




A Touchstone Energy Cooperative 

March 31, 2022

Ms. Linda C. Bridwell, P.E.
Executive Director
Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602

Dear Ms. Bridwell:

Please find attached for electronic filing with the Commission, East Kentucky Power Cooperative, Inc.'s ("EKPC") Tariff for Qualified Cogeneration and Small Power Production Facilities. Both clean and crossed-out versions of the tariff are included herein. Supporting calculations and documentation are also being provided with this filing. Pursuant to the provisions in the tariffs, EKPC is submitting the tariff updates by March 31, 2022. EKPC also proposes the updated tariff become effective on June 1, 2022.

The updated tariff reflects the following items:

Obligation to Purchase Power from QFs Larger than 5 MW. EKPC proposes to revise the language in its tariffs to state that it is no longer obligated to purchase electric energy and/or capacity from qualifying cogeneration or small power production facility with a net capacity of over 5 MW. The current tariff language provides for a threshold of 20 MW. The exclusion is a feature in the tariffs for power purchases over 100 kW, both dispatchable generation sources and non-dispatchable generation sources. This revision is being made to conform with the Federal Energy Regulatory Commission's ("FERC") approval of a reduction in EKPC's must purchase obligation under the Public Utility Regulatory Policies Act of 1978 ("PURPA").

On October 29, 2021, EKPC filed at the FERC on behalf of itself and its 16 Owner-Members an application pursuant to section 210(m) of the Public Utility Regulatory Policies Act of 1978 ("PURPA") and 18 CFR 292.310(a) of FERC's regulations to terminate the requirement under 18 CFR 292.303(a) to enter into new contracts or obligations to purchase electric energy and capacity from any small power production qualifying facility with a net capacity greater than five megawatts in PJM Interconnection, LLC ("PJM") on a service territory-wide basis. On January 5, 2022 the FERC granted EKPC's request effective October 29, 2021. The Docket No. was QM22-5-000. Copies of EKPC's application and the FERC decision are included with this filing.

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Market Administration Fee. EKPC proposes to update the Market Administration Fee, following the approach provided in the 2018 update. The megawatt hours from both EKPC's load and generation are included in the denominator of the calculation to come up with a rate to approximate the expense of managing the PURPA generators in the PJM market. To determine the numerator, EKPC started with the total EKPC market operations center expenses and total Alliance for Cooperative Energy Services ("ACES") Power Marketing, LLC expenses. Based on a review of the services provided by ACES, EKPC concluded that 40 percent of those services were directly related to supplying energy in the market. Consequently, the numerator reflects 40 percent of ACES expenses and 100 percent of EKPC's market operations center. This results in a fee of \$0.00012/kWh. The calculation of this rate is included with this filing.

Capacity Rates. Pursuant to the Commission's October 26, 2021 and November 30, 2021 Orders in Case No. 2021-00198, EKPC was directed in this and subsequent update filings to "develop a robust record upon which avoided costs can be calculated." EKPC is to provide 1) the most recent PJM Base Residual Auction ("BRA") results, 2) the actual cost for a unit of physical capacity (purchased or built), and 3) information on the use of Effective Load Carrying Capability ("ELCC") or like-kind calculations to determine the capacity contribution of non-dispatchable resources. The Commission clarified that EKPC may provide data from a public, transparent, widely used data sources, such as the National Renewable Energy Laboratories' Annual Technology Baseline ("NREL ATB"), in response to the directive to provide the actual cost for a unit of physical capacity (purchased or built).

The most recent BRA conducted by PJM was for the 2022-2023 delivery year (June 1, 2022 through May 31, 2023). The clearing price for that auction was \$50.00 per MW-day for the Rest of RTO Locational Deliverability Area ("LDA") in which EKPC resides. This equates to a capacity rate of \$18.81 per kW per year, after adjusting for forced outages. A copy of the BRA report and the calculation of the capacity rate are included with this filing.

For the actual cost for a unit of physical capacity, EKPC reviewed the 2021 NREL ATB data and determined that the most likely technology that would be considered was a natural gas single cycle combustion turbine. The capital cost for that technology in 2022 is \$941 per kW. After adjusting for carrying charges and forced outages, the resulting capacity rate would be \$97.90 per kW per year. The calculation of the capacity rate and the NREL ATB data are included with this filing, as well as the calculation of the corresponding capacity rate. For the capital cost of the combustion turbine, please see tab "Natural_Gas_FE", column O, row 111.

Concerning ELCC considerations, EKPC reviewed reports available from PJM that included the determination of ELCC values for several renewable technologies. The most common renewable technology expressing interest in EKPC's cogeneration and small power production tariff is rooftop solar. The PJM reports recognize solar resource classes as "solar fixed panel" and "solar tracking panel". EKPC believes the most reasonable ELCC value should be that for solar fixed panel, with a value of 38%. This value is from

the ELCC Class Ratings for 2023-2024 BRA and can be found at <https://www.pjm.com/planning/resource-adequacy-planning/effective-load-carrying-capability>.

EKPC believes that the most appropriate and reasonable value for its avoided capacity cost should be based on the PJM capacity market clearing price. Using the most recent BRA clearing price for the RTO LDA and adjusting for forced outages, EKPC is proposing a capacity rate for the dispatchable generation sources of \$18.81 per kW per year. EKPC further believes that basing this rate on the actual cost for a unit of physical capacity would not be appropriate or reasonable, as it would result in EKPC paying more than its “avoided capacity cost” to eligible QF facilities. Moreover, as shown in its 2022 Integrated Resource Plan (“2022 IRP”), EKPC does not anticipate needing a capacity addition until 2032. While the 2022 IRP does show energy additions prior to 2032, these are either short-term winter purchase power agreements (“PPA”) or solar PPA to meet Green Tariff and sustainability goals of customers. As EKPC does not anticipate a capacity deficit for nearly 10 years, it would not be reasonable for the avoided cost used to determine the capacity rate to be based on the cost of a constructed natural gas combustion turbine. Given current expectations as shown in the 2022 IRP, EKPC believes it is reasonable to base the avoided capacity rate on the market pricing.

For the non-dispatchable generation sources, an initial calculation of an avoided capacity rate would be based on the capacity rate proposed for the dispatchable generation sources times the ELCC value for solar fixed panels. That calculation would produce a capacity rate of \$7.15 per kW per year (\$18.81 per kW per year times 38%). However, EKPC believes consideration should be given to another variable that would affect the value to EKPC of this non-dispatchable generation source.

The only way for EKPC to derive any benefit from non-dispatchable generation resource capacity is to bid that capacity into the PJM capacity market. It should be remembered that as a non-dispatchable generation resource, EKPC has no control over the performance availability of the resource. All participants in that market are expected to deliver all capacity that is committed in the market when called upon to produce electricity during certain PJM system emergencies. Failure to do so will result in a significant capacity performance penalty. EKPC has calculated this potential penalty taking into consideration the ELCC availability of a solar fixed panel resource.

The non-performance charge rate for capacity performance resources, stated as \$/MWh, is equal to the Locational Deliverability Area Net CONE (“LDA Net CONE”) times the number of days in the Delivery Year divided by 30 hours. PJM has historically used 30 hours of expected Performance Assessment Interval (“PAI”) events per year to calculate the capacity performance penalty rate. The non-performance charge rate for EKPC would be:

$$(\$228.53 \text{ per MW-day} \times 365 \text{ days}) / 30 \text{ hours} = \$2,780.45 \text{ per MWh}$$

The LDA Net Cone is based on 2022-2023 delivery year planning parameters. The equivalent rate stated as \$ per kW per year would be:

\$2,780.45 per MWh divided by 1,000 = \$2.78 per kWh
\$2.78 per kWh times 30 hours = \$83.40 per kW per year
(to recognize the hours of expected PAI events)

Then

\$83.40 per kW per year times (100% – 38%) = \$51.71 per kW per year
(to recognize utilizing the ELCC value the chance that the resource would not perform)

The rate of \$51.71 per kW per year would reflect the penalty risk of the non-dispatchable generation resource not performing when called upon. This penalty rate is over seven times greater than the initially calculated capacity rate for non-dispatchable generation resources. EKPC believes it is neither appropriate nor reasonable to require it to pay for capacity from a non-dispatchable generation resource and at the same time expose itself to a sizeable penalty risk for even one instance of non-performance.

Consequently, at this time EKPC proposes that the capacity rate for non-dispatchable generation resources should be set at \$0.00 per kW per year.

EKPC also notes that there also exists a risk of non-performance penalties for any dispatchable generation resource offered into the PJM capacity market. At this time, EKPC is not proposing to adjust the avoided capacity rate proposed for dispatchable resources to account for that risk.

Annual Rate Update. EKPC remains committed to filing updates to the rates contained in its cogeneration and small power production tariffs annually. Thus, these annual updates would include updates to both the dispatchable and non-dispatchable capacity rates.

If you have any questions, please let me know.

Very truly yours,



Isaac S. Scott
Manager, Pricing

Enclosures

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