

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE TARIFF FILING OF EAST KENTUCKY)
POWER COOPERATIVE TO IMPLEMENT A NEW) CASE NO.
DEMAND-SIDE MANAGEMENT PROGRAM) 2016-00056

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION
TO EAST KENTUCKY POWER COOPERATIVE, INC.

East Kentucky Power Cooperative, Inc. ("East Kentucky"), pursuant to 807 KAR 5:001, is to file with the Commission the original and ten copies of the following information, with a copy to all parties of record. The information requested herein is due within ten days of the date of this request. Responses to requests for information shall be appropriately bound, tabbed and indexed. Each response shall include the name of the witness responsible for responding to the questions related to the information provided.

Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the preparer or person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

East Kentucky shall make timely amendment to any prior response if it obtains information which indicates that the response was incorrect when made or, though

correct when made, is now incorrect in any material respect. For any request to which East Kentucky fails or refuses to furnish all or part of the requested information, it shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention should be given to copied material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request. When filing a paper containing personal information, East Kentucky shall, in accordance with 807 KAR 5:001, Section 4(10), encrypt or redact the paper so that personal information cannot be read.

1. Refer to East Kentucky's cover letter, page 1 of 2. Summarize any discussions or communications in which owner-members expressed to East Kentucky the attractiveness of other lighting options in comparison to light emitting diode ("LED") options, and state if or how they indicated that they required incentives to install LED options.

2. Refer to East Kentucky's cover letter, page 1 of 2, which states that East Kentucky's proposed LED lighting program is similar to the Big Rivers Electric Corporation's ("Big Rivers") High Efficiency Outdoor Lighting Program. According to Big Rivers' filed tariff, Big Rivers' High Efficiency Outdoor Lighting Program provides that its members are eligible to receive an incentive payment of **up to \$70**.

a. Explain whether East Kentucky explored offering a different incentive payment for different sizes of LED lights.

b. Explain why a member cooperative should receive the same \$70 incentive payment whether it installs an LED light having an installed cost of \$200 or an LED light having an installed cost of \$747.¹

3. Refer to East Kentucky's cover letter, page 2 of 2.

a. Provide the location of the notice posted on East Kentucky's website as referenced on this page.

b. Provide a copy of one of the notices that was mailed to East Kentucky's members.

4. Refer to the schedule showing the various benefit/cost ratios.

a. Provide workpapers or analyses, in Excel spreadsheet format with all cell formulas intact and unprotected and all rows and columns fully accessible, showing the calculation of the amounts shown on this page.

b. Explain why the incentive payments paid from East Kentucky to its member cooperatives are not included as a cost in the Total Resource Cost calculation.

c. Provide a detailed explanation of how Utility Admin Costs of (\$4,911,947) as a component of Societal Costs were calculated.

d. Explain whether the amounts shown on this schedule are for the life of the program, or some other time frame.

5. Refer to the three schedules showing the various scenarios.

a. The schedules show that the estimated life span of an LED light is 15 years. Explain whether East Kentucky expects each LED to stay in service for 15 years continuously.

¹ See East Kentucky's tariff scenarios 1 and 3.

b. Explain what happens in the event a customer chooses to discontinue security lighting service before 15 years have elapsed.

c. When an LED light is no longer functioning due to having reached the end of its useful life, explain whether the entire fixture must be replaced, or if only the bulb must be replaced.

d. The scenarios provide a generation capacity cost of \$126.50 in 2015. Provide this cost for 2016.

e. Explain whether Rate Schedule – Wholesale- East Kentucky ES-2 rate is East Kentucky's Section E tariff.

f. If the response to part e. above is yes, explain why the Section E tariff is used in the analysis and whether it is applicable to both Options 1 and 2.

g. Explain why East Kentucky chose to use only one tariff for the analysis.

h. State the tariff under which each of East Kentucky's member cooperatives is served.

i. The scenarios state that "Savings [will be] provided through the rate." Explain how savings will be measured and verified given that a large number of security lights are unmetered.

j. The scenarios explain that there are no free riders since there are no rebates to participants; however, 12 of East Kentucky's 16 member cooperatives

currently offer LED lights to their members.² Explain why there would be no free riders to this program given the fact that a majority of East Kentucky's member cooperatives already offer LED lights absent this proposed DSM program.

k. South Kentucky Rural Electric Cooperative Corporation's ("South Kentucky") Tariff Schedule OL, P.S.C KY. No. 7, 4th revised Sheet No. T-17 states: "Since the seller intends to eventually provide only LED lighting fixtures, mercury vapor, sodium and metal halide will only be used until present supply is exhausted or until the existing lighting configuration is retired." Because South Kentucky intends to eventually provide only LED lights absent any incentive payment, explain how South Kentucky would not be considered a free rider with respect to East Kentucky's proposed LED lighting program.

6. Refer to Scenario Assumption 1.

a. Provide the average useful life of a typical high pressure sodium bulb ("HPS") that is used in the comparison.

b. Provide the average useful life of a typical HPS fixture excluding the bulb.

c. Provide a detailed breakdown showing the components of the estimated \$200 installed cost of the LED luminaire.

d. Provide a detailed breakdown showing the components of the estimated \$80 installed cost of the HPS luminaire.

² Clark Energy Cooperative, Inc., Cumberland Valley Electric, Inc., Farmers Rural Electric Cooperative Corporation, Fleming-Mason Energy Cooperative, Inc., Grayson Rural Electric Cooperative Corporation, Inter-County Energy Cooperative Corporation, Jackson Energy Cooperative Corporation, Nolin Rural Electric Cooperative Corporation, Owen Electric Cooperative, Inc., Salt River Electric Cooperative Corporation, Shelby Energy Cooperative, Inc., and South Kentucky Rural Electric Cooperative Corporation.

e. Provide a detailed breakdown showing the components of the estimated \$170 present value maintenance costs avoided due to lamp replacements.

f. Explain why an extra incentive of \$70 is needed given that a member cooperative would stand to save \$50 by choosing an LED light over HPS when taking into account the avoided maintenance costs, and the marginal cost of the LED light.

g. Provide separately the dollar amount of savings per year a member cooperative will realize for avoided energy cost and avoided capacity costs if it installs an LED luminaire instead of an HPS luminaire.

h. Combining the savings described in parts f. and g., as well as the \$70 incentive payment, explain whether East Kentucky believes its member cooperatives would replace existing lights before the end of their useful life.

i. Explain how the "Typical security lighting rate" of \$7.30 plus \$0.06 per kWh was determined.

j. The line "Participation" shows that year by year 2015-2017 participation is estimated to be 8,000. Explain whether East Kentucky projects this program will last beyond 2017.

k. Explain how the 8,000 number of participants was chosen.

7. Refer to Scenario Assumption 2.

a. Provide the average useful life of a typical metal halide ("MH") bulb that is used in the comparison.

b. Provide the average useful life of a typical MH fixture excluding the bulb.

c. Provide a detailed breakdown showing the components of the estimated \$625 installed cost of the LED luminaire.

d. Provide a detailed breakdown showing the components of the estimated \$360 installed cost of the MH luminaire.

e. Provide a detailed breakdown showing the components of the estimated \$182 present value maintenance costs avoided due to lamp replacements.

f. Provide separately the dollar amount of savings per year a member cooperative will realize for avoided energy cost and avoided capacity costs if it installs an LED luminaire instead of an MH luminaire.

g. Explain how the "Typical security lighting rate" of \$10.77 plus \$0.06 per kWh was determined.

h. The line "Participation" shows that year by year 2015-2017 participation is estimated to be 1,000. Explain whether East Kentucky projects this program will last beyond 2017.

i. Explain how the 1,000 number of participants was chosen.

8. Refer to Scenario Assumption 3.

a. Provide the average useful life of a typical HPS bulb that is used in the comparison.

b. Provide the average useful life of a typical HPS fixture excluding the bulb.

c. Provide a detailed breakdown showing the components of the estimated \$747 installed cost of the LED luminaire.

d. Provide a detailed breakdown showing the components of the estimated \$307 installed cost of the HPS luminaire.

e. Provide a detailed breakdown showing the components of the estimated \$171 present value maintenance costs avoided due to lamp replacements.

f. Provide separately the dollar amount of savings per year a member cooperative will realize for avoided energy cost and avoided capacity costs if it installs an LED luminaire instead of an HPS luminaire.

g. Explain how the "Typical security lighting rate" of \$10.77 plus \$0.06 per kWh was determined.

h. The line "Participation" shows that year by year 2015-2017 participation is estimated to be 1,000. Explain whether East Kentucky projects this program will last beyond 2017.

i. Explain how the 1,000 number of participants was chosen.

9. Explain why East Kentucky only provided scenario testing results for three types of luminaires.

10. Provide similar scenario testing results for the following which are all commonly offered in the member cooperative tariffs: 175 watt mercury vapor; 400 watt mercury vapor; 1,000 watt mercury vapor; 250 watt HPS; and 1,000 watt HPS.

11. Provide an estimate of the total number of lights that are eligible to receive an incentive payment under the proposed tariff.

12. Explain whether any of East Kentucky's member cooperatives will need to amend their lighting tariffs if this program is approved.

13. a. Confirm whether the proposed LED lighting program is available to all of the member cooperatives regardless as to whether a member cooperative has outdoor or security LED lighting tariffs or not.

b. If the proposed LED lighting program is available to all of the member cooperatives, explain whether the program will be administered differently for those member cooperatives that currently have an outdoor or security LED lighting tariff compared to those member cooperatives that currently do not provide outdoor or security LED lighting.

14. Describe East Kentucky's plan to monitor the cost of LED lighting fixtures, and to evaluate whether an incentive payment is still needed.

15. Provide the meeting minutes from each board meeting where the LED lighting program tariff was discussed.



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DATED MAR 3 1 2016

cc: Parties of Record

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