

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

In the Matter of:

The Application of Duke Energy Kentucky,)
Inc. for an Adjustment to Rider ASRP) Case No. 2017-00249
Rates and for Tariff Approval)

APPLICATION

Now comes Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the Company), pursuant to KRS 278.030(1), 278.040(2), 278.509, 807 KAR 5:001, Section 14, and other applicable law, and hereby respectfully requests approval from the Kentucky Public Service Commission (Commission) of its accelerated service line replacement program (ASRP) cost recover mechanism (Rider ASRP) annual projections, charges and tariff. In support of this Application, Duke Energy Kentucky respectfully states as follows:

Introduction

1. Duke Energy Kentucky is an investor-owned utility engaged in the business of furnishing natural gas and electric services to various municipalities and unincorporated areas in Boone, Bracken, Campbell, Gallatin, Grant, Kenton, and Pendleton Counties in the Commonwealth of Kentucky.

2. Pursuant to 807 KAR 5:001, Section 14(2), Duke Energy Kentucky is a Kentucky corporation originally incorporated on March 20, 1901, in good standing, and a public utility as that term is defined in KRS 278.010(3), and, therefore, is subject to the Commission's jurisdiction.

3. Pursuant to 807 KAR 5:001, Section 14(1), Duke Energy Kentucky's business address is 139 East Fourth Street, Cincinnati, Ohio 45202. Duke Energy Kentucky's local office in Kentucky is Duke Energy Envision Center, 4580 Olympic Boulevard, Erlanger, Kentucky 41018.

4. Copies of all orders, pleadings and other communications related to this proceeding should be sent to:

Rocco O. D'Ascenzo
Associate General Counsel
Duke Energy Kentucky, Inc.
139 E. 4th St., Cincinnati, OH 45202
Rocco.D'Ascenzo@duke-energy.com
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5. The Commission approved the Company's ASRP initiative in Case No. 2015-00210 (ASRP Approval Case) on February 2, 2016. In its Order, the Commission ordered Duke Energy Kentucky to file its annual ASRP projections, and include a reconciliation of actual and projected costs, taking into account actual revenue recovered through the surcharge, Rider ASRP.¹ The Company is filing this Application to fulfill its commitment in the ASRP Approval Case.

6. The gas rates that Duke Energy Kentucky seeks to implement beginning January 2018 are reflected in the Company's tariff, Ky.P.S.C. Gas No. 2, Rider ASRP, Accelerated Service Line Replacement Program Rider, Second Revised No. 63, as attached hereto as Exhibit 2.

7. Pursuant to the Commission's Order, Duke Energy Kentucky is including its ASRP projections for 2018, and reconciliation of actual and projected costs, taking

¹ *In the Matter of the 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, Order, Case No. 2015-00210 (Ky.P.S.C., February 19, 2016).*

into account actual revenue recovered through Rider ASRP. This information is attached hereto as Exhibit 1.

8. The tariff, for which Duke Energy Kentucky is seeking approval for, is attached hereto as Exhibit 2.

WHEREFORE, Duke Energy Kentucky respectfully requests that its ASRP Rider annual projections be approved as requested herein.

Its Attorneys,



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CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing Application of Duke Energy Kentucky, Inc. has been served via overnight mail to the following party on this 3rd day of July 2017.



Rocco O. D'Ascenzo

Rebecca W. Goodman
The Office of the Attorney General
Utility Intervention and Rate Division
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Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
Forecasted Period Ending December 31, 2018
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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) | Weighted Customers- Services Approved PSC Case No. 2009-202 (B) | 2018 Projected Revenue Requirement (C) | 2016 True Up Revenue Requirement (D) | Total (E) | Billing Determinants # of Bills / CCF (F) | Monthly ASRP Rider (G) |
|-----------------|---|-----|--|---|---|----------------------|--|---|
| 1 | RS- Residential | | 92.301% | \$ 2,158,251 | \$ (194,780) | \$ 1,963,471 | 1,091,097 | \$ 1.80 Per Customer |
| 2 | GS - General Service | | 6.969% | 162,954 | (14,706) | 148,248 | 83,060 | \$ 1.78 Per Customer |
| 3 | FT - Firm Transportation (Includes DGS) | | 0.454% | 10,616 | (958) | 9,658 | 21,632,800 | \$ 0.00045 Per CCF |
| 4 | IT - Interruptible Transportation | | 0.276% | 6,454 | (582) | 5,872 | 15,067,630 | \$ 0.00039 Per CCF |
| 5 | Total | | 100.000% | \$ 2,338,275 | \$ (211,026) | \$ 2,127,249 | | |

Residential charge per customer is under the \$3 cap for calendar year 2018

Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
Forecasted ASRP Revenue Requirement for 2018

| <u>Line No.</u> | <u>(A)</u> | <u>ASRP Investment</u> <u>December 31, 2018</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 | \$ 15,750,551 | Form 2.2 |
| 2 | Cost of Removal | 8,798 | Form 2.2 |
| 3 | Accumulated Reserve for Depreciation | (418,580) | Form 2.0 |
| 4 | Net PP&E | 15,340,769 | |
| 5 | Accumulated Deferred Taxes on Liberalized Depreciation | (3,258,517) | Form 2.1 |
| 6 | Net Rate Base | 12,082,252 | 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 | \$ 1,222,349 | Line 6 * Line 7 |
| <u>Operating Expenses</u> | | | |
| 9 | Depreciation | \$ 428,927 | Form 2.0 |
| 10 | Property Tax | 218,146 | Line 4 * 1.422% |
| 11 | O&M related to reconnaissance fees | 461,734 | Form 2.3 |
| 12 | O&M related to relocation of meters | 2,580 | Form 2.4 |
| 13 | PSC Assessment | 4,539 | (Sum Line 8 thru 12) * (0.1941% / (1-0.1941%)) |
| 14 | Total Operating Expenses | 1,115,926 | Sum Lines 9 thru 13 |
| 15 | <u>Total Annual Revenue Requirement</u> | \$ 2,338,275 | Line 8 + Line 14 |

Notes:

- (1) Property taxes estimated using an effective rate of 1.422%
- (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</u> <u>Cost</u> (D) | <u>Pre-Tax @ Effect.</u> <u>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 | <u>50.796%</u> | 9.700% | <u>4.927%</u> | <u>8.010%</u> |
| 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) | EQY 2017 (D) | Projected 2018 Additions | | | | | | | | | | | | EQY 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 | | \$ 13,041,855 | \$ 100,000 | \$ 200,000 | \$ 200,000 | \$ 600,000 | \$ 600,000 | \$ 1,000,000 | \$ 1,600,000 | \$ 1,700,000 | \$ 1,700,000 | \$ 1,500,000 | \$ 600,000 | \$ 200,000 | \$ 23,041,855 |
| 2 | Meter Installations | 382 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3 | Total Additions | | | \$ 13,041,855 | \$ 100,000 | \$ 200,000 | \$ 200,000 | \$ 600,000 | \$ 600,000 | \$ 1,000,000 | \$ 1,600,000 | \$ 1,700,000 | \$ 1,700,000 | \$ 1,500,000 | \$ 600,000 | \$ 200,000 | \$ 23,041,855 |
| Retirements | | | | | | | | | | | | | | | | | |
| 4 | Service Lines | 380 | | \$ (903,617) | \$ (12,060) | \$ (24,120) | \$ (24,120) | \$ (72,359) | \$ (72,359) | \$ (120,598) | \$ (192,957) | \$ (205,016) | \$ (205,016) | \$ (180,897) | \$ (72,359) | \$ (24,120) | \$ (2,109,596) |
| 5 | Meter Installations | 382 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6 | Total Retirements | | | \$ (903,617) | \$ (12,060) | \$ (24,120) | \$ (24,120) | \$ (72,359) | \$ (72,359) | \$ (120,598) | \$ (192,957) | \$ (205,016) | \$ (205,016) | \$ (180,897) | \$ (72,359) | \$ (24,120) | \$ (2,109,596) |
| Cost of Removal | | | | | | | | | | | | | | | | | |
| 7 | Service Lines | 380 | | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 |
| 8 | Total Cost of removal | | | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 | \$ 8,798 |
| | | | | | | | | | | | | | | | | | |
| | | | Annual Depreciation Rate | EQY 2017 | Projected 2018 Depreciation Expense | | | | | | | | | | | | 13 month Average |
| Accumulated Depreciation Reserve | | | | | | | | | | | | | | | | | |
| Additions | | | | | | | | | | | | | | | | | |
| 9 | Service Lines | 380 | 2.80% | \$ 237,045 | \$ 30,431 | \$ 30,664 | \$ 31,131 | \$ 31,598 | \$ 32,998 | \$ 34,398 | \$ 36,731 | \$ 40,464 | \$ 44,431 | \$ 48,398 | \$ 51,898 | \$ 53,298 | |
| 10 | Meter Installations | 382 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11 | Total Additions | | | \$ 237,045 | \$ 30,431 | \$ 30,664 | \$ 31,131 | \$ 31,598 | \$ 32,998 | \$ 34,398 | \$ 36,731 | \$ 40,464 | \$ 44,431 | \$ 48,398 | \$ 51,898 | \$ 53,298 | |
| Retirements | | | | | | | | | | | | | | | | | |
| 12 | Service Lines | 380 | 2.80% | \$ (10,862) | \$ (2,108) | \$ (2,137) | \$ (2,193) | \$ (2,249) | \$ (2,418) | \$ (2,587) | \$ (2,868) | \$ (3,318) | \$ (3,797) | \$ (4,275) | \$ (4,697) | \$ (4,866) | |
| 13 | Meter Installations | 382 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 14 | Total Retirements | | | \$ (10,862) | \$ (2,108) | \$ (2,137) | \$ (2,193) | \$ (2,249) | \$ (2,418) | \$ (2,587) | \$ (2,868) | \$ (3,318) | \$ (3,797) | \$ (4,275) | \$ (4,697) | \$ (4,866) | |
| 15 | Total Accumulated Depreciation Reserve | | | \$ 226,183 | \$ 254,506 | \$ 283,033 | \$ 311,971 | \$ 341,320 | \$ 371,900 | \$ 403,711 | \$ 437,574 | \$ 474,720 | \$ 515,354 | \$ 559,477 | \$ 606,678 | \$ 655,110 | \$ 418,580 |

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 | | Tax Year 2018 | | | |
|-----------------|---|--------|------------------------|------------------------|------------------------|---------------------|------------------------|------------------------|------------------------|---------------------|
| | | | Vintage 2016 (C) | Vintage 2016 (D) | Vintage 2017 (E) | TOTAL (F) | Vintage 2016 (G) | Vintage 2017 (H) | Vintage 2018 (I) | TOTAL (J) |
| 1 | Total ASRP Plant Additions | | \$ 4,339,804 | \$ 4,339,804 | \$ 8,702,051 | \$ 13,041,855 | \$ 4,339,804 | \$ 8,702,051 | \$ 4,107,692 | \$ 17,149,547 |
| | Tax Base In-service subject to : | | | | | | | | | |
| 2 | Bonus Depreciation | | 4,339,804 | 4,339,804 | 8,702,051 | 13,041,855 | 4,339,804 | 8,702,051 | 4,107,692 | 17,149,547 |
| 3 | MACRS | | <u>2,169,902</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |
| | Tax Depreciation | | | | | | | | | |
| 4 | Bonus Depreciation | | 2,169,902 | 0 | 4,351,026 | 4,351,026 | 0 | 0 | 1,643,077 | 1,643,077 |
| 5 | MACRS on Balance | | 81,371 | 156,645 | 163,163 | 319,808 | 144,884 | 314,101 | 92,423 | 551,408 |
| 6 | Total Tax Depreciation | | <u>2,251,273</u> | <u>156,645</u> | <u>4,514,189</u> | <u>4,670,834</u> | <u>144,884</u> | <u>314,101</u> | <u>1,735,500</u> | <u>2,194,485</u> |
| 7 | Book Depreciation | | 23,628 | 120,165 | 82,390 | 202,555 | 120,165 | 219,706 | 89,056 | 428,927 |
| 8 | Tax Depreciation in Excess of Book Depreciation | | 2,227,645 | 36,480 | 4,431,799 | 4,468,279 | 24,719 | 94,395 | 1,646,444 | 1,765,558 |
| 9 | Cost of Removal | | 8,798 | 0 | 0 | - | 0 | 0 | 0 | - |
| 10 | Total Difference | | <u>\$ 2,236,443</u> | <u>\$ 36,480</u> | <u>\$ 4,431,799</u> | <u>\$ 4,468,279</u> | <u>\$ 24,719</u> | <u>\$ 94,395</u> | <u>\$ 1,646,444</u> | <u>\$ 1,765,558</u> |
| 11 | Deferred Taxes @ | 38.47% | 860,360 | 14,034 | 1,704,913 | 1,718,947 | 9,509 | 36,314 | 633,387 | 679,210 |
| 12 | Accumlated Deferred Income Tax | | | | | | | | | <u>\$ 3,258,517</u> |

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

Test Year 12/31/18 ASRP Investment Summary

| <u>Line No.</u> | <u>Month</u> (A) | <u>Number of</u> <u>Months</u> (B) | <u>ASRP Capex</u> | | <u>Retirements</u> | | <u>Cost of Removal</u> | |
|-----------------|----------------------|--|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|
| | | | <u>By Month</u> (C) | <u>Cumulative</u> (D) | <u>By Month</u> (E) | <u>Cumulative</u> (F) | <u>By Month</u> (G) | <u>Cumulative</u> (H) |
| 1 | Balance @ 12/31/2017 | 13 | \$ | 13,041,855 | \$ | (903,617) | \$ | 8,798 |
| 2 | Jan-18 | 12 | \$ | 100,000 | \$ | (12,060) | - | 8,798 |
| 3 | Feb-18 | 11 | | 200,000 | | (24,120) | - | 8,798 |
| 4 | Mar-18 | 10 | | 200,000 | | (24,120) | - | 8,798 |
| 5 | Apr-18 | 9 | | 600,000 | | (72,359) | - | 8,798 |
| 6 | May-18 | 8 | | 600,000 | | (72,359) | - | 8,798 |
| 7 | Jun-18 | 7 | | 1,000,000 | | (120,598) | - | 8,798 |
| 8 | Jul-18 | 6 | | 1,600,000 | | (192,957) | - | 8,798 |
| 9 | Aug-18 | 5 | | 1,700,000 | | (205,016) | - | 8,798 |
| 10 | Sep-18 | 4 | | 1,700,000 | | (205,016) | - | 8,798 |
| 11 | Oct-18 | 3 | | 1,500,000 | | (180,897) | - | 8,798 |
| 12 | Nov-18 | 2 | | 600,000 | | (72,359) | - | 8,798 |
| 13 | Dec-18 | 1 | | 200,000 | | (24,120) | - | 8,798 |
| | | | | 222,944,115 | | (18,186,950) | | 114,374 |
| 14 | Number of months | | | 13 | | 13 | | 13 |
| 15 | 13 Month Average | | | \$ 17,149,547 | | \$ (1,398,996) | | \$ 8,798 |

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

Test Year 12/31/18 Reconnaissance O&M

| <u>Line No.</u> | <u>Month</u> (A) | <u>ASRP O&M 2018</u> (B) |
|-----------------|---------------------|---------------------------------|
| 1 | Jan-18 | \$ 4,617 |
| 2 | Feb-18 | 9,235 |
| 3 | Mar-18 | 9,235 |
| 4 | Apr-18 | 27,704 |
| 5 | May-18 | 27,704 |
| 6 | Jun-18 | 46,173 |
| 7 | Jul-18 | 73,877 |
| 8 | Aug-18 | 78,495 |
| 9 | Sep-18 | 78,495 |
| 10 | Oct-18 | 69,260 |
| 11 | Nov-18 | 27,704 |
| 12 | Dec-18 | 9,235 |
| 13 | Total | <u>\$ 461,734</u> |

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

Test Year 12/31/18 ASRP Meter Relocation O&M

| <u>Line No.</u> | <u>Month</u> <u>(A)</u> | <u>ASRP O&M 2018</u> <u>(B)</u> |
|-----------------|----------------------------|--|
| 1 | Jan-18 | \$ 215 |
| 2 | Feb-18 | 215 |
| 3 | Mar-18 | 215 |
| 4 | Apr-18 | 215 |
| 5 | May-18 | 215 |
| 6 | Jun-18 | 215 |
| 7 | Jul-18 | 215 |
| 8 | Aug-18 | 215 |
| 9 | Sep-18 | 215 |
| 10 | Oct-18 | 215 |
| 11 | Nov-18 | 215 |
| 12 | Dec-18 | 215 |
| 13 | Total | <u>\$ 2,580</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, 2017

| <u>Line No.</u> | <u>Rate Schedule</u> (A) | <u>May-16</u> (B) | <u>Jun-16</u> (C) | <u>Jul-16</u> (D) | <u>Aug-16</u> (E) | <u>Sep-16</u> (F) | <u>Oct-16</u> (G) | <u>Nov-16</u> (H) | <u>Dec-16</u> (I) | <u>Jan-17</u> (J) | <u>Feb-17</u> (K) | <u>Mar-17</u> (L) | <u>Apr-17</u> (M) | <u>Total</u> (N) |
|-----------------|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|
| 1 | RS- Residential (Number of Customers) | 90,811 | 90,475 | 90,187 | 90,160 | 90,239 | 90,427 | 90,972 | 91,662 | 91,946 | 91,138 | 91,961 | 91,119 | 1,091,097 |
| 2 | GS - General Service (Number of Customers) | 6,888 | 6,812 | 6,756 | 6,736 | 6,738 | 6,762 | 6,921 | 7,084 | 7,133 | 7,112 | 7,123 | 6,995 | 83,060 |
| 3 | FT - Firm Transportation (CCF) | 1,697,350 | 1,527,790 | 1,347,270 | 1,286,170 | 1,301,520 | 1,277,850 | 1,474,330 | 1,871,960 | 2,734,360 | 2,653,140 | 2,135,980 | 2,325,080 | 21,632,800 |
| 4 | IT - Interruptible Transportation (CCF) | 1,151,670 | 1,305,840 | 1,183,700 | 1,110,280 | 1,253,250 | 1,187,330 | 1,315,110 | 1,366,330 | 1,394,310 | 1,346,610 | 1,200,790 | 1,252,410 | 15,067,630 |

Duke Energy Kentucky
Annual Adjustment to the Accelerated Service Line Replacement Program ("ASRP")
ASRP Revenue Requirement for 2016

| <u>Line No.</u> | <u>(A)</u> | <u>ASRP Investment</u> <u>December 31, 2016</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 | \$ 1,109,126 | Form 4.5 |
| 2 | Cost of Removal | 4,187 | Form 4.5 |
| 3 | Accumulated Reserve for Depreciation | (4,980) | Form 4.3 |
| 4 | Net PP&E | 1,108,333 | |
| 5 | Accumulated Deferred Taxes on Liberalized Depreciation | (225,274) | Form 4.4 |
| 6 | Net Rate Base | 883,059 | Line 4 + Line 5 |
| 7 | Authorized Rate of Return, Adjusted for Income Taxes | 10.117% | Form 4.2 |
| 8 | Required Return on ASRP Related Investment | \$ 89,338 | Line 6 * Line 7 |
| <u>Operating Expenses</u> | | | |
| 9 | Depreciation | \$ 23,628 | Form 4.3 |
| 10 | Property Tax | 13,854 | Line 4 * 1.250% |
| 11 | O&M related to reconnaissance fees | 40,586 | Form 4.6 |
| 12 | O&M related to relocation of meters | 1,724 | Form 4.7 |
| 13 | PSC Assessment | 322 | (Sum Line 8 thru 12) * (0.1901% / (1-0.1901%)) |
| 14 | Total Operating Expenses | 80,114 | Sum Lines 9 thru 11 |
| 15 | <u>Total Annual Revenue Requirement</u> | \$ 169,452 | Line 8 + Line 12 |
| | Collections/(Refunds) for prior years | 0 | |
| | Adjusted Revenue Requirement | \$ 169,452 | |
| | 2016 Billed Revenues | 380,478 | |
| | Total (Over)/Under Collections | \$ (211,026) | |

Notes:

- (1) Property taxes estimated using an effective rate of 1.25%
(2) PSC Assessment using Fiscal Year 2016 rate of 0.1901%

**Duke Energy Kentucky
 ASRP Rider by Rate Schedule
 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) | EQY 2015 (D) | Actual 2016 Additions | | | | | | | | | | | | EQY 2016 (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 | | \$ - | \$ 37,729 | \$ 16,027 | \$ 20,485 | \$ 34,739 | \$ 72,395 | \$ 84,870 | \$ 571,890 | \$ 458,274 | \$ 706,429 | \$ 587,077 | \$ 315,355 | \$ 1,434,533 | \$ 4,339,804 |
| 2 | Meter Installations | 382 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3 | Total Additions | | | \$ - | \$ 37,729 | \$ 16,027 | \$ 20,485 | \$ 34,739 | \$ 72,395 | \$ 84,870 | \$ 571,890 | \$ 458,274 | \$ 706,429 | \$ 587,077 | \$ 315,355 | \$ 1,434,533 | \$ 4,339,804 |
| Retirements | | | | | | | | | | | | | | | | | |
| 4 | Service Lines | 380 | | \$ - | \$ - | \$ (15,895) | \$ (835) | \$ (2,556) | \$ (4) | \$ - | \$ (3,045) | \$ - | \$ (397) | \$ (5,368) | \$ (13,766) | \$ (6,339) | \$ (48,206) |
| 5 | Meter Installations | 382 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6 | Total Retirements | | | \$ - | \$ - | \$ (15,895) | \$ (835) | \$ (2,556) | \$ (4) | \$ - | \$ (3,045) | \$ - | \$ (397) | \$ (5,368) | \$ (13,766) | \$ (6,339) | \$ (48,206) |
| Cost of Removal | | | | | | | | | | | | | | | | | |
| 7 | Service Lines | 380 | | \$ - | \$ - | \$ - | \$ - | \$ 2,389 | \$ - | \$ 2,753 | \$ 1,934 | \$ - | \$ - | \$ - | \$ 330 | \$ 1,392 | \$ 8,798 |
| 8 | Total Cost of removal | | | \$ - | \$ - | \$ - | \$ - | \$ 2,389 | \$ - | \$ 2,753 | \$ 1,934 | \$ - | \$ - | \$ - | \$ 330 | \$ 1,392 | \$ 8,798 |
| Accumulated Depreciation Reserve | | | | | | | | | | | | | | | | | |
| Additions | | | | | | | | | | | | | | | | | |
| 9 | Service Lines | 380 | 2.80% | \$ - | \$ - | \$ 88 | \$ 125 | \$ 173 | \$ 254 | \$ 423 | \$ 621 | \$ 1,956 | \$ 3,025 | \$ 4,673 | \$ 6,043 | \$ 6,779 | \$ 6,779 |
| 10 | Meter Installations | 382 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11 | Total Additions | | | \$ - | \$ - | \$ 88 | \$ 125 | \$ 173 | \$ 254 | \$ 423 | \$ 621 | \$ 1,956 | \$ 3,025 | \$ 4,673 | \$ 6,043 | \$ 6,779 | \$ 6,779 |
| Retirements | | | | | | | | | | | | | | | | | |
| 12 | Service Lines | 380 | 2.80% | \$ - | \$ - | \$ (37) | \$ (39) | \$ (45) | \$ (45) | \$ (45) | \$ (52) | \$ (52) | \$ (52) | \$ (53) | \$ (66) | \$ (98) | \$ (98) |
| 13 | Meter Installations | 382 | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 14 | Total Retirements | | | \$ - | \$ - | \$ (37) | \$ (39) | \$ (45) | \$ (45) | \$ (45) | \$ (52) | \$ (52) | \$ (52) | \$ (53) | \$ (66) | \$ (98) | \$ (98) |
| 15 | Total Accumulated Depreciation Reserve | | | \$ - | \$ - | \$ 88 | \$ 176 | \$ 310 | \$ 519 | \$ 897 | \$ 1,473 | \$ 3,377 | \$ 6,350 | \$ 10,970 | \$ 16,947 | \$ 23,628 | \$ 4,980 |

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 <u>Vintage</u> <u>2016</u> (C) |
|-----------------|---|--------|---|
| 1 | Total ASRP Plant Additions | | \$ 1,130,362.00 |
| | Tax Base In-service subject to : | | |
| 2 | Bonus Depreciation- 50% | | 1,130,362 |
| 3 | MACRS | | <u>565,181</u> |
| | Tax Depreciation | | |
| 4 | Bonus Depreciation- 50% | | 565,181 |
| 5 | MACRS on Balance | | <u>21,194</u> |
| 6 | Total Tax Depreciation | | <u>586,375</u> |
| 7 | Book Depreciation | | 4,980 |
| 8 | Tax Depreciation in Excess of Book Depreciation | | 581,395 |
| 9 | Cost of Removal | | <u>4,187</u> |
| 10 | Total Difference | | <u>\$ 585,582</u> |
| 11 | Deferred Taxes @ | 38.47% | 225,274 |
| 12 | | | |

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

Test Year 12/31/16 ASRP Investment Summary

| Line No. | Month (A) | Number of Months (B) | ASRP Capex | | Retirements | | Cost of Removal | |
|----------|----------------------|----------------------------|-----------------|---------------------|-----------------|--------------------|-----------------|-------------------|
| | | | By Month (C) | Cumulative (D) | By Month (E) | Cumulative (F) | By Month (G) | Cumulative (H) |
| 1 | Balance @ 12/31/2015 | 13 | - | \$ - | - | \$ - | - | \$ - |
| 2 | Jan-16 | 12 | \$ 37,729 | 37,729 | - | - | - | - |
| 3 | Feb-16 | 11 | 16,027 | 53,756 | (15,895) | (15,895) | - | - |
| 4 | Mar-16 | 10 | 20,485 | 74,241 | (835) | (16,730) | - | - |
| 5 | Apr-16 | 9 | 34,739 | 108,980 | (2,556) | (19,286) | 2,389 | 2,389 |
| 6 | May-16 | 8 | 72,395 | 181,375 | (4) | (19,290) | - | 2,389 |
| 7 | Jun-16 | 7 | 84,870 | 266,245 | - | (19,290) | 2,753 | 5,142 |
| 8 | Jul-16 | 6 | 571,890 | 838,135 | (3,045) | (22,335) | 1,934 | 7,076 |
| 9 | Aug-16 | 5 | 458,274 | 1,296,409 | - | (22,335) | - | 7,076 |
| 10 | Sep-16 | 4 | 706,429 | 2,002,839 | (397) | (22,733) | - | 7,076 |
| 11 | Oct-16 | 3 | 587,077 | 2,589,916 | (5,368) | (28,101) | - | 7,076 |
| 12 | Nov-16 | 2 | 315,355 | 2,905,271 | (13,766) | (41,867) | 330 | 7,406 |
| 13 | Dec-16 | 1 | 1,434,533 | 4,339,804 | (6,339) | (48,206) | 1,392 | 8,798 |
| | | | | <u>14,694,701</u> | | <u>(276,067)</u> | | <u>54,428</u> |
| 14 | Number of months | | | 13 | | 13 | | 13 |
| 15 | 13 Month Average | | | <u>\$ 1,130,362</u> | | <u>\$ (21,236)</u> | | <u>\$ 4,187</u> |

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

Test Year 12/31/16 Reconnaissance O&M

| <u>Line No.</u> | <u>Month</u> (A) | <u>ASRP O&M 2016</u> (B) |
|-----------------|---------------------|---------------------------------|
| 1 | Jan-17 | \$ - |
| 2 | Feb-17 | - |
| 3 | Mar-17 | - |
| 4 | Apr-17 | - |
| 5 | May-17 | - |
| 6 | Jun-17 | - |
| 7 | Jul-17 | - |
| 8 | Aug-17 | 9,264 |
| 9 | Sep-17 | 18,719 |
| 10 | Oct-17 | 7,750 |
| 11 | Nov-17 | 4,853 |
| 12 | Dec-17 | - |
| 13 | Total | \$ 40,586 |

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

Test Year 12/31/16 ASRP Meter Relocation O&M

| <u>Line No.</u> | <u>Month</u> (A) | <u>ASRP O&M 2016</u> (B) |
|-----------------|---------------------|---------------------------------|
| 1 | Jan-17 | \$ - |
| 2 | Feb-17 | - |
| 3 | Mar-17 | 172 |
| 4 | Apr-17 | - |
| 5 | May-17 | 345 |
| 6 | Jun-17 | 345 |
| 7 | Jul-17 | - |
| 8 | Aug-17 | 517 |
| 9 | Sep-17 | 345 |
| 10 | Oct-17 | - |
| 11 | Nov-17 | - |
| 12 | Dec-17 | - |
| 13 | Total | <u>\$ 1,724</u> |

Duke Energy Kentucky, Inc.
4580 Olympic Blvd.
Erlanger, Kentucky 41018

Ky. P.S.C. Gas No. 2
Second Revised Sheet No. 63
Cancelling and Superseding
First Revised Sheet No. 63
Page 1 of 1

RIDER ASRP

ACCELERATED SERVICE REPLACEMENT PROGRAM RIDER

APPLICABILITY

Applicable to all customers receiving service under the Company's sales and transportation rate schedules.

CALCULATION OF ACCELERATED SERVICE REPLACEMENT RIDER REVENUE REQUIREMENT

The ASRP Rider revenue requirement includes the following:

- a. ASRP-related Plant In-Service not included in base gas rates minus the associated ASRP-related accumulated depreciation and accumulated deferred income taxes;
- b. Retirement and removal of plant related to ASRP construction;
- c. The rate of return on the net rate base is the overall rate of return on capital, using the capital structure and debt rates from the most recent base gas rate case and using a 9.7% ROE, grossed up for federal and state income taxes;
- d. Depreciation expense on the ASRP-related Plant In-Service less retirements and removals;
- e. Property taxes related to ASRP and;
- f. Operation and Maintenance Costs for reconnaissance and relocation of meters.

ACCELERATED SERVICE REPLACEMENT PROGRAM FACTORS

All customers receiving service under Rate RS and Rate GS shall be assessed a separate monthly charge that will enable the Company to complete the service replacement program. This monthly charge is in addition to the Customer Charge component of their applicable rate schedule, as well as any other applicable monthly charges. Customers receiving service under Rate DGS, Rate FT-L, Rate IT and Rate SSIT will be assessed a separate throughput charge in addition to their commodity delivery charge, for that purpose.

Rider ASRP will be updated annually, to reflect the anticipated impact on the Company's revenue requirements of net plant additions and projected operations and maintenance expense during the upcoming calendar year. Such adjustments to the Rider will become effective with the first billing cycle of January, and will reflect the allocation of the required revenue increase based on the revenue distribution approved by the Commission. After each year, the Company will submit a balancing adjustment to true-up the actual costs with the projected program costs for the preceding year. Any balancing adjustment will become effective with the first billing cycle on or after the effective date of the change.

The charges for the respective gas service schedules for the revenue month beginning January 2018 is: (T)

| | | |
|---|---------------|-----|
| Rate RS, Residential Service | \$1.80/month | (I) |
| Rate GS, General Service | \$1.78/month | (I) |
| Rate DGS, Distributed Generation Service | \$0.00045/CCF | (I) |
| Rate FT-L, Firm Transportation Service – Large | \$0.00045/CCF | (I) |
| Rate IT, Interruptible Transportation Service | \$0.00039/CCF | (I) |
| Rate SSIT, Spark Spread Interruptible Transportation Rate | \$0.00039/CCF | (I) |