

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF DUKE ENERGY )	CASE NO.
KENTUCKY, INC. TO AMEND ITS DEMAND SIDE )	2023-00269
MANAGEMENT PROGRAMS )	

ORDER

On August 15, 2023, pursuant to an Order in Case No. 2012-00495,<sup>1</sup> Duke Energy Kentucky, Inc. (Duke Kentucky), filed a request for approval to modify its Demand-Side Management (DSM) programs and are proposing adjustments to their Demand Side Management Rider (DSMR) for both electric and gas. By Order dated September 14, 2023, the Commission suspended Duke Kentucky's revised tariffs through February 16, 2024. There are no intervenors in this proceeding. The matter now stands submitted for a decision.

LEGAL STANDARD

KRS 278.285(1) authorizes the Commission to review and approve the reasonableness of DSM programs proposed by any utility under its jurisdiction. The statute lists multiple factors the Commission can consider when determining the reasonableness of the DSM programs. The listed factors in KRS 278.285(1) are:

- (a) The specific changes in customers' consumption patterns which a utility is attempting to influence;

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<sup>1</sup> Case No. 2012-00495, *Application of Duke Energy Kentucky, Inc. for the Annual Cost Recovery Filing for Demand Side Management* (Ky. PSC Apr. 11, 2013), Order at 15-16.

(b) The cost and benefit analysis and other justification for specific demand-side management programs and measures included in a utility's proposed plan;

(c) A utility's proposal to recover in rates the full costs of demand-side management programs, any net revenues lost due to reduced sales resulting from demand-side management programs, and incentives designed to provide positive financial rewards to a utility to encourage implementation of cost effective demand-side management programs;

(d) Whether a utility's proposed demand-side management programs are consistent with its most recent long-range integrated resource plan;

(e) Whether the plan results in any unreasonable prejudice or disadvantage to any class of customers;

(f) The extent to which customer representatives and the Office of the Attorney General have been involved in developing the plan, including program design, cost recovery mechanisms, and financial incentives, and if involved, the amount of support for the plan by each participant, provided however, that unanimity among the participants developing the plan shall not be required for the commission to approve the plan;

(g) The extent to which the plan provides programs which are available, affordable, and useful to all customers; and

(h) Next-generation residential utility meters that can provide residents with amount of current utility usage, its cost, and can be capable of being read by the utility either remotely or from the exterior of the home.

KRS 278.285(1) also states the factors listed are not exhaustive, the Commission can consider anything that will help determine if the programs are reasonable.

## PROPOSED DSM MODIFICATIONS

Duke Kentucky's current DSM programs were originally approved in Case No. 2012-000852<sup>2</sup> and amended in subsequent annual DSM filings. The current suite of programs, as approved in Case No. 2020-00371,<sup>3</sup> include the following:

1. Low Income Services Program;
2. Residential Energy Assessments Program;
3. Residential Smart Saver Efficient Residences Program;
4. Residential Smart Saver Energy Efficient Products Program;
5. Smart Saver Prescriptive Program;
6. Smart Saver Custom Program;
7. Power Manager Program;
8. PowerShare;
9. Low Income Neighborhood;
10. My Home Energy Report;
11. Non-Residential Small Business Energy Saver Program;
12. Non-Residential Pay for Performance; and
13. Peak Time Rebate Pilot Program.

Duke Kentucky's proposed changes to its DSM programs include expanding the scope and budgets of the Residential Energy Assessments Program, My Home Energy Report, Low Income Neighborhood, Low Income Services Program, Power Manager

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<sup>2</sup> Case No. 2012-00085, *Application of Duke Energy Kentucky, Inc. for an Energy Efficiency Cost Recovery Mechanism and for Approval of Additional Programs for Inclusion in its Existing Portfolio* (Ky. PSC Jun. 29, 2018), Order.

<sup>3</sup> Case No. 2020-00371, *Electronic Annual Cost Recovery Filing for Demand Side Management by Duke Energy Kentucky, Inc.* (Ky. PSC Apr. 9, 2021).

Program, Non-Residential Small Business Energy Saver Program, and Peak Time Rebate Pilot Program.

Duke Kentucky is proposing to rename the Residential Energy Assessments Program as the Home Energy House Call. This program allows single-family homeowners to elect to have an energy specialist audit their home's energy usage and receive a free efficiency kit. Duke Kentucky explained that it is expanding the program to renters and owners of condominiums, townhomes, and manufactured homes, as well as permit participants to choose phone, virtual, or web-based audits.<sup>4</sup>

Duke Kentucky is also proposing to rename My Home Energy Report to Duke Energy Home Energy Report. This program provides personalized tips and compares single-family homes with other properties using similar property characteristics, such as square footage, year-built, heat-type, construction, presence of pool, and relative geographic location. In 2018, the Commission ordered Duke Kentucky to make this an opt-in program instead of an opt-out program and to reduce energy reports to customers from 12 to two per year.<sup>5</sup> Duke Kentucky explained that it is proposing to reinstate the opt-out feature, increase to sending eight reports per year, and include multifamily residents.<sup>6</sup>

Duke Kentucky is proposing to rename the Low-Income Neighborhood program to the Income Qualified Neighborhood Energy Saver Program. Duke Kentucky is proposing to increase per-household allowance limits for weatherization measures and a budget

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<sup>4</sup> Application at 5-6.

<sup>5</sup> Case No. 2017-00427, *In the Matter of Electronic Annual Cost Recovery Filing for Demand Side Management by Duke Energy Kentucky, Inc.* (Ky. PSC Sept. 13, 2018), Order at 17.

<sup>6</sup> Application at 8-9.

increase. Duke Kentucky is also proposing to rename the Low-Income Services program to the Income Qualified Services Program and also increase per-household allowance limits for weatherization measures and also a budget increase. Duke Kentucky stated that inflationary pressures affecting administrative fees and increases in measure costs affecting customer incentive amounts incurred since 2020 are the primary drivers for requesting a budget increase for its low-income programs.<sup>7</sup>

The Power Manager program is designed to reduce demand by controlling residential air conditioning usage during periods of peak demand, high wholesale price conditions, and generation emergency conditions during the summer. Duke Kentucky explained that it attaches a load control device to the outdoor unit of a customer's air which enables Duke Kentucky to cycle the customer's air conditioner off and on under appropriate conditions. This provides customers with either a \$25 or \$35 credit, depending on the cycling option, for electing to use the program.<sup>8</sup> Duke Kentucky is proposing to expand the program to a Bring Your Own Thermostat (BYOT) option, in which customers with existing, two-way smart thermostats can minimize the costs of the program and exercise more control over energy use compared to direct load control by Duke Kentucky.<sup>9</sup> Customers who enroll in the program will receive a one-time \$75 incentive, then \$25 annually.<sup>10</sup> Duke Kentucky explained that it is intended for customers who have already purchased, installed, and registered a smart thermostat in their home,

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<sup>7</sup> Application at 11.

<sup>8</sup> Application, at 12.

<sup>9</sup> Application at 12-13.

<sup>10</sup> Application at 12.

allowing Duke Kentucky to avoid the hardware and installation costs associated with traditional direct load control programs. Duke Kentucky explained that it 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 Kentucky stated that it 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.

The Non-Residential Small Business Energy Saver 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, as well as energy usage reduction through increased maintenance. Duke Kentucky is seeking to expand this program by adding additional technologies to the list of those for which incentives are available. Duke Kentucky also proposes to offer New Construction Energy Efficiency Design Assistance, which involves developing more efficient building design options at the pre-design phase of construction.<sup>11</sup>

The Peak Time Rebate (PTR) pilot program offers participating customers the opportunity to lower their electric bills by reducing electric usage during designated peak load periods. The Commission ordered the continuation of this program in Case 2022-00251.<sup>12</sup>

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<sup>11</sup> Application at 14.

<sup>12</sup> Case No. 2022-00251, *Electronic Application of Duke Energy Kentucky, Inc. To Amend Its Demand Side Management Programs* (Ky. PSC June 13, 2023), Order.

## COST-EFFECTIVENESS

Duke Kentucky provided in Appendix A of its application the forecasted cost-effectiveness results performed on its individual residential and non-residential DSM programs. The following table shows the result of the cost-effectiveness test as provided by Duke Kentucky:<sup>13</sup>

<u>Program Name</u>	<u>UCT</u>	<u>TRC</u>	<u>RIM</u>	<u>PCT</u>
Income Qualified Neighborhood	0.47	0.54	0.33	2.32
Income Qualified Services	0.26	0.42	0.21	2.68
My Home Energy Report	2.31	2.31	0.80	N/A
Residential Energy Assessments	1.62	1.60	0.53	26.42
Peak Time Rebate Pilot Program	0.22	0.25	0.22	N/A
Power Manager	1.98	2.66	1.98	N/A

Regarding the Residential Programs, the forecasted results indicated that the total resource cost (TRC) for the residential low-income programs and the PTR Pilot Program were less than 1.0, indicating that both programs are not cost effective. For the Non-Residential Programs, all programs are shown to be cost-effective.

## COST AND COST ALLOCATION

Duke Kentucky is proposing to make increase adjustments to its Demand-Side Management Cost Recovery Rider (DSMR). Duke Kentucky is proposing to increase the budget for the following programs:<sup>14</sup>

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<sup>13</sup> Application, Appendix A.

<sup>14</sup> Application, Appendix B at 2.

<u>Program</u>	<u>Total</u>
Income Qualified Neighborhood	\$ 485,746
Income Qualified Services	\$ 885,236
My Home Energy Report	\$ 310,023
Residential Energy Assessments	\$ 304,844
Peak Time Rebate Pilot Program	\$ 216,000
Power Manager	\$ 1,205,282

Duke Kentucky's DSM revenue requirement, including projected August 15, 2023, program costs, lost revenues, and shared savings is approximately \$8.694 million. This level of expenditure, along with under-recoveries and over-recoveries from the prior period, results in a total DSM revenue requirement of approximately \$10.476 million, of which \$10.254 million is allocated to electric operations and (\$0.221) million is allocated to gas operations. The Commission previously approved a total DSM revenue requirement of approximately \$9.460 million, of which \$9.759 million is allocated to electric operations and (\$0.299) million is allocated to gas operations in Case No. 2022-00398.<sup>15</sup> The \$10.254 million net amount allocated to electric operations consists of a \$2.253 million under-recovery from the prior period and \$8.444 million of expected DSM program costs. The (\$221) thousand net amounts allocated to gas operations consists of a \$471 thousand over-recovery from the prior period and \$249 thousand of expected DSM program costs.

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<sup>15</sup> Case No. 2022-00398, *Electronic Annual Cost Recovery Filing for Demand Side Management By Duke Energy Kentucky, Inc.* (Ky. PSC Mar. 7, 2023), Order.



## DISCUSSION AND FINDINGS

Based upon the case record and being otherwise sufficiently advised, the Commission has reviewed the proposed modifications to Duke Kentucky's programs and finds that the modifications are reasonable and that the factors listed in KRS 278.285(1) are supported. Additionally, the DSM rates for electric and gas service as set forth in the Appendix to this Order are reasonable and should be approved. The Commission notes that considering Case No. 2022-00251 is still pending, therefore, a decision regarding the outline of the PTR Pilot Program will still be addressed in that case.

Furthermore, the Commission has traditionally evaluated DSM effectiveness by primarily focusing on the TRC results. However, when discussing Duke Kentucky's low-income programs, it is common for low-income programs to not be cost-effective. The Commission has found that such DSM programs assist low-income customers in lowering their energy bill as well as the impact these programs have on Duke Kentucky's generation load.

IT IS THEREFORE ORDERED that:

1. Duke Kentucky's proposed DSM programs and associated costs are approved effective the first full billing cycle following the issuance of this Order.
2. The DSM rates in the Appendix to this Order are approved.
3. Duke Kentucky shall comply with the requirements of the findings found herein.
4. In its next filing for Commission approval of its DSM programs, Duke Kentucky shall provide analyses of the impact of DSM charges on its electric and gas customers' bills, and detailed evaluations of the cost-effectiveness of its existing


programs and any proposed programs in light of the attendant cost burdens to the residential and commercial classes.


5. Within 20 days of the date of this Order, Duke Kentucky shall file with this Commission, using the Commission's electronic Tariff Filing System, revised tariff sheets setting out the rates approved herein and reflecting that they were approved pursuant to this Order.

6. This case is closed and removed from the Commission's docket.

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PUBLIC SERVICE COMMISSION

  
Chairman

  
Vice Chairman

  
Commissioner

ENTERED  
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KENTUCKY PUBLIC  
SERVICE COMMISSION

ATTEST:

  
Executive Director

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN CASE NO. 2023-00269 DATED NOV 20 2023

The following rates and charges are prescribed for the customers in the area served by Duke Energy Kentucky, Inc. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under the authority of this Commission prior to the effective date of this Order.

Duke Energy Kentucky, Inc. – Electric and Gas Customers

Rate Schedule Riders DSM Cost Recovery Rider (DSMR)

Electric Rider DSM

Residential Rate RS \$ 0.003988 per kWh

Gas Rider DSM

Residential Rate RS \$ (0.003536) per Ccf

\*Debbie Gates  
Duke Energy Kentucky, Inc.  
139 East Fourth Street  
Cincinnati, OH 45201

\*Duke Energy Kentucky, Inc.  
139 East Fourth Street  
Cincinnati, OH 45202

\*Larisa Vaysman  
Duke Energy Kentucky, Inc.  
139 East Fourth Street  
Cincinnati, OH 45201

\*Minna Sunderman  
Duke Energy Kentucky, Inc.  
139 East Fourth Street  
Cincinnati, OH 45201