

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF DUKE)	
ENERGY KENTUCKY, INC. TO AMEND ITS)	CASE NO.
DEMAND SIDE MANAGEMENT PROGRAMS)	2016-00289

ORDER

On August 15, 2016, Duke Energy Kentucky, Inc. ("Duke Kentucky")¹ filed an application, pursuant to KRS 278.285, requesting approval to amend certain of its Demand-Side Management ("DSM") programs and to propose revised tariffs to recover costs associated with its DSM programs, including net lost revenues and program-related incentives. The application also included evaluation reports on some of the programs contained in Duke Kentucky's DSM portfolio.²

Duke Kentucky proposed to expand the scope of the Residential Smart Saver Energy Efficient Products Program, Low Income Neighborhood Program, Energy Efficiency Education for Schools Program, My Home Energy Report, and Power Manager by increasing or changing the available measures within each program to

¹ The Commission takes administrative notice that Duke Kentucky is a wholly owned subsidiary of Duke Energy Ohio, Inc. ("Duke Ohio") and that Duke Energy Corporation ("Duke Energy") is the parent company of Duke Ohio and Duke Kentucky.

² Evaluation reports filed as part of the Application are: the Impact and Process Evaluation of the 2015 PowerShare Program (Exhibit D); Evaluation of the Smart Saver Nonresidential Custom Incentive Program in Kentucky (Exhibit E); Evaluation of the Residential Smart Saver HVAC Program in Ohio and Kentucky (Exhibit F); and Process Evaluation of the 2013–2014 Smart Saver Nonresidential Custom Incentive Program in Ohio and Kentucky (Exhibit G).

respond to market conditions and enhance the robustness of Duke Kentucky's offerings.³

Duke Kentucky also proposed to update measures within the Smart Saver Custom Program and an eligibility update to the Non-Residential Small Business Energy Saver Program. Additionally, Duke Kentucky proposed a new demand-response ("DR") program for small and medium non-residential customers, Power Manager for Business, and a new non-residential energy efficiency program, Pay for Performance. In its application, Duke Kentucky informed the Commission that the Appliance Recycling Program is no longer being offered because the recycling contractor has discontinued operations. Finally, Duke Kentucky requested that approval of any tariff modifications have an effective date that aligns with Duke Kentucky's first billing cycle in the month following the Commission's Order.⁴

Duke Kentucky stated that the Residential Collaborative⁵ and the Commercial and Industrial Collaborative⁶ reviewed its proposed changes. With the exception of the

³ Application, paragraph 6.

⁴ *Id.*, paragraph 13. The program evaluation for the Energy Efficiency Education for Schools Program was not completed in time for this application and was filed on November 15, 2016, in Case No. 2016-00382, Electronic Annual Cost Recovery Filing for Demand Side Management by Duke Energy Kentucky, Inc.

⁵ The Residential Collaborative members receiving the information were: Rebecca Goodman and Heather Napier (Office of the Kentucky Attorney General); Jock Pitts and Nina Creech (People Working Cooperatively); Florence Tandy (Northern Kentucky Community Action Commission); Laura Pleiman (Boone County); Peter Nienaber (Northern Kentucky Legal Aid); Karen Reagor (Kentucky NEED Project); Lee Colten and Rick Bender (Department of Energy Development and Independence); Chris Jones (Greater Cincinnati Energy Alliance); Chris Mueller (Brighton Center); Allyn Reinecke (Campbell County); and Tim Duff and Trisha Haemmerle (Duke Energy).

⁶ The Commercial & Industrial Collaborative members receiving the information were: Rebecca Goodman and Heather Napier (Office of the Kentucky Attorney General); Jock Pitts (People Working Cooperatively); Karen Reagor (Kentucky NEED Project); Lee Colten and Rick Bender (Department of Energy Development and Independence); Allyn Reinecke (Campbell County); Chris Baker (Kenton County Schools); and Tim Duff and Trisha Haemmerle (Duke Energy).

Office of the Kentucky Attorney General, which will provide its opinion at a later date, the voting members of both the Residential Collaborative and the Commercial & Industrial Collaborative reviewed and either affirmatively agreed to or did not oppose this application.⁷

Duke Kentucky requested an effective date of October 1, 2016, for the proposed DSM-related tariffs referenced above. Pursuant to KRS 278.190(2) and to the Commission's Order dated August 30, 2016, a procedural schedule was established and the proposed effective date of Duke Kentucky's DSM tariffs was suspended for five months, from October 1, 2016, up to and including February 28, 2017. Duke Kentucky responded to two rounds of discovery from Commission Staff. On November 29, 2016, Duke Kentucky filed a notice requesting that the matter be decided based on the evidentiary record without a formal hearing. Because there are no intervenors in this case and a hearing is not necessary in the public interest, the Commission will adjudicate this case based on the evidence of record.

DUKE KENTUCKY DSM PROGRAM PORTFOLIO

Duke Kentucky's DSM portfolio includes the following programs as approved in Case No. 2015-00277:⁸

1. Low Income Services Program
2. Residential Energy Assessments Program
3. Energy Efficiency Education for Schools Program
4. Residential Smart Saver Efficient Residences Program

⁷ Application, paragraph 6.

⁸ Case No. 2015-00277, *Application of Duke Energy Kentucky, Inc. to Amend Its Demand-Side Management Programs* (Ky. PSC Feb.12, 2016).

5. Residential Smart Saver Energy Efficient Products Program
6. Smart Saver Prescriptive Program
7. Smart Saver Custom Program
8. Smart Saver Energy Assessments Program
9. Power Manager Program
10. PowerShare
11. Low Income Neighborhood
12. My Home Energy Report
13. Appliance Recycling Program
14. Non-Residential Small Business Energy Saver Program

PROPOSED CHANGES TO EXISTING PROGRAMS

Duke Kentucky proposes the following changes to its existing DSM programs:

Residential Smart Saver Energy Efficient Products

The Residential Smart Saver Energy Efficient Products Program provides eligible customers with energy-efficient (“EE”) lighting measures.⁹ Duke Kentucky is proposing to expand the scope of this program by increasing the available lighting measures through an additional marketing referral channel, retail stores. This marketing channel works through lighting manufacturers and retailers to offer discounts at the register to Duke Kentucky customers for selecting light-emitting diode (“LED”) bulbs and EE fixtures. Participating retailers include, but are not limited to, Home Depot, Lowe’s, Sam’s Club, Walmart, and Costco. Duke Kentucky wishes to add this additional

⁹ By Commission-approved Order in Case No. 2016-00112, *Application of Duke Energy Kentucky, Inc. to Amend Its Demand Side Management Programs*, (Ky. PSC May 10, 2012) this program was amended by changing available measures from compact fluorescent light (“CFL”) technology to LED technology.

marketing channel to target those customers who are not likely to shop at its on-line store and to encourage these customers to adopt EE lighting through incentives on a wide range of efficient lighting technologies.

The incentive or discount amount will vary by product type. The customer will pay the balance and any applicable taxes. Pack limits will be enforced to the best of the retailers' ability. Duke Kentucky stated that Duke Kentucky customers cannot be differentiated from non-Duke Kentucky customers by the retail store but to control for this, retailers will be chosen based on geographic location and customer shopping patterns so that the majority of the purchasers will be Duke Kentucky customers. Further, the program is offered in conjunction with Duke Ohio, which Duke Kentucky asserts will minimize participation by non-Duke Kentucky customers because offering the program in both Kentucky and Ohio should reduce cross-state participation.¹⁰ Duke Kentucky stated that there are no adjustments to the estimated program costs to account for participants who are non-Duke Kentucky customers because the purchase of LED bulbs by non-Duke Kentucky customers is considered an administrative cost of the program.¹¹ Duke Kentucky further stated that evaluation, measurement, and verification results will address participation in the program by non-Duke Kentucky customers, and energy savings and net benefit related to the program will be adjusted accordingly.¹²

¹⁰ Duke Kentucky's Response to Staff's First Request for Information ("Staff's First Request"), Item 1.a.

¹¹ Duke Kentucky's Response to Staff's Second Request for Information ("Response to Staff's Second Request"), Items 1.a. and 1.c.

¹² *Id.*

Marketing efforts will be in place to create customer awareness of the program, educate customers on energy-saving opportunities, motivate customer participation, and emphasize the convenience of program participation. Duke Kentucky will also update the multi-family portion of its program to remove references to CFL bulbs and include only LED bulbs.

Low-Income Neighborhood

Duke Kentucky proposes to maintain consistency across programs by changing references from CFL to LED.

Energy Efficiency Education for Schools

On April 1, 2016, following a letter submitted to the Commission in March of 2016, the program changed from offering CFLs to LEDs.

My Home Energy Report

My Home Energy Report ("MyHER") is an EE program that uses behavioral science to motivate EE behavior by comparing the user's home energy usage to a similarly situated peer group. Currently the program is available only to customers living in single-family homes. Duke Kentucky is developing a similar program for multifamily homes to reach a broader audience. The MyHER report will compare the participant's usage to that of other multifamily dwellings and provide tips tailored to behavioral and efficiency changes the multifamily dwelling can make.

Power Manager

This residential load control program is used to reduce peak demand and shift usage from peak periods. Currently the program reduces demand only during summer peak periods, as the load-control device is offered only for residential air conditioners.

Duke Kentucky proposes to add electric water heaters to the program. This program expansion will allow for year-round load control during Power Manager events.¹³

The water-heater device is available only to customers who have committed to receive a Power Manager air conditioning device and have an electric water heater. Hence, only those customers who have a new installation or existing customers who have a service or quality control visit will be eligible to also receive a water-heater device. Duke Kentucky states that this restriction is because it is not cost-effective to send a technician to a customer's home solely to install a water-heater device.¹⁴ For water heaters, participating customers will receive a one-time incentive of \$5 and a minimum of \$6 in annual bill credits.¹⁵

Smart Saver Prescriptive

Duke Kentucky is evaluating and revising measures for 2017. New measures will be added and updated LED incentives that reflect the decrease in the market price of LEDs will go into effect in 2017. Duke Kentucky states that the new measures and the changes in LED incentives will not require Commission approval.¹⁶

Smart Saver Custom

Duke Kentucky proposes to implement a new channel for customers to access called Calculation Assistance. This channel will provide commercial customers with the

¹³ Power Manager events occur when Duke Kentucky intermittently interrupts (cycles) service.

¹⁴ Application, at 9.

¹⁵ *Id.*

¹⁶ See Case No. 2014-00280, *Application of Duke Energy Kentucky, Inc. to Amend Its Demand-Side Management Programs* (Ky. PSC Jan. 28, 2015). Duke Kentucky received approval for automatic approval of cost-effective additions to existing DSM programs if the cost did not exceed \$75,000 per program.

calculation of savings for Smart Saver Custom projects. Duke Kentucky states this service will further streamline Duke Kentucky's internal process and will enhance the Smart Saver Custom Program.

Non-Residential Smart Saver Prescriptive and Custom Programs

Duke Kentucky proposes to add a new outreach channel, Small/Medium Business – New Construction (“SMBNC”). The SMBNC is centered upon an automated EE incentive calculator. This calculator allows architects and engineers access to this online tool, as well as to a Duke Kentucky consultant who will evaluate combinations of EE measures and determine the potential Smart Saver Custom and/or Prescriptive incentives the small/medium business customers will receive for implementing these EE measures after Duke Kentucky's approval. Duke Kentucky has found that businesses with small buildings are often difficult to identify for marketing and business development purposes, and comprehensive energy audits can be cost prohibitive. SMBNC will initially be offered to businesses with buildings 100,000 square feet or less in size, but the program may be expanded depending on participation interest.¹⁷

Non-Residential Small Business Energy Saver Program

Duke Kentucky proposes to increase the Small Business Energy Saver (“SBES”) program eligibility from an average annual electric demand of 100 kilowatt (“kW”) to 180 kW, in order to allow for more customer participation and program kilowatt-hour (“kWh”) savings. Duke Kentucky has determined that this modification will meet the needs of

¹⁷ Response to Staff's First Request, Item 4.

segment of customers who do not participate in the current SBES program or the Non-Residential Smart Saver Prescriptive and Custom programs.¹⁸

PROPOSED NEW PROGRAMS

Duke Kentucky proposes the following new DSM programs:

Power Manager for Apartments

Similar to Power Manager for the residential class, this program is a load-control program used to reduce electric demand during peak periods by installing load-control devices on air conditioners and electric water heaters. This proposed program will be offered to property managers/owners of individually metered apartment units that have a functional central air-conditioning system with an outside compressor unit. The property managers/owners will receive the annual incentive of \$5 per air conditioning device and \$5 per water heater. Duke Kentucky states that the managers/owners receive the incentive because they own, control access to, and perform maintenance on the equipment. The tenants, who are Duke Kentucky's customers, will receive bill credits for each Power Manager event. The bill credits received are a minimum of \$10 annually for participation in the air conditioning load control and a minimum of \$6 annually for a water heater device. Tenants will be notified of their program eligibility and given the opportunity to opt out. Total bill credits will be based on the kW reduction option selected by the customer, the number of hours of the control event, and the value of electricity during the event.

Non-Residential Pay for Performance

This new program proposed by Duke Kentucky is designed to encourage the installation of high-efficiency equipment in new and existing non-residential

¹⁸ Application at 14.

establishments by providing incentive payments to offset a portion of the higher cost associated with EE installations. This program provides incentives to EE installations that are not offered under the Smart Saver Prescriptive or Custom programs. Examples of measures covered include projects with a combination of unknown building conditions or system constraints, coupled with uncertain operating occupancy or production schedules.

To receive payment, the customer must submit an application prior to project implementation. Estimated project savings will be calculated and agreed to by both the applicant and Duke Kentucky. The program incentives will be based upon the Pay for Performance incentive rate schedule and will be divided into two separate payments. The first payment will occur after project installation, a follow-up review by Duke Kentucky and approval by Duke Kentucky, and will be a portion of the estimated total project savings. At this point, a measurement period will begin to verify actual savings. A second incentive payment will occur after the measurement period ends and actual savings are confirmed. This second payment will be equal to the applicable Pay for Performance incentive rate multiplied by the verified savings.

Power Manager for Business

This program will provide business customers the opportunity to participate in DR, earn incentives, and realize optional EE benefits. It will be provided to small-to-medium businesses and offer options on DR device types and participation. Customers will first select the type of device, either thermostat or switch. The thermostat option allows the customer to manage the thermostat remotely via a computer, tablet, or smartphone. The business owner will have three thermostat presets from which to

choose, each with varying levels of summer DR participation and incentives. With the thermostat option, business owners will have the option to set an efficient schedule that works for their businesses. The switch option does not allow for the flexibility to control temperature set points. Both options will have the same DR participation options and will receive the same DR incentives.

Power Manager for Business will be offered to those with qualifying air conditioning systems, qualifying summer weekday energy usage, and qualifying broadband/Wi-Fi internet. These businesses must agree to have a load-control device installed on their air conditioning systems and agree to allow Duke Kentucky to control their air condition systems during Power Manager events. Qualifying air conditioning systems include individual split air conditioning systems, rooftop units, and packaged terminal air conditioners. The incentives received per device during the summer season will be \$50 for 30 percent cycling, \$85 for 50 percent cycling, and \$135 for 75 percent cycling. The customer will not pay for the device installation.

OTHER PROPOSED PORTFOLIO REVISIONS

Duke Kentucky is proposing to discontinue the Appliance Recycling Program. Launched in 2012, this program encourages customers to responsibly dispose of their inefficient, functional refrigerators and freezers. In return, the customer receives an incentive payment. Since its inception, JACO Environmental, Inc. ("JACO") has worked with Duke Kentucky to pick up the appliances and dispose of them in an environmentally responsible manner. On November 19, 2015, JACO abruptly discontinued operations, causing delayed and bounced incentive payments and cancellations for appliance pickups. Duke Kentucky remedied these issues by

immediately contacting impacted customers, updating the website, and setting an internal support team to address each customer request. Duke Kentucky also processed over 175 prepaid cards to address the bounced checks or lack of payments.¹⁹ Duke Kentucky states it will continue to analyze the program and determine if submitting a request for proposals to evaluate the future of the program is appropriate.

COST-EFFECTIVENESS

The following table shows the results of the cost-effectiveness tests²⁰ provided by Duke Kentucky.

DSM Portfolio Programs	UCT	TRC	RIM	Participant Test
Residential Customer Programs				
Appliance Recycling Program	0.95	1.15	0.61	N/A
Energy Efficiency Education Program for Schools	1.06	1.22	0.73	N/A
Low Income Neighborhood	1.16	1.50	0.77	N/A
Low Income Services	0.60	0.79	0.48	N/A
My Home Energy Report	1.83	1.83	1.02	N/A
Residential Energy Assessments	3.53	3.55	1.71	N/A
Residential Smart Saver	2.87	2.98	1.15	6.10
Power Manager	3.31	3.86	3.31	N/A
My Home Energy Report - Modifications	2.67	2.67	1.28	N/A
Residential Smart Saver - Modifications	2.48	2.46	1.08	4.14
Power Manager – Modifications	6.38	13.79	6.38	N/A
Power Manager for Apartments	5.59	9.80	5.59	N/A
Non-Residential Customer Programs				
Smart Saver Custom	7.56	3.46	1.49	3.98
Smart Saver Prescriptive - Energy Star Food Services Products	7.96	3.70	1.42	5.51
Smart Saver Prescriptive - HVAC	3.67	1.01	1.39	1.38

¹⁹ Response to Staff's First Request, Item 6.

²⁰ Application, Exhibit A.

Smart Saver Prescriptive - Lighting	5.02	1.35	1.49	1.72
Smart Saver Prescriptive - Motor/Pumps/VFD	6.56	2.35	1.50	3.36
Smart Saver Prescriptive - Process Equipment	6.64	4.75	1.80	6.19
Smart Saver Prescriptive - IT	0.00	0.00	0.00	N/A
Small Business Energy Saver	3.79	2.42	1.49	2.69
Power Share	3.98	12.61	3.98	N/A
Pay for Performance	7.09	2.34	1.49	2.38
Power Manger for Business	3.46	5.89	2.51	N/A

COSTS²¹

Duke Kentucky's DSM revenue requirement, including program costs, lost revenues, and financial incentives is \$13.270 million. This level of expenditure, along with under- and over-recovery from the prior period, results in a total DSM revenue requirement of \$20.972 million, of which \$18.069 million is allocated to electric operations and \$2.903 million is allocated to gas operations. The \$18.069 million net amount allocated to electric operations comprises \$5.294 million of under-recovery from the prior period, and \$12.775 million of expected DSM program costs. In addition, residential electric customers receive a customer meter charge which collects \$147,094 for Home Energy Assistance ("HEA").

The \$2.903 million net amount allocated to gas operations comprises \$2.408 million of under-recovery from the prior period and \$0.495 million of expected DSM program costs. Additionally, residential gas customers receive a customer meter charge which collects \$106,710 for HEA.

OTHER

Duke Kentucky requests that approval of any tariff modifications have an effective date that aligns with the first billing cycle in the month following the

²¹ Response Staff's Second Request, Item 9.

Commission's Order. Duke Kentucky made this request because, under its current billing system, it is unable to immediately implement tariff changes outside of a billing cycle.²²

FINDINGS

Based on the evidence of record and being otherwise sufficiently advised, the Commission finds that:

1. Duke Kentucky has kept the Commission informed of the progress and status of its DSM programs by timely filing summary status reports on its programs.

2. Duke Kentucky's proposed modifications and additions to its current DSM portfolio are reasonable, given Duke Kentucky's consistent commitment to expanding its DSM programs and the Commission's past approvals of those programs, and should be approved.

3. Duke Kentucky's revised DSM surcharge factors, which are based on its expected level of additional DSM program costs, are reasonable and should be approved as revised.

4. Duke Kentucky, in compliance with the approval first referenced in Case No. 2012-00085,²³ should provide a ten-day notification to the Commission of any additional measures to be added or any existing measures to be removed from its DSM portfolio.

²² Duke Kentucky provided its billing cycles in Response to Staff's First Data Request, Item 7.

²³ 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 June 29, 2012).

5. Duke Kentucky, in compliance with the approval first referenced in Case No. 2012-00085, should provide updated cost-effectiveness scores and any change in rates by customer class on an annual basis within the annual amendment filing.

6. While the Commission has found that Duke Kentucky's proposed DSM portfolio and surcharges are reasonable and should be approved, the Commission further finds that Duke Kentucky should continue to scrutinize the results of each existing DSM program measure's cost-effectiveness test and provide those results in future DSM cases, along with detailed support for future DSM program expansions and additions. Duke Kentucky should also be mindful of the increasing saturation of energy-efficient products, and be watchful for the opportunity to scale back on programs offering incentives for behavior that may be dictated by factors other than the incentives. The Commission is concerned about the increasing number of utility DSM programs and the associated increase in costs to ratepayers, particularly as the costs of the programs are borne by all customers in a rate class and are not limited to the participants in the DSM programs. Therefore, the Commission will apply greater scrutiny in its review of all future DSM filings, with a particular emphasis on reviewing the cost-effectiveness of each program and measure.

7. Duke Kentucky should continue the practice of not including DSM-or-EE related costs in base rates.

IT IS THEREFORE ORDERED that:

1. Duke Kentucky's proposed programs and associated costs are approved effective with the first billing cycle of the month following the issuance of this Order.

2. Duke Kentucky's proposed modifications and additions to its current DSM portfolio are approved. Duke Kentucky's revised DSM surcharge factors, which are based on its expected level of additional DSM program costs, are reasonable and are approved.

3. Duke Kentucky shall comply with the requirements of finding paragraphs 4, 5, and 7.

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 ten days of the date of this Order, Duke Kentucky shall file with the Commission, using the Commission's electronic Tariff Filing System, its revised DSM tariffs showing the date of issue and that they were issued by authority of this Order.

By the Commission

ENTERED
JAN 24 2017
KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:


Executive Director

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 2016-00289 DATED **JAN 24 2017**

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 authority of this Commission prior to the effective date of this Order.

<u>Rate Schedule Riders</u>	<u>DSM Cost Recovery Rider (DSMR)</u>
<u>Electric Rider DSM</u>	
Residential Rate RS	\$0.007350 per kWh
Distribution Level Rates Part A DS, DP, DT, GS-FL, EH & SP	\$0.002735 per kWh
Transmission Level Rates & Distribution Level Rates Part B TT	\$0.000049 per kWh
Distribution Level Rates Total DS, DP, DT, GS-FL, EH & SP	\$0.002784 per kWh
<u>Gas Rider DSM</u>	
Residential Rate RS	\$0.044741 per Ccf

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