

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:)
)
THE ANNUAL COST RECOVERY FILING) Case No. 2023-00354
FOR DEMAND SIDE MANAGEMENT BY)
DUKE ENERGY KENTUCKY, INC.)

FILING OF THE ANNUAL STATUS REPORT, ADJUSTMENT OF THE DSM COST RECOVERY MECHANISM, AND AMENDED TARIFF SHEETS FOR GAS RIDER DSMR (SHEET NO. 62) AND ELECTRIC RIDER DSMR (SHEET NO. 78)

Now comes Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the Company) with the consensus of the Residential Collaborative and the Commercial and Industrial Collaborative, and pursuant to prior Orders of the Kentucky Public Service Commission (Commission) relevant to Duke Energy Kentucky’s Demand Side Management (DSM) strategy,¹ and hereby files its Annual Status Report, Adjustment of the DSM Cost Recovery Mechanisms for both gas and electric service (DSM Riders), and Amended Tariff Sheets for Gas Rider DSMR and Electric Rider DSMR (Application).

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

¹ See November 4, 2004 Order in Case No. 2003-00367, February 14, 2005 Order in Case No. 2004-00389, April 4, 2006 Order in Case No. 2005-00402, May 15, 2007 Order in Case No. 2006-00426, May 14, 2008 Order in Case No. 2007-00369, May 12, 2009 Order in Case No. 2008-00473, March 22, 2010 Order in Case No. 2009-00444, June 7, 2011 Order in Case No. 2010-00445, April 13, 2012 Order in Case No. 2011-00448, June 29, 2012 Order in Case No. 2012-00085, April 11, 2013 Order in Case No. 2012-00495, March 28, 2014 in Case No. 2013-00395, May 7, 2015 in Case No. 2014-00388, April 4, 2016 in Case No 2015-00368, March 28, 2017 in Case No. 2016-00382, September 13, 2018 in Case No. 2017-00427, October 2, 2019 in Case No. 2018-00370, April 29, 2020 in Case No. 2019-00406, April 9, 2021 in Case No. 2020-00371, December 22, 2021 in Case No. 2021-00313, December 27, 2021 in Case No. 2021-00424, June 13, 2023 in Case No. 2022-00251, and March 7, 2023 in Case No. 2022-00398.

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 the Commonwealth of Kentucky. In addition, the Company has attached, as Appendix A, a certified Certificate of Existence dated November 14, 2023.

2. Duke Energy Kentucky’s business address is 139 East Fourth Street, Cincinnati, Ohio 45202. The Company’s local office in Kentucky is Duke Energy Erlanger Ops Center, 1262 Cox Road, Erlanger, Kentucky 41018. Duke Energy Kentucky’s email address is KYfilings@duke-energy.com.

3. On October 20, 2023, the Residential Collaborative² and the Commercial & Industrial Collaborative³ met to review the Application. Unless otherwise stated, the Residential Collaborative and the Commercial & Industrial Collaborative are jointly referred to herein as “Collaborative.” The Collaborative has received the Company’s proposal and had the opportunity to provide comments.

4. In addition to filing the annual status report in this Application, Duke Energy Kentucky respectfully requests a modification of Duke Energy Kentucky’s DSM Riders to reflect the reconciliation of planned and actual expenditures, lost revenues, and shared savings.

5. Pursuant to the Commission’s Order dated September 13, 2018, in Case No. 2017-00427, the Company’s portfolio of programs in effect during the fiscal year covered

² The Residential Collaborative members in attendance were Lawrence Cook (Office of the Kentucky Attorney General), Mary Cook-Reneau (Boone County), Jock Pitts (People Working Cooperatively), and Trisha Haemmerle (Duke Energy).

³ The Commercial & Industrial Collaborative members in attendance were Lawrence Cook (Office of the Kentucky Attorney General) and Trisha Haemmerle (Duke Energy).

by this Application were approved. The Company requested and received approval to continue the approved portfolio with the commitment to file the annual cost recovery DSM filing and the annual amendment filing.⁴ As a result, this Application serves as the annual true-up of the fiscal year ending June 30, 2023, of programs.

Background

6. The Company's offering of DSM programs dates back close to two decades.⁵ Throughout the years, the Company has offered many enhancements to its portfolio with the purpose of increasing participation and providing customers new and innovative opportunities to control their consumption and impact their utility bill. The portfolio of programs in place during the fiscal year ending June 30, 2023, and that is the subject of this Application was approved by the Commission's September 13, 2018, Order in Case No. 2017-00427.

7. Like the Company's prior annual DSM filings, this Application specifically addresses the requirements in prior Commission Orders⁶ and is being made consistent with the Commission's September 18, 2007, Order in Case 2007-00369 granting Duke Energy Kentucky's request to file annual DSM applications no later than November 15. In the status

⁴ Order in Case No. 2017-00427

⁵ *In the Matter of the Joint Application Pursuant to 1994 House Bill No. 501 For the Approval of Principles of Agreement, Demand Side Management, The Union Light Heat and Power Company, and for Authority for the Union Light Heat and Power Company to Implement Various Tariffs and Receive Incentives Associated the Demand Side Management Programs*, Case No. 95-312, Order December 1, 1995.

⁶ November 20, 2003 Order in Case No. 2003-00367, February 14, 2005 Order in Case 2004-00389, April 4, 2006 Order in Case No. 2005-00402, May 15, 2007 Order in Case No. 2006-00426, May 14, 2008 Order in Case No. 2007-00369, March 22, 2010 Order in Case No. 2009-00444, June 7, 2011 Order in Case No. 2010-00445, April 13, 2012 Order in Case No. 2011-00448, April 11, 2013 Order in Case No. 2012-495, March 28, 2014 Order in Case No. 2013-00395, May 7, 2015 Order in Case No. 2014-00388, April 4, 2016 Order in Case No 2015-00368, March 28, 2017 in Case No. 2016-00382, September 13, 2018 in Case No. 2017-00427, October 2, 2019 in Case No. 2018-00370, April 29, 2020 in Case No. 2019-00406, April 9, 2021 in Case No. 2020-00371, December 22, 2021 in Case No. 2021-00313, December 27, 2021 in Case No. 2021-00424, June 13, 2023 in Case No. 2022-00251, and March 7, 2023 in Case No. 2022-00398.

and reconciliation portion of this report, expenses are reported for the fiscal year period July 1, 2022, through June 30, 2023.

8. In this Application, Duke Energy Kentucky also requests an Order approving the proposed adjustments to the DSM riders and the revised rate tariffs (Appendices D and E).

Definitions

For the purposes of this Application, the following terms will have the following meanings:

9. **“DSM Revenue Requirements”** shall mean the revenue requirements associated with all Program Costs, Administrative Costs, Lost Revenues (less fuel savings), and the Shareholder Incentive.

10. **“Program Costs”** shall mean the costs incurred for planning, developing, implementing, monitoring, and evaluating the DSM programs that have been reviewed with the Collaborative.

11. **“Administrative Costs”** shall mean the costs incurred by or on behalf of the collaborative process and that are approved by the Collaborative, including, but not limited to, costs for consultants, employees, and administrative expenses.

12. **“Lost Revenues”** shall have the same meaning as “LR” as described in Rider DSM - Demand Side Management Cost Recovery Rider, Sheet No. 75.

13. **“Shareholder Incentive”** shall have the same meaning as “PI” as described in Rider DSM - Demand Side Management Cost Recovery Rider, Sheet No. 75.

14. **“DSM Cost Recovery Mechanism”** shall refer to Rider DSM - Demand Side Management Cost Recovery Rider, Sheet No. 75.

Status of Prior Portfolio of DSM Programs

15. Through June 30, 2023, Duke Energy Kentucky offered the following programs, the costs of which are recoverable through the DSM Cost Recovery Rider mechanism approved by the Commission in prior proceedings:

- Program 1: Residential Smart Saver[®] Energy Efficient Residences Program;
- Program 2: Residential Smart Saver[®] Energy Efficient Products Program;⁷
- Program 3: Residential Energy Assessments Program (Residential Home Energy House Call);
- Program 4: Low Income Services Program;
- Program 5: Residential Direct Load Control- Power Manager[®] Program;
- Program 6: Smart Saver[®] Prescriptive Program;
- Program 7: Smart Saver[®] Custom Program;
- Program 8: Peak Load Manager (Rider PLM) - PowerShare[®] Program;
- Program 9: Low Income Neighborhood Program;
- Program 10: My Home Energy Report Program;
- Program 11: Small Business Energy Saver Program;
- Program 12: Non-Residential Pay for Performance;⁸ and

⁷ The Smart Saver[®] Residential Energy Efficient Products Program and the Energy Efficient Residences Program are individual measures that are part of a single and larger program referred to and marketed as Residential Smart Saver[®]. For ease of administration and communication with customers the two measures have been divided into separate tariffs even though they are a single program.

⁸ Marketed as Smart Saver[®] Performance

- Program 13: Peak Time Rebate Pilot Program.

16. This section of the Application provides a brief description of each current program, a review of the status of each program, and information on any changes that may have been made to the programs. The following table provides a summary of the load impacts achieved and level of participation obtained during this filing period.

	1	Summary of Load Impacts July 2022 Through June 2023		
Residential Programs		Incremental Participation	kWh	kW
Income Qualified Neighborhood		565	451,265	46
Income Qualified Services		129	163,836	36
My Home Energy Report		9,265	1,970,273	575
Residential Energy Assessments		1,246	503,954	55
Residential Smart Saver®		33,507	1,563,474	210
Power Manager®	2	12,323	-	12,833
Peak Time Rebate Pilot Program		644	-	188
Total Residential		57,679	4,652,802	13,944
Non-Residential Programs		Incremental Participation	kWh	kW
Business Energy Saver		1,608,462	1,641,855	264
Smart Saver® Non-Residential		17,253	2,966,611	320
Power Manager® for Business		-	-	-
PowerShare®	3	12	-	11,558
Total Non-Residential		1,625,727	4,608,466	12,142
Total		1,683,406	9,261,268	26,086
1 - Impacts are net of freeriders, without losses and reflected at the customer meter point. 2 - Cumulative number of controlled devices installed. Impacts reflect average capability over the contract period. 3 - Impacts reflect average capability over the contract period.				

17. Results of the current cost-effectiveness test results for each of the programs are provided in Appendix B.

Programs 1 and 2: Residential Smart Saver® Energy Efficient Residences and Products Programs

18. The purpose of the Residential Smart Saver® Energy Efficient Residences portion of the Residential Smart Saver® Program is to offer customers prescriptive incentives for a variety of energy conservation measures designed to target the largest energy consumption equipment and 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;
- Implementation of attic insulation and air sealing services;
- Implementation of duct sealing services; and
- Installation of efficient heat pump water heaters.

19. The Program includes a tier approach to the level of incentives available for AC and HP system replacements based on the efficiency rating of the system, along with an optional additional incentive if a qualifying smart thermostat is included and installed with the replacement. A referral marketing component for eligible trade allies has also been added as a delivery channel to enhance customer experience as the customer is making the energy efficient purchase decision. The Program continues to experience a steady demand from customers participating in the incentives. During the period July 2022 through June 2023, the Program approved 750 individual rebate applications.

20. Duke Energy Kentucky currently engages a vendor to administer this program. The program vendor provides services including application processing and fulfillment, data reporting, call center services, and IT support for program tools such as the trade ally portal which allows trade allies to register, check customer eligibility, and submit applications online. These Residential Smart \$aver[®] services are jointly implemented with the Duke Energy Indiana, Duke Energy Carolinas, and Duke Energy Progress territories to reduce administrative costs and leverage promotion. BES has

experience in delivering similar utility energy efficiency programs.

21. Beginning in January 2023, all residential central air conditioners and air source heat pump systems will be required to meet new minimum energy efficiency standards of no less than 15 SEER in the southeast, which includes the state of Kentucky.

22. Based on the above-mentioned Federal standard changes, the Program will need to adjust eligibility criteria to remain cost effective. Eligible minimum SEER level will be adjusted to SEER 16 and the Program will pay incentives based on the operating status of the equipment being replaced and the efficiency level of the new equipment as follows:

Replacement on Failure Incentive:

Replacement of measures which are not functioning and cannot be repaired will be considered a Replacement On Failure (ROF). Incentives for ROF will be determined by the Company in an amount not to exceed 50% of the installed cost difference between standard equipment or service and higher efficiency equipment or service. The Company may vary the incentive by type of equipment and differences in efficiency to induce customers to purchase greater levels of efficiency at the minimum necessary incentive amount. The Company may offer multiple levels of incentives corresponding to varied efficiency levels of equipment or service.

Early Replacement Incentive:

Replacement of measures which are functioning or can be repaired will be considered an Early Replacement (ER). Incentives for ER will be determined by the Company based on an amount commensurate with the projected energy savings. The Company may vary the incentive by type of equipment and differences in efficiency to induce customers to purchase greater levels of efficiency.

23. The purpose of the Residential Smart Saver[®] Energy Efficient Products portion of the Residential Smart Saver[®] Program is to provide high efficiency lighting through various channels, along with other high efficiency products in new or existing residences, including pool pumps, water measures for single family, and water measures for multifamily.

24. The Residential Smart Saver[®] lighting program launched an Online Savings Store for specialty lighting on April 26, 2013. The Savings Store is an extension of the on-demand ordering platform enabling eligible customers to purchase specialty bulbs and have them shipped directly to their homes. The program offers a variety of LEDs including Reflectors (indoor and outdoor), Globes, Candelabra, and 3 ways, and Dimmable bulb options. The incentive levels vary by bulb type and the customer pays the difference, including shipping.

25. In 2020, the program was approved to add smart thermostats, water products, LED fixtures, & small appliance- dehumidifiers & air purifiers. Customer purchase limits are as follows:

- Smart thermostats, 2 total;
- Water measures, 3 total;
- LED fixtures (direct wires, portable, & outdoor photocell), limit 8 total;
and
- Small appliance, dehumidifiers & air purifiers, limit 2 each total.

26. The Savings Store is managed by a third-party vendor. The vendor is responsible for maintaining the Savings Store website, fulfilling all customer purchases, and supporting the program call center. The Saving Store landing page provides

information about the store, and energy efficient products. Support features include a toll-free number, email, Live Chat, and frequently asked questions. Customers may choose to browse the site before checking eligibility for incentives. Shipping and order confirmations are included in the email confirmation sent directly to the customer.

27. Educational and product detail information are available on the Savings Store to help assist customers with their purchasing decisions. The information discusses bulb types, application types, benefits of energy efficient products, and understanding watts versus lumens.

28. The Online Savings Store program carefully tracks towards budget by monitoring our marketing activities to customers. During Fiscal Year July 2022 through June 2023, the program delivered 13,871 LED Specialty bulbs, 736 smart thermostats and 26 trim kits, 70 air purifiers, 12 dehumidifiers, and 4 water measures.

29. The Multifamily Energy Efficiency Program is an extension of the Residential Smart Saver[®] lighting program and allows Duke Energy Kentucky to use an alternative delivery channel which targets multifamily apartment complexes. The measures are directly installed in permanent fixtures by the program vendor. The target audience for the program is property managers who have properties that are served on an individually metered residential rate schedule. To receive water measures, apartments must have electric water heating.

30. The program helps property managers upgrade lighting with energy efficient LEDs and saves energy by offering water measures such as bath and kitchen faucet aerators, water saving showerheads and pipe wrap. The quantity of lighting measures installed may vary by apartment size but there are no limits on LED installations in

permanent fixtures. These measures assist with reducing maintenance costs while improving tenant satisfaction by lowering energy bills.

31. The program implementer is responsible for all marketing and outreach for the program. This is primarily done through outbound calls and on-site visits to solicit initial interest in the program from property managers in the Company's service territory. Additionally, program information and supporting documents are available on the Duke Energy Kentucky web site for property managers to learn more about the program and request applications to participate in the program.

32. Duke Energy Kentucky received approval to replace CFLs with LEDs for the lighting offering associated with the Multi-Family Program.⁹ Beginning in July 2017, the program began installing LED lighting. The program also added two additional bulb types to bring the LED offering to three types with unlimited quantities per unit. The three bulbs (A-Line, Candelabras, and Globes) provide more options for tenants, are more aesthetically appealing and create more bill savings. In 2019, the program added new 4000K LED bulb options for A-lines. These bulbs provide a brighter, whiter light which has been requested by several property management companies. Property managers and owners also receive benefits with the longer lasting bulbs, which reduce maintenance costs for the properties and make the units more marketable to tenants. As of July 2023, the program will no longer offer lighting measures. The program currently offers smart thermostats to multifamily properties. The property can purchase discounted smart thermostats for their apartments and have them installed by the program implementor for \$100/thermostat.

⁹ *In the Matter of the Application of Duke Energy Kentucky, Inc., to Amend its Demand Side Management Programs*, Case No. 2016-00289, KY. P.S.C. Order January 24, 2017.

33. A total of 4,374 measures were installed from July 2022 - June 30, 2023. The program installed 330 kitchen and bath aerators, 476 standard showerheads, 2021 feet of insulating pipe wrap, and 955 bulbs.

34. The Save Energy and Water Kit (SEWK) program is designed to increase the energy efficiency of residential customers by offering customers low flow water devices and water heater pipe insulation wrap to install within their homes. The SEWK offer is available through a business reply card (BRC) or through direct email solicitation, enabling customers to request a kit and have it shipped directly to their homes. A website has been established to provide customers with additional information about the program and instructional videos to assist in the installation of items from the do it yourself (DIY) kit. Additionally, the online platform allowed customers to upgrade the standard showerhead to either a wide spray or hand-held model for a discounted price.

35. The program implementer changed in September 2021 and the program was temporarily shut down while the program transitioned to a new vendor. The new vendor restarted the program in February 2022. The relaunch of the program focused on offering kits to customer via email and BRC's. A new online platform became available in June 2023, allowing customers to upgrade their showerhead to a hand-held model for a discounted price. The wide spray showerhead is now the standard showerhead offered in the kits to allow for higher customer satisfaction and install service rates.

36. To be eligible, customers must have an electric water heater, have not already participated in SEWK or another Duke Energy Kentucky program offering water saving devices, and live in a single-family, owner-occupied home. Eligible customers, who respond to the BRC or email offer, will receive a kit free of charge. There are two kit sizes

to accommodate homes with one or more full bathrooms. The kit size available to the customer is predetermined based on the square footage of the home. Customers in homes less than or equal to 1,500 square feet receive a one (1) bath kit. Customers in homes greater than 1,500 square feet receive a two (2) bath kit. The kits contain varying quantities of showerheads, two bath aerators, one kitchen aerator and insulated pipe tape.

37. The SEWK program is an invitation only program where customers are prequalified and then directly solicited for participation. This allows the program to carefully track performance against budget and adjust marketing efforts as needed. From July 1, 2022, to June 30, 2023, the program shipped 1,417 kits containing 4,251 kitchen and bath aerators, 1,993 standard wide spray showerheads, and 8,502 feet of insulating pipe wrap, for a total of 14,746 measures.

Program 3: Residential Energy Assessments Program

38. The primary goal for Home Energy House Call (HEHC) is to empower customers to better manage their energy usage and cost. Duke Energy Kentucky partners with several key vendors to administer the program in which an energy specialist completes a 60 to 90-minute walk through assessment of the home and analyzes energy usage to identify energy savings opportunities. The Building Performance Institute (BPI) building certified energy specialist discusses behavioral and equipment modifications that can save energy and money with the customer. The program targets Duke Energy Kentucky residential customers that own a single-family residence that has electric water heater and/or electric heat, or central air. The energy specialist analyzes energy usage, checks air infiltration, examines insulation levels, checks appliances, and inspects the heating/cooling system(s). The report focuses on the building envelope improvements

as well as low-cost and no-cost improvements to save energy. At the time of the home audit, the customer receives a free efficiency kit containing a variety of energy saving measures energy efficient lighting, low flow shower head, low flow faucet aerators, outlet/switch gaskets and weather stripping. The auditors will install these measures, if approved by the customer, so the customer can begin saving immediately, and to help insure proper installation and use. Example recommendations might include the following:

- Turning off vampire load equipment when not in use;
- Turning off lights when not in the room;
- Using energy efficient lighting in light fixtures;
- Using a programmable/smart thermostat to better manage heating and cooling usage;
- Replacing older equipment with more energy efficient equipment; and
- Adding insulation and sealing the home.

39. The program primarily targets through online channels, electronic mail, and direct mail to acquire the participation for this program.

40. The program offers additional measures that included a blower door test, handheld low-flow showerheads, smart thermostats, specialty globes and candelabras, and recessed LED bulbs. The program ended the fiscal year completing 448 assessments and installed 36 smart thermostats, 22 additional bathroom aerators, 2 specialty showerheads, 86 specialty globes, 41 LED candelabras, 30 recessed LED bulbs, 579 feet of pipe insulation and 2 blower door audits. Starting July 2023, the program will no longer be

incentivizing lighting. However, customers will still be able to purchase lighting at discounted costs through program implementor.

41. In pending Case No. 2023-00269, the Company requested to expand the offer to allow single family renters, condo/townhomes/manufactured homeowners, and renters the ability to choose a virtual, phone or web-based audit for their home. These customers must have electric service provided by Duke Energy Kentucky to participate in the program.

The additional types of energy assessment include:

1. Web-based – Customers complete an online questionnaire to evaluate their homes efficiency.
2. Phone Assisted – Customers collaborate with the vendor customer support specialist and complete an energy evaluation during a schedule phone appointment
3. Virtual – Customers collaborate with the vendor energy advisor, who performs computer assisted, onsite home evaluation.

42. The new virtual, phone and web-based audits will allow customers to learn more about energy savings options and recommendations for their home and receive a free energy efficiency kit based on the path (channel) they choose. The kits will ship to the home after the audits are complete.

43. Virtual and phone audits kits will consist of water saving measures including a low-flow showerhead, kitchen and bath aerators, weather stripping, Pipewrap, and a furnace filter whistle. The web-based audit kit will consist of faucet bathroom aerators, weather stripping, Pipewrap, refrigerator thermometer and furnace filter whistle.

44. Customers will receive a detailed assessment report, based on visual and questionnaire responses, providing extra saving recommendations for how they can opt to take advantage of other products and services to improve their homes efficiency. Eligible customers may choose the path or channel that best fits their schedule and desire to learn more about their home’s efficiency.

Program 4: Low Income Services Program

Weatherization

45. The Weatherization program portion of Low-Income Services is designed to help income-qualified customers that are below 200 percent of the federal poverty level to reduce their energy consumption and lower their energy cost. The program works with local weatherization agencies using Federal DOE/LIHEAP funds as well as other community outreach initiatives for participation. The program provides the agencies incentives for installing energy efficient measures in qualified customers’ homes. Agencies also educate customers on their energy usage and other opportunities that can help reduce energy consumption and lower energy costs. The program has provided weatherization services to the following number of customers:

Fiscal Year	Customers Served
1999 - 2000	251
2000 - 2001	283
2001 - 2002	203
2002 - 2003	252
2003 - 2004	252
2004 - 2005	130
2005 - 2006	232
2006 - 2007	252
2007 - 2008	265
2008 - 2009	222
2009 - 2010	199
2010 - 2011	234

2011 - 2012	220
2012 - 2013	228
2013 - 2014	143
2014 - 2015	203
2015 - 2016	162
2016 - 2017	166
2017 - 2018	127
2018 - 2019	120
2019 - 2020	99
2020 - 2021	81
2021 - 2022	127
2022 - 2023	145

46. The program is structured so that homes needing the most work, and having the highest energy use per square foot, receive the most funding. The program accomplishes this by placing each home into one of two “Tiers.” For each home, the field auditor uses the National Energy Audit Tool (NEAT) to determine which specific measures are cost effective for that home.

The tier structure is defined as follows:

	Therm / square foot	kWh use/ square foot	Investment Allowed
Tier 1	0 < 1 therm / ft2	0 < 7 kWh / ft2	Up to \$600
Tier 2	1 + therms / ft2	7 + kWh / ft2	All SIR* \geq 1.5 up to \$4K

*SIR = Savings - Investment Ratio

Tier One Services

47. Tier 1 services are provided to customers through weatherization agencies. Customers are considered Tier 1 if they use less than 1 therm per square foot per year or less than 7-kilowatt hour (kWh) per square foot per year, based on a year’s usage of Company supplied fuels. Square footage of the dwelling is based on conditioned space only, whether occupied or unoccupied. It does not include unconditioned or semi-conditioned space (non-heated basements). The total program dollars allowed per home for

Tier One services is \$600.00 per home. Tier One services are as follows:

- Furnace / Heating system Tune-up & Cleaning;
- Furnace repairs up to \$600;
- Venting check & repair;
- Water Heater Wrap and Pipe Wrap;
- Cleaning of refrigerator coils;
- Cleaning of dryer vents;
- Energy Efficient Light Bulbs;
- Low-flow shower heads and aerators;
- Weather-stripping doors & windows;
- Limited structural corrections that affect health, safety, and energy up to \$150; and
- Energy Education.

Tier Two Services

48. Duke Energy Kentucky will provide Tier Two services to a customer if they use at least 1 therm or at least 7 kWh per square foot per year based on the annual usage of Duke Energy Kentucky supplied fuels.

Tier Two services are as follows:

- All Tier One services; plus
- Additional cost-effective measures (with $SIR \geq 1.5$) based upon the results of the NEAT audit. Through the NEAT audit, the agency can determine if energy saving measures pay for themselves over the life of the measure as determined by a

standard heat loss/economic calculation (NEAT audit) utilizing the cost of gas and electric as provided by Duke Energy Kentucky. Such items can include but are not limited to attic insulation, wall insulation, crawl space insulation, floor insulation and sill box insulation. Safety measures applying to the installed technologies can be included within the scope of work considered in the NEAT audit if the SIR is greater than 1.5 including the safety changes; and

- Replacement of heating system if cannot be repaired.

Regardless of placement in a specific tier, Duke Energy Kentucky provides energy education to all customers in the program.

49. Refrigerator replacement is also a component of this program. To determine replacement, the program weatherization provider performs a two-hour meter test of the existing refrigerator unit. If it is a high-energy consuming refrigerator, as determined by this test, the unit is replaced. Replacing with a new Energy Star qualified refrigerator, with an estimated annual usage of 400 kWh, results in an overall savings to the average customer typically more than 1,000 kWh per year.

Refrigerators tested and replaced:

Year	Refrigerators Tested	Refrigerators Replaced
2002 – 2003	116	47
2003 – 2004	163	73
2004 – 2005	115	39
2005 – 2006	116	52
2006 – 2007	136	72
2007 – 2008	173	85
2008 – 2009	153	66
2009 – 2010	167	92
2010 – 2011	112	76

2011 – 2012	107	64
2012 – 2013	206	69
2013 – 2014	112	37
2014 – 2015	42	24
2015 – 2016	60	22
2016 – 2017	92	54
2017 - 2018	48	18
2018 – 2019	43	12
2019 – 2020	66	15
2020 - 2021	19	15
2021 - 2022	32	17
2022 - 2023	35	18

The existing refrigerator being replaced is removed from the home and recycled in an environmentally appropriate manner to assure that the units are not used as a second refrigerator in the home or do not end up in the secondary appliance market.

50. In recognition of the COVID-19 environment, proper safety protocols are being adhered to with PPE being worn to ensure everyone’s safety if the customer requests.

Payment Plus

51. The Payment Plus portion of Low-Income Services program is designed to impact participants’ behavior (e.g., encourages utility bill payment and reducing arrearages) and to generate energy conservation impacts.

The program is made up of three components:

- Energy Education & Budget Counseling – to help customers understand how to control their energy usage and how to manage their household bills, a combined education/counseling approach is used;
- Weatherization – to increase the energy efficiency in customers’ homes, participants are required to have their homes weatherized as part of the normal Residential Conservation and

Energy Education (low-income weatherization) program unless weatherized in past program years; and,

- Bill Assistance – to provide an incentive for these customers to participate in the education and weatherization, and to help them get control of their bills. Payment assistance credits are provided to each customer once they complete each aspect of the program. The credits are: \$200 for participating in the EE counseling, \$150 for participating in the budgeting counseling, and \$150 for participating in the Residential Conservation and Energy Education program (weatherization services). If all the requirements are completed, a household could receive up to a total of \$500 towards their arrearage. Some customers do not complete all three steps or may have already had weatherization services completed prior to the program.

52. This program is normally offered twice over six winter months per year (October-March). Since 2020, the program has been offered quarterly to accommodate smaller class sizes.

53. Duke Energy Kentucky utilizes a community action agency to recruit customers to participate in the Payment Plus program. The Payment Plus program is designed to help income-qualified customers that are below 200 percent of the federal poverty level to reduce their energy consumption and lower their energy cost. Using a list of potential customers provided by Duke Energy Kentucky, the agency sends a letter describing the program to eligible customers. Included in this letter are various dates, times,

and locations of scheduled classes. The courses are designed to accommodate customers with varied schedules and widespread locations. The customer contacts the agency to register for a course. Make-up courses are also offered to those customers who may have missed their initial scheduled time.

54. For the filing period, 124 participants attended energy education counseling. Of those 124, 124 participants also attended budget counseling and 31 participants' homes have been weatherized.

55. The Company requested an increase for the total program dollars allowed per home and a slight program name change to Income Qualified Services Program in Case No. 2023-00269.

Program 5: Residential Direct Load Control - Power Manager® Program

56. The purpose of the Power Manager® program is to reduce demand by controlling residential air conditioning usage during periods of peak demand, high wholesale price conditions and/or generation emergency conditions during the summer months. It is available to residential customers with central air conditioning. Duke Energy Kentucky attaches a load control device to the outdoor unit of a customer's air conditioner. This enables Duke Energy Kentucky to cycle the customer's air conditioner off and on under appropriate conditions.

57. Customers selecting the option that moderately cycles their air conditioner, receive a \$25 credit at installation. Customers selecting the longer cycling option, receive a \$35 credit at installation.

58. Customers also receive annual credits during the months of May - September depending on the program they signed-up for. Customers that signed-up for the

moderate control option receives an annual event credit of \$2.40 per month for each year they are on the program and customers that signed-up for the longer control option receive an annual event credit of \$3.60 per month each year they are on the program.

59. Duke Energy Kentucky continues to use load control devices manufactured by Eaton's Cooper Power Systems for new installations and replacement of existing load control devices. The load control devices have built-in safeguards to prevent the "short cycling" of the air-conditioning system. The air-conditioning system will always run the minimum amount of time required by the manufacturer. The cycling simply causes the air-conditioning system to run less, which is no different than what it does on milder days. Additionally, the indoor fan will continue to run and circulate air during the cycling event.

60. The Company continued its primary Power Manager[®] marketing during the past fiscal year through outbound telephone calling. Providing customers with an opportunity to ask questions before deciding to participate has proven to be a significant attribute in making this the most effective sales channel.

61. Ongoing evaluation, measurement, and verification (EM&V) is conducted through a sample of Power Manager[®] customers with devices that record hourly run-time of the air conditioner unit and with load research interval meters that measure the household kWh usage. Operability studies are also used to measure the performance of Power Manager[®] load control devices in Kentucky. In addition, Duke Energy Kentucky has reviewed the statistical sampling requirements of PJM Interconnection, LLC (PJM) for demand response resources of this type. The Duke Energy Kentucky studies comply with all PJM requirements.

62. There were no Power Manager[®] events that took place from July 2022

through June 2023 event season. There was a PJM required one-hour test on September 1, 2022.

Bring Your Own Thermostat

63. The Company did request an amendment to the program in Case No. 2023-00269 to enhance the program by introducing Bring Your Own Thermostat (BYOT). BYOT is a residential Demand Response (DR) program leveraging customers “Smart” two-way communicating thermostats instead of traditional load control switches that are installed by the utility. It is intended for customers who have already purchased, installed, and registered a smart thermostat in their home, allowing the utility to avoid the hardware and installation costs associated with traditional direct load control programs. The utility can verify how many thermostats are operable and online at any given time, and determine which thermostats are participating in DR events as opposed to opting-out. Duke Energy has partnered with a third-party vendor who has contracts with multiple thermostat manufacturers to offer demand response through aggregation of the different thermostat models. After successfully enrolling, participants will receive a one-time \$75 incentive. In addition, participants will receive a \$25 incentive each year following the anniversary of their enrollment in the program. Rewards are limited to one per service address.

Marketing Plan

64. BYOT is marketed to customers through participating device manufacturers who offer utility branded marketing and enrollment services. One of the significant advantages of Smart Thermostats is two-way communication. Agreements with the aggregation vendor and their thermostat partners allow them to send marketing messages to device owners inviting them to participate in their utility’s DR program. Marketing

communication may include, but is not limited to, messages within the manufacturers smart phone application, co-branded email, and text messages. Interested customers are then directed to enroll electronically through the various marketing channels. In addition to the thermostat manufacturer communication, the company may use a number of other channels, such as the utility website and social media.

Program Enhancement - Paging System Upgrade

65. The paging system is a vital component to the program that communicates with the load control devices at customers' air conditioning unit(s). The existing paging system is outdated, and some components are at end of life. In order to keep the paging network operational, an upgrade to the Prism platform is needed to replace system software, servers, and transmitters. The estimated cost of this upgrade to keep the program operational is \$650,000 and this amount has been included in the forecasted budget on page 2 of Appendix C.

Programs 6 and 7: Smart Saver[®] Prescriptive Program and Smart Saver[®] Custom Program is now Smart Saver[®] Non-Residential¹⁰

66. The Smart Saver[®] Non-residential Incentive Program provides incentives to commercial and industrial consumers for installation of high efficiency equipment in applications involving new construction, retrofit, and replacement of failed equipment. The program also uses incentives to encourage maintenance of existing equipment to reduce energy usage. Incentives are provided based on Duke Energy Kentucky's cost effectiveness modeling to assure cost effectiveness over the life of the measure.

67. Commercial and industrial consumers can have significant energy

¹⁰ Smart Saver[®] Prescriptive & Custom program management have collaborated the program to be consolidated as Non-Residential Smart Saver[®] as filed in Case No. 2021-00313.

consumption but may lack knowledge and understanding of the benefits of high efficiency alternatives. The program provides financial incentives to help reduce the cost differential between standard and high efficiency equipment, offer a quicker return on investment, save money on customers' utility bills that can be reinvested in their business, and foster a cleaner environment. In addition, the program encourages dealers and distributors (or market providers) to stock and provide these high efficiency alternatives to meet increased demand for the products. The Program provides incentives through prescriptive measures, custom measures, and assessment/ technical assistance.

68. Prescriptive Measures: The program promotes prescriptive incentives for the following technologies – lighting, HVAC, pumps, variable frequency drives, food services, and process equipment. The eligible measures, incentives, and requirements for both equipment and customer eligibility are listed in the applications posted on Duke Energy's website.

69. Custom Measures: The Smart Saver[®] Custom Program is designed for customers with electrical energy-saving projects involving more complicated, emerging, or alternative technologies or measures not covered by the Non-Residential Smart Saver[®] Prescriptive Program. The intent of the Program is to encourage the implementation of energy efficiency projects that would not otherwise be completed without the Company's technical or financial assistance. Unlike the Non-Residential Smart Saver Prescriptive Program, the Program requires pre-approval prior to the project initiation. Starting in August 2023, Custom lighting projects with estimated annual energy savings under 700,000 kWh, can utilize an express option that bypasses the need for pre-approval. Custom Incentives may be applied for after the project has been completed. The option to

receive pre-approval is still available. A vendor performs technical reviews of Custom applications. All other Program implementation and analysis is performed by Duke Energy employees or direct contractors.

70. The program has developed multiple approaches to reaching the very broad and diverse audience of business customers. In 2022-2023, this consisted of incentive payment applications, with paper and online options, instant incentives offered through the Online Energy Savings Store. As of July 2023, the Prescriptive program extends existing rebates through a midstream channel of local distributors. This will help to promote the purchase of energy-saving products at the point of sale for qualifying customers and measures.

71. Over the years, the program has worked closely with Trade Allies (TA) to promote the program to our business customers at the critical point in time when customers are considering standard or high efficiency equipment options. The Smart Saver[®] outreach team provides training and technical support to the TA network. The outreach team also recruits new TAs to participate in the program. TA company names and contact information appears on the TA search tool located on the Smart Saver[®] website. This tool was designed to help customers who do not already work with a TA, to find someone in their location who can serve their needs. The Company continues to look for ways to engage the TAs in promotion of the program as well as more effective targeting of TAs based on market opportunities.

72. 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. Any

future measure changes will be presented to the Commission in accordance with the applicable review and approval processes and procedures.

73. For the 2022-2023 fiscal year, Smart Saver[®] incentive funds were readily available for the majority of the period due to lower participation during the fiscal year. Projects are able to utilize a Program prequalification feature reserve incentive funds. During the reporting period of July 2022 through June 2023, the Kentucky Smart Saver[®] Non-Residential program provided either Prescriptive or Custom incentives to 44 total customers.

74. The internal marketing channel is comprised of assigned Large Business Account Managers, Segment Managers, and Local Government and Community Relations, and Business Energy Advisors, who all identify potential opportunities as well as distribute program collateral and informational material to customers and TAs. In addition, the Economic and Business Development groups also provide a channel to customers who are new to the service territory. Additionally, the program is developing a robust Account Based Marketing (ABM) strategy to provide levels of personalized engagement to clusters of similar type accounts. This will be a highly customized approach that focuses on specific companies and their decision-makers. The program will pursue a data-driven approach to gathering actionable insights on harder-to-reach markets. The initial focus will target the education, manufacturing, and retail segments. Upon refinement, the program will develop a comprehensive campaign for greater awareness that will integrate additional programs and customer solutions.

Program 8: Peak Load Manager (Rider PLM) - PowerShare® Program

75. PowerShare® is the brand name given to Duke Energy Kentucky's Peak Load Management Program (Rider PLM, Peak Load Management Program KY.P.S.C. Electric No. 2, Sheet No. 77). Rider PLM was approved pursuant as part of the settlement agreement in Case No. 2006-00172. In the Commission's Order in Case No. 2006-00426, approval was given to include the PowerShare® program within the DSM programs. The PLM program is voluntary and offers customers the opportunity to reduce their electric costs by managing their electric usage during the Company's peak load periods. Customers and the Company will enter into a service agreement under Rider PLM, specifying the terms and conditions under which the customer agrees to reduce usage. There are two product options offered for PowerShare® - CallOption® and QuoteOption®:

- CallOption®:
 - A customer served under a CallOption® product agrees, upon notification by the Company, to reduce its demand;
 - Each time the Company exercises its option under the agreement, the Company will provide the customer a credit for the energy reduced;
 - For the 2022/2023 program year, there was one type of event;
 - Emergency events are implemented due to reliability concerns.
Participants are required to curtail during emergency events.
 - In addition to the energy credit, customers on the CallOption® will receive an option premium credit;
 - For the 2022/2023 PowerShare® programs associated with the fiscal

year of this filing, there were two enrollment choices for customers relative to CallOption. The first choice, “Summer Period”, required participants to be able to curtail during the months of June through October 2022 and May 2023, with a maximum event length of 12 hours and no maximum number of curtailment events. The second choice, “Annual”, requires participants to be able to curtail during the full contract term of June 2022 through May 2023, with a maximum event length of 12 hours during the months of June through October 2022 and May 2023, and with a maximum event length of 15 hours during the months of November 2022 through April 2023 and no maximum number of curtailment events. Duke Energy Kentucky discontinued its “Limited Summer” program option effective May 31, 2022. Resources with a limited number of curtailment events are no longer eligible for registration and therefore hold no value with PJM.

- Only customers able to provide a minimum of 100 kW load response qualify for CallOption®.
- QuoteOption®:
 - Under the QuoteOption® products, the customer and the Company agree that when the average wholesale market price for energy during the notification period is greater than a pre-determined strike price, the Company may notify the customer of a QuoteOption® event and provide a price quote to the customer for each event hour;

- The customer will decide whether to reduce demand during the event period. If they decide to do so, the customer will notify the Company and provide an estimate of the customer’s projected load reduction;
- Each time the Company exercises the option, the Company will provide the participating customer who reduces load an energy credit;
- There is no option premium for the QuoteOption[®] product since customer load reductions are voluntary; and
- Only customers able to provide a minimum of 100 kW load response qualify for QuoteOption[®].

PowerShare[®] 2022-2023 Summary

76. Duke Energy Kentucky’s customer participation goal for 2022 was to retain all customers that currently participate and to promote customer migration to the CallOption[®] program. The table below displays monthly account participation levels for July 2022 through June 2023, as well as MWs enrolled in the program.

Kentucky PowerShare[®] Participation Update				
Month	CallOption [®]		QuoteOption [®]	
	Enrolled Customers*	Summer Capability**	Enrolled Customers*	Summer Capability**
Jul-22	12	12.42	0	0
Aug-22	12	12.42	0	0
Sep-22	12	12.42	0	0
Oct-22	12	12.42	0	0
Nov-22	12	12.42	0	0
Dec-22	12	12.42	0	0
Jan-23	12	12.42	0	0
Feb-23	12	12.42	0	0

Mar-23	12	12.42	0	0
Apr-23	12	12.42	0	0
May-23	12	12.42	0	0
Jun-23	8	8.797***	0	0
<p>*Enrolled Customers represents the number of parent accounts participating.</p> <p>**Summer Capability is consistent with the associated program year. Numbers reported are adjusted for losses.</p> <p>***Estimated Summer capability</p>				

(Note that Duke Energy Kentucky has signed 8 contracts for the 2023/2024 PowerShare® CallOption®. Measured and verified MW values for the summer of 2022 will be available and presented in the update filing.)

77. During the July 2022 through June 2023 period, there were two PowerShare® CallOption® or QuoteOption® events. There were curtailment tests performed to meet PJM requirements. The table below summarizes event participation.

Duke Energy Kentucky - PowerShare CallOption and QuoteOption Economic, Emergency, and Test Events July 2022 - June 2023 Activity - Reduction Values in MWs							
Date	Event Hours (EDT)	Event Type	Event Participants	Participants Reducing Load Partially or Fully	Average Hourly Load Reduction Expected - At the Meter	Average Hourly Load Reduction - At the Meter	Average Hourly Load Reduction - At the Plant
9/1/2022	4 pm to 5 pm	PJM Test	12	12	13.563	17.460	19.371
9/16/2022	4 pm to 5 pm	PJM Re-Test	1	1	0.103	0.082	0.084
9/30/2022	4 pm to 5 pm	PJM Re-Test	1	1	0.103	0.039	0.040
12/23/2022	6 pm to 9 pm	Emergency	1	1	0.031	0.246	0.252
12/24/2022	6 am to 7:30 pm	Emergency	2	2	2.461	2.782	2.851

(Note that for the summer period of June 2022 through September 2022, zero PowerShare® events have been called. The annual, required, PJM test event was conducted on September 1, 2022, at 4 pm. Two winter emergency PowerShare® events were called by PJM in December 2022. Information on these events will be available and presented in

next year's update filing.)

Program 9: Low Income Neighborhood Program

78. The Duke Energy Kentucky Neighborhood Energy Saver (NES) Program takes a non-traditional approach to serve income-qualified areas of the Duke Energy Kentucky service territory through the direct installation of energy efficiency measures in customer homes. This customer-facing program allows for the direct engagement in a familiar setting to reduce energy consumption with the installation of energy efficient measures. In addition, Duke Energy Kentucky uses this opportunity to educate and work with customers to efficiently manage and lower their energy bills. Examples of direct installed measures include energy efficient light bulbs, water heater and pipe wrap, low flow shower heads/faucet aerators, window and door air sealing and a year supply of HVAC filter replacements.

79. As income-qualified neighborhoods are identified for the program, if at least 50 percent of the households are at or below 200 percent of the federal poverty guidelines, a community with an average size of about 900 customers is selected. Duke Energy Kentucky analyzes census and internal data to select and prioritize neighborhoods that have the greatest need and propensity to participate. While the goal is to serve neighborhoods where most residents are low income, the program is available to all Duke Energy Kentucky customers within the selected boundary. This program is available to both homeowners and renters occupying single family and multi-family dwellings in the target neighborhoods that have electric service provided by Duke Energy Kentucky.

80. In the past, community-based kick-off events have been held in targeted neighborhoods. Kick-off events have featured local community leaders, community-based organization representatives, local weatherization program managers, the installation vendor,

and the technical crew. The Duke Energy Kentucky program manager and vendor provide attendees detailed information about NES along with a tentative neighborhood schedule.

81. The purpose of the kick-off event has been to rally the neighborhood around energy efficiency and educate customers on actions they can take to help lower their energy bills and save energy. Additionally, attendees have had the opportunity to meet technical staff and view measures. In days, or a few weeks, shortly following the kick-off event, customers are contacted by the technical crew to receive the free in-home energy assessments (walk-through) and the appropriate energy saving measures are installed if the customer elects to have the work completed. Direct mail and call center support supplement community-based outreach efforts.

82. For fiscal year 2022-2023, with a participation goal of 600 homes, the program has completed 414 homes in Duke Energy Kentucky territory. With the lingering existence of COVID-19, hesitation to allow technicians into one's home still remained an issue. With this challenge, Duke Energy Kentucky continues to collaborate with organizations such as the Northern Kentucky Community Action Commission, People Working Cooperatively and other local agencies, businesses, and government-backed programs to rally around efforts of the NES program. Duke Energy Kentucky's NES program provides residents information about the service and helps leverage additional services available in their communities. The program has been well-received, and neighbors regularly share the benefits of their experience with others.

83. Duke Energy Kentucky has expanded the NES program by adding NES 2.0. In addition to the current 16 measures offered to customers, Duke Energy will qualify customers of the neighborhood for NES 2.0 measures, which include attic insulation, air

sealing, duct sealing, and smart thermostats to address customers high energy use. Eligibility of the revised measures (NES 2.0) will be made available to customers that the Company deems a high-energy user. For fiscal year 2022-2023, the program has completed 65 attic insulation, 44 air sealing, and 43 duct sealing installations for customers with high energy use.

84. The Company requested a slight program name change to Income Qualified Neighborhood Energy Saver Program in Case No. 2023-00269.

Program 10: My Home Energy Report Program

85. The My Home Energy Report (MyHER) 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. These normative comparisons are intended to induce customers to adopt more efficient energy consumption behavior. MyHER is delivered in printed and email form. The reports are distributed up to 12 times per year (2 printed reports and 12 electronic reports if the customer provides their email address). Currently, to qualify to receive the report, customers must be living in a single metered, single-family home with 13 months usage history.

86. The MyHER program, originally an opt out program, has been changed to an opt in program beginning in 2019-2020, the next fiscal term following the Commission's September 13, 2018, Order. The Company provides information on every report as to how a customer may update their information or request to stop receiving the reports. From July 1, 2022, to June 30, 2023, the MyHER program has had zero opted-in customers decide to opt-out of the program after receiving reports. As of June 30, 2023,

there were 9,265 Kentucky MyHER customers receiving reports.

87. In Case No. 2023-00269, the Company has requested for the MyHER to return to an opt-out program design beginning in 2024 with an aim to deliver usage insights and personalized tips to a larger audience and increase program cost effectiveness. The MyHER program is also requesting to be made available to multifamily customers in Kentucky. The updated program design request includes an increase of up to 8 paper reports sent to each customer per year if a customer has not opted out of paper reports. Lastly, the Company requested a slight program name change to the Duke Energy Home Energy Report (HER) in Case No. 2023-00269.

88. The Company has designed an interactive portal and enabled email technology to further engage with customers with the intention of increasing the level of engagement with customers and hence their efficiency. This portal is available online and through mobile channels. The portal was rolled out in March 2015 with a small email campaign for MyHER customers for whom the program has an email address. The MyHER program and interactive website were brought in-house at Duke Energy in February of 2021, enabling a more unique experience for participants. As of June 30, 2023, there were 1,308 Kentucky MyHER customers enrolled in the interactive portal.

89. The Company launched the MyHER program in the Duke Energy mobile app starting in 2019. Customers who have opted into the program are now able to see their Home Energy Report monthly comparisons and usage disaggregation on the Duke Energy mobile app.

Program 11: Small Business Energy Saver Program¹¹

90. The purpose of Duke Energy Kentucky's Small Business Energy Saver program (SBES Program) is to reduce energy usage through the direct installation of energy efficiency measures within qualifying small non-residential Duke Energy Kentucky customer facilities. All aspects of the SBES Program are administered by a single Company-authorized vendor. The SBES Program measures address major end-uses in lighting, refrigeration, process, and HVAC applications.

91. The SBES Program participants receive a free, no-obligation energy assessment of their facility followed by a recommendation of energy efficiency measures to be installed in their facility along with the projected energy savings, costs of all materials and installation, and up-front incentive amount from Duke Energy Kentucky. Upon receiving the results of the energy assessment, if the customer decides to move forward with the proposed energy efficiency project, the customer makes the final determination of which measures will be installed. The energy efficiency measure installation is then scheduled at a convenient time for the customer and the measures are installed by electrical subcontractors of the Duke Energy Kentucky-authorized vendor.

92. The SBES Program is designed as a pay-for-performance offering, meaning that the Duke Energy Kentucky-authorized vendor administering the SBES Program is compensated for kWh energy savings produced through the installation of energy efficiency measures.

93. The SBES Program is available to existing Duke Energy Kentucky non-

¹¹ Small Business Energy Saver and SmartPath are individual sets of measures that are part of a single and larger program referred to as Business Energy Saver beginning July 1, 2023.

residential customer accounts with an actual average annual electric demand of 180 kW or less. An individual business entity's participation is limited to no more than five premises on the Company's system during a calendar year.

94. For the July 2022 to June 2023 period, 40 SBES projects were completed in Kentucky, which was below the projected volume, and those 40 projects resulted in savings of over 1,683,000 kWh at the plant or 53% of the filed plan.

95. While LED lighting measures are expected to remain the primary driver of kWh savings in the Program for the foreseeable future, the Company has been actively working with the vendor to implement initiatives focused on increasing refrigeration, process, and HVAC measure adoption.

96. Duke Energy Kentucky will continue to evaluate the opportunity to add incentivized measures suitable for the small business market to the approved program which fit the direct install program model. The Company would ultimately like to ensure that small business customers are given the opportunity to maximize their energy savings by being offered a comprehensive energy efficiency project through the SBES Program wherever possible.

97. At this time, the Company expects to begin offering SmartPath as a potential avenue towards project funding, beginning in 2024. This option will be available to all eligible accounts. SmartPath is meant to build upon the traditional Small Business Energy Saver option by minimizing financial barriers to customer participation by allowing customers to finance and implement energy efficiency upgrades at little to no upfront costs. The program is implemented by a qualified Trade Ally network who complete energy assessments, develops proposals, and implements the turnkey projects on the program's

behalf. SmartPath offers customers financing through a partnership with the National Energy Improvement Fund (NEIF). All financing is between the customer and NEIF and is offered by the Trade Allies.

Program 12. Smart Saver[®] Performance

98. Duke Energy Kentucky received approval of this non-residential program: Smart Saver[®] Non-Residential Performance Incentive Program in Case No 2016-00289. The purpose of this program is to encourage the installation of high efficiency equipment in new and existing non-residential establishments. The program will provide incentive payments to offset a portion of the higher cost of energy efficient installations that are not offered under either the Smart Saver[®] Non-Residential programs. The types of measures covered by the program include retro-commissioning and projects with some combination of unknown building conditions or system constraints, coupled with uncertain operating, occupancy, or production schedules. The specific type of measures is included in the contract with the Customer.

99. The Company will market the program in the 2023-2024 filing period due to low participation in the other Non-Residential programs.

Program 13. Peak Time Rebate (PTR) Pilot Program

100. The PTR pilot program offers 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). The Company has branded the program to customers under the name Peak Time Credits and describes CPEs to participants as Peak Day events.

101. The PTR pilot program launched on July 27, 2020, with the original 2-year

pilot group, here referenced as Group 1. These initial participants have completed the initial 2-year pilot period and an additional 3rd year and are now participating in year 4. For purposes of counting the number of events each year for Group 1, the Company designates July 27, 2020, through July 31, 2021, as the first year of the pilot. The second year of the pilot is August 1, 2021, through July 31, 2022. The third year of the pilot is August 1, 2022, through July 31, 2023. August 1, 2023, starts the fourth year of the pilot for Group 1. The Company enrolled a total of 899 participants in Group 1. As of August 23, 2023, 625 participants remain active in Group 1. Almost all attrition has been from customers moving.

102. Table 1 below displays the dates CPEs were implemented during year 3 of the pilot for Group 1. An update for this group is provided below. The EM&V report for Group 1 was submitted to the Commission in Case No. 2022-00251.

Table 1: CPE Dates Since August 1, 2022, for Group 1

CPE Date	Group 1
8/3/2022	X
7/26/2023	X
7/27/2023	X
7/28/2023	X

103. Starting in May 2022, the Company launched a PTC pilot extension approved by the Commission to test the incentive amount offered to participants to reduce load during CPEs. This research extension is evaluating the difference in load impacts between a credit of \$0.60 / kWh reduced, Group 2, and a credit of \$1.20 / kWh reduced, Group 3. The EM&V report on the pilot extension was filed August 15, 2023, in Case No. 2023-00269. Using identical methods for acquiring customers, 667 customers enrolled in the \$1.20 / kWh reduced offer, Group 3. In comparison, 679 customers enrolled in the \$0.60 / kWh reduced offer, Group 2. The incentive amount did not appear to drastically impact the number of

customers interested in enrolling in the pilot and participating throughout the summer.

104. In addition, the EM&V report filed in August 2023 included results from a post-CPE participant survey. The focus of the survey was to collect participant survey responses for comparison between the two incentive research groups. EM&V results were filed with the Commission in the Company's August 2023 DSM modifications filing and indicated that although the participants at the higher incentive rate were more satisfied, there was no statistically significant difference in the level of load reduction between the two levels of incentive.

105. As filed and approved, the incentive research extension to the pilot ended on September 30, 2022. The Company does not anticipate budget dollars needed for the incentive research extension in the July 2023 through June 2024 period.

106. As the Commission required continuation of the pilot program, a corresponding budget of \$216,000 was granted to begin on July 1, 2023 and extends until June 30, 2024. An updated budget for July 1, 2024 – June 30, 2025, is included in Appendix C, page 2. The forecasted budget does not include any revised Commission established program parameters as referenced in the initial order for Case No. 2022-00251¹². The program parameters have not been established by the time of this application. The Company requests to adjust the budget accordingly when a final order in the above referenced case is received.

Evaluation, Measurement, and Verification

107. The EM&V schedule for each program for program years 2023 – 2025 is available in Appendix F.

¹² Received June 13, 2023.

Calculation of the 2022 DSM Cost Recovery Mechanism, Rider DSMR

108. The reconciliation of the cost recovery mechanism (Rider DSMR) involves a comparison of projected versus actual program expenses, lost revenues, and shared savings, as well as inclusion of the prior year's reconciliation. The actual cost of residential and non-residential program expenditures, lost revenues, and shared savings for this reporting period was \$6.43 million. The projected level of program expenditures was \$8.41 million.

109. Lost revenues are computed using the applicable marginal block rate net of fuel costs and other variable costs times the estimated kWh savings for a three-year period from installation of the DSM measure. The estimate of kWh savings is based upon the results from any recently completed impact evaluation studies and actual customer participation. Lost revenues accumulate over a three-year period from the installation of each measure unless a general rate case has occurred.

110. With respect to shared savings, Duke Energy Kentucky utilized the shared incentive of 10 percent of the total savings net of the costs of measures, incentives to customers, marketing, impact evaluation, and administration. The savings are estimated by multiplying the program spending times the UCT value and then subtracting the program costs. Shared savings are only valued for installation of new DSM measures.

2022 DSM Riders

111. Duke Energy Kentucky submits the proposed adjustments to its Rider DSMR for both electric and gas programs (Appendices D and E, respectively). The two Rider DSMRs are intended to recover projected July 1, 2024 – June 30, 2025¹³ (fiscal year

¹³ The projected July 1, 2024 – June 30, 2025, program expenditures used in this filing will be trued-up as part of the 2024 annual status report and will be described as 2024 throughout the document.

2023) program costs, lost revenues, and shared savings and to reconcile the actual DSM revenue requirement, as previously defined, to the revenue recovered under the riders for the period July 1, 2022, through June 30, 2023. The spreadsheet model contained in Appendix C has been used by the Company for a number of years in its Rider DSMR update filings.

112. Appendix C, page 1 of 7, tabulates the reconciliation of the DSM revenue requirement associated with the prior reconciliation, Duke Energy Kentucky's program costs, lost revenues, and shared savings between July 1, 2022, and June 30, 2023, and the revenues collected through the DSMR Riders over the same period. The true-up adjustment is based upon the difference between the actual DSM revenue requirement and the revenues collected during the period July 1, 2022, through June 30, 2023.

113. The DSM revenue requirement for the period July 1, 2022, through June 30, 2023, consists of: (1) program expenditures, lost revenues, and shared savings; and (2) amounts approved for recovery in the previous reconciliation filing.

114. Appendix C, page 6 of 7, contains the calculation of the 2022 – 2023 residential cost allocation factors for gas and electric, as approved in Case No. 2014-00388. These factors are the Electric Percent of Total Percent of Sales, and the Gas Percent of Total Percent of Sales, and are calculated by program. The calculation includes the residential kWh and ccf sales for July 2022 – June 2023, along with the kWh and ccf savings achieved for July 2022 – June 2023. The factors are used in Appendix C, page 1 of 7, to calculate columns 5 and 6.

115. Appendix C, page 7 of 7, contains the calculation of the 2024–2025 residential cost allocation factors for gas and electric, as approved in Case No. 2014-

00388. These factors are the Electric Percent of Total Percent of Sales, and the Gas Percent of Total Percent of Sales, and are calculated by program. The calculation includes the projected Rate RS kWh and ccf sales found in Appendix C, page 4 of 7, along with the projected kWh and ccf savings for July 2024 – June 2025. The factors are used in Appendix C, page 2 of 7, Residential Program Summary, columns G and H (Allocations of Costs).

116. Appendix C, page 5 of 7 contains the calculation of the 2023 Residential DSMR Riders. The calculation includes the reconciliation adjustments calculated in Appendix C, page 1 of 7 and the Residential DSM revenue requirement for 2023. The Projected Residential DSM revenue requirement for 2023 includes the costs associated with the Residential DSM programs: My Home Energy Report, Low Income Neighborhood, Low Income Services, Residential Energy Assessments, Residential Smart Saver[®], Power Manager[®], and any applicable net lost revenues and shared savings (Appendix C, pages 2 and 3 of 7). Total revenue requirements are incorporated along with the projected electric and gas volumes (Appendix C, page 4 of 7) in the calculation of the Residential DSM Rider.

117. Appendix C, page 5 of 7 also contains the calculation of the 2023 Commercial and Industrial DSM Rider. The calculation includes the reconciliation adjustments calculated in Appendix C, page 1 of 7 and the DSM revenue requirement for 2023. The Commercial & Industrial DSM revenue requirement for 2024 includes the costs associated with the Commercial and Industrial DSM programs: Smart Saver[®] Non-Residential, Small Business Energy Saver, Smart Saver[®] Non-Residential Performance Incentive Program, and PowerShare[®] the associated net lost revenues and shared savings (Appendix C, pages 2 and 3 of 7). The 2023 Commercial and Industrial DSMR Rider is calculated in two parts. One part (Part A) is based upon the revenue requirements for Smart Saver[®] Non-Residential,

Small Business Energy Saver, Power Manager[®] for Business and PowerShare[®]. This part is only recovered from all non-residential rate classes except rate TT. The other part (Part B) is based upon the revenue requirements for the PowerShare[®] program and is recovered from all non-residential rate classes including rate TT.

118. Total revenue requirements are incorporated along with the projected electric volumes (Appendix C, page 4 of 7) in the calculation of the Commercial and Industrial DSM Rider.

119. The Company's proposed DSMR Riders, shown as Appendices D and E, replace the current DSMR Riders. Since the Company's previous annual adjustment filing, Rider DSMR has been updated twice: once after the March 30, 2023 Order, in Case No. 2022-00398, for all rates except the Residential Electric Rate, and then on June 21, 2023, after the Order in Case No. 2022-00251, which updated the Residential Electric Rate. The electric DSMR rider, proposed to be effective with the first billing cycle in the month following Commission approval, is applicable to service provided under Duke Energy Kentucky's electric service tariffs as follows:

- Residential Electric Service provided under:
 - Rate RS, Residential Service, Sheet No. 30.
- Non-Residential Electric Service provided under:
 - Rate DS, Service at Secondary Distribution Voltage, Sheet No. 40;
 - Rate DT, Time-of-Day Rate for Service at Distribution Voltage, Sheet No. 41;
 - Rate EH, Optional Rate for Electric Space Heating, Sheet No.

42;

- Rate SP, Seasonal Sports, Sheet No. 43;
- Rate GS-FL, Optional Unmetered General Service Rate for Small Fixed Loads, Sheet No. 44;
- Rate DP, Service at Primary Distribution Voltage, Sheet No. 45;
- Rate RTP-M, Real Time Pricing – Market-Based Pricing, Sheet No. 59;
- Rate RTP, Experimental Real Time Pricing Program, Sheet No. 99; and,
- Rate TT, Service at Transmission Voltage, Sheet No. 51.

The gas DSM rider is applicable to service provided under the following residential gas service tariff:

- Rate RS, Residential Service, Sheet No. 30.

Calculation of the Residential Charge

120. The proposed residential charge per kWh for 2023 was calculated by dividing the sum of: (1) the reconciliation amount calculated in Appendix C, page 1 of 7; and (2) the DSM revenue requirement associated with the DSM programs projected for 2024, by the projected sales for calendar year 2024. DSM program costs for 2024 include the total implementation costs plus program rebates, lost revenues, and shared savings. The calculations in support of the residential recovery mechanism are provided in Appendix C, page 5 of 7. Based on the updated rider amounts, the estimated annual cost for the average residential customer is a charge of approximately \$5.36 for electric, and a refund of about

\$9.93 for gas.¹⁴

Calculation of the Non-Residential Charge

121. The proposed non-residential charge per kWh for 2023 was calculated in two parts. The first part (Part A), applicable to all non-residential rate classes except Rate TT, is calculated by dividing the sum of: (1) the reconciliation amount calculated in Appendix C, page 1 of 7; and (2) the DSM revenue requirement associated with the Smart \$aver[®] Non-Residential, and Small Business Energy Saver, programs projected for 2024, by the respective projected sales for calendar year 2024. The second part (Part B), applicable to all non-residential rate classes including Rate TT, is calculated by dividing the DSM revenue requirement associated with the PowerShare[®] program projected for 2024, by total non-residential projected sales for calendar year 2024. DSM program cost for 2024 includes the total implementation costs plus program rebates, lost revenues, and shared savings.

122. The rider applicable to all non-residential rate classes except Rate TT is the sum of Part A and Part B. The rider applicable to all non-residential rate classes including Rate TT is only Part B.

Allocation of the DSM Revenue Requirement

123. As required by KRS 278.285(3), the DSM Cost Recovery Mechanism attributes the costs to be recovered to the respective class that benefits from the programs. The costs for the Power Manager program are fully allocated to the residential electric class, since this is the class benefiting from the implementation of the program. As required, qualifying industrial customers are permitted to “opt-out” of participation in, and payment

¹⁴ The cost for average customer was calculated by using the 2023 forecasted sales of Appendix C page 4 divided by the number of residential electric or gas customers multiplied by the cost per kWh or cost per CCF respectively of Appendix C page 5. The costs are estimates and will vary by customer based on usage.

for, Smart Saver[®] Non-Residential and Small Business Energy Saver. All of Duke Energy Kentucky's Rate TT customers met the "opt-out" requirements prior to the implementation of the DSM riders in May 1996 and are not subject to this portion of the DSM Cost Recovery Mechanism (*i.e.*, Rider DSMR). However, all non-residential customers, including Rate TT customers, will be charged for the PowerShare[®] program.

WHEREFORE, Duke Energy Kentucky respectfully requests that the Commission review and approve this Application and Duke Energy Kentucky gives notice that the new rates will take effect 30 days from the date of this Application.

Respectfully submitted,

/s/Larisa M. Vaysman

Rocco O. D'Ascenzo (92796)

Deputy General Counsel

Larisa M. Vaysman (98944)

Senior Counsel

Duke Energy Kentucky, Inc.

139 East Fourth Street, 1303-Main

Cincinnati, Ohio 45202

(513) 287-4010

(513) 370-5720 (f)

Larisa.vaysman@duke-energy.com

Counsel for Duke Energy Kentucky, Inc.

CERTIFICATE OF SERVICE

This is to certify that the foregoing electronic filing is a true and accurate copy of the document in paper medium; that the electronic filing was transmitted to the Commission on November 15, 2023; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that submitting the original filing to the Commission in paper medium is no longer required as it has been granted a permanent deviation.¹⁵

John G. Horne, II
The Office of the Attorney General
Utility Intervention and Rate Division
700 Capital Avenue, Ste 118
Frankfort, Kentucky 40601
John.Horne@ky.gov

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

Brenda L. Combs, Operations Director
Legal Aid of the Bluegrass
302 Greenup Street
Covington, Kentucky 41011
legalaid@lablaw.org

/s/Larisa M. Vaysman

Larisa M. Vaysman

¹⁵*In the Matter of Electronic Emergency Docket Related to the Novel Coronavirus COVID-19, Order, Case No. 2020-00085 (Ky. P.S.C. July 22, 2021).*

Commonwealth of Kentucky
Michael G. Adams, Secretary of State

Michael G. Adams
Secretary of State
P. O. Box 718
Frankfort, KY 40602-0718
(502) 564-3490
<http://www.sos.ky.gov>

Certificate of Existence

Authentication number: 300353

Visit <https://web.sos.ky.gov/fts/how/certvaldate.aspx> to authenticate this certificate.

I, Michael G. Adams, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

DUKE ENERGY KENTUCKY, INC.

is a corporation duly incorporated and existing under KRS Chapter 14A and KRS Chapter 271B, whose date of incorporation is March 20, 1901 and whose period of duration is perpetual.

I further certify that all fees and penalties owed to the Secretary of State have been paid; that Articles of Dissolution have not been filed; and that the most recent annual report required by KRS 14A.6-010 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 14th day of November, 2023, in the 232nd year of the Commonwealth.



Michael G. Adams

Michael G. Adams
Secretary of State
Commonwealth of Kentucky
300353/0052929

Appendix B 2022-2023 Cost Effectiveness Test Results

Program Name	UCT	TRC	RIM	PCT
Residential Programs				
Low Income Neighborhood	0.37	0.37	0.26	2.02
Low Income Services	0.49	0.49	0.33	1.97
My Home Energy Report	4.73	4.73	0.98	
Residential Energy Assessments	1.53	1.44	0.53	32.61
Residential Smart \$aver®	1.25	1.05	0.52	3.86
Power Manager	2.30	3.11	2.30	
Peak Time Rebate Pilot Program	0.17	0.17	0.17	
Total	1.31	1.35	0.79	3.63
Non-Residential Programs				
Small Business Energy Saver	1.83	1.25	0.63	3.02
Smart \$aver® Non-Residential	3.22	2.12	0.64	5.77
PowerShare®	1.96	4.72	1.96	
Total	2.27	2.34	0.88	5.02
Overall Portfolio Total	1.70	1.74	0.84	4.35

Kentucky DSM Rider
Comparison of Revenue Requirement to Rider Recovery
2022-2023 Status Update

Residential Programs	(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)		(9)		(10)	(11)	(12)	(13)	(14)
	Projected Program Costs 7/2022 to 6/2023 (A)	Projected Lost Revenues 7/2022 to 6/2023 (A)	Projected Shared Savings 7/2022 to 6/2023 (A)	Program Expenditures 7/2022 to 6/2023 (B)	Program Expenditures (C) Gas Electric		Shared Savings 7/2022 to 6/2023 (B)	Lost Revenues 7/2022 to 6/2023 (B)	Shared Savings 7/2022 to 6/2023 (B)		2022 Reconciliation Gas (D) Electric (D)		Rider Collection (E) Gas Electric	(Over)/Under Collection Gas (F) Electric (G)			
Low Income Neighborhood	\$ 503,214	\$ 27,702	\$ (20,137)	\$ 571,412	\$ -	\$ 571,412	\$ 15,054	\$ (25,325)									
Low Income Services	\$ 698,215	\$ 26,554	\$ (26,796)	\$ 409,592	\$ 176,657	\$ 232,935	\$ 21,830	\$ (12,282)									
My Home Energy Report	\$ 78,224	\$ 83,976	\$ 6,620	\$ 31,477	\$ -	\$ 31,477	\$ 102,409	\$ 11,746									
Residential Energy Assessments	\$ 284,858	\$ 69,660	\$ 9,820	\$ 187,280	\$ -	\$ 187,280	\$ 68,392	\$ 9,964									
Residential Smart Saver®	\$ 1,192,589	\$ 240,313	\$ 1,918	\$ 787,360	\$ -	\$ 787,360	\$ 243,477	\$ 17,372									
Power Manager®	\$ 855,519	\$ -	\$ 116,813	\$ 835,517	\$ -	\$ 835,517	\$ -	\$ 108,866									
Peak Time Rebate Pilot Program	\$ 216,257	\$ -	\$ -	\$ 242,753	\$ -	\$ 242,753	\$ -	\$ -									
Revenues collected														\$627,444	\$8,942,349		
Total	\$ 3,828,877	\$ 448,205	\$ 88,239	\$ 3,065,391	\$ 176,657	\$ 2,888,733	\$ 451,162	\$ 110,342	\$ (448,108)	\$ 2,052,765	\$ 627,444	\$ 8,942,349	\$ (898,895)	\$ (3,439,347)			

(A) Amounts identified in report filed in Case No. 2021-00424

(B) Actual program expenditures, lost revenues (for this period and from prior period DSM measure installations), and shared savings for the period July 1, 2022 through June 30, 2023

(C) Allocation of program expenditures to gas and electric in accordance with the Commission's Order in Case No. 2014-00388

(D) Recovery allowed in accordance with the Commission's Order in Case No. 2022-00398

(E) Revenues collected through the DSM Rider between July 1, 2022 and June 30, 2023

(F) Column (5) + Column (9) - Column(11)

(G) Column (6) + Column (7) + Column (8) + Column (10) - Column(12)

Commercial Programs	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Projected Program Costs 7/2022 to 6/2023 (A)	Projected Lost Revenues 7/2022 to 6/2023 (A)	Projected Shared Savings 7/2022 to 6/2023 (A)	Program Expenditures 7/2022 to 6/2023 (B)	Lost Revenues 7/2022 to 6/2023 (B)	Shared Savings 7/2022 to 6/2023 (B)	2022 Reconciliation (C)	Rider Collection (D)	(Over)/Under Collection (E)
Small Business Energy Saver	\$ 771,723	\$ 273,455	\$ 70,371	\$ 496,251	\$ 348,401	\$ 36,599			
Smart Saver® Non-Residential	\$ 1,218,433	\$ 527,401	\$ 261,716	\$ 503,612	\$ 339,126	\$ 111,846			
Total	\$ 1,990,156	\$ 800,855	\$ 332,086	\$ 999,862	\$ 687,527	\$ 148,445	\$ 227,701	\$ (688,651)	\$ 2,752,187
PowerShare®	\$ 851,383	\$ -	\$ 67,100	\$ 885,512	\$ -	\$ 84,761	\$ (136,731)	\$ 372,902	\$ 460,639
Total All Programs	\$ 6,670,417	\$ 1,249,060	\$ 487,425	\$ 4,950,765	\$ 1,138,689	\$ 343,548			

(A) Amounts identified in report filed in Case No. 2021-00424

(B) Actual program expenditures, lost revenues (for this period and from prior period DSM measure installations), and shared savings for the period July 1, 2022 through June 30, 2023

(C) Recovery allowed in accordance with the Commission's Order in Case No. 2022-00398

(D) Revenues collected through the DSM Rider between July 1, 2022 and June 30, 2023

(E) Column (4) + Column (5) + Column (6) + Column (7) - Column(8)

2024-2025 Projected Program Costs, Lost Revenues, and Shared Savings

Residential Program Summary (A)

	Residential Program Summary (A)				Allocation of Costs (B)			Budget (Costs, Lost Revenues, & Shared Savings)		
	<u>Costs</u>	<u>Lost Revenues</u>	<u>Shared Savings</u>	<u>Total</u>	<u>Electric</u>	<u>Gas</u>	<u>Electric Costs</u>	<u>Electric</u>	<u>Gas Costs</u>	
Income Qualified Neighborhood	\$ 534,292	\$ 31,541	\$ (20,759)	\$ 545,074	100.0%	0.0%	\$ 534,292	\$ 545,074	\$ -	
Income Qualified Services	\$ 748,255	\$ 12,001	\$ (40,116)	\$ 720,139	56.7%	43.3%	\$ 424,087	\$ 395,971	\$ 324,168	
My Home Energy Report	\$ 442,331	\$ 741,075	\$ 65,215	\$ 1,248,622	100.0%	0.0%	\$ 442,331	\$ 1,248,622	\$ -	
Residential Energy Assessments	\$ 322,137	\$ 50,042	\$ 24,047	\$ 396,226	100.0%	0.0%	\$ 322,137	\$ 396,226	\$ -	
Residential Smart \$aver®	\$ 632,552	\$ 87,259	\$ 20,697	\$ 740,508	100.0%	0.0%	\$ 632,552	\$ 740,508	\$ -	
Power Manager®	\$ 2,038,578	\$ -	\$ 46,463	\$ 2,085,041	100.0%	0.0%	\$ 2,038,578	\$ 2,085,041	\$ -	
Peak Time Rebate Pilot Program	\$ 215,998	\$ -	\$ -	\$ 215,998	100.0%	0.0%	\$ 215,998	\$ 215,998	\$ -	
Total Costs, Net Lost Revenues, Shared Savings	\$ 4,934,143	\$ 921,918	\$ 95,548	\$ 5,951,608			\$ 4,609,974	\$ 5,627,440	\$ 324,168	

NonResidential Program Summary (A)

	NonResidential Program Summary (A)				Allocation of Costs (B)			Budget (Costs, Lost Revenues, & Shared Savings)		
	<u>Costs</u>	<u>Lost Revenues</u>	<u>Shared Savings</u>	<u>Total</u>	<u>Electric</u>	<u>Gas</u>	<u>Electric Costs</u>	<u>Electric</u>	<u>Gas</u>	
Business Energy Saver (C)	\$ 820,184	\$ 112,910	\$ 96,109	\$ 1,029,203	100.0%	0.0%	\$ 820,184	\$ 1,029,203	NA	
Smart \$aver® Non-Residential	\$ 2,286,676	\$ 330,875	\$ 339,287	\$ 2,956,838	100.0%	0.0%	\$ 2,286,676	\$ 2,956,838	NA	
PowerShare®	\$ 724,600	\$ -	\$ 77,572	\$ 802,172	100.0%	0.0%	\$ 724,600	\$ 802,172	NA	
Total Costs, Net Lost Revenues, Shared Savings	\$ 3,831,460	\$ 443,786	\$ 512,967	\$ 4,788,213			\$ 3,831,460	\$ 4,788,213	NA	
Total Program	\$ 8,765,602	\$ 1,365,703	\$ 608,516	\$ 10,739,821						

(A) Costs, Lost Revenues (for this period and from prior period DSM measure installations), and Shared Savings for Year 11 of portfolio.

(B) Allocation of program expenditures to gas and electric in accordance with the Commission's Order in Case No. 2014-00388.

(C) Small Business Energy Saver and SmartPath are individual sets of measures that are part of a single and larger program referred to as Business Energy Saver beginning July 1, 2023.

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

July 2024 to June 2025

	Program Costs (A)
<u>Electric Rider DSM</u>	
Residential Rate RS	\$ 5,627,440
Distribution Level Rates Part A DS, DP, DT, GS-FL, EH & SP	\$ 3,986,041
Transmission Level Rates & Distribution Level Rates Part B	\$ 802,172
<u>Gas Rider DSM</u>	
Residential Rate RS	\$ 324,168

(A) See Appendix B, page 2 of 7

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

Year July 2024 - June 2025

Projected Annual Electric Sales kWh

Rate RS 1,510,718,457

Rates DS, DP, DT,
GS-FL, EH, & SP 2,293,314,113

Rates DS, DP, DT,
GS-FL, EH, SP, & TT 2,493,833,113

Projected Annual Gas Sales CCF

Rate RS 61,109,198

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

July 2022 to June 2023

Rate Schedule Riders	True-Up Amount (A)	Expected Program Costs (B)	Total DSM Revenue Requirements	Estimated Billing Determinants (C)	DSM Cost Recovery Rider (DSMR)
<u>Electric Rider DSM</u> Residential Rate RS	\$ (4,901,069)	\$ 5,627,440	\$ 726,371	1,510,718,457 kWh	\$ 0.000481 \$/kWh
Distribution Level Rates Part A DS, DP, DT, GS-FL, EH & SP	\$ 3,921,866	\$ 3,986,041	\$ 7,907,907	2,293,314,113 kWh	\$ 0.003448 \$/kWh
Transmission Level Rates & Distribution Level Rates Part B TT	\$ 656,411	\$ 802,172	\$ 1,458,583	2,493,833,113 kWh	\$ 0.000585 \$/kWh
Distribution Level Rates Total DS, DP, DT, GS-FL, EH & SP					\$ 0.004033 \$/kWh
<u>Gas Rider DSM</u> Residential Rate RS	\$ (1,280,926)	\$ 324,168	\$ (956,758)	61,109,198 CCF	\$ (0.015657) \$/CCF
Total Rider Recovery			\$ 9,136,103		

(A) (Over)/Under of Appendix B page 1 multiplied by the average three-month commercial paper rate for 2023 to include interest on over or under-recovery in accordance with the Commission's order in Case No. 95-312. Value is:

1.425000

(B) Appendix B, page 2.

(C) Appendix B, page 4.

Allocation Factors based on July 2022-
June 2023

Summary of Load Impacts July 2022 Through June 2023 (1)

Residential Programs	kWh	<u>% of Total Res</u>	ccf	<u>% of Total Res</u>	<u>Elec % of Total</u>	<u>% of Gas</u>	<u>% of Total</u>
		<u>Sales</u>		<u>Sales</u>	<u>Sales</u>	<u>Sales</u>	
Low Income Neighborhood	451,265	0.0314%	-	0.0000%	100%		0%
Low Income Services	163,836	0.0114%	4,731	0.0086%	57%		43%
My Home Energy Report	1,970,273	0.1369%	-	0.0000%	100%		0%
Residential Energy Assessments	503,954	0.0350%	-	0.0000%	100%		0%
Residential Smart \$aver®	1,563,474	0.1086%	-	0.0000%	100%		0%
Power Manager®	-	0.0000%	-	0.0000%	100%		0%
Peak Time Rebate Pilot Program	-	0.0000%	-	0.0000%	100%		0%
Total Residential	4,652,802	0.3233%	4,731	0.0086%			
Total Residential (Rate RS) Sales For July 2022 Through June 2023	1,439,169,083	100%	54,799,958	100%			

(1) Load Impacts Net of Free Riders at Meter

Summary of Load Impacts July 2024 Through June 2025 (1)

Allocation Factors Projected

Residential Programs	kWh	% of Total Res Sales	ccf	% of Total Res Sales	Elec	% of Total	% of	Gas	% of Total	% of
					Sales	Sales	Sales	Sales		
Low Income Neighborhood	655,428	0.0434%	-	0.0000%		100%			0%	
Low Income Services	186,456	0.0123%	5,765	0.0094%		56.7%			43.3%	
My Home Energy Report	13,491,615	0.8931%	-	0.0000%		100%			0%	
Residential Energy Assessments	930,330	0.0616%	-	0.0000%		100%			0%	
Residential Smart \$aver®	1,481,003	0.0980%	-	0.0000%		100%			0%	
Power Manager®	-	0.0000%	-	0.0000%		0%			0%	
Total Residential	16,744,832	1.1084%	5,765	0.0094%						
Total Residential (Rate RS) Sales Projected	1,510,718,457	100%	61,109,198	100%						

(1)Load Impacts Net of Free Riders at Meter

Duke Energy Kentucky
1262 Cox Road
Erlanger, Kentucky 41018

KY.P.S.C. Gas No. 2
Thirty-~~Fifth-Sixth~~ Revised Sheet No. 62
Cancels and Supersedes
Thirty-~~Fourth-Fifth~~ Revised Sheet No. 62
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. 61 of this Tariff.

The DSMR to be applied to residential customer bills is \$(0.~~004784015657~~) per hundred cubic feet. (R)

A Home Energy Assistance Program (HEA) charge of \$0.30 will be applied monthly to residential customer bills.

The DSMR to be applied to non-residential service customer bills is \$0.00 per hundred cubic feet.

Issued by authority of an Order by the Kentucky Public Service
Commission dated ~~March 7, 2023~~ in Case No. ~~20222023-0039800354~~.
Issued: ~~March 27~~November 15, 2023
Effective: ~~April 4~~December 15, 2023
Issued by Amy B. Spiller, President /s/ Amy B. Spiller

Duke Energy Kentucky
1262 Cox Road
Erlanger, Kentucky 41018

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. 61 of this Tariff.

The DSMR to be applied to residential customer bills is \$(0.015657) per hundred cubic feet.

(R)

A Home Energy Assistance Program (HEA) charge of \$0.30 will be applied monthly to residential customer bills.

The DSMR to be applied to non-residential service customer bills is \$0.00 per hundred cubic feet.

Issued by authority of an Order by the Kentucky Public Service
Commission dated _____ in Case No. 2023-00354.

Issued: November 15, 2023

Effective: December 15, 2023

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

Duke Energy Kentucky
1262 Cox Road
78
Erlanger, KY 41018

KY.P.S.C. Electric No. 2
Thirty-~~Fifth-Sixth~~ Revised Sheet No. 78
Cancels and Supersedes
Thirty-~~Fourth-Fifth~~ Revised Sheet No.

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.~~003497~~000481 per kilowatt-hour. (R)

A Home Energy Assistance Program (HEA) charge of \$0.30 will be applied monthly to residential customer bills.

The DSMR to be applied to non-residential distribution service customer bills is \$0.~~001987~~004033 per kilowatt-hour. (I)

The DSMR to be applied for transmission service customer bills is \$0.~~000388~~000585 per kilowatt-hour. (I)

Issued by authority of an Order by the Kentucky Public Service
Commission dated ~~October 12, 2023~~ in Case No. 202~~32~~0037200354.

Issued: ~~October 27~~November 15, 2023

Effective: ~~October 13~~December 15, 2023

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

Duke Energy Kentucky
1262 Cox Road
Erlanger, KY 41018

KY.P.S.C. Electric No. 2
Thirty-Sixth Revised Sheet No. 78
Cancels and Supersedes
Thirty-Fifth 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 \$0.000481 per kilowatt-hour. (R)

A Home Energy Assistance Program (HEA) charge of \$0.30 will be applied monthly to residential customer bills.

The DSMR to be applied to non-residential distribution service customer bills is \$0.004033 per kilowatt-hour. (I)

The DSMR to be applied for transmission service customer bills is \$0.000585 per kilowatt-hour. (I)

Issued by authority of an Order by the Kentucky Public Service
Commission dated _____ in Case No. 2023-00354.

Issued: November 15, 2023

Effective: December 15, 2023

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

Status Update for Duke Energy Kentucky Energy Efficiency and Demand Response Programs; 2023-2025

Planned: Evaluation, Measurement and Verification Activities and Evaluation Reports

Residential Customer Programs	Program/Measure	Last Evaluation completion	Next Evaluation ==>	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025
Low Income Neighborhood	Neighborhood	12/20/2022													
Low Income Services	Refrigerator Replace	7/31/2013	TBD												
	Weatherization/Payment Plus	7/31/2013													
	Pay For Performance	N/A													
My Home Energy Report	MyHER	2/12/2014		M&V	M&V	Report									
Residential Energy Assessments	HEHC	8/7/2020		M&V	M&V	M&V	M&V	M&V	M&V	M&V	Report				
Residential Smart Saver®	HVAC	9/21/2015		M&V	M&V	Report									
	Specialty Bulbs/Online Savings Store	10/6/2022													
	Water Measures	9/25/2020								M&V	M&V	M&V	Report		
	Multi-Family	12/26/2019		M&V	M&V	M&V	Report*								
Power Manager		8/31/2020		M&V	M&V	M&V	M&V	M&V	Report						
Peak Time Rebate Pilot	Peak Time Rebate	5/18/2023		M&V	Report										
Non-Residential Customer Programs															
Non-Residential Customer Programs	Program/Measure	Last Evaluation completion	Next Evaluation ==>	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025
Small Business Energy Saver		11/10/2022													
Smart Saver® Non-Res, Custom		1/18/2022													
Smart Saver® Non-Res, Prescriptive		7/24/2019			M&V	M&V	M&V	M&V	M&V	M&V	Report				
PowerShare		2/14/2017				M&V	M&V	Report							

1 Future Evaluation Report dates are projections only. Actual report dates will vary depending on program participation, time to achieve a significant sample and the time needed to collect adequate data.

* Postponed timing due to pandemic program suspension

LEGEND	
M&V	Data collection (surveys, interviews, onsite visits, billing data) and analysis
Report	Evaluation Report