COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY POWER COMPANY TO AMEND ITS DEMAND-SIDE MANAGEMENT PROGRAM AND FOR AUTHORITY TO IMPLEMENT A TARIFF TO RECOVER COSTS AND NET LOST REVENUES, AND TO RECEIVE INCENTIVES ASSOCIATED WITH THE IMPLEMENTATION OF THE PROGRAMS	)))))))	CASE NO. 2013-00487

ORDER

On December 20, 2013, Kentucky Power Company ("Kentucky Power") filed an application seeking approval of revised electric tariffs to recover costs associated with its demand-side management ("DSM") programs, including net lost revenues and program-related incentives for the residential and commercial DSM factors. Kentucky Power requests approval of the DSM Status Report, Schedule C, and the P.S.C. Electric No. 9, Tariff D.S.M.C. 6th Revised Sheet No. 22-2 to become effective January 30, 2014.[1] Kentucky Power stated in its cover letter that it is working with the Kentucky School Board Association ("KSBA") to develop a new school energy-management program application to be reviewed by Kentucky Power's DSM Collaborative ("Collaborative") before filing with the Commission, and that it proposes a market

[1] On December 16, 2013, members of the Collaborative participated in a conference call. The following DSM Collaborative members participated: Annie Thompson and Josh Shuffle, LKLP Community Action Council; Bertha Daniels, Appalachian Research and Defense Fund of Kentucky, Inc.; Rob Jones, Community Action Kentucky; and E. J. Clayton, Kenneth Borders, Scott Bishop, Ranie Wohnhas, and Lila Munsey, Kentucky Power. The Attorney General's ("AG") representative was unable to participate in the conference call, but provided an e-mail noting the AG's office had no specific questions concerning the proposed DSM filing and that the AG was abstaining. Response to Commission Staff's First Request for Information to Kentucky Power Company, Item 1, filed Feb. 14, 2014.

potential study ("Study") to support Kentucky Power's strategy and resource deployment for DSM over a 10-year planning period.

Pursuant to the Commission's Order dated January 13, 2014, a procedural schedule was established and the proposed effective date of Kentucky Power's DSM tariffs was suspended for five months, from February 6, 2014, up to and including July 5, 2014. The procedural schedule provided for, among other things, two rounds of discovery upon Kentucky Power's application, an opportunity for the filing of intervenor testimony, and discovery on intervenor testimony.

There was one intervenor, Alexander DeSha and Sierra Club (collectively "Sierra Club"), in this proceeding. Kentucky Power responded to three requests for information from Commission Staff and two requests for information from the Sierra Club. The Sierra Club provided comments and responded to one request for information from Commission Staff.

On March 25, 2014, Kentucky Power filed a motion to amend the procedural schedule to permit it to file comments in response to any comments that might be filed by the Sierra Club. Kentucky Power requested that it be allowed to file comments on or after May 9, 2014. Kentucky Power further requested that the date for requesting a hearing be changed from May 5, 2014 to May 9, 2014, so as to coincide with the filing of its comments. The Commission granted Kentucky Power's request in an Order dated April 1, 2014. The procedural schedule also provided that the parties could file a request for an evidentiary hearing no later than May 2, 2014. On May 12, 2014, the Sierra Club filed a notice that they would not be filing a hearing request. Therefore, the record is complete and this case stands ready for a decision.

On March 6, 2014, at the request of Kentucky Power, an informal conference ("IC") was held, with a representative of the Sierra Club participating by telephone. The purpose of the IC was to allow Kentucky Power an opportunity to provide the status of the aforementioned School Energy Management Program, as further discussed in the March 17, 2014, IC memo which is filed in the record of this proceeding.

On March 28, 2014, the Sierra Club filed comments regarding Kentucky Power's application, and stated that it generally supports Kentucky Power's application. The Sierra Club points out that the proposed 2014 DSM portfolio represents an increase of approximately 58 percent over 2013 direct program expenses. It cites a 2014 study from the Lawrence Berkeley National Laboratory ("LBL") which found that the national levelized cost of energy savings for electric utilities is just 2.1 cents per kWh, based on 2009-2011 data. Also cited is a 2014 report by the American Council for an Energy-Efficient Economy ("ACEEE") found that electric energy-efficiency ("EE") programs have an average cost of 2.8 cents per kilowatt hour ("kWh"), based on 2009-2012 data.[2] Kentucky Power stated that its annual cost of energy savings for 2012 and 2013 was 2.6 cents per kWh and 1.9 cents per kWh respectively.[3] The Sierra Club stated that it appears that Kentucky Power is on track to meet its 2014 DSM investment obligation of $4 million.[4]

---

[2] Alexander DeSha and Sierra Club's Comments Regarding Kentucky Power Company's DSM Application, pages 2-3, filed Mar. 28, 2014.

[3] Response to Item 1, Commission Staff's Third Request for Information to Kentucky Power Company, filed Apr. 11, 2014.

[4] Alexander DeSha and Sierra Club's Comments Regarding Kentucky Power Company's DSM Application, page 2, filed Mar. 28, 2014.

The Sierra Club also commented that Kentucky Power should seek to maximize the opportunity for increased savings, and that the level of savings achieved in Kentucky Power's territory does not reflect the critical role EE is expected to play in the Commonwealth of Kentucky's energy future;[5] that Kentucky Power's estimated evaluation budget, 5.6 percent of total costs, appears reasonable, but that the proportion of overall budget devoted to administration costs and incentive payments raises some concern and that Kentucky Power should find ways to reduce administrative costs and increase program incentive investments to maximize the energy savings generated through its DSM portfolio;[6] and that it strongly supports Kentucky Power's proposal to conduct a Study, which has not been done in the last five years.

In response to the Sierra Club's comment, Kentucky Power states that its administrative costs are in line with industry averages, and that its administrative expenses were 9.7 percent of total program costs. This is based on a five-state review of utility EE programs with a range of 8-38 percent for such costs.[7]

In response to the Sierra Club's comment that Kentucky Power's DSM/EE program lags significantly behind other utilities in the region and the rest of the country in terms of energy savings, Kentucky Power argues that its savings constitute a reasonable percentage of the relevant retail sales. Kentucky Power states the Sierra Club contrasts Kentucky Power's 2009-2011 energy-efficiency savings to those from

---

[5] *Id.*, pages 7-8.

[6] *Id.*, page 6.

[7] Kentucky Power Company's Comments in Response to the Comments of Sierra Club and Alexander DeSha, pages 2-3, filed May 8, 2014.

American Electric Power (AEP) Ohio (2009-2011), other Ohio utilities (2009-2011), and 13 other states (2011). Kentucky Power further states that the problems with this analysis are significant:

> a. Under Kentucky law, KRS 278.285(3), industrial customers in Kentucky may "opt out" of utility-sponsored energy efficiency programs. By contrast, Ohio and many other states prohibit carte blanche "opt-out." Because the industrial sector is a relatively large part of Kentucky Power's load (approximately 44%), including industrial customers in the denominator (total energy sales) as Sierra Club does, when they do not contribute to the numerator (energy savings), skews the result and unfairly diminishes the contribution made by Kentucky Power's DSM/EE programs in the sectors in which they are deployed.
>
> b. The comparison of 2009-2011 and 2011 historical results from Ohio and other jurisdictions and the Company's projected future results can be misleading. The 2009-2011 results for programs in Ohio and the other states relied almost entirely on lighting measures. Much of this "low-hanging fruit" has been gathered, and as a result the prospective impact of such programs has been greatly diminished through the phase-in of lighting standards nationwide (discussed in greater depth below). As a result, historical and future results are not directly comparable.
>
> c. The Ohio results include credits for legislatively authorized mercantile projects. These are projects that were completed prior to 2009 and should not be considered reoccurring or indicative of savings that occurred during the 2009-2011 time period. In the case of AEP Ohio, these projects accounted for 262 GWh during that period or 23% of the total savings claimed.[8]

Kentucky Power goes on to state that the annual savings included in the statistics used by Sierra Club are effectively "partial year" calendar savings that reflect the timing of when measures are installed.[9] Kentucky Power provides a table showing annualized

[8] *Id.*, page 4.

[9] *Id.*, pages 4-5.

energy savings to residential and commercial sales growing from that of 0.10 percent in 2009 to a projected savings of 0.72 percent in 2014.[10]

Kentucky Power points out that because industrial customers constitute a larger proportion of its total company load than exists nationally, comparisons to national benchmarks can be misleading. In its comments, the Sierra Club cites the "Kentucky Action Plan for Energy Efficiency," a copy of which it attached to its submission to the Commission. Kentucky Power observed that statements in the report such as, "Kentucky's energy intensity is, per capita, among the highest in the nation" imply there is something inherently wasteful in the manner in which Kentucky consumes energy. Kentucky Power states that Kentucky is a heavily industrialized state, and as pointed out in the same report, Kentucky's industrial sector consumes more than 49 percent of Kentucky's total electricity generation. Kentucky Power concludes that, because nationally the industrial sector consumes not quite 27 percent of all electric generation, it is not surprising that Kentucky's relative per capita consumption is so high. Kentucky Power also noted that heavy industries located in Kentucky because of access to inexpensive energy and is a major economic driver for the state's economy, that they compete in national if not global markets, and is keenly aware of the need to produce goods efficiently.[11]

Kentucky Power states that its levelized cost of annualized energy savings for energy programs are in line with the LBL and ACEEE studies cited in the Sierra Club's comments. Kentucky Power provided information showing that it's levelized cost of

---

[10] *Id.*

[11] *Id.*, page 9.

energy savings were 2.6 cents/kWh and 1.9 cents/kWh for 2012 and 2013, respectively.[12]

DSM PROGRAMS

Kentucky Power's current DSM programs are as follows:

1. Targeted Energy Efficiency Program – This is a residential weatherization program that is promoted solely through the Community Action Agencies. It is designed to improve energy efficiency for low-income customers through energy audits coupled with the installation of various energy conservation measures for both all-electric and non-all-electric customers. These measures include an energy audit; inspection of heating equipment; weather-stripping; caulking of windows and exterior doors; blower door analysis with air and duct sealing; water-heater blanket, pipe insulation, and thermostat setback; attic, floor, and wall insulation; compact fluorescent light ("CFL") bulbs; and structural repairs that increase energy efficiency .

2. Mobile Home Heat Pump Program – This program is designed to promote, through heating, ventilation, and air conditioning ("HVAC") contractors, a more efficient HVAC system for mobile homes. Incentives are paid to both the HVAC dealers and the customers who purchase high-efficiency heat pumps to replace their existing electric furnaces. The customer incentive is $400 and the dealer incentive is $50.

3. Mobile Home New Construction Program – This program is designed to lower electric usage in new mobile homes by paying incentives to mobile home dealerships and the customers who purchase new mobile homes with high-efficiency

[12] *Id.*, page 11.

heat pumps and Zone 3 insulation packages. The customer incentive is $500 and the dealer incentive is $50.

4. Modified Energy Fitness Program – This program is designed to promote conservation and efficient use of electricity by improving the energy fitness of electrically heated residences with a minimum average monthly usage of at least 1,000 kWh. The measures include energy audits, blower door testing, caulking and weather-stripping, three faucet aerators, two low-flow showerheads, one CFL bulb, hot-water pipe insulation, duct sealing, a water-heater wrap, a door sweep, water-heater temperature turn-down, and a programmable thermostat. An audit report is also provided which recommends additional actions the homeowner could take. There is no income level requirement with this program.

5. High Efficiency Heat Pump Program – This program is designed to reduce residential electric energy consumption by upgrading less-efficient electric heating and cooling systems with high-efficiency heat pumps. The customer incentive is $400 and the dealer incentive is $50.

6. Energy Education for Students Program – This program is designed as both an energy-education program and a program to promote energy-efficient lighting in residential homes. Kentucky Power works with the Kentucky National Energy Education Development project to provide energy-education materials to participating middle schools. Each seventh-grade student at the participating schools receives a package of four CFL bulbs.

7. Community Outreach CFL Program – This program is designed to promote the conservation and efficient use of electricity by encouraging the use of

energy-efficient Energy Star CFL bulbs in place of incandescent light bulbs in residential homes.

8. Residential Efficient Products Program – This program provides incentives and marketing through retailers to build market share and promote usage of Energy Star lighting products to reduce the amount of energy consumed by home lighting.

9. Residential and Commercial Heating, Ventilation, and Air Conditioning Diagnostic and Tune-Up Program – This program works with participating licensed HVAC dealers and targets residential and small-commercial customers with HVAC system performance problems. The objective of this program is to reduce energy usage by conducting a diagnostic performance check on unitary air conditioning and heat pump units, air-restricted indoor and outdoor coils, and over/under refrigerant charges. The incentives are $30 for residential customers; $30 for commercial customers; and $25 for contractors.

10. Commercial High Efficiency Heat Pump/Air Conditioner Program – This program offers a financial incentive to small commercial customers (those with less than 100 kW demand) who purchase a new qualifying central air conditioner or heat pump, up to a five-ton unit, with a Consortium for Energy Efficiency Tier 1 rating and who comply with pertinent eligibility requirements of this program. In addition, the program offers financial incentives to dealers who sell these high-efficiency units. This program targets the existing retrofit market only. The customer and dealer incentives are:

	Customer		
	Air Conditioner	Heat Pump	Dealer
36,000 or fewer Btu/hr	$250	$300	$50
36,000 to 65,000 Btu/hr	$400	$450	$50

11. Commercial Incentive Program – This program is designed to address cost-effective electricity-saving measures that are not addressed or offered through other Kentucky Power programs. All commercial customers are eligible to participate and all projects must be pre-approved by Kentucky Power prior to purchase and installation of any equipment or materials. Eligible measures include lighting, HVAC applications, and motor and drive. Incentives for qualifying prescriptive measures will vary and will be provided to participating customers at the lesser of (1) a calculated incentive level, or (2) up to 50 percent of the incremental equipment cost of qualifying energy-efficient products (i.e., those costs above federal and/or state efficiency levels).

DISCUSSION

As a result of paragraph 12 of the partial Stipulation and Settlement Agreement in Case No. 2012-00578,[13] Kentucky Power is increasing its DSM spending to $4 million

[13] Case No.2012-00578, Application of Kentucky Power Company for (1) a Certificate of Public Convenience and Necessity Authorizing the Transfer to the Company of an Undivided Fifty Percent Interest in the Mitchell Generating Station and Associated Assets; (2) Approval of the Assumption by Kentucky Power Company of Certain Liabilities in Connection with the Transfer of the Mitchell Generating Station; (3) Declaratory Rulings; (4) Deferral Of Costs Incurred in Connection with the Company's Efforts to Meet Federal Clean Air Act and Related Requirements; and (5) All Other Required Approvals and Relief (Ky. PSC Oct. 7, 2013).

in 2014,[14] to $5 million in 2015, and to $6 million in 2016, 2017, and 2018. Kentucky Power will seek to maintain a minimum spending level of $6 million of Commission-approved, cost-effective DSM and energy-efficiency measures in years after 2018. Also, for 2014, the annual DSM funding level for the school energy-management program is $75,000, and for 2015, it is $50,000.

In the application, Kentucky Power proposes to increase spending in three programs in order to reach the $4 million threshold. The three programs are the Modified Energy Fitness, Residential Efficient Products, and Commercial Incentive programs. A comparison of the projected 2014 activity and programs costs versus the actual 2013 activity and program costs of the three programs is shown below.

PROGRAMS	2014 Projected Participants	2013 Actual Participants	2014 Projected Costs	2013 Actual Costs
Modified Energy Fitness	2,000	1,200	$838,689	$466,258
Residential Efficient Products				
- Compact Fluorescent Lamp (CFL)	240,000	206,765		
- Specialty Bulbs	20,000	25,378	$843,940	$478,134
- LED Lights	4,500	115		
Commercial Incentive (Projects)	250	151	$1,459,838	$948,338

COST-EFFECTIVENESS

Kentucky Power provided the results of the cost-effectiveness test performed on its DSM portfolio.[15]

[14] Item 21, Response to Commission Staff's First Request for Information to Kentucky Power Company, filed February 14, 2014 and Item 5, Response to Alexander DeSha and Sierra Club's Initial Requests for Information to Kentucky Power Company, filed Feb. 14, 2014.

[15] Item 3, Response to Commission Staff's Second Request for Information to Kentucky Power Company, Attachment 1, filed Mar.14, 2014.

The test results showed that the Commercial Incentive program, the Residential and Commercial HVAC Diagnostic and Tune-Up program, and the Small Commercial HVAC Incentive program, which were not deemed cost-effective in Case No. 2012-00367,[16] are now cost-effective. Kentucky Power states that the improvement in the cost-effectiveness test results is because "[t]he prospective (future) economics of the programs are based on improved performance resulting from the implementation of program recommendations."[17]

PROPOSED DSM FACTORS

Kentucky Power's current residential DSM factor is $0.002145 per kWh, while its proposed residential DSM factor is $0.001447. Kentucky Power's current commercial DSM factor is $0.000825 per kWh and its proposed commercial DSM factor is $0.000986. The proposed residential and commercial DSM factors are based on a revised Status Report and Exhibit C.[18]

MARKET POTENTIAL STUDY

In the cover letter, Kentucky Power stated that it proposes a Study to support Kentucky Power's strategy and resource deployment for DSM over a 10-year planning period. Kentucky Power stated that no Study has been performed in the last five

[16] Case No. 2012-00367, *Application of Kentucky Power Company to Amend its Demand-Side Management Program and for Authority to Implement a Tariff to Recover Costs and Net Lost Revenues, and to Receive Incentives Associated with the Implementation of the Programs* (Ky. PSC Feb. 22, 2013).

[17] Item 3, Response to Commission Staff's Second Request for Information to Kentucky Power Company, filed Mar. 14, 2014.

[18] Item 21, Response to Commission Staff's First Request for Information to Kentucky Power Company, filed Feb. 14, 2014.

years.[19] Kentucky Power further stated that the Study's start date has not been identified; however, a tentative start date is anticipated for July or August with the total time to complete the Study estimated at 20 to 24 weeks.[20] Kentucky Power went on to state that the Study should not affect the next filing scheduled for August 15, 2014.[21]

SUMMARY

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

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

2. Kentucky Power's application with revised DSM Status Report and Schedule C as filed should be approved.

3. The Commission encourages Kentucky Power to continue considering and reviewing potential cost-effective DSM/EE programs that could be included in future DSM portfolios, and that may be included in the fourth building block in the recently proposed Environmental Protection Agency's rule for mitigation of greenhouse gas emissions under Section 111(d) of the Clean Air Act.

4. Kentucky Power should begin preparing a Study to be initiated in the next 90 days and to be filed with the Commission once completed.

---

[19] Response to Alexander DeSha and Sierra Club's Initial Request for Information to Kentucky Power Company, filed Feb. 14, 2014, Item 10.

[20] Response to Alexander DeSha and Sierra Club's Initial Request for Information to Kentucky Power Company, filed Feb. 14, 2014, Item 11.

[21] Response to Alexander DeSha and Sierra Club's Initial Request for Information to Kentucky Power Company, filed Feb. 14, 2014, Item 14.

5. Kentucky Power's proposed DSM surcharge factors of $.001447 per kWh for residential customers and $.000986 per kWh for commercial customers should be approved.

6. A revised tariff sheet showing the proposed DSM factors that are to be effective as of the date of the Order should be approved.

IT IS THEREFORE ORDERED that:

1. Kentucky Power's application, with its revised DSM Status Report and Schedule C, is approved as filed.

2. Kentucky Power shall continue its consideration and review of potential cost-effective DSM/EE programs that could be included in future DSM portfolios.

3. Kentucky Power shall prepare a Study to be initiated in the next 90 days and be filed with the Commission upon completion.

4. Kentucky Power's proposed DSM surcharge factors of $.001447 per kWh for residential customers and $.000986 per kWh for commercial customers are approved effective for service rendered on and after the date of this Order.

5. Within 10 days from the date of this Order, Kentucky Power 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.

By the Commission

ENTERED

JUN 3 0 2014

KENTUCKY PUBLIC SERVICE COMMISSION

Joe F Childers
Joe F. Childers & Associates
300 Lexington Building
201 West Short Street
Lexington, KENTUCKY 40507

Lila P Munsey
Manager, Regulatory Services
Kentucky Power
101A Enterprise Drive
Frankfort, KENTUCKY 40601

Honorable Mark R Overstreet
Attorney at Law
Stites & Harbison
421 West Main Street
P. O. Box 634
Frankfort, KENTUCKY 40602-0634

Jill Tauber
Earthjustice
1625 Massachusetts Avenue, N.W., Sui
Washington, DISTRICT OF COLUMBIA