

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

TARIFF FILING OF EAST KENTUCKY POWER)	
COOPERATIVE, INC. FOR APPROVAL OF A)	
NEW DEMAND-SIDE MANAGEMENT PROGRAM)	CASE NO.
ENERGY STAR MANUFACTURED HOME)	2014-00359
PROGRAM)	

ORDER

On September 11, 2014, East Kentucky Power Cooperative, Inc. ("EKPC") filed a proposed tariff for a new demand-side management ("DSM") program identified as the Energy Star Manufactured Home Program ("ESMHP"). Along with a cover letter ("Cover Letter"), EKPC submitted a cost-benefit analysis, supporting documentation, and a proposed tariff sheet, DSM-7, Original Tariff Sheet No. 28.4 ("DSM-7") with an effective date of October 15, 2014. By Order issued October 10, 2014, the Commission suspended the proposed DSM-7 ESMHP tariff for a period of five months, up to and including March 14, 2015. EKPC responded to two rounds of discovery from the Commission Staff. There were no intervenors.

EPKC states that it and its 16 owner-member cooperatives ("owner-members") had previously administered a tariffed Touchstone Energy Manufactured Home DSM program, but that the program was discontinued in early 2013 due to lack of program participation. Since then, the EKPC DSM Steering Committee ("Steering Committee")¹ has been looking for opportunities to initiate a new DSM program featuring

¹ The Steering Committee is a committee consisting of EKPC and owner-member staff.

manufactured homes. The Steering Committee determined that the Tennessee Valley Authority's ("TVA") Energy Star Manufactured Home Program ("TVA ESMHP") provides a model for such a program. Subsequently, the Steering Committee sought and received approval from the executive staff of EKPC and the owner-members' chief executive officers to develop and fund a similar program, pending Commission approval.

EKPC asserts that the TVA ESMHP works well because it targets and works with the home manufacturers and their manufacturing facilities, utilizing a process developed by the Systems Building Research Alliance ("SBRA"), a non-profit research and development organization for the manufactured home industry. SBRA's process, which has been approved by the United States Environmental Protection Agency ("EPA"), involves ensuring that Energy Star standards are applied to each manufactured home constructed and that appropriate verification of such applications takes place. Energy Star standards include upgrades to home envelope insulation and sealing, installation of a programmable thermostat, low-energy lighting, and a properly sized and installed heat pump. SBRA is the only organization recognized by the EPA that administers and tracks all Energy Star manufactured homes constructed in the United States.²

EKPC provided the results of the standard California Tests³ for the ESMHP along with the program assumption or supporting document.⁴ The Total Resource Cost ("TRC") result is over 4.0, while the Rate Impact Measures ("RIM") results for EKPC and

² Cover Letter filed September 11, 2014 as a tariff filing seeking to implement a new DSM program called the Energy Star Manufactured Home Program. Filed with the Cover Letter were a cost-benefit analysis, a supporting document, Energy Star manufactured home program guidelines, and tariff.

³ *Id.*, Cover Letter – cost-benefit analysis.

⁴ *Id.*, Cover Letter – supporting document.

the owner-members are slightly below 1.0. The RIM is lower than usual because of the program design. It is anticipated that the decision to work directly with the manufacturers will drive participation rates higher than the rates achieved during prior attempts to incentivize homeowners. However, EKPC alone will bear 100 percent of the home improvement costs.

For each home, EKPC will pay SBRA \$1,750 to cover the home upgrade costs noted in the tariff, plus a \$150 administration fee. Despite these initial costs, according to TVA, implementing this program in its service territory resulted in annual savings of over 11,000 kilowatt hours ("kWh") per home when compared to the basic United States Department of Housing and Urban Development ("HUD") standard manufactured home. Thus, EKPC anticipates that the high level of kWh saved by the customers will result in significant revenue loss for each participating distribution owner-member. To cover this revenue shortfall, for each new Energy Star manufactured home built in its territory, EKPC will make a one-time payment of \$2,400 to the respective owner-member to cover lost revenue and administration expenses.⁵

EKPC proposes to execute an agreement with SBRA to administer the ESMHP for EKPC and its participating owner-members.⁶ For all new manufactured homes ordered and verified to be sited in an owner-member's service territory, SBRA will work with the manufacturers to ensure the homes will be automatically upgraded to Energy Star manufactured home standards. SBRA will also track each home and verify the

⁵ *Id.*, Cover Letter.

⁶ Responses to Commission Staff's Second Request for Information ("Staff's Second Request"), Item 1, filed Dec. 10, 2014.

structure's upgrade in the factory, as well as verifying proper on-site installation of both the structure and the heat pump.⁷

EKPC states that approximately 35 percent of the individuals served by its owner-members live in manufactured homes. EKPC asserts that the ESMHP could, over time, greatly improve the housing stock, resulting in improved comfort and quality of life for many Kentuckians.⁸

EKPC states that the homes for which the ESMHP will provide incentives would most likely not be Energy Star manufactured homes in the absence of this program.⁹ According to *Next Step*,¹⁰ a non-profit organization promoting Energy Star manufactured homes, Kentucky averages 2,000 new manufactured homes each year, with less than 1 percent of those being certified as Energy Star homes. EKPC contends that the ESMHP will ensure that a much higher number of new manufactured homes will be built to Energy Star standards. In addition, EKPC states that the ESMHP will implement the SBRA standard that requires every home to have a heat pump rather than an electric furnace. EKPC further states that this requirement will result in greater electricity savings than would simply building to Energy Star standards for just the home shell or thermal envelope.¹¹

⁷ *Id.*

⁸ *Id.*

⁹ Responses to Staff's Second Request, Item 5, filed Dec. 10, 2014.

¹⁰ <http://www.nextstepus.org>.

¹¹ Responses to Commission Staff's Initial Request for Information ("Staff's Initial Request"), Item 6, filed Oct. 24, 2014.

The proposed ESMHP will be available to all EKPC's owner-members on whose system an Energy Star certified manufactured home is installed. Requirements for eligibility, as set forth in DSM-7, are that the home: is an Energy Star Certified Manufactured Homes; is all electric; has as its primary source of heat a heat pump rated 13 SEER & 7.5 HSPF or higher; and must be installed by the manufacturer on lines served by one of EKPC's 16 owner-members. Energy Star compliance¹² requires the use of a combination of structural envelope and equipment measures that, in combination, result in performance that is significantly more energy efficient than comparable factory-built homes produced in accordance with the HUD code.¹³ EKPC is projecting estimated annual savings per participating owner-member of 11,947 kWh.¹⁴

EKPC estimates the ESMHP will grow to 1,300 participants from 2015-2018.¹⁵ The numbers EKPC used on its cost-effectiveness analysis were based on the parameters of EKPC's proposed agreement with SBRA, which projects 400 homes over an 18-month period.¹⁶ The SBRA monitors all manufactured homes sales in the United States and estimates EKPC's eligible market to be 800 new homes per year. Typically, homes ordered by the retailer and available on the retail lot for purchase are not Energy Star homes, while homes that are custom ordered by an EKPC owner-member end-use

¹² Cover Letter Guidelines - An Energy Star certified manufactured home is equipped with the following features: (1) Thermal envelope improvements - increased envelope insulation, improved duct insulation, tighter duct construction, and higher efficiency windows, tighter envelope construction; and (2) High efficiency equipment/control strategies - high efficiency heat pumps in place of standard electric resistance furnaces and air conditioning equipment, high efficiency domestic water heater, and programmable thermostat.

¹³ http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/rmra/mhs/ipfaqs.

¹⁴ Responses to Staff's Second Request, Item 6, filed Dec. 10, 2014.

¹⁵ Responses to Staff's Initial Request Item 2, filed Oct. 24, 2014.

¹⁶ Responses to Staff's Second Request, Item 2, filed Dec. 10, 2014.

member will typically be upgraded to Energy Star. This is because the manufacturer knows the address for the custom-ordered home and that the end-use member will be eligible for the rebate from the owner-member. Therefore, according to SBRA, EKPC should expect that 50 percent of the eligible market each year will order Energy Star manufactured homes, after a two-year ramp-up period.¹⁷

According to SBRA, as part of the certification process required of each home manufacturing plant, the Energy Star requirements must be included in what is known as the Design Approval Primary Inspection Agency (“DAPIA”)¹⁸ package, a set of specifications for the construction of the each manufactured home type that is required under the HUD code. A HUD-authorized inspector inspects each home during the plant production process for compliance with the DAPIA package specifications.¹⁹

The principal inspection site is the home manufacturing plant, where approximately 95 percent of the total construction work is performed. Additional inspections and testing are required of Energy Star homes once they are placed in service at the building site. This inspection is performed by a third-party independent inspection agency.²⁰

EKPC states that many manufactured homes are custom ordered by the customer and then manufactured to the customer’s specifications. Most manufactured home types can be ordered by the customer to conform to Energy Star standards. Because the incentive included in the ESMHP will cover all additional costs to upgrade

¹⁷ Responses to Staff’s Initial Request, Item 2, filed Oct. 24, 2014.

¹⁸ http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/rmra/mhs/ipfaqs.

¹⁹ Responses to Staff’s Initial Request, Item 4, filed Oct. 24, 2014.

²⁰ *Id.*

to the Energy Star standard, a customer will typically choose to have the home upgraded to Energy Star at the time of order and purchase. In some instances, the home retailers have models available at the retail site whose construction conforms to Energy Star provisions. However, a home is only designated as Energy Star and qualifies for the Energy Star label following field installation and inspection by a third-party independent inspection agency.²¹

EKPC is seeking estimated net lost revenues for ten years for the ESMHP. EKPC states the number of years of net lost revenues is applied to a simplified calculation of kWh savings and typical difference in cents per kWh between the retail and the wholesale prices of electricity. The number of years of net lost revenues used in calculating the transfer payment EKPC will pay its owner-members is the result of considering several factors that include: (1) the lifetime of the savings; (2) the relationship between energy savings and peak demand savings for the program (the wholesale rate includes a demand charge while residential retail rates do not); and (3) the combined RIM across both EKPC and its owner-members. For this program, the lifetime of the savings is estimated to be 15 years. The program provides a relatively large amount of energy savings compared to peak-demand savings. EKPC's goal is to provide a transfer payment that will result in the owner-member's RIM being as close to 1.0 as possible while maintaining some equity between EKPC and the owner-members with regard to the overall financial impact of the program. Using ten years of estimated

²¹ *Id.*

net lost revenues resulted in a RIM of 0.85 for the owner-members and 0.64 for EKPC.²²

EKPC states in the supporting documentation filed with the Cover Letter that there is a one-time startup fee to SBRA of \$5,800, fixed annual administration costs of \$3,000, and fixed annual measurement and verification costs of \$7,000. EKPC points out that while this DSM program expenditure will be funded in future DSM budgets, they are not included in the current DSM budgets upon which EKPC's base rates are established, therefore reducing EKPC's annual margin.²³

The Commission applauds EKPC for proposing this program to attempt to improve the efficiency of manufactured housing within its territory. Additionally, because EKPC's proposal includes a payment to its distribution cooperatives, we are impressed with these efforts to remove this barrier to the distribution cooperatives' active participation in the program.

FINDINGS

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

1. EKPC's proposed ESMHP tariffs and associated costs are reasonable and should be approved.
2. EKPC should file with the Commission a copy of the fully executed contract with SBRA for the ESMHP within 20 days of its execution.
3. No later than August 15, 2015, EKPC should file with the Commission an ESMHP evaluation report for the six months ended June 30, 2015, that includes, by

²² *Id.*

²³ *Id.*

owner-member, the number of homes upgraded to an Energy Star standard, the cost per home, the projected kWh energy savings per home, and the total cost of the program by type of cost.

4. No later than February 16, 2016, EKPC should file with the Commission an ESMHP evaluation report for the 12 months ended December 31, 2015, that includes, by owner-member, the number of homes upgraded to an Energy Star standard, the cost per home, the projected kWh energy savings per home, and the total cost of the program by type of cost.

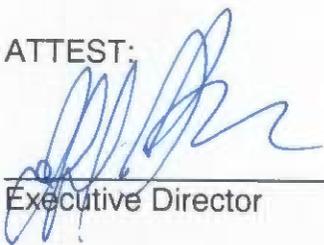
IT IS THEREFORE ORDERED that:

1. EKPC's proposed ESMHP tariff and associated costs are approved.
2. Within 20 days of the day of execution, EKPC shall file with the Commission a copy of the fully executed contract with SBRA.
3. EKPC shall file the reports as required in finding paragraphs 3 and 4.
4. Within 20 days of the date of this Order, EKPC 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.
5. Any documents filed in the future pursuant to ordering paragraph 3 herein shall reference this case number and shall be retained in the utility's general correspondence file.

By the Commission

ENTERED
JAN 06 2015
KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:



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