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VIA OVERNIGHT MAIL DELIVERY

August 16, 2016

Talina R. Mathews
Executive Director
Kentucky Public Service Commission
211 Sower Blvd
Frankfort, KY 40602-0615

RECEIVED
AUG 17 2016
PUBLIC SERVICE
COMMISSION

Re: Case No. 2016-00228

In the Matter of the Application of Duke Energy Kentucky, Inc. for an Adjustment to Rider ASRP Rates and for Tariff Approval

Dear Ms. Matthews,

Enclosed please find the original and ten copies of Duke Energy Kentucky, Inc.'s responses to *Commission Staff's First Set of Data Requests*. Additionally, ten copies of a CD containing the electronic version of Staff-DR-01-001 Attachment are being provided.

Please let me know if you have any questions.

Sincerely,

Kristen Ryan

cc: Rebecca Goodman (w/enclosures)

VERIFICATION

STATE OF OHIO)
) **SS:**
COUNTY OF HAMILTON)

The undersigned, Lisa D. Steinkuhl, Rates & Regulatory Strategy Manager, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of her knowledge, information and belief.

Lisa D Steinkuhl
Lisa D. Steinkuhl Affiant

Subscribed and sworn to before me by Lisa D. Steinkuhl on this 12th day of AUGUST, 2016.

Anita M. Schaffer
NOTARY PUBLIC

My Commission Expires:



ANITA M. SCHAFER
Notary Public, State of Ohio
My Commission Expires
November 4, 2019

VERIFICATION

STATE OF OHIO)
) **SS:**
COUNTY OF HAMILTON)

The undersigned, John A. Hill, Jr., Director, Integrity Management, Engineering and Growth, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.



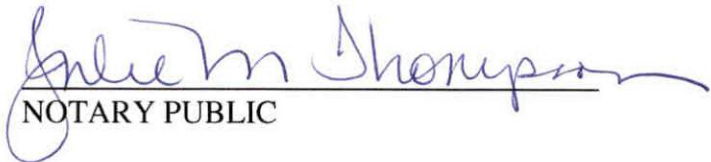
John A. Hill, Jr., Affiant

Subscribed and sworn to before me by John A. Hill, Jr. on this 15th day of August,

2016.



Julie M. Thompson
Notary Public, State of Ohio
My Commission Expires 11-19-2020



NOTARY PUBLIC

My Commission Expires: 11-19-2020

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**Duke Energy Kentucky
Case No. 2016-00228
Staff First Set Data Requests
Date Received: August 3, 2016**

STAFF-DR-01-001

REQUEST:

Refer to the Application. Provide an electronic copy of all the forms listed in Exhibit 1 in Excel spreadsheet format with all formulas intact and cells unprotected.

RESPONSE:

Please see STAFF-DR-01-001 Attachment for the electronic copy of all the forms listed in Exhibit 1.

PERSON RESPONSIBLE: Lisa D. Steinkuhl

Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
Forecasted Period Ending December 31, 2017
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Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
ASRP Rider by Rate Schedule

<u>Line No.</u>	<u>Rate Schedule</u>	(A)	<u>Weighted Customers- Services</u>	<u>Revenue</u>	<u>Billing</u>	<u>Monthly</u>
			<u>Approved PSC</u>	<u>Requirement</u>	<u>Determinants</u>	<u>ASRP</u>
			<u>Case No. 2009-202</u>		<u># of Bills / CCF</u>	<u>Rider</u>
			(B)	(C)	(D)	(E)
1	RS- Residential		92.301%	\$ 1,524,736	1,082,302	\$ 1.41 Per Customer
2	GS - General Service		6.969%	115,122	82,525	\$ 1.39 Per Customer
3	FT - Firm Transportation (Includes DGS)		0.454%	7,500	20,583,780	\$ 0.00036 Per CCF
4	IT - Interruptible Transportation		0.276%	4,559	13,550,910	\$ 0.00034 Per CCF
5	Total		<u>100.000%</u>	<u>\$ 1,651,917</u>		

Residential charge per customer is under the \$2 cap for calendar year 2017

Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
Forecasted ASRP Revenue Requirement for 2017

<u>Line No.</u>	<u>(A)</u>	<u>ASRP Investment</u> <u>December 31, 2017</u>	<u>Reference</u>
		<u>(B)</u>	<u>(C)</u>
Return on Investment			
<u>Rate Base</u>			
1	Net ASRP Investment - Property, Plant and Equipment	\$ 11,276,196	Form 2.2
2	Cost of Removal	-	Form 2.2
3	Accumulated Reserve for Depreciation	<u>(200,252)</u>	Form 2.0
4	Net PP&E	11,075,944	
5	Accumulated Deferred Taxes on Liberalized Depreciation	<u>(1,548,803)</u>	Form 2.1
6	Net Rate Base	9,527,141	Line 4 + Line 5
7	Authorized Rate of Return, Adjusted for Income Taxes	10.117%	Form 1.2
8	Required Return on ASRP Related Investment	<u>\$ 963,851</u>	Line 6 * Line 7
<u>Operating Expenses</u>			
9	Depreciation	\$ 300,767	Form 2.0
10	Property Tax	135,127	Line 4 * 1.220%
11	O&M related to reconnaissance fees	230,000	Form 2.3
12	O&M related to relocation of meters	18,966	Form 2.4
13	PSC Assessment	<u>3,206</u>	(Sum Line 8 thru 12) * (0.1941% / (1-0.1941%))
14	Total Operating Expenses	688,066	Sum Lines 9 thru 11
15	<u>Total Annual Revenue Requirement</u>	<u>\$ 1,651,917</u>	Line 8 + Line 12

Notes:
 (1) Property taxes estimated using an effective rate of 1.22%
 (2) PSC Assessment using Fiscal Year 2017 rate of 0.1941%

Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
Cost of Capital

<u>Line No.</u>	<u>Capital Structure</u> (A)	<u>Ratio</u> (B)	<u>Cost</u> (C)	<u>Weighted Cost</u> (D)	<u>Pre-Tax @ Effect. Tax Rate of 38.47%</u> (E)
1	Short term Debt	5.609%	1.009%	0.057%	0.057%
2	Long term Debt	43.595%	4.703%	2.050%	2.050%
3	Equity	50.796%	9.700%	4.927%	8.010%
4	Total	100.000%		7.034%	10.117%

Capital structure and cost of debt as approved in Case No. 2009-202
 Return on equity as approved in settlement in Case No. 2015-210

Duke Energy Kentucky
 Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
 Depreciation

Line No.	Description (A)	Acct Number (B)	(C)	EOY 2016 (D)	Projected 2017 Additions												EOY 2017 (Q)	
					Jan (E)	Feb (F)	Mar (G)	Apr (H)	May (I)	Jun (J)	Jul (K)	Aug (L)	Sep (M)	Oct (N)	Nov (O)	Dec (P)		
Gas Plant Investments ⁽¹⁾																		
Additions																		
1	Service Lines	380		\$ 7,500,000	\$ 120,000	\$ 240,000	\$ 240,000	\$ -	\$ 720,000	\$ 720,000	\$ 1,200,000	\$ 1,920,000	\$ 2,040,000	\$ 2,040,000	\$ 1,800,000	\$ 720,000	\$ 240,000	\$ 19,500,000
2	Meter Installations	382		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Total Additions			\$ 7,500,000	\$ 120,000	\$ 240,000	\$ 240,000	\$ -	\$ 720,000	\$ 720,000	\$ 1,200,000	\$ 1,920,000	\$ 2,040,000	\$ 2,040,000	\$ 1,800,000	\$ 720,000	\$ 240,000	\$ 19,500,000
Retirements																		
4	Service Lines	380		\$ (695,760)	\$ (11,132)	\$ (22,264)	\$ (22,264)	\$ -	\$ (66,793)	\$ (66,793)	\$ (111,322)	\$ (178,115)	\$ (189,247)	\$ (189,247)	\$ (166,982)	\$ (66,793)	\$ (22,264)	\$ (1,808,976)
5	Meter Installations	382		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Total Retirements			\$ (695,760)	\$ (11,132)	\$ (22,264)	\$ (22,264)	\$ -	\$ (66,793)	\$ (66,793)	\$ (111,322)	\$ (178,115)	\$ (189,247)	\$ (189,247)	\$ (166,982)	\$ (66,793)	\$ (22,264)	\$ (1,808,976)
Cost of Removal																		
7	Service Lines	380		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Total Cost of removal			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accumulated Depreciation Reserve																		
Additions																		
9	Service Lines	380	2.80%	\$ 85,077	\$ 17,500	\$ 17,780	\$ 18,340	\$ -	\$ 18,900	\$ 20,580	\$ 22,260	\$ 25,060	\$ 29,540	\$ 34,300	\$ 39,060	\$ 43,260	\$ 44,940	\$ -
10	Meter Installations	382		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Total Additions			\$ 85,077	\$ 17,500	\$ 17,780	\$ 18,340	\$ -	\$ 18,900	\$ 20,580	\$ 22,260	\$ 25,060	\$ 29,540	\$ 34,300	\$ 39,060	\$ 43,260	\$ 44,940	\$ -
Retirements																		
12	Service Lines	380	2.80%	\$ (7,892)	\$ (1,623)	\$ (1,649)	\$ (1,701)	\$ -	\$ (1,753)	\$ (1,909)	\$ (2,065)	\$ (2,325)	\$ (2,740)	\$ (3,182)	\$ (3,624)	\$ (4,013)	\$ (4,169)	\$ -
13	Meter Installations	382		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Total Retirements			\$ (7,892)	\$ (1,623)	\$ (1,649)	\$ (1,701)	\$ -	\$ (1,753)	\$ (1,909)	\$ (2,065)	\$ (2,325)	\$ (2,740)	\$ (3,182)	\$ (3,624)	\$ (4,013)	\$ (4,169)	\$ -
15	Total Accumulated Depreciation Reserve			\$ 77,185	\$ 93,062	\$ 109,193	\$ 125,832	\$ -	\$ 142,979	\$ 161,650	\$ 181,845	\$ 204,580	\$ 231,380	\$ 262,498	\$ 297,934	\$ 337,181	\$ 377,952	\$ 200,252

Notes:
 (1) See Form 2.2 for detail of 2017 ASRP eligible additions

Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
Deferred Taxes on Liberalized Depreciation

<u>Line No.</u>	(A)	(B)	Tax Year 2016		Tax Year 2017		TOTAL (F)
			Vintage 2016 (C)	Vintage 2016 (D)	Vintage 2017 (E)		
1	Total ASRP Plant Additions		\$ 3,038,463.00	\$ 7,500,000.00	\$ 4,929,231.00	\$ 12,429,231.00	
	Tax Base In-service subject to :						
2	Bonus Depreciation- 50%		3,038,463	7,500,000	4,929,231	12,429,231	
3	MACRS		1,519,232	0	0	0	
	Tax Depreciation						
4	Bonus Depreciation- 50%		1,519,232	0	2,464,616	2,464,616	
5	MACRS on Balance		56,971	270,713	92,423	363,136	
6	Total Tax Depreciation		1,576,203	270,713	2,557,039	2,827,752	
7	Book Depreciation		77,185	190,519	110,248	300,767	
8	Tax Depreciation in Excess of Book Depreciation		1,499,018	80,194	2,446,791	2,526,985	
9	Cost of Removal		0	0	0	-	
10	Total Difference		\$ 1,499,018	\$ 80,194	\$ 2,446,791	\$ 2,526,985	
11	Deferred Taxes @	38.47%	576,672	30,851	941,280	972,131	
12						\$ 1,548,803	

Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
Thirteen Month Average Additions and Retirements

Test Year 12/31/17 ASRP Investment Summary

Line No.	Month (A)	Number of Months (B)	ASRP Capex		Retirements		Cost of Removal (G)
			By Month (C)	Cumulative (D)	By Month (E)	Cumulative (F)	
1	Balance @ 12/31/2016	13		\$ 7,500,000		\$ (695,760)	\$ -
2	Jan-17	12	\$ 120,000	7,620,000	\$ (11,132)	(706,892)	0
3	Feb-17	11	240,000	7,860,000	(22,264)	(729,156)	0
4	Mar-17	10	240,000	8,100,000	(22,264)	(751,420)	0
5	Apr-17	9	720,000	8,820,000	(66,793)	(818,213)	0
6	May-17	8	720,000	9,540,000	(66,793)	(885,006)	0
7	Jun-17	7	1,200,000	10,740,000	(111,322)	(996,328)	0
8	Jul-17	6	1,920,000	12,660,000	(178,115)	(1,174,443)	0
9	Aug-17	5	2,040,000	14,700,000	(189,247)	(1,363,690)	0
10	Sep-17	4	2,040,000	16,740,000	(189,247)	(1,552,937)	0
11	Oct-17	3	1,800,000	18,540,000	(166,982)	(1,719,919)	0
12	Nov-17	2	720,000	19,260,000	(66,793)	(1,786,712)	0
13	Dec-17	1	240,000	19,500,000	(22,264)	(1,808,976)	0
				161,580,000		(14,989,452)	0
14	Number of months	13					13
15	13 Month Average		\$	12,429,231	\$	(1,153,035)	\$ -

Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
O&M - Reconnaissance

Test Year 12/31/17 Reconnaissance O&M

<u>Line No.</u>	<u>Month</u> (A)	<u>ASRP O&M 2017</u> (B)
1	Jan-17	\$ 2,300
2	Feb-17	4,600
3	Mar-17	4,600
4	Apr-17	13,800
5	May-17	13,800
6	Jun-17	23,000
7	Jul-17	36,800
8	Aug-17	39,100
9	Sep-17	39,100
10	Oct-17	34,500
11	Nov-17	13,800
12	Dec-17	4,600
13	Total	\$ 230,000

Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
O&M Meter Relocation

Test Year 12/31/17 ASRP Meter Relocation O&M

<u>Line No.</u>	<u>Month</u> (A)	<u>ASRP O&M 2017</u> (B)
1	Jan-17	\$ 190
2	Feb-17	379
3	Mar-17	379
4	Apr-17	1,138
5	May-17	1,138
6	Jun-17	1,897
7	Jul-17	3,035
8	Aug-17	3,224
9	Sep-17	3,224
10	Oct-17	2,845
11	Nov-17	1,138
12	Dec-17	379
13	Total	<u>\$ 18,966</u>

Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
ASRP Rider Billing Determinants by Rate Schedule
for the Twelve Month Ending April 30, 2016

<u>Line No.</u>	<u>Rate Schedule</u> (A)	<u>May-15</u> (B)	<u>Jun-15</u> (C)	<u>Jul-15</u> (D)	<u>Aug-15</u> (E)	<u>Sep-15</u> (F)	<u>Oct-15</u> (G)	<u>Nov-15</u> (H)	<u>Dec-15</u> (I)	<u>Jan-16</u> (J)	<u>Feb-16</u> (K)	<u>Mar-16</u> (L)	<u>Apr-16</u> (M)	<u>Total</u> (N)	
1	R5- Residential (Number of Customers)	89,639	89,722	89,590	89,408	89,444	89,646		89,916	90,843	90,566	91,093	91,344	91,091	1,082,302
2	GS - General Service (Number of Customers)	6,813	6,715	6,706	6,658	6,651	6,735		6,895	7,039	7,074	7,096	7,112	7,031	82,525
3	FT - Firm Transportation (CCF)	1,537,980	1,260,700	1,226,270	1,172,450	1,263,770	1,269,360		1,463,240	1,760,200	2,047,140	2,960,940	2,549,730	2,072,000	20,583,780
4	IT - Interruptible Transportation (CCF)	923,820	1,033,750	1,070,110	1,097,330	1,151,670	991,290		1,131,440	1,158,570	1,261,360	1,342,340	1,209,210	1,180,020	13,550,910

**Duke Energy Kentucky
Case No. 2016-00228
Staff First Set Data Requests
Date Received: August 3, 2016**

STAFF-DR-01-002

REQUEST:

Describe any differences in methodology between Exhibit 1 of the Application and Revised Attachment PAL-1 of the Stipulation and Recommendation filed with Case No. 2015-00210.¹

RESPONSE:

There are no differences in the methodology between Exhibit 1 of the Application and the Revised Attachment PAL-1 of the Stipulation and Recommendation filed in Case No. 2015-210. Exhibit 1 has presentation changes from the Revised Attachment PAL-1 of the Stipulation and Recommendation filed with Case No. 2015-210 to incorporate the 2nd year of the program.

PERSON RESPONSIBLE: Lisa D. Steinkuhl

¹ Case No. 2015-00210, *Application of Duke Energy Kentucky, Inc., for a Certificate of Public Convenience and Necessity Authorizing the Implementation of an Accelerated Service Line Replacement Program, Approval of Ownership of Service Lines, and a Gas Pipeline Replacement Surcharge* (Ky. PSC Feb. 2, 2016).

STAFF-DR-01-003

REQUEST:

Refer to the Application, Exhibit 1, Schedule 2.1, page 6 of 10.

- a. Refer to line 1, Total ASRP Plant Additions, columns (C) and (D). Provide a narrative explanation of how the amounts were determined, along with any spreadsheets, work papers, etc.
- b. Refer to the amount of \$576,672 listed on line 11, Deferred Taxes, Column (C). Explain why the total amount of deferred taxes related to the \$7.5 million in 2016 Accelerated Service Replacement Program (“ASRP”) capital expenditures should not be utilized for 2017 ASRP rates.
- c. State whether Duke Kentucky calculates Allowance for Funds Used During Construction related to ASRP capital expenditures.

RESPONSE:

- a. The amount on line 1 column (C) is the 13 month average of the 2016 monthly ending balances of Plant Additions. The amount on line 1 column (D) is the ending balance of the Plant Additions at 12/31/2016. See the chart below for the calculation of the amounts:

	CAPEX	Ending Bal
Balance at 12/31/2015	0	0
Jan-16	0	0
Feb-16	0	0
Mar-16	125,000	125,000
Apr-16	500,000	625,000
May-16	875,000	1,500,000
Jun-16	1,000,000	2,500,000
Jul-16	1,125,000	3,625,000
Aug-16	1,000,000	4,625,000
Sep-16	1,000,000	5,625,000
Oct-16	750,000	6,375,000
Nov-16	625,000	7,000,000
Dec-16	500,000	7,500,000
	<u>7,500,000</u>	<u>39,500,000</u>
13 month average		<u>\$3,038,462</u>

- b. The total amount of deferred taxes related to the \$7.5 million in 2016 Accelerated Service Replacement Program (“ASRP”) capital expenditures should have been utilized for the 2017 ASRP rates. The Company will file a revised set of schedules as soon as practicable.
- c. Duke Energy Kentucky does not calculate Allowance for Funds Used During Construction related to ASRP capital expenditures since this work is being done on blanket projects. These projects are of short duration and would not qualify for AFUDC.

PERSON RESPONSIBLE: Lisa D. Steinkuhl

**Duke Energy Kentucky
Case No. 2016-00228
Staff First Set Data Requests
Date Received: August 3, 2016**

STAFF-DR-01-004

REQUEST:

Refer to the Application, Exhibit 1, Schedule 2.2, Page 7 of 10, which shows a calendar year 2017 estimated "ASRP Capex" of \$12 million derived by adding the monthly amounts in column (C). Explain how the \$12 million was derived, including the number of services lines to be replaced.

RESPONSE:

The estimate in the referenced Exhibit included replacing 2,400 services in 2017 at an estimated cost of \$5,000 per service. This number will be updated as we review 2016 actual costs and services replaced.

PERSON RESPONSIBLE: John A. Hill, Jr.

STAFF-DR-01-005

REQUEST:

Refer to the Application, Exhibit 1, Schedule 2.3, page 8 of 10.

- a. Explain why the April through November monthly Reconnaissance O&M for 2017 is so much more than the \$5,834 monthly Reconnaissance O&M for 2016 of page 8 of 10 of the Revised Attachment PAL_1 of the Stipulation and Recommendation filed with Case No. 2015-00210
- b. Explain how the calendar year 2017 Reconnaissance O&M of \$230,000 estimate was derived; identify and describe each item of cost included in the estimate; and provide the estimated amount of each item of cost.

RESPONSE:

The O&M reconnaissance estimate included in the application for 2016 is based on 500 services at \$140 per Service or \$70,000 for the Year (\$5,834 a month). While actual installation costs are coming in lower than our original estimate, actual reconnaissance costs are higher at about \$200 per Service. The 2017 projection is based on \$200 per service with an estimate of 1,130 services to complete. The total estimated cost is \$226,000 or \$18,834 a month.

PERSON RESPONSIBLE: John A. Hill, Jr.