

ATTACHMENT 3

Escalation Rate and Estimated Cost at Decommissioning

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

DIRECT TESTIMONY OF

JAMES P. GILLIGAN

**ON BEHALF OF
KANSAS CITY POWER & LIGHT COMPANY
KANSAS GAS AND ELECTRIC COMPANY
AND
KANSAS ELECTRIC POWER COOPERATIVE, INC.**

**IN THE MATTER OF THE 2017
WOLF CREEK TRIENNIAL DECOMMISSIONING
FINANCING PLAN.**

DOCKET NO. 18-WCNE-XXX-GIE

1 **Q: Please state your name and business address.**

2 A: My name is James P. Gilligan. My business address is 1200 Main Street, Kansas City,
3 Missouri 64105.

4 **Q: By whom and in what capacity are you employed?**

5 A: I am employed by Kansas City Power & Light Company (“KCP&L”) as Assistant
6 Treasurer.

7 **Q: What are your responsibilities?**

8 A: My responsibilities include all cash management and corporate finance functions of
9 KCP&L and its related companies. I am also President of the committee responsible for
10 the administration and investment management oversight of KCP&L’s Nuclear
11 Decommissioning Trust Fund.

1 **Q: Please describe your education, experience and employment history.**

2 A: I graduated Cum Laude in December 1977 from the University of Missouri – Columbia
3 where I received a bachelor degree in business administration with an emphasis in
4 marketing. I also received a Master of Business Administration degree with an emphasis
5 in finance from the University of Missouri – Columbia in May 1982. I hold the
6 professional designations of Certified Treasury Professional (CTP) and Certified
7 Corporate Financial Planning & Analysis Professional (FP&A). I joined KCP&L as a
8 Financial Planner in June 1982, was later named Supervisor, Credit & Collection in
9 January 1984; Manager, Credit & Collection in January 1985; and then Manager,
10 Treasury Operations in January 1991. In 1995 I transferred to KCP&L’s unregulated
11 business subsidiary named KLT Inc. and was named Treasurer in 1997. I returned to
12 KCP&L in the year 2000 as Manager, Treasury Management, later promoted to Senior
13 Manager – Corporate Treasury and then named Assistant Treasurer of KCP&L in 2012.

14 **Q: Have you previously testified in a proceeding at the State Corporation Commission**
15 **for the State of Kansas (“KCC” or “Commission”) or before any other utility**
16 **regulatory agency?**

17 A: No.

18 **Q: What is the purpose of your testimony?**

19 A: The purpose of my testimony is to recommend a rate of inflation appropriate for
20 estimating the escalation of costs associated with decommissioning a nuclear facility like
21 the Wolf Creek Nuclear Generating Station (“Wolf Creek”). A study prepared by TLG
22 Services, Inc. (“TLG”) in June 2017 included a cost estimate for the decommissioning of
23 Wolf Creek in current year dollars, *i.e.*, 2017 dollars. The annual inflation rate I am

1 recommending escalates the 2017 cost estimate prepared by TLG to the equivalent cost in
2 the year 2045, when the Wolf Creek operating license will expire and decommissioning
3 costs should begin.

4 **Q: On whose behalf are you presenting this testimony?**

5 A: I am presenting this testimony on behalf of the three co-owners of Wolf Creek, including
6 KCP&L, Kansas Gas and Electric Company d/b/a Westar Energy (“Westar”), and Kansas
7 Electric Power Cooperative, Inc. (“KEPCo”).

8 **I. RECOMMENDED RATE OF INFLATION**

9 **Q: What is the current dollar decommissioning cost estimate for Wolf Creek and what**
10 **is the basis for the cost estimate?**

11 A: The current decommissioning cost estimate for Wolf Creek is \$812,317,000 in 2017
12 dollars. This cost estimate is based on a study performed by TLG dated June 2017. TLG
13 is a recognized industry leader in nuclear decommissioning cost analysis. The
14 \$812,317,000 cost estimate is based on the DECON alternative as defined by the United
15 States Nuclear Regulatory Commission (“NRC”), which assumes that any contaminated
16 or activated portion of the nuclear plant’s systems, structures and facilities are removed
17 or decontaminated to levels that permit the site to be released for unrestricted use shortly
18 after the cessation of plant operations. The TLG study is included as part of the Wolf
19 Creek Decommissioning Finance Plan filed in compliance with the Commission’s Order
20 in Docket No. 15-WCNE-093-GIE.

1 **Q: What is the assumed timing of the future decommissioning costs?**

2 A: Wolf Creek’s operating license expires on March 11, 2045. The 2017 TLG Wolf Creek
3 decommissioning study includes a schedule of decommissioning costs beginning in 2045
4 and continuing through 2053.

5 **Q: What is the decommissioning cost escalation rate that you are recommending?**

6 A: I am recommending a cost escalation rate of 2.91% per year to escalate the 2017
7 decommissioning cost estimate of \$812,317,000 from 2017 dollars to the appropriate
8 year dollars for when the decommissioning costs are expected to occur.

9 **Q: What index or formula was the basis for your recommended cost escalation rate?**

10 A: There are a number of indices often used to measure changes in prices or inflation, such
11 as the Consumer Price Index (“CPI”) and the Gross Domestic Product (“GDP”) Deflator.
12 There are no indices that specifically measure inflation in nuclear decommissioning costs.
13 The TLG Wolf Creek decommissioning cost study identified five main cost elements that
14 comprised their estimate (labor cost, equipment & material cost, energy cost, burial cost,
15 and other cost). I then developed a formula to estimate the cost escalation rate for
16 nuclear decommissioning costs using an index appropriate for each of the individual cost
17 elements of TLG’s estimate and weighting those indices by the percentage contribution
18 of each element to the total estimated cost.

19 **Q: Please describe the allocation of cost used in the formula.**

20 A: The TLG decommissioning cost estimate included the following allocation of cost
21 elements:

22	\$472,693,000	Labor Cost	(58.2%)
23	\$131,047,000	Equipment & Materials Cost	(16.1%)

1	\$ 14,431,000	Energy Cost	(1.8%)
2	\$ 94,948,000	Burial Cost	(11.7%)
3	\$ 99,198,000	Other Costs	(12.2%)

4 In addition, the Energy Cost escalation was a weighted average of two sub-components:
5 Industrial Electric Power at 58% of total energy cost and Light Fuel Oil at 42% of total
6 energy cost.

7 **Q: What is the source for the indices used for each cost component of your**
8 **formula?**

9 A: I utilized a long range forecast published by Moody’s Analytics as the source for the cost
10 escalation estimates for each of the cost components of the formula except for burial
11 costs. Moody’s Analytics is a well-known and respected source of economic forecasts,
12 and its website at www.economy.com contains projections for numerous indices included
13 in the formula. The Moody’s Analytics forecast includes projections for future years
14 through 2044. I utilized the compound annual growth rate from 2017 to 2044 as a proxy
15 for the growth rate from 2017 through the decommissioning period. For Labor Cost, I
16 used the Employment Cost Index (“ECI”) for total compensation—all civilians and all
17 workers. For the electricity component of the Energy Cost, I used the Producer Price
18 Index (“PPI”) for electric power—total. For the fuel oil component of the Energy Cost, I
19 used the PPI for No. 2 fuel oil. For the Equipment & Materials Cost, I used the PPI for
20 all commodities. For the Other Cost, I used the Consumer Price Index (“CPI”) for urban
21 customers - all items.

1 **Q: How did you estimate the burial cost escalation rate?**

2 A: The Moody's Analytics forecast does not include a projection of burial costs. However,
3 the NRC, in their periodically revised *NUREG-1307* report, provides escalation factors
4 for the waste burial/disposition cost element. *NUREG-1307 (Revisions 11 and 16)*
5 contain indices for historical burial costs at the Washington and South Carolina low-level
6 waste storage sites. While neither of these storage sites currently accept low-level waste
7 from generators that are not located in the Northwest, Rocky Mountain, Atlantic or Texas
8 Compact states, the historical burial cost indices for these sites can serve as reasonable
9 proxies for future burial cost escalation at other potential future low-level waste storage
10 sites.

11 **Q: Please describe the results of your analysis for the cost escalation formula.**

12 A: For all of the cost components except burial cost, I calculated the geometric mean of the
13 Moody's Analytics projections for years 2017 through 2044 as shown in attached
14 Schedule JPG-1 and used these geometric means in the formula. For the burial
15 component I calculated the geometric means for years 1995 through 2016
16 (PWR/Compact/Direct Disposal) for the Washington and South Carolina sites,
17 respectively, as shown in attached Schedule JPG-2 and averaged the geometric means for
18 the two sites. The results for the various components of the formula are:

19	Labor Cost	2.8%
20	Equipment & Material Cost	1.8%
21	Energy Cost:	
22	Electricity	2.7%
23	Fuel Oil	2.5%

1	Burial Cost	5.7%
2	Other Costs	2.3%

3 The resulting nuclear decommissioning cost escalation estimate calculated by weighting
4 the figures by the allocation of the costs is 2.91%. The calculation is shown below and in
5 attached Schedule JPG-3:

6 Escalation rate = $[58.2\% * 2.8\%] + [16.1\% * 1.8\%] + [1.8\% * ((58\% * 2.7\%) + (42\% * 2.5\%))] +$
7 $[11.7\% * 5.7\%] + [12.2\% * 2.3\%]$

8 Escalation rate = 1.63% + 0.29% + 0.05% + 0.67% + 0.28%

9 Escalation rate = 2.91%

10 **Q: Does your proposed methodology for determining an escalation rate for Wolf Creek**
11 **decommissioning costs differ from the methodology proposed in the Wolf Creek**
12 **Decommissioning Cost Study case in 2014?**

13 A: No.

14 **Q: Does that conclude your testimony?**

15 A: Yes, it does.

Mnemonic:	FXPPIFU7302.US	FXPPIFU4.US	FECICCQ.US	FCPIU.US	FXPPI000000.US
Description:	PPI: No. 2 Fuel Oil, (Index 1982=100, NSA)	PPI: Electric Power - Total, (Index 1982=100, NSA)	ECI: Total Compensation - All Civilian - All Workers, (Index Dec2005=100, SA)	CPI: Urban Consumer - All Items, (Index 1982-84=100, SA)	PPI: All Commodities, (Index 1982=100, NSA)
Source:	U.S. Bureau of Labor Statistics (BLS); Moody's Analytics Forecasted	U.S. Bureau of Labor Statistics (BLS); Moody's Analytics Forecasted	U.S. Bureau of Labor Statistics (BLS); Moody's Analytics Forecasted	U.S. Bureau of Labor Statistics (BLS); Moody's Analytics Forecasted	U.S. Bureau of Labor Statistics (BLS); Moody's Analytics Forecasted
Native Frequency:	QUARTERLY	QUARTERLY	QUARTERLY	QUARTERLY	QUARTERLY
Geography:	United States	United States	United States	United States	United States
GeoCode:	US	US	US	US	US
Begin Date:	03/31/1975	03/31/1958	03/31/1982	03/31/1947	03/31/1913
Last Updated:	05/08/2017	05/08/2017	05/08/2017	05/08/2017	05/08/2017
Historical End Date:	03/31/17	03/31/17	03/31/17	03/31/17	03/31/17
2017Q1	156.10	205.80	129.00	244.12	191.00
2017Q2	162.11	211.09	129.79	245.59	192.79
2017Q3	159.20	219.53	130.68	246.91	193.48
2017Q4	165.08	210.87	131.57	248.25	194.69
2018Q1	164.69	212.33	132.48	249.74	196.25
2018Q2	171.13	218.28	133.45	251.37	197.69
2018Q3	170.21	227.31	134.48	253.11	198.80
2018Q4	176.88	218.49	135.56	254.96	200.12
2019Q1	175.19	220.09	136.66	256.83	201.81
2019Q2	180.59	226.43	137.79	258.71	203.35
2019Q3	178.23	235.88	138.94	260.56	204.36
2019Q4	183.52	226.79	140.08	262.34	205.52
2020Q1	180.81	228.34	141.19	264.06	206.90
2020Q2	185.49	234.62	142.26	265.77	208.12
2020Q3	182.20	243.97	143.27	267.46	208.77
2020Q4	187.04	234.14	144.23	269.11	209.65
2021Q1	183.92	235.28	145.15	270.72	210.89
2021Q2	188.57	241.38	146.04	272.28	212.10
2021Q3	185.38	250.75	146.94	273.81	212.81
2021Q4	190.35	240.55	147.84	275.31	213.70
2022Q1	187.28	241.67	148.76	276.84	214.98
2022Q2	192.31	247.92	149.70	278.39	216.23
2022Q3	189.36	257.55	150.67	279.97	216.96
2022Q4	194.47	247.15	151.65	281.55	217.88
2023Q1	191.33	248.42	152.65	283.15	219.18
2023Q2	196.24	254.99	153.68	284.76	220.43
2023Q3	192.93	265.02	154.73	286.39	221.14
2023Q4	197.91	254.43	155.80	288.02	222.01
2024Q1	194.45	255.74	156.89	289.66	223.26
2024Q2	199.31	262.40	158.00	291.32	224.42
2024Q3	195.87	272.56	159.14	292.97	225.07
2024Q4	200.95	261.47	160.29	294.61	225.92
2025Q1	197.59	262.60	161.45	296.26	227.17
2025Q2	202.72	269.25	162.63	297.92	228.39
2025Q3	199.41	279.52	163.83	299.59	229.07
2025Q4	204.79	268.04	165.05	301.26	229.96
2026Q1	201.48	269.16	166.29	302.95	231.28
2026Q2	206.80	275.98	167.55	304.67	232.55
2026Q3	203.50	286.54	168.83	306.42	233.27
2026Q4	209.12	274.79	170.12	308.17	234.18
2027Q1	205.80	275.96	171.43	309.95	235.51
2027Q2	211.28	282.97	172.76	311.75	236.80
2027Q3	207.97	293.79	174.09	313.58	237.53
2027Q4	213.81	281.75	175.43	315.41	238.46
2028Q1	210.49	282.98	176.77	317.26	239.82
2028Q2	216.21	290.21	178.12	319.13	241.13
2028Q3	212.90	301.37	179.48	321.00	241.88
2028Q4	218.85	289.11	180.84	322.88	242.81
2029Q1	215.48	290.42	182.20	324.76	244.17
2029Q2	221.32	297.87	183.56	326.65	245.49
2029Q3	217.91	309.33	184.92	328.55	246.24
2029Q4	223.99	296.74	186.29	330.44	247.15

2030Q1	220.49	298.06	187.65	332.33	248.54
2030Q2	226.39	305.66	189.01	334.24	249.88
2030Q3	222.80	317.37	190.38	336.14	250.64
2030Q4	229.01	304.41	191.76	338.04	251.57
2031Q1	225.43	305.72	193.14	339.95	252.99
2031Q2	231.53	313.49	194.53	341.87	254.38
2031Q3	227.90	325.49	195.93	343.80	255.15
2031Q4	234.24	312.19	197.35	345.73	256.09
2032Q1	230.57	313.55	198.77	347.68	257.52
2032Q2	236.74	321.52	200.20	349.64	258.89
2032Q3	232.97	333.82	201.64	351.62	259.68
2032Q4	239.39	320.16	203.08	353.62	260.65
2033Q1	235.65	321.54	204.53	355.62	262.11
2033Q2	241.93	329.71	205.98	357.63	263.53
2033Q3	238.12	342.34	207.44	359.65	264.34
2033Q4	244.71	328.34	208.91	361.67	265.31
2034Q1	240.82	329.78	210.37	363.71	266.81
2034Q2	247.23	338.18	211.84	365.77	268.24
2034Q3	243.30	351.16	213.31	367.84	269.07
2034Q4	250.06	336.79	214.79	369.92	270.05
2035Q1	246.16	338.26	216.27	372.01	271.57
2035Q2	252.77	346.89	217.75	374.11	273.03
2035Q3	248.77	360.22	219.24	376.23	273.85
2035Q4	255.66	345.46	220.73	378.36	274.84
2036Q1	251.62	346.97	222.23	380.51	276.35
2036Q2	258.28	355.82	223.73	382.67	277.81
2036Q3	254.20	369.49	225.25	384.85	278.64
2036Q4	261.25	354.29	226.76	387.04	279.62
2037Q1	257.13	355.80	228.29	389.24	281.14
2037Q2	264.01	364.87	229.82	391.45	282.62
2037Q3	259.92	378.88	231.36	393.68	283.45
2037Q4	267.12	363.28	232.90	395.92	284.43
2038Q1	262.95	364.84	234.45	398.18	285.96
2038Q2	269.95	374.15	236.00	400.44	287.41
2038Q3	265.68	388.54	237.57	402.71	288.21
2038Q4	273.10	372.53	239.15	405.00	289.17
2039Q1	268.86	374.14	240.73	407.31	290.69
2039Q2	276.08	383.70	242.33	409.64	292.13
2039Q3	271.77	398.48	243.93	411.99	292.93
2039Q4	279.40	382.06	245.53	414.35	293.86
2040Q1	275.13	383.72	247.15	416.75	295.33
2040Q2	282.56	393.55	248.78	419.15	296.75
2040Q3	278.12	408.73	250.43	421.57	297.51
2040Q4	286.04	391.90	252.10	424.01	298.41
2041Q1	281.65	393.63	253.78	426.47	299.87
2041Q2	289.18	403.73	255.47	428.95	301.24
2041Q3	284.58	419.32	257.16	431.44	301.96
2041Q4	292.68	402.05	258.86	433.93	302.82
2042Q1	288.23	403.81	260.57	436.42	304.24
2042Q2	295.94	414.15	262.28	438.92	305.60
2042Q3	291.22	430.11	264.01	441.47	306.26
2042Q4	299.54	412.36	265.75	444.01	307.07
2043Q1	295.04	414.13	267.51	446.58	308.48
2043Q2	303.00	424.70	269.29	449.17	309.81
2043Q3	298.20	441.06	271.08	451.79	310.42
2043Q4	306.68	422.86	272.89	454.40	311.14
2044Q1	302.02	424.67	274.72	457.04	312.50

2017-2044	2.5%	2.7%	2.8%	2.3%	1.8%
	PPI: No. 2 Fuel Oil	PPI: Electric Power - Total	ECI: Total Compensation - All Civilian - All Workers	CPI: Urban Consumer - All Items	PPI: All Commodities

Year	Bx Values for Washington Site (U.S. Ecology)				Bx Values for South Carolina Site (Barnwell)							
	Direct Disposal		Direct Disposal with Vendors		Atlantic Compact				Non-Atlantic Compact			
	PWR	BWR	PWR	BWR	Direct Disposal		Direct Disposal with Vendors		Direct Disposal		Direct Disposal with Vendors	
	PWR	BWR	PWR	BWR	PWR	BWR	PWR	BWR	PWR	BWR	PWR	BWR
2016	8.706				30.061							
2012	7.335				30.581							
2010	8.035				27.292							
2008	8.283				25.231							
2006	6.829				22.933							
2004	5.374				19.500							
2002	3.634				17.922							
2000	2.223				17.922							
1998	3.165				15.886							
1997	3.112				15.852							
1996	2.845				12.771							
1995	2.015				12.824							

Geometric Means

2012	2016	4.4%				-0.4%							
2008	2016	0.6%				2.2%							
2006	2016	2.5%				2.7%							
2004	2016	4.1%				3.7%							
2002	2016	6.4%				3.8%							
2000	2016	8.9%				3.3%							
1998	2016	5.8%				3.6%							
1997	2016	5.6%				3.4%							
1996	2016	5.8%				4.4%							
1995	2016	7.2%				4.1%							

Averages

2.0%
1.4%
2.6%
3.9%
5.1%
6.1%
4.7%
4.5%
5.1%
5.7%

Average 5.7%

Sources

- NRC, NUREG-1307, Revision 11, June 2005
- NRC, NUREG-1307, Revision 14, November 2010
- NRC, NUREG-1307, Revision 15, January 2013
- NRC, NUREG-1307, Revision 16, March 2017

	Total Cost (\$000)	Allocations	Escalation Rate	Weighted Rate	Escalation Description (Source)
Labor	\$472,693	58.2%	2.8%	1.63%	ECl: Total Compensation - All Civilian, All Workers (Moody's Analytics)
Equipment & Material	\$131,047	16.1%	1.8%	0.29%	PPI: All Commodities (Moody's Analytics)
Energy	\$14,431	1.8%			
Electricity (Px)		58%	2.7%	0.03%	PPI: Electric Power - Total (Moody's Analytics)
Fuel Oil (Fx)		42%	2.5%	0.02%	PPI: No. 2 Fuel Oil (Moody's Analytics)
		<u>100%</u>			
Burial	\$94,948	11.7%	5.7%	0.67%	Average of 1995-2016 geometric means for PWR direct disposal at Barnwell S.C. and Washington State sites (NRC, NUREG-1307, Revisions 11, 14-16)
Other	\$99,198	12.2%	2.3%	0.28%	CPI: Urban Consumer - All Items (Moody's Analytics)
Total	<u>\$812,317</u>	<u>100.0%</u>		<u>2.91%</u>	

Allocation Source:

Wolf Creek Decommissioning Cost Analysis, June 2017, Section 3, Page 21 of 32

Estimated Cost at Decommissioning (KGE Response)

In support of K.S.A. 66-128m (b)(6):

1. The amount of money which customers of each owner have been charged for decommissioning up to the date of submission of the plan; and
2. The total amount necessary to meet the projected decommissioning costs of the facility, over the remaining useful life of the facility.

Response

1. In accordance with the Kansas Corporation Commission's December 9, 1992 Order in Docket No. 163-561-U¹, Wolf Creek and its owners are required to file a decommissioning cost study every three years. Once a cost estimate is approved by the Commission, KGE recalculates the funding level necessary to fully fund its share of the decommissioning of Wolf Creek based on the current estimate of decommissioning costs and other appropriate assumptions concerning investment mix, return on investment and inflation. Afterwards, KGE files its funding plan for financing its share of decommissioning. After review and consideration of the evidence in the record, the Kansas Corporation Commission determines the annual contribution amounts and the amount of decommissioning costs to be included in the Company's cost of service for ratemaking purposes.

Given the lag between the time the annual contributions are set by the KCC and when the revised contribution amounts are included in the Company's cost of service, the amount of money which customers have been charged for decommissioning is not readily determinable. Presumably, the amount that customers have been charged would approximate the amount contributed by KGE to the KGE Wolf Creek Generating Station Nuclear Decommissioning Trust (NDT). The attached Exhibit shows the timing and the amounts contributed to the KGE NDT since inception. To date, KGE has contributed \$96.5 million; \$94.0 million of which is Kansas-jurisdictional and \$2.5 million, FERC-jurisdictional.

2. Based on the decommissioning cost analysis for the Wolf Creek Generating Station prepared by TLG Services, Inc. in June 2017, the estimated cost to decommission the Wolf Creek nuclear unit assuming immediate dismantlement and site restoration (the DECON alternative), is \$813.7 million in 2017 dollars. KGE's 47% share of these costs equals \$382.5 million. Based on the proposed annual escalation rate of 2.91%, the total amount necessary to meet KGE's share of the projected decommissioning costs of the facility over the remaining useful life of the facility is \$931.7 million.

¹ Docket No. 163,561-U is also referred to by its more modern classification, Docket No. 89-WCNE-140-GIE.

WOLF CREEK DECOMMISSIONING COSTS
EXTERNAL TRUST FUND
Review of 2017 Cost Estimate

	in 2017 \$	In 2045 \$
TOTAL COST DECON method	\$813,733,000	\$1,816,745,605
KGE'S SHARE OF TOTAL COST	\$382,454,510	\$853,870,434

PAYMENT GROWTH AMOUNT	\$0
GROWTH RATE FOR COSTS (INFLATION)	2.91%
# OF PERIODS FOR ANALYSIS	28
# OF PERIODS - 1	27
PERIOD OF PAYMENTS	MID YEAR
DECOMMISSIONING PERIOD IN YEARS	9

YEAR	Current Forecast of Expenditures	Future \$ at 100%	Future \$ KGE's 47%
1 2045	\$72,188,000	\$161,167,400	\$75,748,678
2 2046	147,398,000	338,658,015	159,169,267
3 2047	164,016,000	387,805,141	182,268,416
4 2048	133,436,000	324,681,795	152,600,444
5 2049	103,125,000	258,229,862	121,368,035
6 2050	93,516,000	240,982,776	113,261,905
7 2051	48,499,000	128,614,651	60,448,886
8 2052	31,959,000	87,218,461	40,992,677
9 2053	19,596,000	55,035,162	25,866,526
TOTALS	\$813,733,000	\$1,982,393,263	\$931,724,834

Kansas Gas and Electric Co. Wolf Creek Generating Station Nuclear Decommissioning Trust
 NDT Quarterly Contributions

<u>Contribution Date</u>	<u>Contribution</u>	<u>Contribution</u>	<u>FERC</u>	<u>Kansas</u>	<u>Total Contribution</u>
	<u>Year</u>	<u>Quarter</u>	<u>Jurisdictional</u>	<u>Jurisdictional</u>	
			<u>Amount</u>	<u>Amounts</u>	<u>Amount</u>
7/31/1986	1986	Q2	\$14,587.50	\$620,668.50	\$635,256.00
11/7/1986	1986	Q3	4,862.50	206,889.50	211,752.00
1/28/1987	1986	Q4	4,862.50	226,002.50	230,865.00
4/27/1987	1987	Q1	4,862.50	226,002.50	230,865.00
7/24/1987	1987	Q2	4,862.50	230,002.50	234,865.00
10/28/1987	1987	Q3	4,862.50	141,617.50	146,480.00
3/8/1988	1987	Q4	4,862.50	197,625.25	202,487.75
4/28/1988	1988	Q1	4,862.50	202,000.50	206,863.00
7/25/1988	1988	Q2	4,862.50	201,999.50	206,862.00
10/24/1988	1988	Q3	4,862.50	202,000.50	206,863.00
1/23/1989	1988	Q4	4,862.50	201,999.50	206,862.00
4/24/1989	1989	Q1	4,862.50	202,000.50	206,863.00
7/26/1989	1989	Q2	4,862.50	201,999.50	206,862.00
10/23/1989	1989	Q3	4,862.50	202,000.50	206,863.00
1/31/1990	1989	Q4	4,862.50	202,000.50	206,863.00
4/24/1990	1990	Q1	4,862.50	202,000.50	206,863.00
7/24/1990	1990	Q2	4,862.50	202,000.50	206,863.00
10/26/1990	1990	Q3	4,862.50	202,000.50	206,863.00
1/24/1991	1990	Q4	4,862.50	202,000.50	206,863.00
4/22/1991	1991	Q1	4,862.50	202,000.50	206,863.00
7/23/1991	1991	Q2	4,862.50	201,999.50	206,862.00
10/21/1991	1991	Q3	4,862.50	202,000.50	206,863.00
1/23/1992	1991	Q4	4,862.50	202,000.50	206,863.00
4/28/1992	1992	Q1	4,862.50	810,887.50	815,750.00
7/23/1992	1992	Q2	4,862.50	810,887.50	815,750.00
10/29/1992	1992	Q3	4,862.50	810,887.50	815,750.00
1/20/1993	1992	Q4	4,862.50	762,467.50	767,330.00
4/16/1993	1993	Q1	4,862.50	862,685.00	867,547.50
7/14/1993	1993	Q2	4,862.50	862,685.00	867,547.50
10/12/1993	1993	Q3	4,862.50	862,685.00	867,547.50
1/19/1994	1993	Q4	4,862.50	862,685.00	867,547.50
4/1/1994	1994	Q1	4,862.50	878,660.75	883,523.25
7/1/1994	1994	Q2	4,862.50	878,660.75	883,523.25
10/1/1994	1994	Q3	4,862.50	878,660.75	883,523.25
1/1/1995	1994	Q4	4,862.50	878,660.75	883,523.25
4/1/1995	1995	Q1	4,862.50	894,636.25	899,498.75
7/1/1995	1995	Q2	4,862.50	894,636.25	899,498.75
10/1/1995	1995	Q3	4,862.50	894,636.25	899,498.75
1/1/1996	1995	Q4	4,862.50	894,636.25	899,498.75
4/1/1996	1996	Q1	4,862.50	910,612.00	915,474.50
7/1/1996	1996	Q2	4,862.50	910,612.00	915,474.50
10/1/1996	1996	Q3	4,862.50	910,612.00	915,474.50
1/1/1997	1996	Q4	4,862.50	910,612.00	915,474.50
4/1/1997	1997	Q1	4,862.50	926,587.50	931,450.00
7/1/1997	1997	Q2	4,862.50	926,587.50	931,450.00
10/6/1997	1997	Q3	4,862.50	926,587.50	931,450.00
1/5/1998	1997	Q4	4,862.50	926,587.50	931,450.00
4/1/1998	1998	Q1	4,862.50	942,563.25	947,425.75
7/1/1998	1998	Q2	4,862.50	942,563.25	947,425.75
10/1/1998	1998	Q3	4,862.50	976,378.50	981,241.00

Kansas Gas and Electric Co. Wolf Creek Generating Station Nuclear Decommissioning Trust
 NDT Quarterly Contributions

<u>Contribution Date</u>	<u>Contribution</u>	<u>Contribution</u>	<u>FERC</u>	<u>Kansas</u>	<u>Total Contribution</u>
	<u>Year</u>	<u>Quarter</u>	<u>Jurisdictional</u>	<u>Jurisdictional</u>	
			<u>Amount</u>	<u>Amounts</u>	<u>Amount</u>
1/4/1999	1998	Q4	4,862.50	953,835.00	958,697.50
4/1/1999	1999	Q1	4,862.50	970,001.75	974,864.25
7/1/1999	1999	Q2	4,862.50	970,001.75	974,864.25
10/1/1999	1999	Q3	4,862.50	970,001.75	974,864.25
1/3/2000	1999	Q4	4,862.50	970,001.75	974,864.25
4/8/2000	2000	Q1	4,862.50	986,168.50	991,031.00
7/5/2000	2000	Q2	4,862.50	986,168.50	991,031.00
10/2/2000	2000	Q3	4,862.50	986,168.50	991,031.00
1/2/2001	2000	Q4	4,862.50	986,168.50	991,031.00
4/2/2001	2001	Q1	4,862.50	1,002,335.25	1,007,197.75
7/2/2001	2001	Q2	4,862.50	1,002,335.25	1,007,197.75
10/1/2001	2001	Q3	4,862.50	1,002,335.25	1,007,197.75
1/2/2002	2001	Q4	4,862.50	1,002,335.25	1,007,197.75
4/1/2002	2002	Q1	0.00	1,018,502.00	1,018,502.00
7/1/2002	2002	Q2	0.00	1,018,502.00	1,018,502.00
10/1/2002	2002	Q3	11,729.50	949,689.50	961,419.00
1/2/2003	2002	Q4	11,729.50	835,523.50	847,253.00
4/1/2003	2003	Q1	5,864.75	955,554.25	961,419.00
7/1/2003	2003	Q2	5,864.75	955,554.25	961,419.00
10/1/2003	2003	Q3	5,864.75	955,554.25	961,419.00
1/2/2004	2003	Q4	5,864.75	955,554.25	961,419.00
4/1/2004	2004	Q1	5,864.75	955,554.25	961,419.00
7/1/2004	2004	Q2	5,864.75	955,554.25	961,419.00
10/1/2004	2004	Q3	5,864.75	955,554.25	961,419.00
1/3/2005	2004	Q4	5,864.75	974,548.25	980,413.00
4/1/2005	2005	Q1	5,864.75	960,302.75	966,167.50
7/1/2005	2005	Q2	5,864.75	960,302.75	966,167.50
10/3/2005	2005	Q3	5,864.75	960,302.75	966,167.50
1/3/2006	2005	Q4	5,864.75	960,302.75	966,167.50
4/3/2006	2006	Q1	5,864.75	960,302.75	966,167.50
7/3/2006	2006	Q2	5,864.75	960,302.75	966,167.50
10/2/2006	2006	Q3	5,864.75	960,302.75	966,167.50
1/2/2007	2006	Q4	5,864.75	960,302.75	966,167.50
4/2/2007	2007	Q1	5,864.75	717,794.00	723,658.75
7/2/2007	2007	Q2	5,864.75	717,794.00	723,658.75
10/1/2007	2007	Q3	5,864.75	717,794.00	723,658.75
1/2/2008	2007	Q4	5,864.75	717,794.00	723,658.75
4/1/2008	2008	Q1	5,864.75	717,794.00	723,658.75
7/1/2008	2008	Q2	5,864.75	717,794.00	723,658.75
9/1/2008	2008	Q3	5,864.75	717,794.00	723,658.75
1/2/2009	2008	Q4	5,864.75	717,794.00	723,658.75
4/1/2009	2009	Q1	5,864.75	717,794.00	723,658.75
7/1/2009	2009	Q2	5,864.75	717,794.00	723,658.75
10/1/2009	2009	Q3	43,955.99	679,702.76	723,658.75
1/4/2010	2009	Q4	43,955.99	679,702.76	723,658.75
4/1/2010	2010	Q1	43,955.99	743,561.51	787,517.50
7/1/2010	2010	Q2	43,955.99	743,561.51	787,517.50
10/1/2010	2010	Q3	45,842.14	741,675.36	787,517.50
1/4/2011	2010	Q4	45,842.14	741,675.36	787,517.50
4/1/2011	2011	Q1	45,842.14	741,675.36	787,517.50

Kansas Gas and Electric Co. Wolf Creek Generating Station Nuclear Decommissioning Trust
 NDT Quarterly Contributions

<u>Contribution Date</u>	<u>Contribution</u>	<u>Contribution</u>	<u>FERC</u>	<u>Kansas</u>	<u>Total Contribution</u>
	<u>Year</u>	<u>Quarter</u>	<u>Jurisdictional</u>	<u>Jurisdictional</u>	
			<u>Amount</u>	<u>Amounts</u>	<u>Amount</u>
7/1/2011	2011	Q2	45,842.14	741,675.36	787,517.50
10/3/2011	2011	Q3	70,758.75	716,758.75	787,517.50
1/3/2012	2011	Q4	70,758.75	716,758.75	787,517.50
4/2/2012	2012	Q1	70,758.75	716,758.75	787,517.50
7/2/2012	2012	Q2	70,758.75	716,758.75	787,517.50
10/1/2012	2012	Q3	74,608.24	712,909.26	787,517.50
1/2/2013	2012	Q4	74,608.24	712,909.26	787,517.50
4/1/2013	2013	Q1	74,608.24	616,012.51	690,620.75
7/1/2013	2013	Q2	74,608.24	616,012.51	690,620.75
10/1/2013	2013	Q3	70,134.68	620,486.07	690,620.75
1/2/2014	2013	Q4	70,134.68	620,486.07	690,620.75
4/1/2014	2014	Q1	70,134.68	620,486.07	690,620.75
7/1/2014	2014	Q2	70,134.68	620,486.07	690,620.75
10/1/2014	2014	Q3	76,099.56	614,521.19	690,620.75
1/2/2015	2014	Q4	76,099.56	614,521.19	690,620.75
4/1/2015	2015	Q1	76,099.56	614,521.19	690,620.75
7/1/2015	2015	Q2	76,099.56	614,521.19	690,620.75
10/1/2015	2015	Q3	41,015.64	649,605.11	690,620.75
1/4/2016	2015	Q4	41,015.64	649,605.11	690,620.75
4/1/2016	2016	Q1	41,015.64	1,402,159.36	1,443,175.00
7/1/2016	2016	Q2	41,015.64	1,402,159.36	1,443,175.00
10/3/2016	2016	Q3	79,490.25	1,363,684.75	1,443,175.00
1/2/2017	2016	Q4	79,490.25	1,363,684.75	1,443,175.00
4/3/2017	2017	Q1	79,490.25	1,363,684.75	1,443,175.00
7/1/2017	2017	Q2	79,490.25	1,363,684.75	1,443,175.00
			<u>\$2,499,626.00</u>	<u>\$94,000,442.75</u>	<u>\$96,500,068.75</u>

Estimated Cost at Decommissioning (KCP&L Response)

In support of K.S.A. 66-128m (b)(6):

1. The amount of money which customers of each owner have been charged for decommissioning up to the date of submission of the plan; and
2. The total amount necessary to meet the projected decommissioning costs of the facility, over the remaining useful life of the facility.

Response

1. The amount of money which customers have been charged for decommissioning up to this time is equal to the amount contributed by KCP&L to the KCP&L Wolf Creek Nuclear Decommissioning Trust (NDT). The attached Schedule A shows the timing and the amounts contributed to the KCP&L NDT since inception. To date, KCP&L has contributed \$93.5 million, \$41.3 million of which is Kansas-jurisdictional and \$52.2 million is Missouri-jurisdictional.
2. Based on the Decommissioning Cost Analysis for the Wolf Creek Generating Station prepared by TLG Services, Inc. in August 2017, the estimated cost to decommission the Wolf Creek nuclear unit assuming immediate dismantlement and site restoration (the DECON alternative), is \$813,733,000 in 2017 dollars. Based on the proposed annual escalation rate of 2.91%, the total amount necessary to decommission the facility is estimated to be \$1,982,393,263. KCP&L’s 47% share of these costs equals \$931,724,834, of which KCP&L’s Kansas-jurisdictional share is \$408,176,521.

DECOMMISSIONING COST ASSUMPTIONS

Decommissioning Cost Estimate in 2017 Dollars: \$813,733,000

Cost Escalation Rate: 2.91%; KCP&L Share: 47.00%; Weighted Allocation Factor: 43.81%

Note: Table columns will not foot due to rounding

Year	2017 Dollars Wolf Creek Decom Cost¹	Escalated Dollars Wolf Creek Decom Cost²	KCP&L Share of Decom Cost³	KCP&L Kansas Decom Cost⁴
2045	\$72,188,000	\$161,167,400	\$75,748,678	\$33,184,510
2046	\$147,398,000	\$338,658,015	\$159,169,267	\$69,729,984
2047	\$164,016,000	\$387,805,141	\$182,268,416	\$79,849,420
2048	\$133,436,000	\$324,681,795	\$152,600,444	\$66,852,268
2049	\$103,125,000	\$258,229,862	\$121,368,035	\$53,169,756
2050	\$93,516,000	\$240,982,776	\$113,261,905	\$49,618,566
2051	\$48,499,000	\$128,614,651	\$60,448,886	\$26,481,870
2052	\$31,959,000	\$87,218,461	\$40,992,677	\$17,958,358
2053	\$19,595,000	\$55,035,162	\$25,866,526	\$11,331,788
TOTAL	\$813,733,000	\$1,982,393,263	\$931,724,834	\$408,176,521

- ¹ Decommissioning Cost Estimate in 2017 Dollars
- ² Cost Estimate in 2017 Dollars escalated by Cost Escalation Rate
- ³ 47% of Escalated Dollars Decommissioning Cost
- ⁴ 43.81% of KCP&L Share of Decommissioning Cost

Schedule A

Kansas City Power & Light Company Wolf Creek Nuclear Decommissioning Trust Contributions

Contribution Date	Contribution Year	Missouri Jurisdictional Amount	Kansas Jurisdictional Amount	Total Contribution Amount
8/15/1986	1986	\$ 125,198.93	\$ 190,106.50	\$ 315,305.43
10/15/1986	1986	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
1/15/1987	1987	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
4/15/1987	1987	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
7/15/1987	1987	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
10/15/1987	1987	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
1/15/1988	1988	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
4/15/1988	1988	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
7/15/1988	1988	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
10/15/1988	1988	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
1/15/1989	1989	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
4/15/1989	1989	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
7/15/1989	1989	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
10/15/1989	1989	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
1/15/1990	1990	\$ 200,750.01	\$ 63,135.00	\$ 263,885.01
4/15/1990	1990	\$ 200,750.01	\$ 112,305.00	\$ 313,055.01
7/15/1990	1990	\$ 200,750.01	\$ 210,645.00	\$ 411,395.01
10/15/1990	1990	\$ 200,750.01	\$ 210,645.00	\$ 411,395.01
1/15/1991	1991	\$ 200,750.01	\$ 210,645.00	\$ 411,395.01
4/15/1991	1991	\$ 200,750.01	\$ 210,645.00	\$ 411,395.01
7/15/1991	1991	\$ 200,750.01	\$ 210,645.00	\$ 411,395.01
10/15/1991	1991	\$ 200,750.01	\$ 210,645.00	\$ 411,395.01
1/15/1992	1992	\$ 200,750.01	\$ 210,645.00	\$ 411,395.01
4/15/1992	1992	\$ 200,750.01	\$ 210,645.00	\$ 411,395.01
7/15/1992	1992	\$ 200,750.01	\$ 210,645.00	\$ 411,395.01
10/15/1992	1992	\$ 951,177.99	\$ 210,645.00	\$ 1,161,822.99
1/15/1993	1993	\$ 575,964.00	\$ 210,645.00	\$ 786,609.00
4/15/1993	1993	\$ 575,964.00	\$ 210,645.00	\$ 786,609.00
7/15/1993	1993	\$ 575,964.00	\$ 210,645.00	\$ 786,609.00
10/15/1993	1993	\$ 575,964.00	\$ 210,645.00	\$ 786,609.00
1/15/1994	1994	\$ 575,964.00	\$ 210,645.00	\$ 786,609.00
4/15/1994	1994	\$ 575,964.00	\$ 210,645.00	\$ 786,609.00
7/15/1994	1994	\$ 575,964.00	\$ 210,645.00	\$ 786,609.00
10/15/1994	1994	\$ 575,964.00	\$ 210,645.00	\$ 786,609.00
1/15/1995	1995	\$ 575,964.00	\$ 210,645.00	\$ 786,609.00
3/15/1995	1995	\$ -	\$ 52,420.00	\$ 52,420.00
4/15/1995	1995	\$ 575,964.00	\$ 223,750.00	\$ 799,714.00
7/15/1995	1995	\$ 575,964.00	\$ 223,750.00	\$ 799,714.00
10/15/1995	1995	\$ 575,964.00	\$ 223,750.00	\$ 799,714.00
1/15/1996	1996	\$ 575,964.00	\$ 223,750.00	\$ 799,714.00
4/15/1996	1996	\$ 575,964.00	\$ 223,750.00	\$ 799,714.00
7/15/1996	1996	\$ 575,964.00	\$ 223,750.00	\$ 799,714.00
9/15/1996	1996	\$ 575,964.00	\$ 223,750.00	\$ 799,714.00
1/15/1997	1997	\$ 575,964.00	\$ 223,750.00	\$ 799,714.00

Schedule A

4/15/1997	1997	\$	575,964.00	\$	250,022.25	\$	825,986.25
7/15/1997	1997	\$	575,964.00	\$	250,022.25	\$	825,986.25
10/15/1997	1997	\$	575,964.00	\$	250,022.25	\$	825,986.25
1/15/1998	1998	\$	575,964.00	\$	250,022.25	\$	825,986.25
4/15/1998	1998	\$	575,964.00	\$	250,022.25	\$	825,986.25
7/15/1998	1998	\$	575,964.00	\$	250,022.25	\$	825,986.25
10/15/1998	1998	\$	575,964.00	\$	250,022.25	\$	825,986.25
1/15/1999	1999	\$	575,964.00	\$	250,022.25	\$	825,986.25
4/15/1999	1999	\$	575,964.00	\$	250,022.25	\$	825,986.25
7/15/1999	1999	\$	575,964.00	\$	250,022.25	\$	825,986.25
10/15/1999	1999	\$	575,964.00	\$	250,022.25	\$	825,986.25
1/15/2000	2000	\$	575,964.00	\$	250,022.25	\$	825,986.25
4/15/2000	2000	\$	575,964.00	\$	279,379.00	\$	855,343.00
7/15/2000	2000	\$	575,964.00	\$	279,379.00	\$	855,343.00
10/15/2000	2000	\$	575,964.00	\$	279,379.00	\$	855,343.00
1/15/2001	2001	\$	575,964.00	\$	279,379.00	\$	855,343.00
4/15/2001	2001	\$	575,964.00	\$	279,379.00	\$	855,343.00
7/15/2001	2001	\$	575,964.00	\$	279,379.00	\$	855,343.00
10/15/2001	2001	\$	575,964.00	\$	279,379.00	\$	855,343.00
1/15/2002	2002	\$	575,964.00	\$	279,379.00	\$	855,343.00
4/15/2002	2002	\$	575,964.00	\$	279,379.00	\$	855,343.00
7/15/2002	2002	\$	575,964.00	\$	279,379.00	\$	855,343.00
10/15/2002	2002	\$	575,964.00	\$	279,379.00	\$	855,343.00
1/15/2003	2003	\$	575,964.00	\$	279,379.00	\$	855,343.00
4/15/2003	2003	\$	575,964.00	\$	312,183.00	\$	888,147.00
7/15/2003	2003	\$	575,964.00	\$	312,183.00	\$	888,147.00
10/15/2003	2003	\$	575,964.00	\$	312,183.00	\$	888,147.00
1/15/2004	2004	\$	575,964.00	\$	312,183.00	\$	888,147.00
4/15/2004	2004	\$	575,964.00	\$	312,183.00	\$	888,147.00
7/15/2004	2004	\$	575,964.00	\$	312,183.00	\$	888,147.00
10/15/2004	2004	\$	575,964.00	\$	312,183.00	\$	888,147.00
1/15/2005	2005	\$	575,964.00	\$	312,183.00	\$	888,147.00
4/15/2005	2005	\$	575,964.00	\$	312,183.00	\$	888,147.00
7/15/2005	2005	\$	575,964.00	\$	312,183.00	\$	888,147.00
10/15/2005	2005	\$	575,964.00	\$	312,183.00	\$	888,147.00
1/15/2006	2006	\$	575,964.00	\$	312,183.00	\$	888,147.00
4/15/2006	2006	\$	575,964.00	\$	348,838.75	\$	924,802.75
7/15/2006	2006	\$	575,964.00	\$	348,838.75	\$	924,802.75
10/15/2006	2006	\$	575,964.00	\$	348,838.75	\$	924,802.75
1/15/2007	2007	\$	575,964.00	\$	348,838.75	\$	924,802.75
4/15/2007	2007	\$	320,316.00	\$	598,115.00	\$	918,431.00
7/15/2007	2007	\$	320,316.00	\$	598,115.00	\$	918,431.00
10/15/2007	2007	\$	320,316.00	\$	598,115.00	\$	918,431.00
1/15/2008	2008	\$	320,316.00	\$	598,115.00	\$	918,431.00
4/15/2008	2008	\$	320,316.00	\$	598,115.00	\$	918,431.00
7/15/2008	2008	\$	320,316.00	\$	598,115.00	\$	918,431.00
10/15/2008	2008	\$	320,316.00	\$	598,115.00	\$	918,431.00
1/15/2009	2009	\$	320,316.00	\$	598,115.00	\$	918,431.00
4/15/2009	2009	\$	320,316.00	\$	598,115.00	\$	918,431.00
7/15/2009	2009	\$	320,316.00	\$	598,115.00	\$	918,431.00
10/15/2009	2009	\$	320,316.00	\$	598,115.00	\$	918,431.00
1/15/2010	2010	\$	320,316.00	\$	598,115.00	\$	918,431.00

Schedule A

4/15/2010	2010	\$	320,316.00	\$	598,115.00	\$	918,431.00
7/15/2010	2010	\$	320,316.00	\$	598,115.00	\$	918,431.00
11/15/2010	2010	\$	320,316.00	\$	598,115.00	\$	918,431.00
1/15/2011	2011	\$	320,316.00	\$	568,430.00	\$	888,746.00
4/15/2011	2011	\$	320,316.00	\$	509,057.50	\$	829,373.50
7/15/2011	2011	\$	320,316.00	\$	509,057.50	\$	829,373.50
10/15/2011	2011	\$	320,316.00	\$	509,057.50	\$	829,373.50
1/15/2012	2012	\$	320,316.00	\$	509,057.50	\$	829,373.50
4/15/2012	2012	\$	320,316.00	\$	509,057.50	\$	829,373.50
7/15/2012	2012	\$	320,316.00	\$	509,057.50	\$	829,373.50
10/15/2012	2012	\$	320,316.00	\$	509,057.50	\$	829,373.50
1/15/2013	2013	\$	320,316.00	\$	509,057.50	\$	829,373.50
4/15/2013	2013	\$	320,316.00	\$	509,057.50	\$	829,373.50
7/15/2013	2013	\$	320,316.00	\$	509,057.50	\$	829,373.50
10/15/2013	2013	\$	320,316.00	\$	509,057.50	\$	829,373.50
1/15/2014	2014	\$	320,316.00	\$	509,057.50	\$	829,373.50
4/15/2014	2014	\$	320,316.00	\$	509,057.50	\$	829,373.50
7/15/2014	2014	\$	320,316.00	\$	509,057.50	\$	829,373.50
10/15/2014	2014	\$	320,316.00	\$	509,057.50	\$	829,373.50
1/15/2015	2015	\$	320,316.00	\$	509,057.50	\$	829,373.50
4/15/2015	2015	\$	320,316.00	\$	509,057.50	\$	829,373.50
7/15/2015	2015	\$	320,316.00	\$	509,057.50	\$	829,373.50
10/15/2015	2015	\$	320,316.00	\$	509,057.50	\$	829,373.50
1/15/2016	2016	\$	320,316.00	\$	509,057.50	\$	829,373.50
4/15/2016	2016	\$	320,316.00	\$	509,057.50	\$	829,373.50
7/15/2016	2016	\$	320,316.00	\$	509,057.50	\$	829,373.50
10/15/2016	2016	\$	320,316.00	\$	509,057.50	\$	829,373.50
1/15/2017	2017	\$	320,316.00	\$	509,057.50	\$	829,373.50
4/15/2017	2017	\$	320,316.00	\$	509,057.50	\$	829,373.50
7/18/2017	2017	\$	320,316.00	\$	509,057.50	\$	829,373.50
Total Contributions		\$	52,177,597.16	\$	41,300,992.50	\$	93,478,589.66

Estimated Cost at Decommissioning (KEPCo Response)

In support of K.S.A. 66-128m (b)(6):

1. The amount of money which customers of each owner have been charged for decommissioning up to the date of submission of the plan; and
2. The total amount necessary to meet the projected decommission costs of the facility, over the remaining useful life of the facility.

Response

1. The amount of money which KEPCo's members have been charged for decommissioning up to this time equals the amount contributed by KEPCo to its Decommissioning Trust. The attached Schedule A shows the timing and amounts contributed to KEPCo's Decommissioning Trust since its inception. To date, KEPCo has contributed \$10,149,909.
2. Based on the Decommissioning Cost Analysis for the Wolf Creek Generation Station prepared by TLG Services, Inc in June, 2017, the estimated cost to decommission the Wolf Creek nuclear unit assuming immediate dismantlement and site restoration (the DECON alternative), is \$813,733,000 in 2017 dollars. Based on the proposed annual escalation rate of 2.91 percent, the total amount necessary to decommission the facility is estimated to be \$1,982,393,263. KEPCo's six percent share of these costs equals \$118,943,596. See attached Schedule B.

**Kansas Electric Power Cooperative, Inc.
 Wolf Creek Generating Station Nuclear Decommissioning Trust
 Nuclear Decommissioning Trust Contributions**

Contribution Date	Contribution Year	Contribution Quarter	Contribution Amount
9/30/1986	1986	Q3	53,000.00
12/31/1986	1986	Q4	53,000.00
3/31/1987	1987	Q1	26,500.00
6/30/1987	1987	Q2	26,500.00
9/30/1987	1987	Q3	26,500.00
12/31/1987	1987	Q4	26,500.00
3/31/1988	1988	Q1	26,500.00
6/30/1988	1988	Q2	26,500.00
9/30/1988	1988	Q3	26,500.00
12/31/1988	1988	Q4	26,500.00
3/31/1989	1989	Q1	26,500.00
6/30/1989	1989	Q2	26,500.00
9/30/1989	1989	Q3	26,500.00
12/31/1989	1989	Q4	26,500.00
3/31/1990	1990	Q1	59,450.00
6/30/1990	1990	Q2	59,450.00
9/30/1990	1990	Q3	59,450.00
12/31/1990	1990	Q4	59,450.00
3/31/1991	1991	Q1	59,450.00
6/30/1991	1991	Q2	59,450.00
9/30/1991	1991	Q3	59,450.00
12/31/1991	1991	Q4	59,450.00
3/31/1992	1992	Q1	59,450.00
6/30/1992	1992	Q2	59,450.00
9/30/1992	1992	Q3	59,450.00
12/31/1992	1992	Q4	59,450.00
3/31/1993	1993	Q1	66,584.00
6/30/1993	1993	Q2	66,584.00
9/30/1993	1993	Q3	66,584.00
12/31/1993	1993	Q4	66,584.00
3/31/1994	1994	Q1	66,584.00
6/30/1994	1994	Q2	66,584.00
9/30/1994	1994	Q3	66,584.00
12/31/1994	1994	Q4	66,584.00
3/31/1995	1995	Q1	66,584.00

6/30/1995	1995	Q2	66,584.00
9/30/1995	1995	Q3	66,584.00
12/31/1995	1995	Q4	66,584.00
3/31/1996	1996	Q1	66,584.00
6/30/1996	1996	Q2	66,584.00
9/30/1996	1996	Q3	66,584.00
12/31/1996	1996	Q4	66,584.00
3/31/1997	1997	Q1	53,364.00
6/30/1997	1997	Q2	53,364.00
9/30/1997	1997	Q3	53,364.00
12/31/1997	1997	Q4	53,364.00
3/31/1998	1998	Q1	53,364.00
6/30/1998	1998	Q2	53,364.00
9/30/1998	1998	Q3	53,364.00
12/31/1998	1998	Q4	53,364.00
3/31/1999	1999	Q1	53,364.00
6/30/1999	1999	Q2	53,364.00
9/30/1999	1999	Q3	53,364.00
12/31/1999	1999	Q4	53,364.00
3/31/2000	2000	Q1	59,629.75
6/30/2000	2000	Q2	59,629.75
9/28/2000	2000	Q3	131,484.25
12/27/2000	2000	Q4	83,581.25
3/30/2001	2001	Q1	84,834.00
6/30/2001	2001	Q2	84,834.00
9/27/2001	2001	Q3	84,834.00
12/26/2001	2001	Q4	84,834.00
3/29/2002	2002	Q1	86,107.50
6/28/2002	2002	Q2	86,107.50
9/27/2002	2002	Q3	86,107.50
12/30/2002	2002	Q4	86,107.50
3/28/2003	2003	Q1	87,400.00
6/27/2003	2003	Q2	87,400.00
9/29/2003	2003	Q3	87,400.00
12/29/2003	2003	Q4	106,850.00
3/29/2004	2004	Q1	108,450.00
6/28/2004	2004	Q2	108,450.00
9/30/2004	2004	Q3	108,450.00
12/30/2004	2004	Q4	108,450.00
3/30/2005	2005	Q1	110,076.00
6/30/2005	2005	Q2	110,076.00
9/30/2005	2005	Q3	110,076.00
12/29/2005	2005	Q4	110,076.00

3/30/2006	2006	Q1	111,726.00
6/29/2006	2006	Q2	111,726.00
9/28/2006	2006	Q3	111,726.00
12/28/2006	2006	Q4	52,674.00
3/29/2007	2007	Q1	98,400.00
6/28/2007	2007	Q2	98,400.00
9/27/2007	2007	Q3	98,400.00
12/28/2007	2007	Q4	98,400.00
3/26/2008	2008	Q1	99,900.00
6/27/2008	2008	Q2	99,900.00
9/30/2008	2008	Q3	99,900.00
12/30/2008	2008	Q4	99,900.00
3/27/2009	2009	Q1	101,400.00
6/27/2009	2009	Q2	101,400.00
9/29/2009	2009	Q3	101,400.00
12/30/2009	2009	Q4	147,020.00
3/30/2010	2010	Q1	114,495.00
6/29/2010	2010	Q2	114,495.00
9/28/2010	2010	Q3	114,495.00
12/29/2010	2010	Q4	114,495.00
3/29/2011	2011	Q1	116,250.00
6/29/2011	2011	Q2	116,250.00
9/29/2011	2011	Q3	116,250.00
12/29/2011	2011	Q4	116,250.00
3/30/2012	2012	Q1	117,960.00
6/29/2012	2012	Q2	117,960.00
9/28/2012	2012	Q3	117,960.00
12/28/2012	2012	Q4	117,960.00
3/28/2013	2013	Q1	98,040.00
6/27/2013	2013	Q2	98,040.00
9/27/2013	2013	Q3	98,040.00
12/27/2013	2013	Q4	98,040.00
3/28/2014	2014	Q1	99,510.00
6/27/2014	2014	Q2	99,510.00
9/29/2014	2014	Q3	99,510.00
12/29/2014	2014	Q4	99,510.00
3/30/2015	2015	Q1	101,100.00
6/29/2015	2015	Q2	121,350.00
9/29/2015	2015	Q3	121,350.00
12/30/2015	2015	Q4	141,690.00
3/30/2016	2016	Q1	123,180.00

6/29/2016	2016	Q2	123,180.00
9/29/2016	2016	Q3	123,180.00
12/29/2016	2016	Q4	123,180.00
3/30/2017	2017	Q1	125,025.00
6/29/2017	2017	Q2	125,025.00
			10,149,909.00

*Note: From 1985 to 1999, KEPCo's records show total contribution for the year. Assumptions were made in above schedule, on when those contributions were made.

WOLF CREEK DECOMMISSIONING COSTS
EXTERNAL TRUST FUND
Review of 2017 Cost Estimate

	in 2017 \$	In 2045 \$
TOTAL COST DECON method	\$813,733,000	\$1,816,745,605
KEPCo'S SHARE OF TOTAL COST	\$48,823,980	\$109,004,736

PAYMENT GROWTH AMOUNT	\$0
GROWTH RATE FOR COSTS (INFLATION)	2.91%
# OF PERIODS FOR ANALYSIS	28
# OF PERIODS - 1	27
PERIOD OF PAYMENTS	MID YEAR
DECOMMISSIONING PERIOD IN YEARS	9

YEAR	Current Forecast of Expenditures	Future \$ at 100%	Future \$ KEPCo 6%
1 2045	\$72,188,000	\$161,167,400	\$9,670,044
2 2046	147,398,000	338,658,015	\$20,319,481
3 2047	164,016,000	387,805,141	\$23,268,308
4 2048	133,436,000	324,681,795	\$19,480,908
5 2049	103,125,000	258,229,862	\$15,493,792
6 2050	93,516,000	240,982,776	\$14,458,967

7	2051	48,499,000	128,614,651	\$7,716,879
8	2052	31,959,000	87,218,461	\$5,233,108
9	2053	19,596,000	55,035,162	\$3,302,110
	TOTALS	\$813,733,000	\$1,982,393,263	\$118,943,596