COMMONWEALTH OF KENTUCKY BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION

| In the Matter of: | | |
|--------------------------------|---|---------------------|
| THE APPLICATION OF DUKE ENERGY |) | |
| KENTUCKY, INC. TO AMEND ITS |) | Case No. 2019-00277 |
| DEMAND SIDE MANAGEMENT |) | |
| PROGRAMS |) | |
| | | |

APPLICATION OF DUKE ENERGY KENTUCKY, INC. TO AMEND ITS DEMAND SIDE MANAGEMENT PROGRAMS

Comes now Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the Company), pursuant to KRS 278.285, and other applicable law, and does hereby request the Commission to approve an amendment of the Demand Side Management (DSM) programs as Ordered by this Commission. In support of its Application, Duke Energy Kentucky respectfully states as follows:

Introduction

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

¹ In the Matter of the Application of Duke Energy Kentucky, Inc. for the Annual Cost Recovery Filing for Demand Side Management, Case No. 2012-00495, (Order) (April 11, 2013).

the Commonwealth of Kentucky. A copy of its articles of incorporation is on file with the Commission in Case No. 2013-00097.

Duke Energy Kentucky's business address is 139 East Fourth Street,
 Cincinnati, Ohio 45202. The Company's local office in Kentucky is Duke Energy
 Envision Center, 1262 Cox Road, Erlanger, Kentucky 41018. Duke Energy Kentucky's
 email address is

KYfilings@duke-energy.com.

3. On November 15, 2012, Duke Energy Kentucky filed an application for the cost recovery of demand side management programs. The Company's application was docketed as Case No. 2012-00495. On April 11, 2013, this Commission approved that Application and Ordered Duke Energy Kentucky to file an application requesting program expansion(s) and to include: (1) an Appendix A, setting forth the Cost Effectiveness Test Results of all DSM programs, (2) an Appendix B, setting forth the recovery of program costs, lost revenues, and shared savings that are used in determining the true-up of proposed DSM factors; and (3) a signed and dated proposed Rider DSMR, Demand Side Management rate, for both electric and natural gas customers, Appendix C, by August 15, annually. ²

Current DSM Programs

4. Duke Energy Kentucky has a long history of successful DSM implementation and has been a leader in the industry with respect to energy efficiency (EE) and peak demand reduction (DR) programs, having offered such programs since the mid-90's. Its existing portfolio of DSM programs was approved by the Commission in

² See Order, para. 4.

Case No. 2017-00427,³ by Order dated September 13, 2018. This current portfolio of programs are as follows:

- Program 1: Low Income Services Program
- o Program 2: Residential Energy Assessments Program
- o Program 3: Residential Smart \$aver® Efficient Residences Program
- o Program 4: Residential Smart \$aver® Energy Efficient Products
 Program
- o Program 5: Smart \$aver® Prescriptive Program
- o Program 6: Smart \$aver® Custom Program
- o Program 7: Power Manager® Program
- o Program 8: PowerShare®
- o Program 9: Low Income Neighborhood
- o Program 10: My Home Energy Report
- o Program 11: Non-Residential Small Business Energy Saver Program
- o Program 12: Non-Residential Pay for Performance⁴
- 5. Consistent with the Commission's previous Orders, the Company is proposing the following programmatic changes in this year's annual amendment filings, which will then be reflected in the financial true-ups and forecasts to be included in the annual cost recovery filing for demand side management:

³ In the Matter of the Electronic Application of Annual Cost Recovery Filing for Demand Side Management by Duke Energy Kentucky, Inc. Case No. 2017-00427.

⁴ Marketed as Smart Saver® Performance

- a. This Application proposes to expand the scope and program budgets to respond to market conditions and enhance the robustness of the following:
 - i. Smart \$aver® Residential Program;5
 - ii. My Home Energy Report; and
 - The Company is also providing an update on measures within the Smart \$aver® Prescriptive Program.
- b. As agreed upon in a stipulation with the Attorney General's Office resolving the Company' Application for a Certificate of Public Convenience and Necessity (CPCN) for installation of an Advanced Metering Infrastructure (AMI)⁶ the Company is seeking approval to offer a Peak Time Rebate Pilot program.

⁵ Includes changes to Residential Smart \$aver[®] Energy Efficient Residences and Products Programs. The purpose of the Residential Smart \$aver[®] Energy Efficient Residences portion of the Residential Smart \$aver[®] Program is to offer customers prescriptive incentives for a variety of energy conservation measures designed to increase energy efficiency in their homes. The program utilizes a network of participating contractors to encourage the installation of high efficiency equipment and the implementation of energy efficient home improvements with eligible customers. Equipment and services to be incentivized include:

Installation of high efficiency air conditioning (AC) and heat pump (HP) systems, including option for qualifying smart thermostat;

Performance of AC and HP tune-up maintenance services;

Implementation of attic insulation and air sealing services;

Implementation of duct sealing and insulation services; and

Installation of efficient heat pump water heaters.

⁶In the Matter of the Application of Duke Energy Kentucky, Inc for (1) a Certificate of Public Convenience and Necessity Authorizing the Construction of an Advanced Metering Infrastructure; (2) Request for Accounting Treatment; and (3) All Other Necessary Waivers, Approvals, and Relief, Case No. 2016-00152 (Ky. P.S.C Order) (May 25, 2017).

6. The Residential Collaborative⁷ and the Commercial and Industrial Collaborative⁸ have received the Company's proposed changes and had the opportunity to provide comments.

Amendments to Existing Programs

7. Duke Energy Kentucky is seeking approval to expand the scope of its Smart \$aver® Residential program as follows:

The Online Saving Store provides eligible customers to purchase specialty bulbs and have them shipped directly to their homes. Currently the store only offers a variety of LED lighting--Reflectors (indoor and outdoor), Globes, Candelabra, 3 ways, Dimmable and certain A-line type bulbs of wattages not included in the Free LED offer. The request starting in 2020 is to expand the product offerings to additional energy efficiency measures that provide energy savings to customers. The incentive levels and purchase limits vary by product.

Those additional products are (with purchase limits):

- Energy Star smart Wi-Fi thermostats (purchase limit 2)
- Energy Star Advanced power strips (purchase limit 4)
- Water conservation products (purchase limit 3)
- Energy Star Air Purifiers (purchase limit 2)
- Energy Star Dehumidifiers (purchase limit 2)

⁷ The Residential Collaborative members receiving the information: Kent Chandler, Rebecca Goodman and Heather Napier (Office of the Kentucky Attorney General), Jock Pitts and Nina Creech (People Working Cooperatively), Kurt Krahn (Northern Kentucky Community Action Commission), Laura Pleiman (Boone County), Peter Nienaber (Northern Kentucky Legal Aid), Rick Bender and Kenya Stump (Kentucky Energy and Environment Cabinet), Chris Jones and Rob McCracken (Greater Cincinnati Energy Alliance), and Tim Duff and Trisha Haemmerle (Duke Energy).

⁸ The Commercial & Industrial Collaborative members receiving the information: Kent Chandler, Rebecca Goodman and Heather Napier (Office of the Kentucky Attorney General), Jock Pitts (People Working Cooperatively), Rick Bender and Kenya Stump (Kentucky Energy and Environment Cabinet), Chris Baker (Kenton County Schools), and Tim Duff and Trisha Haemmerle (Duke Energy).

 LED lighting fixtures – portable, direct wire & outdoor photocell lights (purchase limit, total of 8)

The Free Lighting component of the program was designed to increase the energy efficiency of residential customers by offering customers 9-Watt LEDs to install in high-use fixtures within their homes. The LED offer was available through an ondemand ordering platform, enabling customers to request LEDs and have them shipped directly to their homes. Customers may have the ability to order in quantities of 3, 6, 8, 12, and 15 packs. Quantities offered by the platform are dependent on past participation in free lighting programs that contribute to their free bulb limit.9

The Free LED Program is scheduled to discontinue in Duke Energy Kentucky in Q2 2020 because of the efficiency standards changes for general service bulbs (A-Line) that will become effective January 1, 2020 due to the implementation of the Energy Independence and Security Act (EISA). This standard change legislation will diminish the impact of the program as well as its cost effectiveness, therefore, no longer making it a viable program for the company to continue to offer. Duke Energy will work collaboratively with the implementation vendor to manage inventory and process pipeline orders efficiently during this time.

⁹ As approved in Case No. 2016-00112.

- 8. Duke Energy Kentucky is seeking approval to expand the scope of its My Home Energy Report program to reduce the budget in response to the program converting to an opt-in program in response to the Commission's Order in Case No. 2017-00427.¹⁰
- Duke Energy Kentucky is seeking approval to amend its Smart \$aver®
 Prescriptive program as follows:¹¹

Standards continue to change and new, more efficient technologies continue to emerge in the market. The Company expects to continue to add or alter measures to provide incentives for customers to take advantage of a broader suite of products. The Company undertakes an annual review of technologies and efficiency levels through internal sources and with the assistance of outside technical experts. The review includes the existing technology categories as well as other emerging areas for energy efficiency.

For 2019-20, a total of 38 measure additions or measure modifications were identified for the Food Service technology category. Sixty-seven measure additions

¹⁰ The My Home Energy Report (MyHER Report) compares household electric usage to similar, neighboring homes, and provides recommendations and actionable tips to lower energy consumption. The report also informs a customer of the Company's other energy efficiency programs when applicable. Beginning in 2019¹⁰, the My Home Energy Report changed from an opt-out program to an opt-in program at the direction of the Kentucky Public Service Commission. Customers will receive at most 2 paper reports and 12 emailed reports. Customers who enroll in the MyHER Interactive portal will also be eligible to receive weekly email challenges that seek to engage customers in active energy management, additional efficiency upgrades, and conservation behaviors

¹¹ The purpose of the Duke Energy Smart \$aver® Prescriptive program is to provide incentives to influence non-residential customers to take action that they would not have absent of the program incentives. Duke Energy Kentucky continues to evaluate changes to existing measures, to take into consideration changes to market conditions and energy efficiency standards, and the addition of measures to offer customers additional options for energy savings.

This program promotes prescriptive incentives for the following technologies – lighting, HVAC, pumps & drives (variable frequency), food services, process equipment, and information technology equipment. Equipment and incentives are predefined based on current market assumptions and Duke Energy's engineering analysis. The eligible measures, and incentives for equipment as well as customer eligibility requirements are listed in the applications posted on Duke Energy's Business and Large Business websites for each technology type.

or modifications were identified for the HVAC technology category. Thirty-one measure additions or modifications were identified for the Information Technology category. Nineteen measure additions or modifications were identified for the Process Equipment category and one measure was identified for addition into the Pumps & Drives technology category. Lastly, there were 74 measure additions or modifications identified for the Lighting technology category. A list of all measures to be added to the program are included in Appendix D.

Requesting Approval for a Peak Time Rebate Pilot Program

- 10. This Application proposes to offer participating customers the opportunity to lower their electric bill by reducing their electric usage during Company-designated peak load periods known as Critical Peak Events (CPE) through the Peak Time Rebate Pilot program. Company may brand the program to customers under a different name which at this time is undetermined. Duke Energy Kentucky seeks approval for the Peak Time Rebate pilot program as committed in Case No. 2016-00152.
- 11. The Peak Time Rebate (PTR) pilot program is an incentive based demand response program for residential customers designed to reduce load during the Company's peak load periods. This new pilot will enroll up to approximately 1,000 eligible customers and provides participating customers the opportunity to lower their electric bill by reducing their electric usage during Company-designated CPEs. Duke Energy Kentucky will administer this new pilot program internally but evaluate it through an independent vendor as agreed in the above referenced case. The Company hereby requests approval of this approximate two-year pilot program. After initial launch, projected for May 2020 based on a projected Commission approval by December 31,

2019, the pilot will run for 2 years at which time the evaluation, measurement and verification (EM&V) vendor¹² will begin their analysis and write a pilot report. The pilot will continue, past 2 years, until such time that Company files a request to the Commission and receives approval to either terminate the program or continue it with or without changes.

- 12. The Company may call a CPE, at its discretion, during any calendar month. CPEs may only occur on a weekday, Monday through Friday, and will last 4 hours. During the months of May through October, a CPE will begin at 3 p.m. and end at 7 p.m. During months of November through April, a CPE will begin at 6 a.m. and end at 10 a.m. CPEs will not occur on weekends and New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, and Christmas Day on the day nationally designated to be celebrated as such.
- 13. For each CPE, the Company, using the Customer's electric usage history, will estimate a baseline which is the electric usage (i.e., kWh) that would have been used by the Customer absent any Customer initiated action to reduce electric usage. The Customer's actual kWh usage captured through AMI meters during the CPE will be compared to the baseline. Net reduction in usage from the baseline over the CPE period will receive a \$0.33 cents/kWh credit. If no net reduction occurred, no credit will be provided. Customers will not be penalized for increasing usage compared to their baseline during a CPE. All consumption however is subject to Rate RS charges. If, for any reason, the actual kWh is not available from the smart meter, an estimate of the

¹² Duke Energy Kentucky has selected a vendor and has begun work for the pilot.

actual kWh consumed during the CPE will be used. Credits will be calculated and applied to the Customer's bill no later than the second billing month following the CPE(s).

- 14. Participating customers must provide and maintain a contact method (i.e., an email address or text number) at the Customer's expense for the Company to provide notification of CPEs. It will be Customer's responsibility to monitor and control their energy usage before, during, and after a CPE. Customers are not obligated to reduce load during any CPE. However, to earn credits available, participants must reduce their consumption during CPE hours. Other provisions of the customer's applicable rate schedule will apply to service supplied under this pilot program.
- 15. The Company will notify customers of a CPE using the contact information provided by the Customer. The Company will use its best efforts to notify Customers of a CPE by 8:00 p.m. on the day prior to a CPE. However, notification can occur at any time but no later than one hour prior to the event. In addition, Company may send participating customers a reminder of the event just prior to the event start for some events. Failure of the Customer to receive the Company notice of a CPE shall not entitle the Customer to receive credits under this program.
- 16. Participating customers will agree to participate in the pilot until the end of the 2-year pilot program and may continue to participate at their option and under their initial enrolled account until the pilot program is terminated. Company reserves the option to terminate Customer's participation for operational issues or upon Customer request.
- 17. Eligible customers will be solicited through email and as needed direct mail. Interested customers will be able to enroll online or through Company's Customer

Prototype Lab. The enrollment process will collect customer information necessary for the pilot including the customer's name, account number, address, preferred contact information, and whether the customer owns a Wi-fi enabled programmable thermostat. The thermostat information will be used to compare how customers with a remote-control HVAC system respond to CPEs as compared to participants who do not have this capability. Company plans to accept enrollment of solicited eligible customers even if the 1,000-enrollment target is slightly exceeded provided that the customer responds in a reasonable amount of time after the solicitation is sent; up to 2 months. Eligible pilot participants will be active customers on Rate RS who are not participating in Power Manager or net metering, do not have a deferred payment plan or medical alert designation, and have not opted out of Company's smart meter functionality. In addition, the Company reserves the option to limit the number of renters and low usage customers who enroll in the pilot program to ensure diverse pilot participation.

- 18. With the PTR pilot program, Duke Energy Kentucky will broaden the available demand response options for residential customers and effectively deliver another appealing peak load management option.
- 19. Duke Energy Kentucky requests funding for the program to begin upon Commission approval. Billing system revisions and other preparations for program implementation will begin upon Commission approval.
- 20. The Company requests approval by December 31, 2019 to implement the changes immediately. The Company includes a program tariff (Appendix E) to reflect the program offerings. The Company will true-up the costs and include the cost effectiveness scores within the Annual Cost Recovery Filing for Demand Side Management to be filed

November 15, 2020 recovering the July 1, 2019 – June 30, 2020 timeframe costs. Per the agreement referenced above, this pilot program will not be included in the shared savings mechanism but will receive cost recovery of program costs.

- 21. Pursuant to KRS 278.285(1)(b) and the Commission's Order, Appendix A includes the Cost Effectiveness Test Results for the Smart \$aver® Residential, My Home Energy Report, Smart \$aver® Prescriptive and Peak Time Rebate Pilot programs. For the Peak Time Rebate Pilot, we ask the Commission to note that the effectiveness scores are based on a limited pilot duration of approximately 3 years, using a conservative load reduction value of 0.3 kW per hour per participant, and are supporting billing system revisions as well as EM&V costs. These factors result in effectiveness scores less than 1.0. Nonetheless, the Company requests approval to allow the opportunity to research customer responsiveness and determine if the program can become cost effective in the future.
- 22. Pursuant to KRS 278.285(1)(c) and the Commission's Order, Appendix B includes the calculations to recover program costs, lost revenues, and shared shavings, that are used in determining the true-up of proposed DSM factor(s).
- 23. A signed and dated proposed Rider DSMR, Sheet No. 78 Demand Side Management Rider, for both electric and natural gas customers, is attached hereto as Appendix C.
- 24. Pursuant to KRS 278.285(1)(c) and the Commission's Order, the Company would file program evaluations within this application. However, due to the suspension of program activity in February 2018, there are no evaluation reports to file at this time.

25. Finally, Duke Energy Kentucky respectfully requests that the Commission's Order in this proceeding approve any tariff modifications to be effective so to align with the Company's first billing cycle in the month following the Commission's Order. The Company is unable to implement tariff changes immediately upon approval and outside of a billing cycle under its current billing system. The Company needs at least five business days from the issuance of an Order to implement rate changes and appropriately test the calculations.

WHEREFORE, Duke Energy Kentucky respectfully requests that the Commission grant the relief requested herein.

Respectfully submitted,

Rocco D'Ascenzo

Associate General Counsel

Duke Energy Kentucky, Inc.

139 East Fourth Street, 1313 Main

Cincinnati, Ohio 45201-0960

(513) 287-4320

(513) 287-4385 (f)

Rocco.D'Ascenzo@duke-energy.com Counsel for Duke Energy Kentucky, Inc.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing filing was served on the following via ordinary mail, postage prepaid, this 15th day of August 2019:

Kent Chandler
The Office of the Attorney General
Utility Intervention and Rate Division
700 Capital Avenue, Ste 20
Frankfort, Kentucky 40601-8204

Catrena Bowman-Thomas
Northern Kentucky Community Action Commission
P.O. Box 193
Covington, Kentucky 41012
ftandy@nkcac.org

Peter Nienaber Northern Kentucky Legal Aid, Inc. 302 Greenup Covington, Kentucky 41011 pnienaber@lablaw.org

Rocco O. D'Ascenzo

Cost Effectiveness Test Results (A)

| UCT | TRC | RIM | PCT |
|------|--------------|------------------------|---|
| 4.05 | | E CYPA I | |
| 4.00 | | | |
| 1.86 | 1.86 | 0.79 | NA |
| 2.40 | 1.34 | 0.74 | 3.35 |
| 0.19 | 0.20 | 0.19 | NA |
| | | | N. Take |
| 4.23 | 1.93 | 1.05 | 3.28 |
| | 2.40 0.19 | 2.40 1.34 0.19 0.20 | 2.40 1.34 0.74 0.19 0.20 0.19 |

(A) Cost effectiveness scores of the modified programs listed, as filed in 2019 amendment filing.

Most recent scores for existing programs can be found in the Company's annual true up filing, Case No. 2018-00370, Appendix A.

Kentucky DSM Rider

Comparison of Revenue Requirement to Rider Recovery

| | | (1) | (2) | | (3) | (4) | (5) | | (6) | | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
|--|----|---------------|---|------|--|--|-------------|---------|---------------------------|----|-----------|--|-----------------|--------------------------------|------------------------------|------------------------|----------------------|---------------------------------|
| Residential Programs | | to 6/2018 (A) | Projected Lost Reve 7/2017 to 6/2018 | | Projected Shared Savings 7/2017 to 6/2018 (A) | Program Expenditures 7/2017 to 6/2018 (B) | Prog Gas | mm Expe | enditures (C) Electric | | Revenues | Shared Savings 7/2017 to 6/2018 (6) | 2017 Gas (D) | Reconciliation Electric (E) | Rider Colle | ection (F) Electric | (Over)/Ur Gas (G) | nder Collection Electric (H) |
| Appliance Recycling Program | \$ | 10 0/2010 [A] | | .695 | \$ | \$ - | \$ | . \$ | Crecure - | 5 | 12,052 | | Cas (D) | Elecole (E) | 000 | Circuit | Ges (O) | Electric (tr) |
| Energy Efficiency Education Program for Schools | 5 | 275,930 | \$ 67 | 148 | \$ (495) | \$ 155,368 | \$ 33 | ,228 \$ | 122,140.11 | 5 | 47,617 | \$ 1,910 | | | | | | |
| Low Income Neighborhood | 5 | 306,206 | \$ 37 | 488 | \$ (15,051) | \$ 221,100 | 2 | - \$ | 221,100.45 | \$ | 28,800 | \$ (9,556) | | | | | | |
| Low Income Services | \$ | 925,461 | \$ 5 | ,905 | \$ (46,167) | \$ 431,011 | \$ 187 | ,756 \$ | 243,254.65 | 5 | 29,438 | \$ (16,091) | | | | | | |
| My Home Energy Report | \$ | 798,061 | \$ 700 | ,256 | \$ 25,078 | 5 372,001 | 5 | - 5 | 372,000.83 | 5 | 395,323 | \$ 25,456 | | | | | | |
| Residential Energy Assessments | \$ | 276,410 | 5 79 | ,984 | \$ 8,280 | \$ 136,433 | 5 | - 5 | 136,433.40 | 5 | 46,714 | \$ 7,164 | | | | | | |
| Residential Smart Saver® | \$ | 2,503,271 | \$ 1,026 | ,020 | \$ 85,585 | \$ 1,446,170 | \$ | - \$ | 1,446,169,64 | \$ | 780,687 | \$ 126,113 | | | | | | |
| Power Manager® | 5 | 706,922 | \$ | | \$ 840,876 | \$ 527,636 | \$ | - \$ | 527,835.84 | \$ | 1.0 | \$ 111,905 | | | | | | |
| Power Manager® for Apartments | \$ | 58,552 | 3 | - 3 | \$ 5,795 | \$ (8,399) | \$ | - 5 | (8,399.05 | 5 | 4 | \$ 840 | | | | | | |
| Home Energy Assistance Pilot Program (I) Revenues collected except for HEA | \$ | 258,401 | | | | \$ 214,095 | \$.81 | ,682 \$ | | | | | - | | \$ 109,473 \$ (1,472,706) | | | |
| Total | \$ | 6,109,214 | \$ 1,984 | 494 | \$ 903,882 | \$ 3,485,415 | \$ 310 | ,646 \$ | 3,184,788 | \$ | 1,340,630 | \$ 247,742 | \$ (2,724,711 | 9) 5 46,14 | 4 \$ (1,363,233) | \$ 10,055,527 | \$ (1,050,83) | 9) \$ (5,238,244 |

(A) Amounts identified in report filed in Case No. 2015-00368 and Case No. 2016-00288.

(B) Actual program expenditures, lost revenues (for this period and from prior period DSM measure installations), and shared savings for the period July 1, 2017 through June 30, 2018.

(C) Allocation of pringeram expenditures to gas and electric in accordance with the Commission's Order in Case No. 2012-00368.

(C) Recovery allowed in accordance with the Commission's Order in Case No. 2012-00365.

(E) Recovery allowed in accordance with the Commission's Order in Case No. 2012-00365.

(F) Revenues collected through the DSM Rider between July 1, 2017 and June 30, 2016.

(S) Column (5) + Column (9) - Column (10) - Column (1

| Commercial Programs Small Business Energy Saver Smart Saver® Custom Smart Saver® Non-Residential Performance Incentive Program | | (1) ted Program Costs 017 to 6/2018 (A) 1,077,726 435,565 44,593 | 5 5 | (2) ojected Lost Revenues 7/2017 to 6/2018 (A) 232,139 109,614 14,276 | S | (3) rojected Shared Savings 7/2017 to 6/2018 (A) 127,506 64,889 5,908 | 5 | 2017 to 6/2018 (B) 883,115 641,404 | \$ | Lost Revenues 017 to 8/2018 (B) 166,751 133,475 | 7/20 | (8) Shared Savings 017 to 6/2018 (B) 111,408 291,228 | 201 Reconcilia | | Co | (8) Rider Rection (D) | | (9) Over)/Under ollection (E) |
|---|----|---|-----|--|----|--|---|--|----|--|------|--|-------------------|---------|----|-----------------------------|----|-------------------------------------|
| Smart Sever® Prescriptive - Energy Star Food Service Products Smart Sever® Prescriptive - HVAC | 5 | 40,177 224,262 | 5 | 14,711 27,306 | \$ | 20,926 | 5 | 107,753 | \$ | 6,995 10,908 | | 5,716 2,712 | | | | | | |
| Smart \$aver® Prescriptive - IT Smart \$aver® Prescriptive - Lighting | \$ | 15,537 1,223,636 | 5 | 5,272 283,247 | \$ | (1,653) 125,607 | 3 | 2,309,504 | \$ | 359,979 6,529 | \$ | (565) 552,075 6.629 | | | | | | |
| Smart Saver® Prescriptive - Motors/Pumps/VFD Smart Saver® Prescriptive - Process Equipment Power Manager® for Business | 5 | 30,337 9,832 143,872 | \$ | 10,489 2,331 6,906 | 5 | 3,034 (983) (2,021) | 1 | 5,139 | \$ | 2,043 131 | \$ | (514) (3,224) | | | | | | |
| Total | 3 | 3,245,539 | 5 | 706,291 | | 351,552 | | 4,282,770 | 3 | 685,815 | \$ | 967,465 | \$ 5, | 576,651 | \$ | 5,490,906 | \$ | 6,022,795 |
| PowerShare® | 5 | 924,919 | \$ | | \$ | 80,163 | 3 | 709,527 | \$ | - | \$ | 141,236 | \$ | 178,273 | \$ | 483,782 | 5 | 565,255 |

A) Amounts identified in report filed in Case No. 2015-00388 and Case No. 2016-00289.

B) Actual program expenditures, lost revenues (for this period and from prior period DSM measure installations), and shared savings for the period July 1, 2017 through June 30, 2018.
C) Recovery allowed in accordance with the Commission's Order in Case No. 2012-00085.
D) Revenues collected through the DSM Rider between July 1, 2017 and June 30, 2018.
E) Column (4) + Column (5) + Column (7) - Column (8)

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2019-2020 Projected Program Costs, Lost Revenues, and Shared Savings

Residential Program Summary (A)

| | | | | Lost | | Shared | | | Allocation of | f Costs (B) | | | В | udget (Costs, & Shared | | A second residence of the control of |
|--|----|-----------|----|---------|----|----------|----|-----------|---------------|-------------|----|--------------|----|---------------------------|----|--|
| | - | Costs | R | evenues | | Savings | _ | Total | Electric | Gas | EI | ectric Costs | | Electric | G | Sas Costs |
| Low Income Neighborhood | \$ | 371,468 | \$ | 7,935 | \$ | (15,844) | \$ | 363,559 | 100.0% | 0.0% | \$ | 371,468 | \$ | 363,559 | \$ | |
| Low Income Services | \$ | 810,628 | \$ | 11,128 | \$ | (30,069) | \$ | 791,688 | 100.0% | 0.0% | \$ | 810,628 | \$ | 791,688 | \$ | |
| My Home Energy Report (D) | 5 | 165,696 | 5 | 161,739 | \$ | 13,511 | \$ | 340,946 | 100.0% | 0.0% | \$ | 165,696 | \$ | 340,946 | \$ | - |
| Residential Energy Assessments | \$ | 326,678 | \$ | 15,180 | \$ | 7,262 | \$ | 349,120 | 100.0% | 0.0% | \$ | 326,678 | \$ | 349,120 | \$ | - |
| Residential Smart \$aver® (D) | \$ | 1,949,221 | \$ | 260,300 | \$ | 252,080 | \$ | 2,461,601 | 100.0% | 0.0% | \$ | 1,949,221 | \$ | 2,461,601 | \$ | - |
| Power Manager® | \$ | 564,560 | \$ | - | \$ | 131,418 | \$ | 695,978 | 100.0% | 0.0% | \$ | 564,560 | \$ | 695,978 | \$ | - |
| Peak Time Rebate Pilot | \$ | 207,736 | 5 | 4 | S | - | \$ | 207.736 | 100.0% | 0.0% | \$ | 207,736 | \$ | 207,736 | \$ | 4 |
| Total Costs, Net Lost Revenues, Shared Savings | \$ | 4,395,988 | \$ | 456,282 | \$ | 358,359 | \$ | 5,210,629 | | | \$ | 4,395,988 | \$ | 5,210,629 | \$ | - |
| Home Energy Assistance Pilot Program (E) | s | 261,425 | | | | | | | | | | | \$ | 151,925 | \$ | 109,500 |

NonResidential Program Summary (A)

| | | | | Lost | | Shared | | Allocation of | Costs (B) | | | В | udget (Costs, L & Shared S | |
|---|----|-----------|----|----------|----|-----------|------------------|---------------|-----------|------|----------------|----|-------------------------------|-----|
| | | Costs | B | Revenues | | Savings | Total | Electric | Gas | E | Electric Costs | | Electric | Gas |
| Small Business Energy Saver | \$ | 874,529 | \$ | 36,499 | \$ | 116,303 | \$ 1,027,331 | 100.0% | 0.09 | % \$ | 874,529 | \$ | 1,027,331 | NA |
| Smart \$aver® Custom | \$ | 675,415 | \$ | 36,816 | \$ | 155,383 | \$ 867,615 | 100.0% | 0.09 | % \$ | 675,415 | \$ | 867,615 | NA |
| Smart \$aver® Non-Residential Performance Incentive Program | \$ | | \$ | | \$ | | \$ | 100.0% | 0.0 | % \$ | - | \$ | | NA |
| Smart Saver® Prescriptive (C), (D) | \$ | 1,676,125 | 5 | 60,956 | \$ | 520,952 | \$ 2,258,032 | 100.0% | 0.09 | 6 \$ | 1,676,125 | \$ | 2,258,032 | NA |
| PowerShare® | \$ | 908,290 | \$ | | \$ | 153,191 | \$ 1,061,481 | 100.0% | 0.09 | % \$ | 908,290 | \$ | 1,061,481 | NA |
| Total Costs, Net Lost Revenues, Shared Savings | \$ | 4,134,358 | \$ | 134,271 | \$ | 945,829 | \$ 5,214,458 | | | \$ | 4,134,358 | \$ | 5,214,458 | NA |
| Total Program | s | 8.530.346 | \$ | 590.553 | 5 | 1.304.188 | \$ 10.425.087 | | | | | | | |

⁽A) Costs, Lost Revenues (for this period and from prior period DSM measure installations), and Shared Savings for Year 8 of portfolio.

⁽B) Allocation of program expenditures to 100% electric, see Allocation of program expenditures to 100% electric, see Annual Cost Recovery for Demand Side Management Application

⁽C) Smart \$aver® Prescriptive consists of the following technologies: Energy Efficient Food Service Projects, HVAC, Lighting, IT, Pumps and Motors, and Process Equipment.

⁽D) Yellow highlighted rows include modifications to programs as described in application.

⁽E) Upon approval from the Commission, the HEA program will no longer be calculated as part of the DSMR rider

KyPSC Case No. 2019-00277 Appendix B Page 3 of 6

Duke Energy Kentucky Demand Side Management Cost Recovery Rider (DSMR) Summary of Calculations for Programs

July 2019 to June 2020

| | | gram ts (A) |
|---|----|----------------|
| Electric Rider DSM | - | (, , |
| Residential Rate RS | \$ | 5,210,629 |
| Distribution Level Rates Part A DS, DP, DT, GS-FL, EH & SP | \$ | 4,152,977 |
| Transmission Level Rates & Distribution Level Rates Part B | \$ | 1,061,481 |
| Gas Rider DSM Residential Rate RS | \$ | - |
| Gas Rider DSM | | - |

⁽A) See Appendix B, page 2 of 5.

KyPSC Case No. 2019-00277 Appendix B Page 4 of 6

Duke Energy Kentucky Demand Side Management Cost Recovery Rider (DSMR) Summary of Billing Determinants

Year 2019

Projected Annual Electric Sales kWH

Rate RS 1,436,685,800

Rates DS, DP, DT,

GS-FL, EH, & SP 2,333,287,003

Rates DS, DP, DT,

GS-FL, EH, SP, & TT 2,570,138,003

Projected Annual Gas Sales CCF

Rate RS 57,859,338

Duke Energy Kentucky Demand Side Management Cost Recovery Rider (DSMR) Summary of Calculations

July 2017 to June 2018

| , | Expected Program | | Total DSM Revenue | Estimated Billing | | DSM Cost | |
|---------|---------------------|--|---|--|--|---|--|
| A) | Costs (B) | | Requirements | Determinants (C) | | Recovery Ric | der (DSMR) |
| | | | | | | | |
|)20) \$ | 5,210,629 | \$ | (120,391) | 1,436,685,800 | kWh | \$ | (0.000084) S/kW/ |
| | | | | | | | |
| 308 \$ | 4,152,977 | \$ | 10,284,785 | 2,333,287,003 | kWh | \$ | 0 004408 S/kW |
| | | | | | | | |
| | | | | | | | |
| 486 \$ | 1,061,481 | \$ | 1,636,967 | 2,570,138,003 | kWh | \$ | 0.000637 \$/kW |
| | | | | | | | |
| | | | | | | 5 | 0 005045 S/kW |
| | | | | | | | |
| 860) \$ | | \$ | (1,069,860) | 57,859,338 | CCF | \$ | (0.018491) \$/CC |
| | | \$ | 10,731,501 | | | | |
| | | | | | | | |
| | | Ar | nnual Revenues | Number of Custon | ners | Monthly Cust | tomer Charge |
| | | \$ | 151,925 | 126,604 | | \$ | 0.10 |
| | | | | | | | |
| | | \$ | 109,500 | 91,250 | | \$ | 0.10 |
| | | \$ | 261,425 | | | | |
| | | | | | | | |
| 38.88 | 808 \$ | Program Costs (B) 020) \$ 5,210,629 808 \$ 4,152,977 486 \$ 1,061,481 | Program Costs (B) 020) \$ 5,210,629 \$ 808 \$ 4,152,977 \$ 486 \$ 1,061,481 \$ 860) \$ - \$ \$ | Program Revenue Requirements 020) \$ 5,210,629 \$ (120,391) 808 \$ 4,152,977 \$ 10,284,785 486 \$ 1,061,481 \$ 1,636,967 860) \$ - \$ (1,069,860) \$ 10,731,501 Annual Revenues \$ 151,925 \$ 109,500 | Program Revenue Billing Determinants (C) 020) \$ 5,210,629 \$ (120,391) 1,436,685,800 808 \$ 4,152,977 \$ 10,284,785 2,333,287,003 486 \$ 1,061,481 \$ 1,636,967 2,570,138,003 \$ 10,731,501 Annual Revenues \$ 151,925 Number of Custor 126,604 \$ 109,500 91,250 | Program Revenue Billing Determinants (C) (020) \$ 5,210,629 \$ (120,391) 1,436,685,800 kWh (808 \$ 4,152,977 \$ 10,284,785 2,333,287,003 kWh (486 \$ 1,061,481 \$ 1,636,967 2,570,138,003 kWh (860) \$ - \$ (1,069,860) 57,859,338 CCF \$ 10,731,501 Annual Revenues Number of Customers 151,925 Number of Customers 126,604 \$ 109,500 91,250 | Program Revenue Billing DSM Cost Recovery Ric Requirements Determinants (C) DSM Cost Recovery Ric Recovery Ri |

⁽A) (Over)/Under of Appendix B page 1 multiplied by the average three-month commercial paper rate for 2017 to include interest on over or under-recovery in accordance with the Commission's order in Case No. 95-312. Value is:

1.018100

⁽B) Appendix B, page 2.

⁽C) Appendix B, page 4.

⁽D) Forecasted changes do not reflect the request to increase the HEA monthly charge to \$0.20 per meter/per month. The HEA forecast does not factor into the DSMR rate adjustment

Page 6 of 6

Allocation Factors based on July 2017-June 2018

Summary of Load Impacts July 2017 Through June 2018*

| | | % of Total Res | | % of Total Res | Elec % of Total % of | Gas % of Total % of |
|--|---------------|----------------|------------|----------------|----------------------|---------------------|
| Residential Programs | <u>kWh</u> | Sales | ccf | Sales | Sales | Sales |
| Energy Efficiency Education Program for Schools | 361,289 | 0.0240% | 4,214 | 0.0065% | 79% | 21% |
| Low Income Neighborhood | 226,273 | 0.0150% | - | 0.0000% | 100% | 0% |
| Low Income Services | 197,878 | 0.0132% | 6,549 | 0.0102% | 56% | 44% |
| My Home Energy Report | 9,221,319 | 0.6129% | - | 0.0000% | 100% | 0% |
| Residential Energy Assessments | 294,049 | 0.0195% | - | 0.0000% | 100% | 0% |
| Residential Smart \$aver® | 4,933,960 | 0.3280% | - | 0.0000% | 100% | 0% |
| Power Manager® | | 0.0000% | - | 0.0000% | 100% | 0% |
| Power Manager® for Apartments | | 0.0000% | 4 | | 100% | 0% |
| Total Residential | 15,234,768 | 1.0126% | 10,763 | 0.0167% | | |
| Total Residential (Rate RS) Sales For July 2017 Through June 2018 | 1,504,451,330 | 100% | 64,504,698 | 100% | | |

^{*}Load Impacts Net of Free Riders at Meter

KY.P.S.C. Electric No. 2

Twenty-FifthFourth Revised Sheet No.

78 Duke Energy Kentucky 4580 Olympic Blvd.

Cancels and Supersedes

78

Twenty-FourthThird Revised Sheet No.

Erlanger, KY 41018

Page 1 of 1

RIDER DSMR

DEMAND SIDE MANAGEMENT RATE

The Demand Side Management Rate (DSMR) shall be determined in accordance with the provisions of Rider DSM, Demand Side Management Cost Recovery Rider, Sheet No. 75 of this Tariff.

The DSMR to be applied to residential customer bills is (\$0.00008464) per kilowatt-hour.

(R)

A Home Energy Assistance Program (HEA) charge of \$0.10 will be applied monthly to residential customer bills through December 2020.

The DSMR to be applied to non-residential distribution service customer bills is \$0.00504524 per kilowatthour.

(IR)

The DSMR to be applied for transmission service customer bills is \$0.000637 per kilowatt-hour.

Issued by authority of an Order by the Kentucky Public Service Commission dated December 13, 2018 in Case No. 20198-00277370.

Issued: June 10August 15, 2019 Effective: June 7September 15, 2019

Issued by Amy B. Spiller, President /s/ Amy B. Spiller

Duke Energy Kentucky 4580 Olympic Blvd. Erlanger, KY 41018 KY.P.S.C. Electric No. 2 Twenty-Fifth Revised Sheet No. 78 Cancels and Supersedes Twenty-Fourth Revised Sheet No. 78 Page 1 of 1

RIDER DSMR

DEMAND SIDE MANAGEMENT RATE

The Demand Side Management Rate (DSMR) shall be determined in accordance with the provisions of Rider DSM, Demand Side Management Cost Recovery Rider, Sheet No. 75 of this Tariff.

The DSMR to be applied to residential customer bills is (\$0.000084) per kilowatt-hour.

(R)

A Home Energy Assistance Program (HEA) charge of \$0.10 will be applied monthly to residential customer bills through December 2020.

The DSMR to be applied to non-residential distribution service customer bills is \$0.005045 per kilowatt-hour.

The DSMR to be applied for transmission service customer bills is \$0.000637 per kilowatt-hour.

Issued by authority of an Order by the Kentucky Public Service Commission dated ____ in Case No. 2019-00277.

Issued: August 15, 2019 Effective: September 15, 2019

Issued by Amy B. Spiller, President /s/ Amy B. Spiller

Measure

Beverage Reach-in Controller

Demand Control Ventilation for Kitchen Exhaust Hood

ENERGY STAR Commercial Glass Door Freezers 15 to 30 ft3 - var

ENERGY STAR Commercial Glass Door Freezers 30 to 50ft3 - var

ENERGY STAR Commercial Glass Door Freezers less than 15ft3 - var

ENERGY STAR Commercial Glass Door Freezers more than 50ft3 - var

ENERGY STAR Commercial Glass Door Refrigerators 15 to 30 ft3 - var

ENERGY STAR Commercial Glass Door Refrigerators 30 to 50ft3 - var

ENERGY STAR Commercial Glass Door Refrigerators less than 15ft3 - var

ENERGY STAR Commercial Glass Door Refrigerators more than 50ft3 - var

ENERGY STAR Commercial Solid Door Freezers 15 to 30 ft3 - var

ENERGY STAR Commercial Solid Door Freezers 30 to 50ft3 - var

ENERGY STAR Commercial Solid Door Freezers less than 15ft3 - var

ENERGY STAR Commercial Solid Door Freezers more than 50ft3 - var

ENERGY STAR Commercial Solid Door Refrigerators 15 to 30 ft3 - var

ENERGY STAR COMMON STAR COMMON

ENERGY STAR Commercial Solid Door Refrigerators 30 to 50ft3 - var

ENERGY STAR Commercial Solid Door Refrigerators less than 15ft3 - var

ENERGY STAR Commercial Solid Door Refrigerators more than 50ft3 - var

Griddles

Holding Cabinet Full Size Insulated

Holding Cabinet Half Size Insulated

Holding Cabinet Three Quarter Size Insulated

HT ES PotPanUtl DW (Elec) New -repic on Burnout

HT ES PotPanUtl DW (Gas) New -replc on Burnout

HT ES PotPanUtl DW New -replc on Burnout

Icemaker (100 to 500 lbs_day)

Icemaker (501 to 1000 lbs_day)

Icemaker (Greater Than 1000 lbs_day)

Night covers for displays

Refrigerators - C&I - CEE T2 ER

Refrigerators - C&I - CEE T2 TOS

Refrigerators - C&I - ENERGY STAR ER

Technology

Food Service Products

Food Service Products

Food Service Products

Food Service Products

Food Service Products

Food Service Products

Food Service Products

Food Service Products

Food Service Products

Food Service Products

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Food Service Products

| Refrigerators - C&I - ENERGY STAR TOS | Food Service Products |
|---|------------------------------|
| Snack Machine Controller | Food Service Products |
| Strip Curtains - Freezers | Food Service Products |
| Strip Curtains - Refrigerated Warehouse | Food Service Products |
| Vending Equipment Controller | Food Service Products |
| Walk-In Cooler Automatic Door-Closer Retrofit | Food Service Products |
| ARC 10 to 15 Ton Gas Heat | HVAC |
| ARC greater than 15 Ton Gas Heat | HVAC |
| ARC HP 10 to 15 Ton | HVAC |
| ARC HP greater than 15 Ton | HVAC |
| ARC HP less than 10 Ton | HVAC |
| ARC less than 10 Ton Gas Heat | HVAC |
| CEE Tier 1 Room AC greater than 14,000 Btu per hr | HVAC |
| CEE Tier 1 Room AC less than 14,000 Btu per hr | HVAC |
| CEE Tier 2 Room AC greater than 14,000 Btu per hr | HVAC |
| CEE Tier 2 Room AC less than 14,000 Btu per hr | HVAC |
| Chilled Water Reset- Air Cooled Chillers, Grocery | HVAC |
| Chilled Water Reset- Air Cooled Chillers, Other | HVAC |
| Chilled Water Reset- Air Cooled Chillers, Retail | HVAC |
| Chilled Water Reset- Water Cooled Chillers, Other | HVAC |
| Chilled Wtr Reset- Air Cooled Chillers, College or Sm Ofc | HVAC |
| Chilled Wtr Reset- Air Cooled Chillers, SCH (K-12) | HVAC |
| Chilled Wtr Reset- Wtr Cooled Chillers, College or Sm Ofc | HVAC |
| Chilled Wtr Reset- Wtr Cooled Chillers, Retail | HVAC |
| Chilled Wtr Reset- Wtr Cooled Chillers, SCH (K-12) | HVAC |
| Chilled Wtr Reset-Wtr Cooled Chillers, Grocery | HVAC |
| CoolRoof New Replace on Burnout College-sq ft | HVAC |
| CoolRoof New Replace on Burnout Health-sq ft | HVAC |
| CoolRoof New Replace on Burnout Hotel-sq ft | HVAC |
| CoolRoof New Replace on Burnout Large Office-sq ft | HVAC |
| CoolRoof New Replace on Burnout Medium Offic-sq ft | HVAC |
| CoolRoof New Replace on Burnout Motel-sq ft | HVAC |
| CoolRoof New Replace on Burnout Other-sq ft | HVAC |
| | |

| CoolRoof New Replace on Burnout Retail-sq ft | HVAC |
|--|------|
| CoolRoof New Replace on Burnout School-sq ft | HVAC |
| CoolRoof New Replace on Burnout Strip Mall-sq ft | HVAC |
| DX RTU Tune-up_AC_Fixed Orifice_ +10% chg adj | HVAC |
| DX RTU Tune-up_ AC_ Fixed Orifice_ +15% chg adj | HVAC |
| DX RTU Tune-up_AC_ Fixed Orifice_ +20% chg adj | HVAC |
| DX RTU Tune-up_AC_Fixed Orifice_ +25% chg adj | HVAC |
| DX RTU Tune-up_ AC_ Fixed Orifice_ +30% chg adj | HVAC |
| DX RTU Tune-up_AC_ Fixed Orifice_ +5% chg adj | HVAC |
| DX RTU Tune-up_AC_ Fixed Orifice20% chg adj | HVAC |
| DX RTU Tune-up_AC_TXV_+10% chg adj | HVAC |
| DX RTU Tune-up_AC_TXV_+15% chg adj | HVAC |
| DX RTU Tune-up_AC_TXV_+20% chg adj | HVAC |
| DX RTU Tune-up_AC_TXV_+25% chg adj | HVAC |
| DX RTU Tune-up_AC_TXV_+30% chg adj | HVAC |
| DX RTU Tune-up_AC_TXV_+5% chg adj | HVAC |
| DX RTU Tune-up_ AC_ TXV20% chg adj | HVAC |
| DX RTU Tune-up_HP_Fixed Orifice_+10% chg adj | HVAC |
| DX RTU Tune-up_HP_Fixed Orifice_+15% chg adj | HVAC |
| DX RTU Tune-up_ HP_ Fixed Orifice_ +20% chg adj | HVAC |
| DX RTU Tune-up_ HP_ Fixed Orifice_ +25% chg adj | HVAC |
| DX RTU Tune-up_ HP_ Fixed Orifice_ +30% chg adj | HVAC |
| DX RTU Tune-up_ HP_ Fixed Orifice_ +5% chg adj | HVAC |
| DX RTU Tune-up_ HP_ Fixed Orifice20% chg adj | HVAC |
| DX RTU Tune-up_ HP_ TXV_ +10% chg adj | HVAC |
| DX RTU Tune-up_HP_TXV_+15% chg adj | HVAC |
| DX RTU Tune-up_ HP_ TXV_ +20% chg adj | HVAC |
| DX RTU Tune-up_ HP_ TXV_ +25% chg adj | HVAC |
| DX RTU Tune-up_ HP_ TXV_ +30% chg adj | HVAC |
| DX RTU Tune-up_ HP_ TXV_ +5% chg adj | HVAC |
| DX RTU Tune-up_ HP_ TXV20% chg adj | HVAC |
| Guest Room Energy Management, Electric Heating | HVAC |
| Guest Room Energy Management, Gas Heating | HVAC |
| | |

| Heat Pump Water Heater MF Tnt | HVAC |
|---|--|
| HVAC Water Source HP greater than 17 kBtuh and less than 65 kBtuh | HVAC |
| HVAC Water Source HP greater than 65 kBtuh and less than 135 kBtuh | HVAC |
| HVAC Water Source HP less than 17 kBtuh | HVAC |
| Notched V-Belts for HVAC Systems | HVAC |
| Variable speed drive on HVAC chiller | HVAC |
| Window Film | HVAC |
| Controlled Plug Strip | Information Technology |
| EC Plug Fan_ 20 HP | Information Technology |
| EC Plug Fan_ 3 HP | Information Technology |
| EC Plug Fan_ 5 HP | Information Technology |
| EC Plug Fan_10 HP | Information Technology |
| EC Plug Fan_15 HP | Information Technology |
| EC Plug Fan_2 HP | Information Technology |
| EC Plug Fan_7.5 HP | Information Technology |
| PC Power Management from Network | Information Technology |
| Plug Load Occupancy Sensor | Information Technology |
| VFDs on chilled water pumps 10HP | Information Technology |
| VFDs on chilled water pumps 10HP w Economizer | Information Technology |
| VFDs on chilled water pumps 15HP | Information Technology |
| VFDs on chilled water pumps 15HP w Economizer | Information Technology |
| VFDs on chilled water pumps 20HP | Information Technology |
| VFDs on chilled water pumps 20HP w Economizer | Information Technology |
| VFDs on chilled water pumps 25HP w Economizer | Information Technology |
| VFDs on chilled water pumps 30HP w Economizer | Information Technology |
| VFDs on chilled water pumps 40HP w Economizer | Information Technology |
| VFDs on chilled water pumps 50HP w Economizer | Information Technology |
| VFDs on chilled water pumps 5HP | Information Technology |
| VFDs on chilled water pumps 5HP w Economizer | Information Technology |
| VFDs on chilled water pumps 7.5HP | Information Technology |
| VFDs on chilled water pumps 7.5HP w Economizer | Information Technology |
| VFDs on CRAC CRAH AHU fans 10HP | Information Technology |
| VFDs on CRAC CRAH AHU fans 15HP | Information Technology |
| VFDs on chilled water pumps 50HP w Economizer VFDs on chilled water pumps 5HP VFDs on chilled water pumps 5HP w Economizer VFDs on chilled water pumps 7.5HP VFDs on chilled water pumps 7.5HP w Economizer VFDs on CRAC CRAH AHU fans 10HP | Information Technology Information Technology Information Technology Information Technology Information Technology |

| VFDs on CRAC CRAH AHU fans 20HP | Information Technology |
|---|------------------------|
| VFDs on CRAC CRAH AHU fans 2HP | Information Technology |
| VFDs on CRAC CRAH AHU fans 3HP | Information Technology |
| VFDs on CRAC CRAH AHU fans 5HP | Information Technology |
| VFDs on CRAC CRAH AHU fans 7.5HP | Information Technology |
| 2ft TLED Delamp with Reflector | Lighting |
| 2ft TLED Delamping | Lighting |
| 4ft TLED Delamp | Lighting |
| 4ft TLED Delamp with Reflector | Lighting |
| Bi-level Stairwell Fixture with Integrated Sensor | Lighting |
| Daylighting Control with Occupancy Sensors | Lighting |
| Exterior Bi-level Controls Retrofit | Lighting |
| Exterior HID replacement above 175W to 250W HID retrofit | Lighting |
| Exterior HID replacement above 175W to 250W HID retrofit Lamp | Lighting |
| Exterior HID replacement above 250W to 400W HID retrofit | Lighting |
| Exterior HID replacement above 250W to 400W HID retrofit Lamp | Lighting |
| Exterior HID replacement above 400W HID retrofit | Lighting |
| Exterior HID replacement above 400W HID retrofit Lamp | Lighting |
| Exterior HID replacement to 175W HID retrofit | Lighting |
| Exterior HID replacement to 175W HID retrofit Lamp | Lighting |
| Fluorescent Delamping 2ft T8 | Lighting |
| Fluorescent Delamping 2ft T8 with Reflector | Lighting |
| Fluorescent Delamping 3ft T8 | Lighting |
| Fluorescent Delamping 3ft T8 with Reflector | Lighting |
| Fluorescent Delamping 4ft T8 | Lighting |
| Fluorescent Delamping 4ft T8 with Reflector | Lighting |
| Fluorescent Delamping 8ft T8 | Lighting |
| Fluorescent Delamping 8ft T8 with Reflector | Lighting |
| Garage HID replacement above 175W to 250W HID retrofit | Lighting |
| Garage HID replacement above 175W to 250W HID retrofit Lamp | Lighting |
| Garage HID replacement above 250W to 400W HID retrofit | Lighting |
| Garage HID replacement above 250W to 400W HID retrofit Lamp | Lighting |
| Garage HID replacement above 400W HID retrofit | Lighting |

| Garage HID replacement above 400W HID retrofit Lamp | Lighting |
|--|----------|
| Garage HID replacement to 175W HID retrofit | Lighting |
| Garage HID replacement to 175W HID retrofit Lamp | Lighting |
| High Bay 2L T-5 High Output | Lighting |
| High Bay 3L T-5 High Output | Lighting |
| High Bay 4L T-5 High Output | Lighting |
| High Bay 6L T-5 High Output | Lighting |
| High Bay 6L T5 HO (2 fixtures) retrofit replc 1000W HID | Lighting |
| High Bay 8L T-5 High Output | Lighting |
| Int Induction Lighting replacing HPS greater than 100W, up to 200W | Lighting |
| Int Induction Lighting replacing HPS greater than 200W, up to 400W | Lighting |
| Int Induction Lighting replacing MH between 70W and 200W | Lighting |
| Int Induction Lighting replacing MH greater than 200W, up to 250W | Lighting |
| LED 4ft Case Lights, T8 to LED | Lighting |
| LED 4ft Case Lights, T8 to LED - With Controls | Lighting |
| LED 5ft Case Lights, T8 to LED | Lighting |
| LED 5ft Case Lights, T8 to LED - With Controls | Lighting |
| LED 6ft Case Lights, T8 to LED | Lighting |
| LED 6ft Case Lights, T8 to LED - With Controls | Lighting |
| LED Bollard Fixtures for Exterior Lighting | Lighting |
| LED Canopy replacing 176-250W HID | Lighting |
| LED Canopy replacing 176-250W HID Lamp | Lighting |
| LED Canopy replacing 251-400W HID | Lighting |
| LED Canopy replacing 251-400W HID Lamp | Lighting |
| LED Canopy replacing up to 175W HID | Lighting |
| LED Canopy replacing up to 175W HID Lamp | Lighting |
| LED Downlight | Lighting |
| LED Indoor Channel Sign, greater than 2 feet | Lighting |
| LED Indoor Channel Sign, less than or equal to 2 feet | Lighting |
| LED Indoor Sport Lighting | Lighting |
| LED Outdoor Channel Sign, greater than 2 feet | Lighting |
| LED Outdoor Channel Sign, less than or equal to 2 feet | Lighting |
| Light Tube | Lighting |

| Lighting Power Density for New Construction | Lighting |
|---|--------------------------|
| Occupancy Sensors over 500 Watts | Lighting |
| Occupancy Sensors per Watt | Lighting |
| Occupancy Sensors under 500 Watts | Lighting |
| Photocells | Lighting |
| Photocells with Time Clocks | Lighting |
| Remote Mounted Daylight Sensor per Watt | Lighting |
| Remote-Mounted Daylight Sensor | Lighting |
| Switch or Fixture Mounted Daylight Sensor per Watt | Lighting |
| Switch or Fixture-Mounted Daylight Sensor | Lighting |
| Switching Controls for Multi-Level Lighting | Lighting |
| Time Clocks External Lighting | Lighting |
| Time Clocks Internal Lighting | Lighting |
| Creep Heat Pad | Process Equipment |
| Dairy Plate Cooler | Process Equipment |
| Low Energy Livestock Waterer | Process Equipment |
| Low Pressure Sprinkler Nozzles Portable | Process Equipment |
| Low Pressure Sprinkler Nozzles Solid Set | Process Equipment |
| Clothes Dryer C&I - Electric | Process Equipment |
| Clothes Dryer MF Common Area | Process Equipment |
| Clothes Dryer MF Tnt | Process Equipment |
| Clothes Washer C&I | Process Equipment |
| Clothes Washer MF Common Area | Process Equipment |
| Clothes Washer MF Tnt | Process Equipment |
| Cycling Compressed Air Dryer | Process Equipment |
| Low Pressure Drop Filter for Compressed Air Systems | Process Equipment |
| No-loss Condensate Drain | Process Equipment |
| Pellet Dryer Tanks & Ducts 3in dia per ft | Process Equipment |
| | |

Process Equipment

Process Equipment

Process Equipment

Process Equipment

Pumps and Drives

Pellet Dryer Tanks & Ducts 4in dia per ft

Pellet Dryer Tanks & Ducts 5in dia per ft

Pellet Dryer Tanks & Ducts 6in dia per ft

Pellet Dryer Tanks & Ducts 8in dia per ft

VFD HVAC Fan

Duke Energy Kentucky, Inc. 1262 Cox Road Erlanger, Kentucky 41018 KY.P.S.C. Electric No. 2 Original Sheet No. 120 Page 1 of 2

RESIDENTIAL PEAK TIME REBATE (PTR) PILOT PROGRAM PTR PILOT PROGRAM

(N)

APPLICABILITY

This rider is a pilot and is available on a limited and voluntary basis, at the Company's option, to residential customers in the Company's electric service area who choose to participate by enrolling in the pilot program. This rider is not available to customers served under Rider TS, Rider AMO, Rider NM, and the Residential Direct Load Control – Power Manager Program. In addition, customers with arrears and/or deferred payment arrangements are not eligible to participate. Residential customers may participate only if Company has installed an advanced meter with interval recording registers that may be used for billing the Customer. Participation is limited to approximately the first one thousand (1,000) customers to enroll within the first 2 years of the pilot period. The Company may select pilot participants such that a diverse customer group is ensured. This rider is available upon Kentucky Public Service Commission (Commission) approval and may change or conclude upon the Commission's order.

PROGRAM DESCRIPTION

Under this pilot program, participating customers have the opportunity to lower their electric bill by reducing their electric usage during Company-designated peak load periods known as Critical Peak Events ("CPE").

The Company may call a CPE, at its discretion, during any calendar month. CPEs may only occur on a weekday, Monday through Friday, and will last 4 hours. During the months of May through October, a CPE will begin at 3 p.m. and end at 7 p.m. During months of November through April, a CPE will begin at 6 a.m. and end at 10 a.m. CPEs will not occur on weekends and New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, and Christmas Day on the day nationally designated to be celebrated as such.

For each CPE, the Company, using the Customer's electric usage history, will estimate a baseline which is the electric usage (i.e., kWh) that would have been used by the Customer absent any Customer initiated action to reduce electric usage. The Customer's actual kWh usage during the CPE will be compared to the baseline. Net reduction in usage from the baseline over the CPE period will receive a cents/kWh credit. If no net reduction occurred, no credit will be provided. If, for any reason, the actual kWh is not available, an estimate of the actual kWh consumed during the CPE will be used.

Credits will be calculated and applied to the Customer's bill no later than the second billing month following the CPE(s).

Issued by authority of an Order by the Kentucky Public Service Commission dated in Case No. 2019-00277.

Issued: August 15, 2019 Effective: October 1, 2019

Issued by Amy B. Spiller, President /s/ Amy B. Spiller

Duke Energy Kentucky, Inc. 1262 Cox Road Erlanger, Kentucky 41018 KY.P.S.C. Electric No. 2 Original Sheet No. 120 Page 2 of 2

PROGRAM DESCRIPTION (Cont'd.)

(N)

Participating customers must provide and maintain a contact method (i.e, an email address and/or a text number) at the Customer's expense in order for the Company to provide notification of CPEs.

In the event electric service to the Customer is interrupted during a CPE, the Customer shall not receive credit for reductions due to the service interruption.

It will be Customer's responsibility to monitor and control their energy usage before, during, and after a CPE.

Other provisions of the customer's applicable rate schedule will apply to service supplied under this pilot program.

CREDITS

Credit per net kWh Reduced during CPE

\$0.33 / kWh

NOTIFICATION OF CRITICAL PEAK EVENTS

The Company will notify customers of a CPE using the contact information provided by the Customer. The Company will use its best efforts to notify Customers of a CPE by 8:00 p.m. on the day prior to such event. However, notification can occur at any time but no later than one hour prior to the event. Failure of the Customer to receive the Company notice of a CPE shall not entitle the Customer to receive credits under this program.

PARTICIPATION PERIOD

Customer agrees to participate in the pilot until the end of the 2-year pilot program and may continue to participate at their option and under their enrolled account until the pilot program is terminated. Company reserves the option to terminate Customer's participation for operational issues or upon Customer request.

SERVICE REGULATIONS

The provisions contained in this tariff sheet do not supersede or replace any of the charges and terms contained in the standard base rate and rider tariff sheets. The standard base rate and rider charges apply to all customers participating in this pilot program.

The supplying of, and billing for, service and all conditions applying thereto, are subject to the jurisdiction of the Kentucky Public Service Commission, and to Company's Service Regulations currently in effect, as filed with the Kentucky Public Service Commission, as approved by law.

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