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COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

PUBLIC SERVICE
COMMISSION

In the Matter of:

THE REVISION OF COGENERATION AND)
SMALL POWER PURCHASE RATES OF) **CASE NO.**
EAST KENTUCKY POWER COOPERATIVE, INC.) **2008-00128**

**FIRST SET OF PUBLIC COMMENTS
OF GEOFFREY M. YOUNG**

In its Order of 12/5/07 in Case No. 2006-00472, the Commission required East Kentucky Power Cooperative, Inc. (EKPC) to “submit its updated QF tariff rates for approval, along with any additional revisions, no later than March 31, 2008.” [Order, page 40] On March 31, 2008, East Kentucky Power Cooperative, Inc. (EKPC) duly filed with the Commission proposed revisions to its Tariff for Qualified Cogeneration and Small Power Production Facilities. On April 4, 2008, the Commission acknowledged receipt of EKPC’s filing and initiated the above-captioned proceeding to consider the proposed revisions and the documentation therefor. I filed a petition for full intervenor status on 4/10/08, EKPC filed a response and objections to my petition on 4/16/08, and the Commission issued an Order denying my petition on 4/28/08. It is currently my intention to submit a timely request for a rehearing of the Commission’s decision to deny my petition.

On April 28 the Commission published a procedural schedule for this proceeding that included two rounds of requests for information to EKPC and responses to these requests by EKPC. [Order, 4/28/08, Appendix A] It is evident from the procedural schedule that the Commission has initiated this proceeding in order to enable it to obtain enough information to be able to determine definitively whether the proposed QF tariffs filed by EKPC on 3/31/08 are fair, just and reasonable, and otherwise conform to the provisions of 807 KAR 5:054, Kentucky’s small power production and cogeneration regulation.

In the interest of assisting the Commission in assessing EKPC’s proposed tariff, I am submitting the following questions in the form of a public comment. Referring to the procedural schedule, I think it would be beneficial to the orderly completion of this proceeding if EKPC were to answer these questions by May 21, 2008. If EKPC is unwilling to answer questions from a party who is not currently a full intervenor in this proceeding, I think it would be beneficial if the Commission staff were to ask EKPC the following questions, with the understanding that the staff may have other pertinent questions to ask EKPC as well.

Question 1: In Exhibit II, Support Information, EKPC stated at the end of Section III, “The methodology described above for Avoided Capacity and Energy Cost calculations has been used in several filings with the Kentucky PSC and is an approved methodology for avoided costs calculations.”

- a. Is it EKPC’s contention that this methodology for calculating avoided costs is the only valid methodology that would conform to the provisions of 807 KAR 5:054?
- b. Is it EKPC’s contention that this methodology for calculating avoided costs is the best methodology that a utility company could possibly use?
- c. Do all the other jurisdictional utilities that sell electricity in Kentucky use this identical methodology to calculate their avoided costs?
- d. Has EKPC ever assessed the differences between its methodology and those of other utilities? If so, please provide a copy of this assessment.

Question 2: Please provide complete definitions and descriptions of the terms, “avoided cost,” “long-term avoided cost,” and “short-term avoided cost.” In particular, please specify the difference between long-term avoided cost and short-term avoided cost.

Question 3:

- a. Please provide a full description of the production cost simulation model, RTSim, which was used in the calculation of avoided energy cost.
- b. Please list and describe all the data sets that need to be provided as input data in order to perform the RTSim simulation runs.
- c. Has EKPC ever compared the simulated costs generated by RTSim to its actual costs over a given time period in the past, for example for the year 2007, in order to determine how accurate the model is? If so, please provide the results of these analyses.
- d. Are any of the input costs, for example the cost of coal, assumed to increase over time? If so, please provide the assumptions about future increases in input costs.
- e. Did EKPC use RTSim in preparing its most recent integrated resource plan (IRP) or during the course of Case No. 2006-00471? If so, please describe how and for what purpose or purposes RTSim was used during the course of that IRP case.

Question 4: In its Order of 12/5/07 in Case No. 2006-00472, the Commission stated that “the QF tariff is based on a determination of EKPC’s avoided cost. The relevant factors that must be considered in determining avoided cost include the fixed and variable cost of existing generation as well as the fixed and variable cost of future planned generation.” [Order, page 40]

- a. What are the fixed and variable costs of existing generation, with reference to EKPC’s most recently-updated IRP?
- b. What are the fixed and variable costs of future planned generation, with reference to EKPC’s most recently-updated IRP?

Question 5: Exhibit II, Section III of EKPC’s 3/31/08 filing in the present proceeding is titled, “Avoided Cost,” and it provides “a description of the methodology used to derive avoided capacity cost and avoided energy cost.”

- a. In the subsection titled, “EKPC Avoided Capacity Cost Calculation,” the filing states that “EKPC’s anticipated annual growth is in the 70-80 MW range and the reduction in the 100 MW load effectively means that the base expansion plan will be shifted out one

year except for units that are already committed.” Please provide the definition of the word “committed” in this context.

- b. What is the justification for the exception for units that are already committed?
- c. Please explain how the data on the fixed cost of existing and future planned generation, as developed in EKPC’s most recently-updated IRP, entered into the calculation of EKPC’s avoided capacity cost.
- d. Please provide the base expansion plan and the expansion plan that includes the 100-MW reduction in load.
- e. Please provide the worksheets that show all the steps of the calculations described in the subsection, “EKPC Avoided Capacity Cost Calculation.”
- f. Is it EKPC’s contention that any of the avoided capacity cost numbers calculated by this method are long-term avoided costs? If so, which of the numbers represent long-term avoided costs? Please explain the response.
- g. Is it conceivable to EKPC that the number and capacities of QFs, coupled with enhanced demand-side management (DSM) programs, could be large enough to completely eliminate the need for a new baseload unit or defer the new baseload unit beyond the planning horizon of the IRP? If not, please explain why not.

Question 6:

- a. Referring to the subsection titled, “Avoided Energy Cost Calculation,” is it correct to assume that the RTSim model can provide the projected (or simulated) production cost, in dollars, for the base case for each hour during the years 2008 through 2012, inclusive?
- b. Is it correct to assume that these projected production costs are listed under the “Base” column of the spreadsheets found in the CD attached to the filing?
- c. Is it correct to assume that the RTSim model also calculates the number of MWh generated and purchased during each of the hours specified? If so, please provide this energy production data, in the format of three columns labeled, “EKPC-Generated Energy,” “Purchased Energy,” and “Total Energy” for each hour of the years 2008 through 2012, inclusive.
- d. Referring to the annual summary data provided on the CD attached to the filing, some of the numbers in the “Delta” column are negative. Is it EKPC’s contention that during such hours, EKPC’s avoided cost is negative? If so, please explain how that could be considered reasonable.
- e. Please explain why the numbers in the “Delta” column sometimes vary quite widely from one hour to the next.
- f. Does EKPC adjust the production cost numbers for inflation for the years after 2008? If not, please explain why not.
- g. Is it EKPC’s contention that any of the avoided energy cost numbers calculated by this method are long-term avoided costs? If so, which of the numbers represent long-term avoided costs? Please explain the response.

Question 7: The first sentence of the “Rates” section of the rate schedule over 100 kW begins, “The rates set forth below shall be used as the basis for negotiating a final purchase...”

- a. Does this provision mean that EKPC will never pay higher rates to a QF than those set out in the tariff?

b. Please consider the following hypothetical situation. Suppose a potential QF developer approaches EKPC and offers to provide power for 5 years. Suppose the developer says, "Using the table in the tariff as the basis for negotiation, we will provide power to EKPC if all the prices in the tariff are rounded up to the next highest penny. So, for example, during on-peak winter periods in 2011, EKPC would pay us \$0.07000 per kWh." Would EKPC consider that to be an acceptable offer, or would EKPC reject that proposal out of hand because it proposes prices higher than those listed in the tariff?

Question 8: 807 KAR 5:054, Section 7, subsection (5) lists several factors affecting the rates for purchase from all QFs. Please describe how each factor listed in subsections (5) (a), (b), and (c) were considered and incorporated by EKPC into its proposed QF tariff. In particular, please describe how the factor, "reduction of fossil fuel use," is reflected in the proposed tariff.

Question 9: The capacity section of the tariff states that EKPC will pay (a) \$40.40 per kW per year if the QF is dispatched by EKPC, and (b) \$0.00614 per kWh if the QF is not dispatched by EKPC.

a. Is it correct to infer that the capacity payment in part (a) works out to \$3.3667 per kW per month, i.e., \$40.40 divided by 12?

b. Precisely what does it mean for a QF's power to be dispatched by EKPC? Please describe in detail how that would work.

c. There is currently one cogeneration facility interconnected with EKPC's system. Is this facility a QF? Is it dispatched by EKPC? Please provide a copy of the contract between this facility, EKPC and the pertinent member cooperative.

d. Please consider the following hypothetical situation. Suppose a potential QF developer approaches EKPC and offers to provide power for 5 years, during on-peak periods only. During off-peak periods, the QF proposes to perform maintenance activities, generate power only for the QF's own use, or otherwise refrain from providing power to EKPC. Would such a QF meet the definition of being dispatched by EKPC? Why or why not?

e. If a QF agrees to be dispatched by EKPC, is it possible that EKPC could choose to buy power from the QF for as few as zero hours per year?

f. If a QF agrees to be dispatched by EKPC, does the standard contract guarantee a certain minimum number of hours when EKPC will dispatch the QF's power?

g. What is the source of the capacity rate of \$0.00614 per kWh in part 1(b) of the tariff? Please provide the worksheets on which this number was calculated.

h. Why is a capacity rate being expressed in terms of dollars per kWh rather than dollars per kW per year? Is it EKPC's contention that that is consistent with the provisions of 807 KAR 5:054?

Question 10: Section 7(3) of 807 KAR 5:054 states: "Electric utilities shall design and offer a standard contract to QFs with a design capacity of 100 kW or less. This contract shall be subject to Commission approval." Please provide a copy of the most recently-approved version of this standard contract.

Question 11. a. What are EKPC's projected baseload, short-term operating costs per kWh, which consist primarily of the cost of coal, for each of the years 2008 to 2012?

b. Are any of the time-differentiated energy rates listed in the QF tariff, e.g., the off-peak summer rates, lower than EKPC's projected short-term operating costs? If so, please explain how those energy rates could be considered reasonable.

Question 12. What does the word "base" signify in the energy section of the tariff, where reference is made to "a base payment per kWh"?

Question 13. The first of the terms and conditions requires that all power from a QF will be sold only to EKPC.

- a. What is the justification for this restriction?
- b. Does EKPC concur that this provision might preclude third-party ownership arrangements, for example, a scenario in which a firm develops combined heat and power (CHP) facilities, retains ownership of the energy-producing equipment, and proposes to sell electricity and heat energy to an industrial customer at certain times and electricity to EKPC at certain times?

Question 14. The fifth of the terms and conditions requires the QF to "reimburse EKPC and its member cooperative for all costs incurred as a result of interconnecting with the QF, including operation, maintenance, administration, and billing." 807 KAR 5:054, Section 6(6)(a), however, which describes the utility's obligation to interconnect, states in part that "Owners of QFs shall be required to pay for any **additional** interconnection costs **to the extent that those costs are in excess of the costs that the electric utility would have incurred if the QF's output had not been purchased.**" [emphasis added]

- a. Why did EKPC omit those provisions of 807 KAR 5:054 that have been emphasized above from the fifth term and condition of its proposed tariff?
- b. When a developer approaches EKPC to discuss a potential QF, is it a part of EKPC's standard operating procedure to perform an analysis to estimate the interconnection costs that are listed in the tariff?
- c. Please provide a representative analysis of interconnection costs, if available. If EKPC feels it is appropriate, it may black out the name of the potential QF.
- d. When a developer approaches EKPC to discuss a potential QF, is it a part of EKPC's standard operating procedure to perform an analysis to estimate what portion of those interconnection costs are in excess of the costs that EKPC and its member cooperative would have incurred if the QF's output had not been purchased?
- e. Is it conceivable to EKPC that the net cost of interconnection connection could be negative, i.e., that the economic benefits accruing to EKPC and its member cooperative as a result of interconnecting with the QF could be larger than the costs listed in the tariff?
- f. If it is inconceivable to EKPC that the net interconnection costs could be negative, is it because EKPC has totally discounted the information in the book, *Small Is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size*, and the testimony related to this topic presented by the Cumberland Chapter of the Sierra Club in Case No. 2006-00472? [Sierra Club direct testimony, 6/29/07, page 31, line 1 to page 40, line 5; Ibid., Attachment D; and Sierra Club's Response No 10 to EKPC's first data request, 8/8/07.] Please explain the response.

Question 15. The sixth of the terms and conditions requires the QF to obtain certain minimum amounts of insurance coverage for public liability for bodily injury and property damage.

- a. What is the justification for this requirement?
- b. When a large customer approaches EKPC to obtain electrical service, does EKPC require the customer to obtain insurance of these types and in these amounts as a condition for obtaining service?
- c. Would EKPC concur that if a large customer unexpectedly and suddenly requires large amounts of power, it could cause a power shortage or other problems for the EKPC system?
- d. If the insurance requirement is not applied to large customers, please explain why it is applied to QFs.

Question 16: The eighth of the terms and conditions states that “QFs proposing to supply as available (non-firm) electric power shall not be entitled to a capacity payment.”

- a. Please provide definitions of the terms, “as available” and “non-firm.”
- b. Would EKPC agree with the proposition that even if a QF is providing power on an as-available basis, there is a chance that the QF will be generating power, either for its own use or for sale to EKPC, during EKPC’s peak load periods?
- c. Would EKPC agree with the proposition that it might be possible, by working with a given QF, to estimate the likelihood that the QF will be generating power, either for its own use or for sale to EKPC, during EKPC’s peak load periods?
- d. Does EKPC calculate the likelihood that its own power plants might be unavailable during its peak load periods? If so, what are these probabilities for each of EKPC’s power plants?

Question 17. Section 7(10) of 807 KAR 5:054 provides that the Commission shall adjudicate any disputes that may arise between the utility and the QF about terms in a proposed contract. Why doesn’t EKPC’s QF tariff refer to this dispute resolution mechanism?

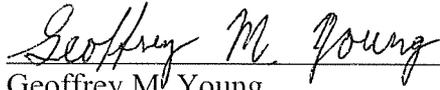
Question 18:

- a. Does EKPC consider power produced by a “green,” i.e., environmentally nonpolluting QF to be any more valuable than power produced by a coal-burning QF?
- b. If not, why not, particularly in view of the fact that EKPC is able to obtain a price premium of \$0.02375 per kWh for renewable electricity purchased by member systems under the Wholesale Renewable Resource Power Service tariff?
- c. Why doesn’t the QF tariff offer higher rates to QFs that provide energy from renewable sources than energy from conventional sources?

Question 19.

- a. Has EKPC or any of its staff ever assessed the QF tariffs from the perspective of a hypothetical QF developer?
- b. If so, please provide the assessment of how such a developer would be expected to react to the provisions of the QF tariff.
- c. If not, please explain why EKPC has never tried to put itself in the position of a potential QF developer.

Respectfully submitted,



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May 12, 2008

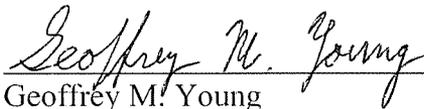
Date

CERTIFICATE OF SERVICE

I hereby certify that an original and six copies of the foregoing public comments were mailed to the office of Stephanie Stumbo, Executive Director of the Kentucky Public Service Commission, 211 Sower Boulevard, Frankfort, KY 40601, and that a copy was mailed to the following party of record on this 12th day of May, 2008. Courtesy copies were also provided on 5/12/08 to Mr. Lile and PSC staff member Dawn McGee via email.

Hon. Charles A. Lile
Senior Corporate Counsel
East Kentucky Power Cooperative, Inc.
4775 Lexington Road
P.O. Box 707
Winchester, KY 40392-0707

Signed,



Geoffrey M. Young

May 12, 2008

Date