

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF DUKE ENERGY KENTUCKY, )	CASE NO.
INC. TO AMEND ITS DEMAND SIDE )	2013-00313
MANAGEMENT PROGRAMS )	

ORDER

On August 15, 2013, Duke Energy Kentucky, Inc. ("Duke Kentucky") filed a Demand-Side Management ("DSM") application ("Application"). Included in the Application is the Annual Status Report, Adjustment of the DSM Cost Recovery Mechanism, Amended Tariff Sheets for Gas Rider DSMR and Electric Rider DSMR, and evaluation reports. The Application also proposes to expand the scope of the Residential Smart Saver Program and Smart Saver Prescriptive Program for Non-Residential Customers by increasing the available measures within each program to enhance the robustness of Duke Kentucky's offerings for these programs.<sup>1</sup> According to the Application, those members in attendance of the Residential Collaborative<sup>2</sup> and

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<sup>1</sup> Application, paragraph 7, page 3.

<sup>2</sup> The Residential Collaborative members in attendance were: Jennifer Black Hans (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), Carl Melcher (Northern Kentucky Legal Aid), Karen Reagor and Pam Proctor (Kentucky NEED Project), Lee Colten, John Davies and Greg Guess (Department of Energy Development and Independence), Jeremy Faust, Andy Holzhauser and Chris Jones (Greater Cincinnati Energy Alliance), Pat Dressman (Campbell County), and Tim Duff and Trisha Haemmerle (Duke Energy).

the Commercial and Industrial Collaborative,<sup>3</sup> with the exception of the Attorney General (“AG”), agreed with the Application.

Duke Kentucky was subject to two rounds of discovery and two telephonic informal conferences. There were no intervenors.

#### TELEPHONIC INFORMAL CONFERENCES

At the request of Commission Staff (“Staff”), a telephonic Informal Conference (“IC”) was held on October 31, 2013, to discuss finding paragraph 4 of the Final Order in Case No. 2012-00495<sup>4</sup> which states, “Duke Kentucky should evaluate its entire portfolio of DSM programs by December 31, 2016. The exception would be in applications that include a new program or an expansion of an existing program.” In the current proceeding, Duke Kentucky filed various evaluation reports. This was discussed in the IC, during which Staff confirmed that Duke Kentucky is not required to file any DSM program evaluation reports until 2016. Duke Kentucky responded that it had interpreted the requirements of the Order differently, but is willing to wait until 2016 to submit additional filings for unaltered programs. Duke Kentucky indicated that it expects to file on or before November 15, 2013, to true up the cost of its programs.<sup>5</sup>

Duke Kentucky also inquired of Staff whether it is still required to file with the Commission a process evaluation status report regarding its theatrical program by

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<sup>3</sup> The Commercial & Industrial Collaborative members in attendance were: Jennifer Black Hans and Heather Napier (Office of the Kentucky Attorney General), Jock Pitts (People Working Cooperatively), Karen Reagor and Pam Proctor (Kentucky NEED Project), Lee Colten, John Davies and Greg Guess (Department of Energy Development and Independence), Pat Dressman (Campbell County), Chris Baker (Kenton County Schools), and Tim Duff and Trisha Haemmerle (Duke Energy).

<sup>4</sup> Case No. 2012-00495, Application of Duke Energy Kentucky, Inc. for the Annual Cost Recovery Filing for Demand Side Management, at p. 14 (Ky. PSC Apr. 11, 2013).

<sup>5</sup> Informal Conference Memo, dated November 1, 2013.

August 15, following the end of an academic year, as described in ordering paragraph 3 of the Commission's Order in Case No. 2012-00495.<sup>6</sup> Commission Staff confirmed that Duke Kentucky is still subject to that requirement.

At the request of Duke Kentucky, another telephonic IC was held on November 5, 2013. In that IC, Duke Kentucky indicated that it has several DSM program evaluations it would like to file on or about August 15, 2014, since they were 50 percent or more complete, with some being 75 to 90 percent complete. Staff advised Duke Kentucky that it had no objection to Duke Kentucky's filing those evaluations.<sup>7</sup>

#### DUKE KENTUCKY'S DSM PROGRAM PORTFOLIO

Duke Kentucky's DSM portfolio includes the following programs, as approved in Case No. 2012-00085.<sup>8</sup>

1. Low Income Services Program – The purpose of this program is to assist low-income customers with installation of Energy Efficiency (“EE”) measures in their homes in order to reduce energy usage. Weatherization and equipment-replacement assistance is available to income-qualified customers on Duke Kentucky's system in existing individually metered residences, condominiums, and mobile homes. Funds are available for weatherization measures, and/or refrigerator replacement with an Energy Star appliance, and/or furnace repair/replacement. The measures eligible for funding will be determined by an energy audit of the residence. A home energy audit will be

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<sup>6</sup> *Id.*, Case No. 2012-00495, Duke Energy Kentucky, Inc. (Ky. PSC Apr. 11, 2013).

<sup>7</sup> Informal Conference Memo, dated November 6, 2013.

<sup>8</sup> Case No 2012-00085, Application of Duke energy, Inc. for an Energy Efficiency cost Recovery Mechanism and for Approval of Additional Programs for Inclusion in its Existing Portfolio (Ky. PSC Jun. 29, 2012).

provided at no charge to the customer. Availability of this program will be coordinated through vendors or local agencies that administer weatherization programs. The vendor or agency must certify the household income level according to Duke Energy standards. Payment Plus provides EE and budget counseling to help customers understand how to control their energy usage and how to manage their household bills. Participants are also encouraged to participate in weatherization and equipment-replacement assistance to increase the EE in customers' homes. Bill assistance credits are provided to customers upon completion of each component of Payment Plus. Participants are not eligible for payments under any other Duke Kentucky EE Programs for the same EE measure provided under this program.

2. Residential Energy Assessments Program – The purpose of this program is to help residential customers assess their energy usage and to provide recommendations for more efficient use of energy in their homes. It is administered by contractor Wisconsin Energy Conservation Corporation, Inc. The program will also help identify those customers who could benefit most by investing in new EE measures, undertaking more energy-efficient practices, and by participating in Duke Kentucky programs. Duke Kentucky may require a minimum number of months of historical usage data before performing an analysis for customers.

Duke Kentucky will perform on-site assessments of owner-occupied residences and reserves the right to determine eligibility throughout the life of the program. Duke Kentucky will provide a detailed residential energy assessment which will include EE recommendations.

Participating customers will be offered home EE measures such as an EE starter kit and/or compact fluorescent light bulbs. The incentive may be delivered in a variety of ways, including, but not limited to, in-home installation, direct mail, rebates, discount coupons, in-store promotions or online discounts.

3. Energy Education Program for Schools Program – The purpose of this program is to educate students about EE in homes and schools through an EE curriculum. The program is operated under contract by National Energy Education Development, or NEED, and provides an approach that educates students about energy. This program provides eligible students the ability to perform a paper or online energy audit of their home. Each eligible student who completes a home energy audit will receive EE measures for their home, such as a package of compact fluorescent light bulbs or an EE starter kit.

4. Residential Smart Saver Energy Efficient Residences Program – This program provides incentives to customers, builders, heating, ventilation and air conditioning (“HVAC”) dealers and weatherization contractors to promote and install high-efficiency air conditioners and heat pumps with electronically commutated fan motors (“ECM”), as well as attic insulation and air sealing, duct sealing, HVAC tune ups, and lighting. Additional measures new to this program include duct insulation and property manager lighting. This program is promoted through trade ally outreach and direct communications to customers using numerous channels, such as direct mail, community presentations and website promotions.

5. Residential Smart Saver Energy Efficient Products Program – The purpose of this voluntary program is to encourage the installation of Energy Star or

other high-efficiency products in new or existing residences. The program will provide incentives to offset a portion of the higher cost of higher-efficiency products. The types of equipment eligible for incentives may include, but are not limited to, the following: (1) High-efficiency lighting; (2) High-efficiency clothes washers; (3) High-efficiency refrigerators; and (4) High-efficiency dishwashers. Incentives under this program are available only for Energy Star or other EE products for which incentives pass Duke Kentucky's Utility Cost Test.

6. Smart Saver Prescriptive Program ("Prescriptive") – The purpose of this program is to encourage the installation of high-efficiency equipment in new and existing nonresidential establishments. The program will provide incentive payments to offset a portion of the higher cost of energy-efficient equipment. The program also encourages maintenance of existing equipment in order to reduce or maintain energy usage. The following types of equipment are eligible for incentives: (1) High-efficiency lighting; (2) High-efficiency HVAC installations; (3) High-efficiency motors, pumps, and variable frequency drives; (4) High-efficiency food service installations; (5) High-efficiency process equipment installations, including compressed air systems; (6) Other high-efficiency installations as determined by Duke Kentucky on a case-by-case basis; and (7) Maintenance to increase the efficiency of existing equipment.

Incentives offered are designed to offset a portion of the capital cost of moving to higher-efficiency equipment. The incentive amounts are known to the customers before they undertake their projects, so the customers can proceed with their projects and submit documentation after installation.

7. Smart Saver Custom Program (“Custom”) – The purpose of this program is to encourage the installation of high-efficiency equipment in new and existing nonresidential establishments. The program will provide incentive payments to offset a portion of the higher cost of energy-efficient installations that are not included in the Prescriptive program. A key difference between the Prescriptive program and the Custom program is that the Custom program requires the customer to submit an application before beginning the project.

The following types of equipment are eligible for incentives: (1) High-efficiency lighting; (2) High-efficiency HVAC installations; (3) High-efficiency motors, pumps, and variable-frequency drives; (4) High-efficiency food service installations; (5) High-efficiency process equipment installations, including compressed air systems; and (6) Other high-efficiency installations as determined by Duke Kentucky on a case-by-case basis.

8. Smart Saver Energy Assessments Program – The purpose of this program is to assist nonresidential customers in assessing their energy usage and to provide recommendations for more efficient-energy usage. The program will also help identify those customers who could benefit from other Duke Kentucky nonresidential EE programs.

There are several types of energy assessments available, as follows: (1) Online Analysis; (2) Telephone Interview Analysis; and (3) On-site Audit and Analysis. The Online Analysis and Telephone Interview Analysis are offered free of charge to the customer. The cost of the on-site audit and analysis is shared by Duke Kentucky and the customer. The cost of the on-site assessment can vary, depending on the length of

time an assessor spends at a customer's facility. The customer pays 50 percent of the cost, and Duke Kentucky pays 50 percent, but the customer's cost can be further reduced upon payment by Duke Kentucky of incentives for equipment installed by adopting recommendations made in the audit under the Prescriptive or Custom programs.

9. Power Manager Program – This is a voluntary residential load-control program offered to individually metered, single-family residences. This program is available for the cycling control of electric central air conditioning (cooling) systems.

10. PowerShare – This is the brand name of Duke Kentucky's voluntary Peak Load Management Program. This is a voluntary program that offers non-residential customers the opportunity to reduce their electric costs by managing their electric usage during peak-load periods. The customer and Duke Kentucky will enter into a service agreement under this Rider that will specify the terms and conditions under which the customer agrees to reduce usage.

11. Low Income Neighbor – The purpose of this program is to help low-income customers reduce energy costs through energy education and by installing or providing energy-conservation measures for each customer's residence. Under this program, participating customers will receive the following: (1) An energy assessment to identify EE opportunities in the customer's home; (2) One-on-one education on EE techniques and measures; and (3) A comprehensive package of energy-conservation measures installed or provided to the extent the measure is identified as an EE opportunity based on the results of the energy assessment. Energy-conservation measures, priced up to \$210, may include low-cost EE starter items such as air-



infiltration reduction measures, energy-efficient lighting, water-conservation measures, HVAC filters, or other energy-saving devices.

12. My Home Energy Report – The purpose of this voluntary program is to use comparative household electric usage data for similar residences in the same geographic area to help customers better manage and reduce energy usage. These normative comparisons are intended to induce an energy-consumption behavior change. The program will assist residential customers in assessing their energy usage and provide recommendations for more efficient use of energy in their homes. The program will help identify those customers who could benefit most from investing in new EE measures, undertaking more energy-efficient practices and participating in Duke Kentucky programs. Customers will receive periodic comparative usage data reports via direct mail or online channels. Delivery may be interrupted during the off-peak energy usage months in the fall and spring. Duke Kentucky may require a minimum number of months of historical usage data before allowing participation.

13. Appliance Recycling Program (“ARP”) – The ARP is designed to prevent the continued use of inefficient, working refrigerators and freezers by taking the units out of homes and recycling them in an environmentally friendly manner, with approximately 95 percent of the material recycled and only 5 percent going to a landfill. Qualifying units include residential-style refrigerators and freezers ranging from 10-30 cubic feet currently in Duke Kentucky customers’ homes. These qualifying units will be removed at no cost to the customer by a Duke Kentucky-approved third-party vendor. The removed units will be dismantled, with approximately 95 percent of materials being

recycled. Duke Kentucky residential customers electing to participate will be paid a cash incentive of up to \$30 dollars per unit, with a maximum of two units per year.

#### EXPANSION OF EXISTING PROGRAMS

Duke Kentucky proposed three new Residential Smart Saver measures, representing an additional \$48,300 of program costs. The proposed programs are the Heater Pump Water Heater (“HPWH”) Program, the Pool Energy Efficiency Program (“PEEP”), and the Water Measures (“WM”) program.

The HPWH Program is a new prescriptive measure to be added to the Smart Saver Residential Program. Program participants will include single-family, owner-occupied residential customers with electric water heating. Eligible customers who purchase and install a qualified Energy Star electric heat-pump water heater will receive a prescriptive incentive up to \$300. The electric HPWH must be installed by a contractor approved by Duke Kentucky. Duke Kentucky may elect to provide a dealer incentive of \$50 directly to the contractor to encourage promotion and installation of a qualified heat-pump water heater. The total incentive provided to either or both the customer and dealer is not to exceed \$350 per installation.<sup>9</sup>

The purpose of the incentive is to build awareness of energy-efficient water heating options and to encourage the adoption of high-efficiency electric water heaters. This offer is intended to motivate homeowners to replace less-efficient or non-operational electric water heaters with Energy Star qualified equipment (Energy Factor  $\geq 2.0$ ) with the goal to reduce electric usage for water heating.<sup>10</sup>

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<sup>9</sup> Application, paragraph 8, page 4.

<sup>10</sup> *Id.*

The PEEP is a Smart Saver residential incentive that will encourage the purchase and installation of energy-efficient equipment and controls. Initially, the program will focus on variable-speed pumps, but the pool equipment offering may evolve with the marketplace to include additional equipment options and control devices that reduce energy consumption and/or demand.<sup>11</sup>

Program participants will include customers with single-family owner-occupied residences with an in-ground pool. Eligible customers will receive a maximum customer incentive of \$400 for the purchase, professional installation and programming of variable-speed pump. Approved contractors will be eligible to receive a \$50 dealer incentive. The total incentive provided to either or both the customer and dealer is not to exceed \$450 per installation.<sup>12</sup>

Duke Kentucky's WM program will be available to single- and multi-family homes. This measure encourages the adoption of low-flow devices. The single-family WM program participants will include residential customers with electric water heating; and eligible customers will receive discounted or free water-saving devices that include faucet aerators, low-flow showerheads and insulation (pipe wrap). The multi-family WM program participants will include residential customers with electric water heating. Duke Kentucky states it will coordinate with multi-family property owners and managers to install energy-saving discounted or free devices (faucet aerators, low-flow showerheads and pipe wrap) in qualified apartments.<sup>13</sup>

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<sup>11</sup> *Id.*, page 5.

<sup>12</sup> *Id.*

<sup>13</sup> *Id.*, pages 5-6.

Duke Kentucky proposed five new Prescriptive program measures, with an additional cost of \$44,649. The proposed measures include lighting, Energy Star food-service products, HVAC, process measures, and information technology ("IT").

The lighting measures include subcategories or additional categories for exterior light-emitting diodes ("LED"), exterior motion sensor control for LEDs, interior LED fixtures, LED cases, daylight sensors, and two-lamp T8 high bay fixtures.<sup>14</sup> The Energy Star food service products include Energy Star vending machines, dishwashers, and walk-in coolers/freezers automatic door closer retrofit.<sup>15</sup> The HVAC measures include ductless mini-split air conditioner ("AC") or heat pump ("HP"), chilled water reset, faucet aerators and showerheads, cool roofs, demand-controlled ventilation system, water pipe insulation.<sup>16</sup>

The process measures include variable-speed drive air compressors.<sup>17</sup> The IT measures include controlled plug strips and power strips, Energy Star 2.0 server, Energy Star 6.0 desktop server, Energy Star 6.0 small scale server (data storage), PC power management from network, variable-frequency drives ("VFD") on chilled water pumps, and VFDs on computer room AC, computer room air handler unit ("AHU") or AHU fans for data centers.<sup>18</sup>

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<sup>14</sup> Application, paragraph 8, page 6.

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*, pages 6-7.

<sup>17</sup> *Id.*, page 8.

<sup>18</sup> *Id.*, pages 8-9.

In response to a Commission Staff request for information<sup>19</sup> concerning program incentives and which customers qualify, Duke Kentucky stated:

The new measures fall under the Smart Saver Prescriptive Program meaning that the following requirements apply:

Available to non-residential customers in the Company's electric service area taking service under non-residential rates who choose to participate by completing and submitting an application. In order to receive an incentive payment under this program, the owner must submit an application before or within ninety (90) days of installation, along with the required documentation and verification that the installed efficiency measures meet the requirements of this program. The Company reserves the right to inspect the premises of the customer both before and after implementation of the measure for which payment is requested. Incentive payments will be made only after the equipment has been installed, and is operable, as verified by the Company. Multiple incentive payments may be requested for each establishment; however, the Company reserves the right to limit the payments per establishment per year.<sup>20</sup>

Duke Kentucky also provided a table of incentives per measure for the proposed expansion of the Prescriptive program in the response.<sup>21</sup>

#### COSTS<sup>22</sup>

Duke Kentucky's DSM revenue requirement, including program costs, lost revenues, and financial incentives, is \$9.6 million. This level of expenditure, along with under- and over-recovery from the prior period, results in a total DSM revenue requirement of \$3.4 million, of which \$5.9 million is allocated to electric operations and

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<sup>19</sup> Response to Commission Staff's First Request for Information, Item 4, dated Sep. 30, 2013.

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

<sup>22</sup> Application, Appendix B, filed Nov. 15, 2012.

(\$2.5) million is allocated to gas operations. The \$5.9 million allocated to electric operations includes a (\$2.4) million over-recovery from the prior period, \$8.3 million of expected DSM program costs, and \$144,950 of customer meter charge for Home Energy Assistance ("HEA"). The (\$2.5) million allocated to gas operations includes (\$3.9) million over-recovery from the prior period, \$1.4 million of expected DSM program costs, and \$104,610 of customer meter charge for HEA.

### CONCLUSIONS

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 expanded programs 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.
4. Duke Energy should provide criteria in its Residential Smart Saver tariff for how the prescriptive incentive of up to \$300 is determined for those customers who purchase and install a qualified Energy Star electric heat-pump water heater.
5. Duke Energy should provide criteria in its Residential Smart Saver tariff for how a maximum customer incentive of up to \$400 is determined for those customers for the purchase, professional installation and programming of a variable-speed pump.
6. Duke Kentucky's request to deviate from the Order in Case No. 2012-00495 and file evaluation reports on or about August 15, 2014, for all of its DSM

programs except for the Smart Saver Custom and the Low Income Neighbor programs, is reasonable and should be approved.

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 DSM programs and associated cost is approved as of the date of this Order.

2. Duke Energy shall provide criteria in its Residential Smart Saver tariff for how the prescriptive incentive of up to \$300 is determined for those customers who purchase and install a qualified Energy Star electric heat-pump water heater and for how a maximum customer incentive of \$400 is determined for those customers for the purchase, professional installation, and programming of a variable-speed pump.

3. Duke Kentucky shall continue the practice of not including DSM or EE related costs in base rates.

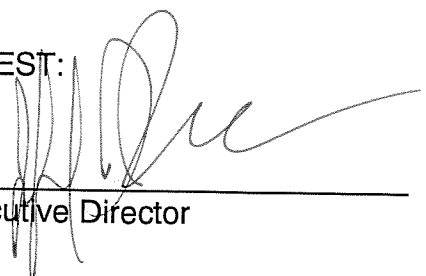
4. Duke Kentucky's request that it be able to file the evaluation reports on or about August 15, 2014, for all of its DSM programs except for the Smart Saver Custom and the Low Income Neighbor programs, which should be completed and filed in 2016, is approved.

5. Within ten days of the date of this Order, Duke Kentucky shall file its revised DSM tariffs with the Commission showing the date of issue and that they were issued by authority of this Order.

By the Commission

ENTERED <sup>MP</sup>  
DEC 19 2013  
KENTUCKY PUBLIC  
SERVICE COMMISSION

ATTEST:

  
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Executive Director



## APPENDIX

### APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2013-00313 DATED **DEC 19 2013**

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.

#### Duke Energy Kentucky, Inc. – Electric and Gas Customers

<u>Rate Schedule Riders</u>	<u>DSM Cost Recovery Rider (DSMR)</u>
<u>Electric Rider DSM</u>	
Residential Rate RS	\$0.002003 per kWh
Distribution Level Rates Part A DS, DP, DT, GS-FL, EH & SP	\$0.000062 per kWh
Transmission Level Rates & Distribution Level Rates Part B TT	\$0.001070 per kWh
Distribution Level Rates Total DS, DP, DT, GS-FL, EH & SP	\$0.001132 per kWh
<u>Gas Rider DSM</u>	
Residential Rate RS	-\$0.038919 per Ccf

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