH J-1.1J-1.2 5) <<<IMPORT 6) Rate Case Constants 7) Index C 8) SCH C-1 9) SCH C-2 10) SCH C-2.1 B 11) SCH C-2.1 F 12) SCH C-2.2 B 13) SCH C-2.2 F 14) Index D 15) SCH D-1 16) SCH D-2 B 17) SCH D-2 F 18) SCH D-2.1 19) DATA>>> 20) Rider Adj B 21) Rider Adj F 22) IntSync 23) ProForma Adj F 24) TB 25) IS 26) Revenue 27) Rev-Tracker 28) JURISSEP B 29) JURISSEP F 30) DSM Expenses 31) ECR EXP B 32) ECR EXP F 33) Excess ADIT 34) OSS 35) WPH-1 Effective Tax Rate 	Provided in Application Tabs 56 and 57
	Att-PSC1-53-File33	Att_KU_PSC_1-53_Sch_E.xlsx	Schedule E	<ol style="list-style-type: none"> 1) Rate Case Constants 2) Sch E Index 3) SCH E-1 4) SCH E-2 B 5) SCH E-2 F 6) DATA>>> 7) Current Tax B 8) Deferred Tax B 9) Current Tax F 10) Deferred Tax F 	Provided in Application Tab 58
	Att-PSC1-53-File34	Att_KU_PSC_1-53_Sch_H.xlsx	Schedule H	<ol style="list-style-type: none"> 1) Rate Case Constants 2) Index H 3) SCH H-1 4) DATA>>> 5) WPH-1 Effective Tax Rate 	Provided in Application Tab 61
William Steven Seelye	Att-PSC1-53-File35	Att_KU_PSC_1-53_ElecScheduleM_Base.xlsx	<ol style="list-style-type: none"> 1) Schedule M-1.1 - Base Period Revenues at Current Rates 2) Schedule M-1.2 - Average Bill at Current Rates 3) Schedule M-1.3 - Summary of Base Revenues and Detailed Calculation of Base Period Revenues 	<ol style="list-style-type: none"> 1) Sch M-1.1 2) Sch M-1.2 3) Sch M-1.3 (1), Sch M-1.3 (2), and Sch M-1.3 (3) 	Provided in Application Tab 66
	Att-PSC1-53-File36	Att_KU_PSC_1-53_ElecScheduleM_Forecasted.xlsx	<ol style="list-style-type: none"> 1) Schedule M-2.1 - Forecast Period Revenues at Current and Proposed Rates 2) Schedule M-2.2 - Average Bill Comparison at Current and Proposed Rates 3) Schedule M-2.3 - Summary of Proposed Revenue Increase and Calculation of Proposed Rate Increase 	<ol style="list-style-type: none"> 1) Sch M-2.1 2) Sch M-2.2 3) Sch M-2.3 (1), Sch M-2.3 (2), and Sch M-2.3 (3) 	Provided in Application Tab 66

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's First Request for Information
Dated September 19, 2018**

Case No. 2018-00295

Question No. 53

**Responding Witness: Daniel K. Arbough / Lonnie E. Bellar /
Robert M. Conroy / Christopher M. Garrett / Adrien M. McKenzie /
William Steven Seelye / David S. Sinclair / John J. Spanos**

- Q-53. Provide a copy of all exhibits and schedules that were prepared in the utility's rate application in Excel spreadsheet format with all formulas intact and unprotected and with all columns and row accessible.
- A-53. Attached to this response is a listing of all Excel spreadsheets submitted in response to this question and the requested spreadsheets used for calculations. The label by which each file is to be identified on the Commission website, under the "File Number" heading, is listed in the second column of the attached list. The third column of the attached list specifies the actual name of the spreadsheet being submitted. The fourth column identifies the specific exhibit or schedule being submitted.

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Attachment to Response to PSC-1 Question No. 53

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Testimony Exhibits and Filing Requirement Schedules -- Electronic File Index for Attachments to PSC-1 Question No. 53

Sponsoring Witness	File Number	Spreadsheet name(s)	Exhibit(s) Included in Spreadsheet	Tab Name(s) in Spreadsheet	Notes
Testimony Exhibits					
Daniel K. Arbough	Att-PSC1-53-File01	Att_KU_LGE_PSC_1-53_Exhibit_DKA-6_Utility_Cost_of_Debt_Comparison.xls	Exhibit DKA-6 -- Utility Cost of Debt Comparison	1) Ranking 2) LG&E and KU 3) PPL Electric Utilities 4) PSEG 5) First Energy 6) Duke 7) Exelon 8) DTE 9) AEP 10) Ameren 11) Dayton P&L 12) Nisource	Exhibit DKA-6 is "Ranking" tab
Lonnie E. Bellar	Att-PSC1-53-File02	Att_KU_LGE_PSC_1-53_Exhibit_LEB-1_Summary_of_Generation_Plant.xls	Exhibit LEB-1 -- Summary of Generation Plant	LEB-1	
	Att-PSC1-53-File03	Att_KU_LGE_PSC_1-53_Exhibit_LEB-6_Smart_Grid_Investments.xlsx	Exhibit LEB-6 -- Smart Grid Investments	Summary	
Adrien M. McKenzie	Att-PSC1-53-File04	Att_KU_LGE_PSC_1-53_Exhibit_McKenzie-2-12.xlsm	1) Exhibit No. 2 -- Summary of Results 2) Exhibit No. 3 -- Regulatory Mechanisms - Utility Group 3) Exhibit No. 4 -- Capital Structure - Utility Group 4) Exhibit No. 5 -- DCF Model - Utility Group 5) Exhibit No. 6 -- Sustainable Growth Rate - Utility Group 6) Exhibit No. 7 -- Capital Asset Pricing Model 7) Exhibit No. 8 -- Empirical Capital Asset Pricing Model 8) Exhibit No. 9 -- Risk Premium Method 9) Exhibit No. 10 -- Expected Earnings Approach 10) Exhibit No. 11 -- Flotation Cost Study 11) Exhibit No. 12 -- DCF Model - Non-Utility Group	1) Utility Group Criteria 2) Utility Group 3) Exhibit List 4) Proxy Group Risk Measures 5) Tables 6) 2 7) 3 (1) 8) 3 (2-4) 9) 4 (1) 10) 4 (2-3) 11) 5 (1) 12) 5 (2) 13) 5 (3) 14) 6 15) 7 (1) 16) 7 (2) 17) 8 (1) 18) 8 (2) 19) 9 (1) 20) 9 (2) 21) 9 (3) 22) 9 (4) 23) 10 24) 11 25) 12 (1) 26) 12 (2) 27) 12 (3) 28) Stock Price (Utility) 29) Stock Price (Non-Utility) 30) 2018 08 Market DCF 31) Bond Yields 32) Graph - Projected Yields 33) Size Premium 34) Ordinal Ratings 35) Electric Utility Data 36) CS Data 37) Capital Structure - Op. Cos. 38) ECAPM Graph	1) Exhibit No. 2 is "2" tab 2) Exhibit No. 3 is "3 (1)" and "3 (2-4)" tabs 3) Exhibit No. 4 is "4 (1)" and "4 (2-3)" tabs 4) Exhibit No. 5 is "5 (1)", "5 (2)" and "5 (3)" tabs 5) Exhibit No. 6 is "6" tab 6) Exhibit No. 7 is "7 (1)" and "7 (2)" tabs 7) Exhibit No. 8 is "8 (1)" and "8 (2)" tabs 8) Exhibit No. 9 is "9 (1)", "9 (2)", "9 (3)" and "9 (4)" tabs 9) Exhibit No. 10 is "10" tab 10) 11) Exhibit No. 11 is "11" tab 12) Exhibit No. 12 is "12 (1)", "12 (2)" and "12 (3)" tabs
William Steven Seelye	Att-PSC1-53-File05	Att_KU_LGE_PSC_1-53_Exhibit_WSS-2_Cost_Components_for_RS.xlsx	Exhibit WSS-2 -- Cost Components for Residential Service Rate RS	1) RS Unit Costs (KU) p. 1 2) RS Unit Costs (LG&E) p.2	
	Att-PSC1-53-File06	Att_KU_LGE_PSC_1-53_Exhibit_WSS-4_WSS-5_LED_Cost_Support_and_Conversion_Fee.xlsx	1) Exhibit WSS-4 -- Cost Support for LED Fixtures and Underground Poles 2) Exhibit WSS-5 -- Cost Support for LED Conversion Fee	1) WSS-4 p.1 KU LED Fixture & Pole 2) WSS-4 p.2 LG&E LED Fix & Poles	
	Att-PSC1-53-File07	Att_KU_LGE_PSC_1-53_Exhibit_WSS-6_Solar_Share_Capacity_Charges.xlsx	Exhibit WSS-6 -- Cost Support for Solar Share Capacity Charges	1) WSS-6 p1 Solar Shr Levelized 2) WSS-6 p 2 Solar Shr Levelized	
	Att-PSC1-53-File08	Att_KU_LGE_PSC_1-53_Exhibit_WSS-7_EVSE-EVSE-R.xlsx	Exhibit WSS-7 -- Cost Support for Electric Vehicle Supply Equipment Rate and Rider	1) WSS-7 p1 (KU) 2) WSS-7 p2 (LG&E) 3) WSS-7 p3 (Rev Effect) 4) ECR FAC TCJA 5) WACC - Carrying Charges 6) 2017 EV Usage Data	
	Att-PSC1-53-File09	Att_KU_LGE_PSC_1-53_Exhibit_WSS-8_Redundant_Capacity_Charge.xlsx	Exhibit WSS-8 -- Cost Support for Redundant Capacity Charge	1) WSS-8 p1 2) WSS-8 p2 3) WSS-8 p3 4) WSS-8 p4	

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William Steven Seelye	Att-PSC1-53-File10	Att_LGE_PSC_1-53_Exhibit_WSS-9_WSS-10_WSS-11_WSS-12_WSS-33_WSS-34_LGE_Gas_COSS.xlsx	1) Exhibit WSS-9 -- Cost Components for Residential Gas Service Rate RGS 2) Exhibit WSS-10 -- Cost Components for Firm Transportation Service Rate FT 3) Exhibit WSS-11 -- Cost Support for Utilization Charges for Daily Imbalances 4) Exhibit WSS-12 -- Cost Support for Substitute Gas Sales Service Rate SGSS 5) Exhibit WSS-33 -- Gas Cost of Service Study Functional Assignment and Classification (LG&E Only) 6) Exhibit WSS-34 -- Gas Cost of Service Study Class Allocation (LG&E Only)	1) WSS-9 2) WSS-10 3) WSS-11 4) WSS-12 5) WSS-33 6) WSS-34	Cost of service study provided for response to Question No. 29.
	Att-PSC1-53-File11	Att_KU_LGE_PSC_1-53_Exhibit_WSS-13_Wireline_Attachment_Charge_Calculation.xlsx	Exhibit WSS-13 -- Cost Support for Pole Attachment Charges	WSS-13	
	Att-PSC1-53-File12	Att_KU_LGE_PSC_1-53_Exhibit_WSS-14_Late_Payment_Charge_Impact_on_Other_Oper_Rev.xlsx	Exhibit WSS-14 -- Change in Other Operating Revenues Due to Change in Late Payment Charge Policy	Exhibit WSS-15	
	Att-PSC1-53-File13	Att_KU_LGE_PSC_1-53_Exhibit_WSS-15_Excess_Facilities_KU.xls	Exhibit WSS-15 -- Cost Support for Excess Facilities Rider (KU Only)	WSS-15 p1 KU	
	Att-PSC1-53-File14	Att_KU_LGE_PSC_1-53_Exhibit_WSS-15_Excess_Facilities_LGE-E.xls	Exhibit WSS-15 -- Cost Support for Excess Facilities Rider (LG&E Electric Only)	WSS-15 p2 LG&E-E	
	Att-PSC1-53-File15	Att_KU_LGE_PSC_1-53_Exhibit_WSS-15_Excess_Facilities_LGE-G.xls	Exhibit WSS-15 -- Cost Support for Excess Facilities Rider (LG&E Gas Only)	WSS-15 p3 LG&E-G	
	Att-PSC1-53-File16	Att_KU_LGE_PSC_1-53_Exhibit_WSS-16_Excess_Facilities_Revenue_Impact.xlsx	Exhibit WSS-16 -- Change in Other Operating Revenues for Excess Facilities Rider	WSS-16	
	Att-PSC1-53-File17	Att_KU_LGE_PSC_1-53_Exhibit_WSS-17_Cost_Support_for_Misc_Charges.xlsx	Exhibit WSS-17 -- Cost Support for Miscellaneous Charges	1) WSS-17 p 1 - Returned Check Chg	
	Att-PSC1-53-File18	Att_KU_LGE_PSC_1-53_Exhibit_WSS-18_Operating_Revenues_for_Misc_Charges.xlsx	Exhibit WSS-18 -- Change in Other Operating Revenues for Other Miscellaneous Charges	1) WSS-18 p1 Summary 2) WSS-18 p2 3) WSS-18 p3	
	Att-PSC1-53-File19	Att_KU_LGE_PSC_1-53_Exhibit_WSS-19_LOLP.xlsx	Exhibit WSS-19 -- LOLP Analysis for Electric Cost of Service Study	1) KU 2) LGE	
	Att-PSC1-53-File20	Att_LGE_PSC_1-53_Exhibit_WSS-23_LGE_OH_Zero_Intercept.xls	Exhibit WSS-23 -- Zero Intercept Analysis for Overhead Conductor (LG&E Only)	1) WSS-23 p1-4 2) WSS-23 p5	
	Att-PSC1-53-File21	Att_LGE_PSC_1-53_Exhibit_WSS-24_LGE_UG_Zero_Intercept.xls	Exhibit WSS-24 -- Zero Intercept Analysis for Underground Conductor (LG&E Only)	1) WSS-24 p1-4 2) WSS-24 p5	
	Att-PSC1-53-File22	Att_LGE_PSC_1-53_Exhibit_WSS-25_LGE_Transformers_Zero_Intercept.xls	Exhibit WSS-25 -- Zero Intercept Analysis for Line Transformers (LG&E Only)	WSS-25	
	Att-PSC1-53-File23	Att_LGE_PSC_1-53_Exhibit_WSS-27_WSS-29_LGE_COSS_Functional_Assgmt_and_Class_Aloc.xlsx	1) Exhibit WSS-27 -- Electric Cost of Service Study Functional Assignment and Classification (LG&E Only) 2) Exhibit WSS-29 -- Electric Cost of Service Study Class Allocation (LG&E Only)	1) WSS-27 2) WSS-29	Cost of service study provided for response to Question No. 29.
	Att-PSC1-53-File24	Att_LGE_PSC_1-53_Exhibit_WSS-30_Transmission_Plant_Allocation.xlsx	Exhibit WSS-30 -- Gas Transmission Plant Functional Assignment for the Cost of Service Study (LG&E Only)	Sheet1	
	Att-PSC1-53-File25	Att_LGE_PSC_1-53_Exhibit_WSS-31_Gas_Zero_Intercept.xlsx	Exhibit WSS-31 -- Zero Intercept Analysis of Distribution Mains (LG&E Only)	lge g376.00 Low- Hi-	
	Att-PSC1-53-File26	Att_LGE_PSC_1-53_Exhibit_WSS-32_Distribution_Demand_Allocators.xlsx	Exhibit WSS-32 -- Analysis of Low-, Medium-, and High-Pressure Mains for the Cost of Service Study (LG&E Only)	1) Demand Allocator 2) High Pressure Demand Allocator	
	Att-PSC1-53-File27	Att_LGE_PSC_1-53_Exhibit_WSS-35_Storage_Allocation.xls	Exhibit WSS-35 -- Gas Cost of Service Study Storage Allocation (LG&E Only)	Allocation Summary	
	Att-PSC1-53-File28	Att_KU_LGE_PSC_1-53_Exhibit_WSS-36_Lead_Lag_Days_Summary.xlsx	Exhibit WSS-36 -- Summary Results of Lead-Lag Study	1) KU Lead Lag Days Summary 2) LG&E Lead Lag Days Summary	
David S. Sinclair	Att-PSC1-53-File29	Att_LGE_PSC_1-53_Exhibit_DSS-2_Comparison_of_LGE_Electric_Customers.xlsx	Exhibit DSS-2 -- Comparison of LG&E Electric Customers, Billing Demand, and Energy: Base Period vs. Forecasted Test Period	Data	
	Att-PSC1-53-File30	Att_LGE_PSC_1-53_Exhibit_DSS-3_Comparison_of_LGE_Gas_Customers.xlsx	Exhibit DSS-3 -- Comparison of LG&E Gas Customers and Volume: Base Period vs. Forecasted Test Period	Data	
	Att-PSC1-53-File31	Att_KU_LGE_PSC_1-53_Exhibit_DSS-4_Economic_Inputs_to_Electric_and_Gas_Forecasts.xlsx	Exhibit DSS-4 -- Economic Inputs to Electric and Gas Forecasts	Data	
	Att-PSC1-53-File32	Att_KU_LGE_PSC_1-53_Exhibit_DSS-5_Generation_Variations.xlsx	Exhibit DSS-5 -- KU and LG&E Comparison of Generation Volume by Unit, Base Period vs. Forecasted Test Period	Exhibit DSS-5	
John J. Spanos	Att-PSC1-53-File33	Att_LGE_PSC_1-53_Exhibit_JJS-LGE-1_LG&E_Depreciation_Study.xlsx	Exhibit JJS-LG&E-1 -- LG&E Depreciation Study	LGE	

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Sponsoring Witness	File Number	Spreadsheet name(s)	Schedule(s) Included in Spreadsheet	Tab Name(s) in Spreadsheet	Notes
Filing Requirement Schedules					
Daniel K. Arbough	Att-PSC1-53-File34	Att_LGE_PSC_1-53_Sch_J.xlsx	Schedule J	1) SCH B-1.1 B 2) SCH B-1.1 F 3) <<<IMPORT 4) Rate Case Constants 5) Index J 6) SCH J-1 E 7) SCH J-1 G 8) SCH J-1.1J-1.2 (Pgs 1,2) 9) SCH J-1.1J-1.2 (Pgs 3,4) 10) SCH J-2 11) SCH J-3 12) DATA>>> 13) BS 14) DefTax B 15) DefTax F 16) Fixed interest rate 17) variable interest rate 18) Rates	Provided in Application Tab 63
Robert M. Conroy	Att-PSC1-53-File35	Att_LGE_PSC_1-53_Elec_Schedule_N.xlsx	Schedule N for Electric	1) Rate Case Constants 2) INPUT 3) SCHEDULES====> 4) Rate RS-VFD 5) Rate RTOD Energy 6) Rate RTOD Demand 7) Rate GS Single Phase 8) Rate GS Three Phase 9) Rate PS Secondary 10) Rate PS Primary 11) Rate TOD Secondary 12) Rate TOD Primary 13) Rate RTS 14) Rate FLS Transmission 15) Rate FLS Primary 16) Special Contract 17) Rate LS-RLS 18) Rate LE 19) Rate TE 20) OSL Secondary 21) OSL Primary 22) Rate EVC 23) Rate PSA	Provided in Application Tab 67
	Att-PSC1-53-File36	Att_LGE_PSC_1-53_Gas_Schedule_N.xlsx	Schedule N for Gas	1) INPUT 2) Rate Case Constants 3) SCHEDULES====> 4) RGS_VFD 5) CGS less than 5000cfh 6) CGS greater than 5000cfh 7) IGS less than 5000cfh 8) IGS greater than 5000cfh 9) AAGS 10) FT 11) Intra-Company Special Contract 12) DGGG less than 5000cfh 13) DGGG greater than 5000cfh 14) SGSS - Commercial 15) SGSS - Industrial 16) LGDS	Provided in Application Tab 67
Christopher M. Garrett	Att-PSC1-53-File37	Att_LGE_PSC_1-53_Sch_A_Electric.xlsx	Schedule A for Electric	1) Rate Case Constants 2) Index A 3) SCH A 4) IMPORT>>> 5) SCH C-1 6) SCH H-1 7) SCH J-1 E	Provided in Application Tab 54
	Att-PSC1-53-File38	Att_LGE_PSC_1-53_Sch_A_Gas.xlsx	Schedule A for Gas	1) Rate Case Constants 2) Index A 3) SCH A 4) IMPORT>>> 5) SCH C-1 6) SCH H-1 7) SCH J-1 G	Provided in Application Tab 54

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Christopher M. Garrett	Att-PSC1-53-File39	Att_LGE_PSC_1-53_Sch_B_Electric.xlsx	Schedule B for Electric	1) SCH C-2.1 B 2) SCH C-2.1 F 3) <<<IMPORT 4) SUPP SCH B-1.1 B 5) SUPP SCH B-1.1 F 6) <<<EXPORT 7) Rate Case Constants 8) Index B 9) SCH B-1 10) SCH B-2 11) SCH B-2.1 B 12) SCH B-2.1 F 13) SCH B-2.2 14) SCH B-2.3 B 15) SCH B-2.3 F 16) SCH B-2.4 17) SCH B-2.5 18) SCH B-2.6 19) SCH B-2.7 20) SCH B-3 B 21) SCH B-3 F 22) SCH B-3.1 23) SCH B-3.2 B 24) SCH B-3.2 F 25) SCH B-4 26) SCH B-4.1 27) SCH B-4.2 B 28) SCH B-4.2 F 29) SCH B-5 30) SCH B-5.1 31) SCH B-5.2 B (1) 32) SCH B-5.2 B (2) 33) SCH B-5.2 F (1) 34) SCH B-5.2 F (2) 35) SCH B-6 36) SCH B-7 37) SCH B-7.1 38) SCH B-7.2 39) SCH B-8 TC 40) SCH B-8 E 41) DATA>>> 42) PIS B 43) FCPIS B 44) PIS F 45) PIS F AVG 46) FCPIS F 47) FC CWIP & RWIP B 48) FC CWIP & RWIP F 49) ECR Exclusions 50) ECR COR 51) ECR CCR 52) ECR EXP B 53) ECR EXP F 54) BS 55) BS E 56) IS E 57) IS TC 58) BS CWC 59) Lead Lag Days 60) INV 61) TC1 Disallowance 62) DEFTAX B 63) DEFTAX F 64) ECR DEFTAX 65) DSM DEFTAX 66) LGE Elect Depr Rates 67) LGE Elect Proposed Depr Rates 68) LGE Common Depr Rates 69) LGE Common Proposed Depr Rates	Provided in Application Tab 55
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Testimony Exhibits and Filing Requirement Schedules -- Electronic File Index for Attachments to PSC-1 Question No. 53

Christopher M. Garrett	Att-PSC1-53-File40	Att_LGE_PSC_1-53_Sch_B_Gas.xlsx	Schedule B for Gas	1) SCH C-2.1 B 2) SCH C-2.1 F 3) <<<IMPORT 4) SUPP SCH B-1.1 B 5) SUPP SCH B-1.1 F 6) <<<EXPORT 7) Rate Case Constants 8) Index B 9) SCH B-1 10) SCH B-2 11) SCH B-2.1 B 12) SCH B-2.1 F 13) SCH B-2.2 14) SCH B-2.3 B 15) SCH B-2.3 F 16) SCH B-2.4 17) SCH B-2.5 18) SCH B-2.6 19) SCH B-2.7 20) SCH B-3 B 21) SCH B-3 F 22) SCH B-3.1 23) SCH B-3.2 B 24) SCH B-3.2 F 25) SCH B-4 26) SCH B-4.1 27) SCH B-4.2 B 28) SCH B-4.2 F 29) SCH B-5 30) SCH B-5.1 31) SCH B-5.2 B (1) 32) SCH B-5.2 B (2) 33) SCH B-5.2 F (1) 34) SCH B-5.2 F (2) 35) SCH B-6 36) SCH B-7 37) SCH B-7.1 38) SCH B-7.2 39) SCH B-8 TC 40) SCH B-8 G 41) DATA>>> 42) PIS B 43) FCPIS B 44) FC CWIP & RWIP B 45) PIS F 46) FCPIS F 47) FC CWIP & RWIP F 48) BS 49) BS G 50) IS G 51) IS TC 52) BS CWC 53) Lead Lag Days 54) INV 55) DEFTAX B 56) DEFTAX F 57) GLT DEFTAX 58) LGE Gas Depr Rates 59) LGE Common Depr Rates 60) LGE Gas Proposed Depr Rates 61) LGE Common Proposed Depr Rates	Provided in Application Tab 55
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Testimony Exhibits and Filing Requirement Schedules -- Electronic File Index for Attachments to PSC-1 Question No. 53

Christopher M. Garrett	Att-PSC1-53-File41	Att_LGE_PSC_1-53_Sch_C_and_D_Electric.xlsx	Schedules C and D for Electric	<ol style="list-style-type: none"> 1) SCH B-1 2) SCH H-1 3) SCH J-1 E 4) SCH J-1.1J-1.2 5) <<<IMPORT 6) Rate Case Constants 7) Index C 8) SCH C-1 9) SCH C-2 10) SCH C-2.1 B 11) SCH C-2.1 F 12) SCH C-2.2 B 13) SCH C-2.2 F 14) Index D 15) SCH D-1 16) SCH D-2 B 17) SCH D-2 F 18) SCH D-2.1 19) DATA>>> 20) Rider Adj B 21) Rider Adj F 22) IntSync 23) ProForma Adj F 24) IS E 25) IS T 26) Revenue 27) Rev-Tracker 28) DSM Expenses 29) ECR EXP B 30) ECR EXP F 31) Excess ADIT 32) OSS 33) TaxProvision_Elec B 34) TaxProvision_Elec F 35) WPH-1 Effective Tax Rate 	Provided in Application Tabs 56 and 57
	Att-PSC1-53-File42	Att_LGE_PSC_1-53_Sch_C_and_D_Gas.xlsx	Schedules C and D for Gas	<ol style="list-style-type: none"> 1) SCH B-1 2) SCH H-1 3) SCH J-1 G 4) SCH J-1.1J-1.2 5) <<<IMPORT 6) Rate Case Constants 7) Index C 8) SCH C-1 9) SCH C-2 10) SCH C-2.1 B 11) SCH C-2.1 F 12) SCH C-2.2 B 13) SCH C-2.2 F 14) Index D 15) SCH D-1 16) SCH D-2 B 17) SCH D-2 F 18) SCH D-2.1 19) DATA>>> 20) Rider Adj B 21) Rider Adj F 22) IntSync 23) ProForma Adj F 24) Gas Revenue 25) IS G 26) IS TC 27) GLT EXP 28) DSM EXP 29) TaxProvision_Gas B 30) TaxProvision_Gas F 31) WPH-1 Effective Tax Rate 	Provided in Application Tabs 56 and 57
	Att-PSC1-53-File43	Att_LGE_PSC_1-53_Sch_E_Electric.xlsx	Schedule E for Electric	<ol style="list-style-type: none"> 1) Rate Case Constants 2) Sch E Index 3) SCH E-1 4) SCH E-2 5) DATA>>> 6) Current Tax B 7) Deferred Tax B 8) Current Tax F 9) Deferred Tax F 	Provided in Application Tab 58
	Att-PSC1-53-File44	Att_LGE_PSC_1-53_Sch_E_Gas.xlsx	Schedule E for Gas	<ol style="list-style-type: none"> 1) Rate Case Constants 2) Sch E Index 3) SCH E-1 4) SCH E-2 5) DATA>>> 6) Current Tax B 7) Deferred Tax B 8) Current Tax F 9) Deferred Tax F 	Provided in Application Tab 58

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Testimony Exhibits and Filing Requirement Schedules -- Electronic File Index for Attachments to PSC-1 Question No. 53

Christopher M. Garrett	Att-PSC1-53-File45	Att_LGE_PSC_1-53_Sch_H.xlsx	Schedule H	1) Rate Case Constants 2) Index H 3) SCH H-1 4) DATA>>> 5) WPH-1 Effective Tax Rate	Provided in Application Tab 61
William Steven Seelye	Att-PSC1-53-File46	Att_LGE_PSC_1-53_ElecScheduleM_Base.xlsx	1) Schedule M-1.1-E - Base Period Revenues at Current Electric Rates 2) Schedule M-1.2-E - Average Bill at Current Electric Rates 3) Schedule M-1.3-E - Summary of Base Electric Revenues and Detailed Calculation of Base Period Electric Revenues	1) Sch M-1.1 2) Sch M-1.2 3) Sch M-1.3 (1), Sch M-1.3 (2), and Sch M-1.3 (3)	Provided in Application Tab 66
	Att-PSC1-53-File47	Att_LGE_PSC_1-53_ElecScheduleM_Forecasted.xlsx	1) Schedule M-2.1-E - Forecast Period Revenues at Current and Proposed Electric Rates 2) Schedule M-2.2-E - Average Bill Comparison at Current and Proposed Electric Rates 3) Schedule M-2.3-E - Summary of Proposed Electric Revenue Increase and Calculation of Proposed Electric Rate Increase	1) Sch M-2.1 2) Sch M-2.2 3) Sch M-2.3 (1), Sch M-2.3 (2), and Sch M-2.3 (3)	Provided in Application Tab 66
	Att-PSC1-53-File48	Att_LGE_PSC_1-53_GasScheduleM_Base.xlsx	1) Schedule M-1.1-G - Base Period Revenues at Current Gas Rates 2) Schedule M-1.2-G - Average Bill at Current Gas Rates 3) Schedule M-1.3-G - Summary of Base Gas Revenues and Detailed Calculation of Base Period Gas Revenues	1) Sch M-1.1-G 2) Sch M-1.2-G 3) Sch M-1.3 Pg.1 and Sch M-1.3 Pg. 2-11	Provided in Application Tab 66
	Att-PSC1-53-File49	Att_LGE_PSC_1-53_GasScheduleM_Forecasted.xlsx	1) Schedule M-2.1-G - Forecast Period Revenues at Current and Proposed Gas Rates 2) Schedule M-2.2-G - Average Bill Comparison at Current and Proposed Gas Rates 3) Schedule M-2.3-G - Summary of Proposed Gas Revenue Increase and Calculation of Proposed Gas Rate Increase	1) Sch M-2.1-G 2) Sch M-2.2-G 3) Sch M-2.3 Pg.1 and Sch M-2.3 Pg. 2-11	Provided in Application Tab 66

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KENTUCKY UTILITIES COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00294

Question No. 93

Responding Witness: Christopher M. Garrett

Q-93. Reference FR 16(8)(f), Sch. F-1.

- h. For the Base Period category, fully identify each vendor falling into the "Various Vendors" and "Other Non-Specific KU Dues" categories, as to both recoverable and not recoverable dues.
- i. For both the base and forecasted periods, fully identify all vendors falling in the "Other Non-Specific KU Dues" category.
- j. Confirm whether Electric Power Research Institute (EPRI) engages in any one or all of the covered activities. If confirmed as to any one or more of such covered activities, provide the amount of KU dues that EPRI applies to the covered activities, both in dollar terms and percentages of total dues.
- k. Confirm that Hunton & Williams, LLP has a lobbying arm/affiliate. Identify the amount of KU dues this organization applies toward covered activities, both in terms of dollars and percentages of total dues.
- l. Explain whether North American Transmission Forum engages in covered activities. If so, identify the amount of KU dues this organization applies toward covered activities, both in terms of dollars and percentages of total dues.
- m. Explain whether Steptoe & Johnson LLC engages in covered activities. If so, identify the amount of KU dues this organization applies toward covered activities, both in terms of dollars and percentages of total dues.
- n. Confirm that the Utility Air Regulatory Group (UAR) engages in covered activities. Identify the amount of KU dues that UAR applies toward covered activities, both in terms of dollars and percentages of total dues.
- o. Confirm that the Utility Water Act Group (UWAG) engages in covered activities. Identify the amount of KU dues that UWAG applies toward covered activities, both in terms of dollars and percentages of total dues.

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- p. Explain whether the Midwest Ozone Group (MOG) engages in covered activities. If so, identify the amount of KU dues MOG applies toward covered activities, both in terms of dollars and percentages of total dues.
- q. Explain whether the Utility Solid Waste Activities Group (USWAG) engages in covered activities. If so, identify the amount of KU dues that USWAG applies toward covered activities, both in terms of dollars and percentages of total dues.

A-93.

- h. See attached the breakdown of vendors falling into “Various Vendors” for both recoverable and not recoverable dues. As indicated in FR 16(8)(f), Sch. F-1, portions of the Base Period Recoverable and Non-Recoverable Dues are not completed in specific vendor detail.
- i. As indicated in FR 16(8)(f), Sch. F-1, portions of the Forecasted Period Recoverable and Non-Recoverable Dues are not completed in specific vendor detail.
- j. Electric Power Research Institute (EPRI) does not engage in any covered activities.
- k. Coal Combustion Residuals (CCR) Legal Resources Group and New Source Review (NSR) Legal Resources Group are billed through Hunton & Williams, LLP. Both groups are not engaged in covered activities.
- l. North American Transmission Forum does not engage in covered activities.
- m. Steptoe & Johnson LLC is an agent of Midwest Ozone Group that engages in covered activities.
- n. Utility Air Regulatory Group (UARG) engages in covered activities.
- o. Utility Water Act Group (UWAG) engages in covered activities.
- p. Midwest Ozone Group (MOG) engages in covered activities.
- q. Utility Solid Waste Activities Group (USWAG) engages in covered activities.

Breakdown of "Various Vendors" - Recoverable

Vendor Name	Employee Dues
BOSTON COLLEGE	2,650.00
THE INSTITUTE OF INTERNAL AUDITORS	2,274.30
LOUISVILLE BAR ASSOCIATION	1,367.40
BETTER BUSINESS BUREAU	1,330.00
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION	1,232.92
INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)	1,117.12
INDUSTRIAL ASSET MANAGEMENT COUNCIL, INC	1,052.80
WEATHERBELL ANALYTICS	970.80
ATD (ASSOCIATION OF TALENT DEVELOPMENT)	965.70
ENERGY AND MINERAL LAW	928.40
WSI CORPORATION	900.00
PROJECT MANAGEMENT INSTITUTE (PMI)	877.01
AICPA	596.85
SOS INT'L LLC	518.50
SURVEY SITE	510.00
AMERICAN BAR ASSOCIATION	495.02
INFORMATION SYSTEMS SECURITY	468.00
CCIM INSTITUTE	392.00
INSTITUTE OF MANAGEMENT ACCOUNTANTS	379.30
THE LAW CLUB	318.00
UOFL DELPHI CTR	314.40
STATE OF INDIANA	311.72
KENTUCKIANA USERS COUNCIL	300.00
THE VIRGINIA BAR ASSOCIATION	300.00
SUBSTANCE ABUSE PROGRAM ADMINISTRATORS ASSOCIATION (SAPAA)	275.00
PROFESSIONAL ENGINEERING LICENSE RENEWAL	271.50
AMERICAN BIOGAS COUNCIL	259.68
PAYROLL PROFESSIONALS OF KENTUCKIANA	250.00
AIR & WASTE MANAGEMENT ASSOCIATION	249.60
INTERNATIONAL ENERGY CREDIT ASSOCIATION (IECA)	244.00
ISACA	232.80
CGMA & AICPA	228.25
ENERGY BAR ASSOCIATION	227.90
THE WALL STREET JOURNAL	222.40
AMERICAN PAYROLL ASSOCIATION	219.00
SOCIETY OF HUMAN RESOURCE MANAGEMENT	191.50
NBMBA	175.00
INTERNATIONAL RIGHT OF WAY ASSOCIATION	145.60
KY ASSOCIATION OF PROFESSIONAL SURVEYORS	143.00
INDIANA CPA SOCIETY, INC.	140.45
CLE CENTER	131.97
WOMEN IN DIGITAL PROFESSIONAL ORGANIZATION	129.60
LEADERSHIP LOUISVILLE	129.50
FOREFLIGHT	129.31
ASSOCIATION OF ENERGY ENGINEERS (AEE ENERGY)	124.80
ASSOCIATION OF ENERGY ENGINEERS	124.80
CPA LICENSE RENEWAL	122.26
TAX EXECUTIVES INSTITUTE	119.25
SANS INSTITUTE	113.15
INSTITUTE OF SUPPLY MANAGEMENT	105.00
NFPA NATL FIRE PROTECT	105.00
ACFE	103.35

Breakdown of "Various Vendors" - Recoverable

Vendor Name	Employee Dues
APICS	90.00
ASSOCIATION FOR THE ADVANCEMENT OF ARTIFICIAL INTELLIGENCE	89.90
ARMA (RECORD MANAGEMENT SOCIETY)	87.50
AEMRICAN SOCIETY OF SAFETY ENGINEERS	82.61
FORENSIC CPA SOCIETY	79.50
UTILITY SAFETY & OPS LEADERSHIP NETWORKS (USOLN)	72.50
ISC2 (CYBERSECURITY AND IT SECURITY PROFESSIONAL ORGANIZATION)	72.00
AMERICAN SOCIETY OF MECHANICAL ENGINEERS	71.92
DOWNTOWN HENDERSON PARTNERSHIP	70.40
INDIANA STATE BOARD OF PROFESSIONAL ENGINEERS	64.40
CITY OF EARLINGTON	63.43
SOCIETY OF WOMEN ENGINEERS	57.95
PVA OF JEFFERSON COUNTY	56.00
NSPE (NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS)	52.80
PUBLIC RELATIONS SOCIETY OF AMERICA	50.40
CERTIFIED INFORMATION SYSTEMS SECURITY PROFESSIONAL (CISSP)	40.80
KENTUCKY SOCIETY OF PROFESSIONAL ENGINEERS	34.72
AXOSOFT	25.97
KENTUCKIANA CHAPTER OF PROJECT MANAGEMENT INSTITUTE (PMI)	23.04
KENTUCKY STATE TREASURER	14.85
KENTUCKY STATE BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND LAN	12.00
KY ASSOCIATION OF MAPPING PROFESSIONALS	10.75
ASSOCIATED PRESS STYLEBOOK	8.96
AMAZON	(15.89)
Total Employee Dues	<u>26,700.42</u>

Vendor Name	Company Dues
KENTUCKY CLEAN FUELS COALITION	1,590.00
URBAN LEAGUE OF GREATER CINCINNATI	1,250.00
HUMAN RESOURCE CERTIFICATION PREPARTION (HRCF) MEMBERSHIP	847.50
NATIONAL ELECTRICAL MANUFACTURING ASSOCIATION (NEMA)	806.40
INDIANA COAL COUNCIL INC	702.00
WORLD TRADE CENTER	640.00
BELL COUNTY CHAMBER OF COMMERCE	450.00
FLEMING COUNTY CHAMBER OF COMMERCE	350.00
MIDCONTINENT INDEPENDENT SYSTEM OPERATOR INC	333.33
MAYSVILLE MASON COUNTY CHAMBER OF COMMERCE	250.00
INTERNATIONAL AVAYA USERS GROUP	192.00
INTERNATIONAL ASSOCIATION OF IT ASSET MANAGERS	175.20
PLURALSIGHT	143.52
SURVEY MONKEY	133.56
INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT	102.40
CINCINNATI COAL EXCHANGE	91.00
PROJECT MANAGEMENT INSTITUTE (PMI)	76.32
ASCAP	65.71
THE ELEARNING GUILD	47.52
NEXMO LTD	30.79
Total Company Dues	<u>8,277.25</u>
Total Employee and Company Dues	<u><u>34,977.67</u></u>

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Breakdown of "Various Vendors" - Non-Recoverable

Vendor Name	Amount
AMERICAN BAR ASSOCIATION	317.35
ANDERSON CO CHAMBER OF COMMERCE	200.00
CAMPBELLSVILLE MAIN STREET INC.	125.00
COMMERCE LEXINGTON INC.	3,496.95
DANVILLE BOYLE COUNTY	1,087.00
ENERGY AND MINERAL LAW FOUNDATION	242.00
GARRARD COUNTY CHAMBER OF COMMERCE	150.00
GEORGETOWN/SCOTT COUNTY CHAMBER OF COMMERCE	625.00
GREATER LOUISVILLE INC.	440.00
GREATER MUHLENBERG CHAMBER OF COMMERCE	1,512.00
GREENSBURG GREEN COUNTY CHAMBER OF COMMERCE	200.00
HENRY COUNTY CHAMBER OF COMMERCE INC.	120.00
INDIANA COAL COUNCIL INC.	78.00
LOUISVILLE BAR ASSOCIATION	385.00
OWEN COUNTY CHAMBER OF COMMERCE	500.00
RICHMOND CHAMBER OF COMMERCE	544.50
ROCKCASTLE COUNTY CHAMBER OF COMMERCE	400.00
SPENCER COUNTY TAYLORSVILLE CHAMBER OF COMMERCE INC.	150.00
THE BUSINESS JOURNALS	72.87
THE ECONOMIST NEWSPAPER	83.60
UNION COUNTY FIRST	500.00
AMERICAN GO ASSOCIATION (USGO)	275.00
Total	<u><u>11,504.27</u></u>

Response to Questions No. 93
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Garrett

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018

Case No. 2018-00295

Question No. 93

Responding Witness: Christopher M. Garrett

Q-93. Reference FR 16(8)(f), Sch. F-1.

- h. For the Base Period category, fully identify each vendor falling into the "Various Vendors" and "Other Non-Specific LG&E Dues" categories, as to both recoverable and not recoverable dues.
- i. For both the base and forecasted periods, fully identify all vendors falling in the "Other Non-Specific LG&E Dues" category.
- j. Confirm whether Electric Power Research Institute (EPRI) engages in any one or all of the covered activities. If confirmed as to any one or more of such covered activities, provide the amount of LG&E dues that EPRI applies to the covered activities, both in dollar terms and percentages of total dues.
- k. Confirm that Hunton & Williams, LLP has a lobbying arm/affiliate. Identify the amount of LG&E dues this organization applies toward covered activities, both in terms of dollars and percentages of total dues.
- l. Explain whether North American Transmission Forum engages in covered activities. If so, identify the amount of LG&E dues this organization applies toward covered activities, both in terms of dollars and percentages of total dues.
- m. Explain whether Steptoe & Johnson LLC engages in covered activities. If so, identify the amount of LG&E dues this organization applies toward covered activities, both in terms of dollars and percentages of total dues.
- n. Confirm that the Utility Air Regulatory Group (UAR) engages in covered activities. Identify the amount of LG&E dues that UAR applies toward covered activities, both in terms of dollars and percentages of total dues.
- o. Confirm that the Utility Water Act Group (UWAG) engages in covered activities. Identify the amount of LG&E dues that UWAG applies toward covered activities, both in terms of dollars and percentages of total dues.

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Garrett

- p. Explain whether the Midwest Ozone Group (MOG) engages in covered activities. If so, identify the amount of LG&E dues MOG applies toward covered activities, both in terms of dollars and percentages of total dues.
 - q. Explain whether the Utility Solid Waste Activities Group (USWAG) engages in covered activities. If so, identify the amount of LG&E dues that USWAG applies toward covered activities, both in terms of dollars and percentages of total dues.
 - r. Confirm that the American Gas Association (“AGA”) engages in covered activities. Identify the amount of LG&E dues that AGA applies toward covered activities, both in terms of dollars and percentages of total dues.
- A-93.
- h. See attached the breakdown of vendors falling into “Various Vendors” for both recoverable and not recoverable dues. As indicated in FR 16(8)(f), Sch. F-1, portions of the Base Period Recoverable and Non-Recoverable Dues are not completed in specific vendor detail.
 - i. As indicated in FR 16(8)(f), Sch. F-1, portions of the Forecasted Period Recoverable and Non-Recoverable Dues are not completed in specific vendor detail.
 - j. Electric Power Research Institute (EPRI) does not engage in any covered activities.
 - k. Coal Combustion Residuals (CCR) Legal Resources Group and New Source Review (NSR) Legal Resources Group are billed through Hunton & Williams, LLP. Both groups are not engaged in covered activities.
 - l. North American Transmission Forum does not engage in covered activities.
 - m. Steptoe & Johnson LLC is an agent of Midwest Ozone Group that engages in covered activities.
 - n. Utility Air Regulatory Group (UARG) engages in covered activities.
 - o. Utility Water Act Group (UWAG) engages in covered activities.
 - p. Midwest Ozone Group (MOG) engages in covered activities.
 - q. Utility Solid Waste Activities Group (USWAG) engages in covered activities.
 - r. American Gas Association (“AGA”) engages in covered activities. For the year 2018, 3.1% of AGA dues or \$6,552 are non-recoverable.

Breakdown of "Various Vendors" - Recoverable

Vendor Name	Employee Dues
BOSTON COLLEGE	2,300.00
THE INSTITUTE OF INTERNAL AUDITORS	2,221.86
NACE INTERNATIONAL INSTITUTE	1,880.00
LOUISVILLE BAR ASSOCIATION	1,186.80
INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)	1,044.38
PROJECT MANAGEMENT INSTITUTE (PMI)	824.32
ENERGY AND MINERAL LAW	818.40
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION	779.58
TANDEM SOLUTION	668.80
HODGENVILLE ROTARY CLUB	660.71
WEATHERBELL ANALYTICS	629.20
WSI CORPORATION	600.00
INDUSTRIAL ASSET MANAGEMENT COUNCIL, INC	592.20
SURVEY SITE	510.00
INFORMATION SYSTEMS SECURITY	507.00
KENTUCKY STATE BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS	458.00
AMERICAN BAR ASSOCIATION	429.64
UOFL DELPHI CTR	340.60
AMERICAN BIOGAS COUNCIL	340.32
NSPE (NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS)	338.20
INSTITUTE OF MANAGEMENT ACCOUNTANTS	335.80
AICPA	334.00
SOS INT'L LLC	331.50
PROFESSIONAL ENGINEERING LICENSE RENEWAL	328.50
CCIM INSTITUTE	308.00
KENTUCKIANA USERS COUNCIL	300.00
THE LAW CLUB	276.00
SUBSTANCE ABUSE PROGRAM ADMINISTRATORS ASSOCIATION (SAPAA)	275.00
ISACA	252.20
PAYROLL PROFESSIONALS OF KENTUCKIANA	250.00
PUBLIC RELATIONS SOCIETY OF AMERICA	231.00
AMERICAN PAYROLL ASSOCIATION	219.00
LEADERSHIP LOUISVILLE	219.00
STATE OF INDIANA	199.30
ENERGY BAR ASSOCIATION	197.80
THE WALL STREET JOURNAL	193.03
SOCIETY OF HUMAN RESOURCE MANAGEMENT	191.50
CGMA & AICPA	186.75
NBMBAA	175.00
INTERNATIONAL ENERGY CREDIT ASSOCIATION (IECA)	156.00
AIR & WASTE MANAGEMENT ASSOCIATION	140.40
ASSOCIATION OF ENERGY ENGINEERS	140.40
SANS INSTITUTE	122.57
AMERICAN SOCIETY OF SAFETY ENGINEERS	122.39
INDIANA CPA SOCIETY, INC.	121.90
CLE CENTER	114.54
ATD (ASSOCIATION OF TALENT DEVELOPMENT)	114.50
INTERNATIONAL RIGHT OF WAY ASSOCIATION	114.40
WOMEN IN DIGITAL PROFESSIONAL ORGANIZATION	110.40
CPA LICENSE RENEWAL	106.11
INSTITUTE OF SUPPLY MANAGEMENT	105.00
TAX EXECUTIVES INSTITUTE	103.50
KENTUCKIANA CHAPTER OF PMI	92.04
KY ASSOCIATION OF MAPPING PROFESSIONALS	91.25
APICS	90.00

Breakdown of "Various Vendors" - Recoverable

Vendor Name	Employee Dues
ACFE	89.70
ARMA (RECORD MANAGEMENT SOCIETY)	87.50
FOREFLIGHT	82.68
ISC2 (CYBERSECURITY AND IT SECURITY PROFESSIONAL ORGANIZATION)	78.00
UTILITY SAFETY & OPS LEADERSHIP NETWORKS (USOLN)	72.50
NFPA NATL FIRE PROTECT	70.00
FORENSIC CPA SOCIETY	69.00
ASSOCIATION FOR THE ADVANCEMENT OF ARTIFICIAL INTELLIGENCE	55.10
CERTIFIED INFORMATION SYSTEMS SECURITY PROFESSIONAL (CISSP)	44.20
AMERICAN SOCIETY OF MECHANICAL ENGINEERS	44.08
PVA OF JEFFERSON COUNTY	44.00
INDIANA STATE BOARD OF PROFESSIONAL ENGINEERS	41.17
DOWNTOWN HENDERSON PARTNERSHIP	39.60
SOCIETY OF WOMEN ENGINEERS	37.05
AXOSOFT	22.54
KENTUCKY SOCIETY OF PROFESSIONAL ENGINEERS	21.28
KENTUCKY STATE TREASURER	13.40
ASSOCIATED PRESS STYLEBOOK	7.04
AMAZON	(13.80)
Total Employee Dues	24,683.83

Vendor Name	Company Dues
UNIVERSITY OF MISSOURI	4,500.00
PJM INTERCONNECTION LLC	3,962.33
CENTER FOR ENERGY WORKFORCE DEVELOPMENT	2,083.34
KENTUCKY CLEAN FUELS COALITION	1,380.00
URBAN LEAGUE OF GREATER CINCINNATI	1,250.00
HUMAN RESOURCE CERTIFICATION PREPARATION (HRCP) MEMBERSHIP	847.50
INDIANA COAL COUNCIL INC	648.00
NATIONAL ELECTRICAL MANUFACTURING ASSOCIATION (NEMA)	633.60
WORLD TRADE CENTER	360.00
MIDCONTINENT INDEPENDENT SYSTEM OPERATOR INC	333.33
INTERNATIONAL AVAYA USERS GROUP	208.00
INTERNATIONAL ASSOCIATION OF IT ASSET MANAGERS	189.80
PLURALSIGHT	155.48
LOUISVILLE CHAPTER OF KSPE	150.00
SURVEY MONKEY	118.44
CINCINNATI COAL EXCHANGE	84.00
PROJECT MANAGEMENT INSTITUTE (PMI)	82.68
INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT	57.60
ASCAP	57.04
THE ELEARNING GUILD	51.48
THE WALL STREET JOURNAL	41.33
NEXMO LTD	33.36
KENTUCKY STATE TREASURER	2.48
Total Company Dues	17,229.79
Total Company and Employee Dues	41,913.62

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Garrett

Breakdown of "Various Vendors" - Non-Recoverable

Vendor Name	Amount
BULLITT COUNTY CHAMBER OF COMMERCE	1,000.00
CARROLL COUNTY CHAMBER OF COMMERCE	80.00
COMMERCE LEXINGTON	22.05
ENERGY & MINERAL LAW FOUNDATION	198.00
GREATER LOUISVILLE INC.	360.00
INDIANA COAL COUNCIL INC.	72.00
LOUISVILLE BAR ASSOCIATION	315.00
OLDHAM COUNTY CHAMBER OF COMMERCE	300.00
ROTARY CLUB OF LOUISVILLE	850.00
SHELBY COUNTY CHAMBER OF COMMERCE	719.40
THE ECONOMIST NEWSPAPER	68.40
AMERICAN GO ASSOCIATION (USGO)	225.00
Total	<u>4,209.85</u>

KENTUCKY UTILITIES COMPANY

Response to Attorney General's Initial Data Requests for Information Dated November 13, 2018

Case No. 2018-00294

Question No. 59

Responding Witness: William Steven Seelye

Q-59. Schedule B-5.1 reports the inclusion of Fuel Stock, Gas Stored Underground, Materials and Supplies, and Prepayments under Other Working Capital Allowances on Schedule B-1. Have the test period operating expenses associated with these items been removed from cash working capital determined under the lead-lag method on Schedule B-5.2?

- a. If the response is in the affirmative, explain why there are lagged expenses related to Fuel, Non-Fuel Commodities, Purchased Power, and Purchased Gas in cash working capital, as computed under the lead-lag method.
- b. If the response is in the negative,
 - i. Explain why not removing the related expense from cash working capital under the lead-lag method does not lead to double counting in rate base?
 - ii. Provide the related expense reflected in each lagged item on Schedule B-5.2 for the forecast test year.

A-59. No.

- a. Not applicable.
- b.
 - i. Removing these expense items from the analysis of expense leads would increase cash working capital. For example, for coal expenditures the expense lead was determined as the difference between the time the coal is recorded in inventory and when the payment for the coal clears the Company's bank account. This difference results in positive expense lead days, which reduces cash working capital. Schedule B-5.1 includes inventory and prepayment amounts for which the Company incurs carrying costs until expensed in connection with providing service to customers. Therefore, there is no double counting in rate base because the cash working capital determined from the expense lead calculation in the lead/lag study

and the prepayment or inventory items included in rate base measure two different and off-setting timing differences.

- ii. Fuel and gas expenses are separately identified on Schedule B-5.2. Information is not readily available to determine the expense amounts attributable to Prepayments and Materials and Supplies.

Response to Question No. 59

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LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Attorney General's Initial Data Requests for Information
Dated November 13, 2018**

Case No. 2018-00295

Question No. 59

Responding Witness: William Steven Seelye

Q-59. Schedule B-5.1 reports the inclusion of Fuel Stock, Gas Stored Underground, Materials and Supplies, and Prepayments under Other Working Capital Allowances on Schedule B-1. Have the test period operating expenses associated with these items been removed from cash working capital determined under the lead-lag method on Schedule B-5.2?

- a. If the response is in the affirmative, explain why there are lagged expenses related to Fuel, Non-Fuel Commodities, Purchased Power, and Purchased Gas in cash working capital, as computed under the lead-lag method.
- b. If the response is in the negative,
 - i. Explain why not removing the related expense from cash working capital under the lead-lag method does not lead to double counting in rate base?
 - ii. Provide the related expense reflected in each lagged item on Schedule B-5.2 for the forecast test year.

A-59. No.

- a. Not applicable.
- b.
 - i. Removing these expense items from the analysis of expense leads would increase cash working capital. For example, for coal expenditures the expense lead was determined as the difference between the time the coal is recorded in inventory and when the payment for the coal clears the Company's bank account. This difference results in positive expense lead days, which reduces cash working capital. Schedule B-5.1 includes inventory and prepayment amounts for which the Company incurs carrying costs until expensed in connection with providing service to customers. Therefore, there is no double counting in rate base because the cash working capital determined from the expense lead calculation in the

Response to Question No. 59

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Seelye

lead/lag study and the prepayment or inventory items included in rate base measure two different and off-setting timing differences.

- ii. Fuel and gas expenses are separately identified on Schedule B-5.2. Information is not readily available to determine the expense amounts attributable to Prepayments and Materials and Supplies.

ACCOUNTING FOR PUBLIC UTILITIES

Volume 1

ROBERT L. HAHNE

GREGORY E. ALIFF
DELOITTE & TOUCHE LLP

Contributing Authors: The following were the original contributing authors of Accounting for Public Utilities. While much of what these individuals originally wrote has been removed or replaced through the annual update process, we wish to continue to recognize their contributions in the creation of this book.

FRANCIS J. ANDREWS, JR.
WILLIAM W. EYERS
JOHN S. FERGUSON
HERNAN GONZALEZ
JOHN D. MCCLELLAN
RICHARD W. MCCULLOUGH
JAMES E. MORRIS
RANDALL A. SNOWLING
JAN A. UMBAUGH

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QUESTIONS ABOUT THIS PUBLICATION?

For questions about the **Editorial Content** appearing in this volume or reprint permission, please call:
Christine Lee-Pao at (848) 702-4541
Email: christine.lee-pao@lexisnexis.com
Outside the United States and Canada, please call (973) 820-2000

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Editorial Office
230 Park Ave., 7th Floor, New York, NY 10169 (800) 543-6862
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MATTHEW  BENDER

CHAPTER 5

Working Capital Component of Rate Base

SYNOPSIS

- § 5.01 Fuel Inventory
- § 5.02 Materials and Supplies
- § 5.03 Prepayments
- § 5.04 Cash Working Capital
 - [1] 45-Day Standard Formula Approach
 - [2] Lead-Lag Study
 - [a] Revenue Lag
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 - [i] Operating and Maintenance Lag
 - [ii] Depreciation and Deferred Tax Lag
 - [iii] Current Income Tax Lag
 - [iv] Taxes Other Than Income Tax Lag
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 - [vi] Net Operating Income
 - [vii] Other Cash Working Capital Requirements in Lead-Lag Studies
 - [3] Balance Sheet Approach

The financial analyst's perspective of working capital reflects a measure of financial liquidity (i.e., the availability of cash on hand and other current assets that are readily convertible to cash that may be used to meet liabilities that must be paid in the current business cycle). This financial liquidity measure is based on a comparison of current assets to current liabilities at a point in time.

The ratemaking perspective of working capital is quite different. For ratemaking purposes, working capital is a measure of the amount of funding needed to satisfy the level of the daily operating expenditures and a variety of non-plant investments that are necessary to sustain ongoing operations of the utility. The ratemaking measure of working capital is designed to identify these ongoing average funding requirements over a test period.

Regulatory commissions vary as to the identification of individual components of working capital; however, in general, the components are:

- (1) fuel inventory;
- (2) materials and supplies (M&S);
- (3) prepayments; and

(4) cash working capital.

These components are discussed in the sections below.

§ 5.01 Fuel Inventory

Determination of the fuel inventory component of working capital often parallels the method used for determining the plant investment component of rate base. For example, average balances during the year may be used in the case of an average-year rate base, and year-end balances may be used in the case of a year-end rate base. If the monthly balances are volatile, however, an average balance may be used in either situation. Also, the balance may be based on historic data or on forecasted data, depending on the test period.

On occasion, some regulatory commissions restrict the level of fuel inventory to a set number of days of supply. As an example, a commission may conclude that the level of coal inventory should be limited to 75 days of supply even though the actual quantity is 90 days of supply. Such a restriction would be made only if the commission concludes the additional inventory supply is an imprudent management decision. Levels of fuel inventory are affected by a variety of conditions, including purchase contracts, economic dispatch of generating plants, weather, transportation conditions, and a host of other factors. The investment in these fuel inventories is most often substantial. Recently, coal inventory levels have significantly exceeded historical inventory levels for many utilities. This is primarily due to the purchase requirements under long-term coal purchase contracts that were entered into years ago prior to the sustained decrease in the price of natural gas.

A commission should have to be absolutely convinced that a lower level of fuel inventory could be maintained without affecting the assured supply of fuel before it reduces the amounts allowed in the rate base from that which is actually maintained. A disallowance would almost certainly force the utility to lower its level of fuel inventory. If such a reduction is not consistent with sound operating conditions, the regulatory decision is contrary to the public's interest.

At the other end of the spectrum, some argue that the anticipated quantities of fuel stocks needed during the period the rates will be in effect should be allowed in the rate base. This position is theoretically valid on the basis that rates should be designed to recover costs as incurred (including the cost of financing fuel inventory). An even better theoretical measure would be to value the anticipated inventory level at a projected price throughout the period that the rates are anticipated to be in effect.

§ 5.02 Materials and Supplies

A 13-month average of materials and supplies is used if the balances are volatile, and forecasted amounts are typically used when the test period is based on projected data. One issue raised by regulatory commissions from time to time in the determination of materials and supplies inventory to be included in working capital is to request that M&S inventories be segregated into the portion to be used for construction and the portion to be used for operations. It is argued that M&S inventory to be used for construction is similar to construction work in progress (CWIP) and,

where CWIP investment is not allowed to earn a current return, M&S inventory for construction activities should also not be allowed to earn a current return. The problem with this approach is the potential loss of the utility's ability to recover the carrying costs on the construction related M&S inventories. It is generally recognized that any dollar of investment should earn either a current return through inclusion in the rate base or that the financing cost of the investment should be allowed to be capitalized for future recovery through allowance for funds used during construction (AFUDC). However, if a regulatory commission disallows the materials and supply investment in construction-related materials, the commission should specifically prescribe that the financing costs of such investment be capitalized. Implementation of such a policy would be unduly burdensome, however, because it would require applying the carrying cost to the many individual supply items that may end up in construction or in operation. In addition, accounting problems exist because the controlling uniform system of accounts does not permit the capitalization of inventory carrying costs. Also, accounting principles generally accepted in the United States of America do not permit the capitalization of any equity component of inventory carrying costs. From a practical and theoretical standpoint, all M&S inventory, including the construction-related items, should be included in the rate base.

§ 5.03 Prepayments

Prepayments as a component of working capital represent an investment of funds that is generally included in the rate base if that investment has not been recognized elsewhere, such as in cash working capital. Prepayments represent cash payments that are made in advance of the period to which they apply and include items such as prepaid rents, insurance, and taxes. The amounts normally allowed are based on the same standards outlined above for fuel inventories and M&S inventories.

From a theoretical standpoint, the average measurement period should encompass more than a single test year review, since certain prepayments (such as prepayments for insurance coverage) often are made for periods in excess of one year. Therefore, one approach would be to measure the prepaid balances over whatever the longest cycle of any individual component of the prepayment item. In a period of continuing inflation or price increases, it is inequitable to make such a measurement based solely on prior years. Thus, prepayments are best measured by averaging the amount of prepayments over the period that rates will be in effect. For a three-year prepayment period, for example, it would seem to be a fair measurement of the average investment required for prepaid expenses to use the most recent historical year as well as the test year and one year into the future.

§ 5.04 Cash Working Capital

The determination of cash working capital can be one of the most controversial elements in ratemaking. Even though cash working capital generally represents a small portion of the total investment in the rate base, on occasion, it can consume a significant portion of the hearing time in a regulatory proceeding.

One of the first problems in determining cash working capital is to agree on its definition. Many practitioners consider that cash working capital represents the