

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

FILING OF OWEN ELECTRIC COOPERATIVE,)
INC. TO IMPLEMENT A TIME OF DAY TARIFF) CASE NO.
FOR ITS SMART HOME PILOT PROGRAM) 2012-00154

O R D E R

In Case No. 2011-00037,¹ Owen Electric Cooperative, Inc.'s ("Owen") recent revenue-neutral rate case, Owen provided certain information regarding its plans to introduce a Smart Home Pilot Program ("Smart Home Pilot") in 2012. However, the Smart Home Pilot was neither reviewed in detail during that proceeding, nor did Owen seek Commission approval of the pilot program as part of its revenue-neutral rate case. Rather, the rate design changes authorized by the Commission in Case No. 2011-00037 allow Owen to expand Demand-Side Management ("DSM") and energy efficiency programs that could potentially reduce sales volumes. To mitigate Owen's exposure to potential revenue erosion, the Commission approved a three-step increase in Owen's customer charge, with corresponding decreases in the energy charge. The rate design changes were supported by Owen's cost-of-service study.

On April 17, 2012, Owen filed a proposed new tariff setting out Time of Day ("TOD") rates to be utilized in conjunction with Owen's Smart Home Pilot. Owen

¹ Case No. 2011-00037, Application of Owen Electric Cooperative Corporation for an Order Authorizing a Change in Rate Design for Its Residential and Small Commercial Rate Classes, and the Proffering of Several Optional Rate Designs for the Residential Rate Classes (Ky. PSC Feb. 29, 2012)

proposed that its tariff become effective for service rendered on and after June 1, 2012. By Order dated May 9, 2012, the Commission determined that Owen's proposed TOD tariff was an integral part of the Smart Home Pilot; an investigation of the tariff and the Smart Home Pilot was necessary, pursuant to KRS 278.190(2), to determine their reasonableness; and that such investigation could not be completed prior to the proposed effective date. The May 9, 2012 Order established this proceeding and suspended Owen's proposed tariff for three months, from June 1, 2012 up to and including August 31, 2012.

Commission Staff conducted two rounds of discovery. In addition, a telephonic informal conference was conducted on June 19, 2012 for the purpose of addressing any outstanding issues relating to this matter. The matter now stands submitted to the Commission for a decision.

DISCUSSION

Owen plans to make the voluntary Smart Home Time of Day ("Smart Home TOD") tariff available to all Schedule 1 – Farm and Home customers that participate in its Smart Home Pilot. Participation in the pilot will be limited to members residing in single-family homes with high speed internet access, air conditioning/electric heat, electric water heating, and whose monthly average usage is 1,100 kWh or more. Owen states that the rates proposed for the Smart Home Pilot differ from the TOD rates recently approved in Case No. 2011-00037 in that the rates more closely follow the TOD rates charged to Owen by East Kentucky Power Cooperative, Inc. ("EKPC"), Owen's wholesale power supplier.² The proposed tariff includes a much shorter on-

² Stallons letter dated April 17, 2012.

peak time period and expanded off-peak and shoulder time periods which Owen believes will incent members to participate in the Smart Home Pilot. The tariff is designed to be revenue neutral for the rate class. Smart Home Pilot participants consuming a monthly class average 1,100 kWh of electricity taking no action to change consumption timing will see no change in their bill.

Initially, the Smart Home Pilot will run for two years and will be limited to 310 members. Ten employee participants will be included with full Home Area Network (“HAN”), including thermostat and water heater control. The pilot provides for inclusion of 100 low-income members with full HAN including thermostat and water heater control, 100 non-low-income members with full HAN including thermostat and water heater control, and 100 members with full HAN with no thermostat or water heater control. Additionally, Owen’s headquarters building will be equipped for demonstration purposes. Owen’s plan for training its staff and educating its members about optional new rate plans was included as Exhibit 14 of its application in Case No. 2011-00037.

Power System Engineering, a National Rural Electric Cooperative Association consultant, has provided Owen assistance in developing its Smart Home Pilot, including the selection of a provider of the necessary software and hardware through an Request for Proposal process that resulted in eight bids. Ultimately, Tendril Networks, Inc. was the chosen vendor at a total contract price of \$793,325.³ Of that amount, EKPC will be contributing \$70,000 and the remaining amount will be shared equally by Owen and the U.S. Department of Energy.

³ Owen’s response to an information request made at hearing on Case No. 2011-00037, filed May 3, 2012.

The approximate cost to equip an individual home is \$592 for HAN only and \$1,105 for HAN plus Thermostat and Hot Water Control. The following components are included in the HAN cost: (1) Dual meter socket; (2) Electronic Receiver/Transmitter (“ERT”) meter; (3) Installation of the ERT meter and socket; and (4) Tendril Translate and Transport⁴ including installation. Additionally, the following is required for HAN plus Thermostat and Water Heater control participants: (5) Thermostat, Water Heater control, and installation cost. During the pilot there will be a fee of \$11.76 per month for software service. If the program is fully deployed, the monthly fee will be reduced dependent upon the number of participants.

Although Owen’s Smart Home TOD tariff rates were originally filed on April 17, 2012, due to an error in the development of the rates, they were revised in Owen’s May 25, 2012 Response to Staff’s First Request for Information.⁵ Owen’s proposed rates, as revised, are as follows:

Customer Charge	\$25.00 per meter, per month
Energy Charge per kWh	
Off-Peak Energy	\$.06000
On-Peak Energy	\$.16329
Shoulder Energy	\$.08000

⁴ Tendril Transport allows two-way information between consumers and energy providers via high-speed internet. Tendril Translate meter bridge allows existing legacy meters to create a Smart Grid HAN.

⁵ Owen’s Response to Commission Staff’s First Request for Information, Item 8, page 5.

Owen’s proposed tariff includes its schedule of hours, identifying the on-peak, off-peak, and shoulder hours under which rates for energy will be charged. The schedule of hours follows:

On-Peak and Off-Peak Hours

Months	Days	On-Peak Hours	Off-Peak Hours	Shoulder Hours
May - September	Monday - Friday	4:00 p.m. to 7:00 p.m.	9:00 p.m. to 12:00 noon	12:00 noon to 4:00 p.m.
				7:00 p.m. to 9:00 p.m.
October - April	Monday - Friday	7:00 a.m. to 10:00 a.m.	10:00 a.m. to 5:00 p.m.	5:00 p.m. to 10:00 p.m.
			10:00 p.m. to 6:00 a.m.	6:00 a.m. to 7:00 a.m.

All Saturday and Sunday weekend hours are considered off-peak.⁶

If Owen’s residential Smart Home Pilot is successful, Owen plans to investigate and consider expanding the concept to small commercial and other rate classes.⁷ In Case No. 2008-00154, we directly challenged “Owen, and all other electric energy providers, to make a greater effort to offer cost-effective DSM and other energy efficiency programs.”⁸ It is clear to the Commission that Owen is meeting that challenge. We continue to encourage innovation in energy efficiency and commend Owen for its efforts.

The Commission, having considered the evidence of record and being otherwise sufficiently advised, finds that Owen’s Smart Home Pilot and its request for approval of

⁶ Owen’s Response to Commission Staff’s Second Request for Information, Item 4.a.

⁷ Owen’s Response to Commission Staff’s Second Request for Information, Item 1.

⁸ Case No. 2008-00154, Application of Owen Electric Cooperative, Inc. for Adjustment of Rates (Ky. PSC June 25, 2009), pages 23 -24.

a TOD tariff for its Smart Home Pilot are reasonable and should be approved. With the approval of the Smart Home TOD tariff, Owen residential customers will have four TOD tariffs from which to choose. The Commission cautions Owen that it must be active in educating and counseling its customers about which TOD tariff could be most advantageous to a customer, given the customer's usage history.

The Commission HEREBY ORDERS that:

1. Owen's Smart Home Pilot and its Smart Home TOD tariff are approved effective as of the date of this Order.

2. Within 10 days of the date of this Order, Owen shall file a revised Smart Home TOD tariff showing the date of this Order as its effective date and stating that it was issued by authority of this Order.

3. Owen shall include, commencing with its 2012 annual report, an annual summary of its Smart Home Pilot which includes: 1) the number of Smart Home Pilot participants for each of the three pilot groups at the end of the year; 2) the energy and demand savings attributed to each group; and 3) the total costs, revenues, and margins attributed to each pilot group; and 4) the amount of additional revenue that would have been generated by the Schedule 1 – Farm and Home tariff if the Smart Home Pilot did not exist.

By the Commission

ENTERED *ft*
JUN 25 2012
KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:

Stephanie Bell for Jeff Davis
Executive Director

Case No. 2012-00154

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