

**STATE OF MISSOURI
PUBLIC SERVICE COMMISSION**

In the Matter of Staff’s Review of Commission)
Rules 4 CSR 240-20.060 (Cogeneration))
4 CSR 240-20.3.155 (Filing Requirements for)
Electric Utility Cogeneration Tariff Filings) and)
4 CSR 240-20.065 (Net Metering))
File No. EW-2018-0078

**RESPONSE COMMENTS OF CYPRESS CREEK
RENEWABLES TO STAKEHOLDER COMMENTS**

Cypress Creek Renewables, LLC (“Cypress Creek” or “CCR”) hereby submits these reply comments to responses submitted to the Missouri Public Service Commission (“Commission” or “PSC”) *Order Opening a Working Case To Review The Commission’s Rules Related To Cogeneration* issued September 27, 2017.

CCR welcomes the opportunity to provide information to the Commission about the topic of Cogeneration (4 CSR 240-20.060) and Requirements for Electric Utility Cogeneration Tariff Filings (4 CSR 240-3.155). These comments do not focus on the Commission’s implementation of Net Metering (4 CSR 240-20.065).

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GENERAL COMMENTS

As a leading developer of utility-scale solar energy generation, CCR has seen first-hand how solar development can benefit utility ratepayers, keep rates low, boost economic growth and foster grid resiliency. Cypress Creek owns and operates over 1300 megawatts (“MW”) of solar energy assets in eight states, and we are actively developing a portfolio of thousands of megawatts in development across 15 more states, including further planned investments in Missouri.

Technological change is happening quickly in the power sector. From the falling cost of solar to innovations in battery storage, microgrids to smart meters, blockchain technology to the Internet-of-Things, consumers are now benefitting from a cleaner, more intelligent power grid. Missouri utilities have openly expressed interest in grid modernization, and Cypress Creek welcomes this move.

One of the most important developments in the energy sector is the potential for widespread deployment of low-cost solar energy. Utility-scale solar (USS) generation offers the public a supply of clean, low-cost power with no risk of increasing fuel prices over time. In addition, independent power producers such as Cypress Creek can typically develop solar facilities faster and cheaper than utilities and with no cost-overflow risks for ratepayers. However, in electric utility monopoly states such as Missouri, there is only one mechanism for ensuring that solar independent power producers have access to the market, and that mechanism is the Public Utilities Regulatory Policy Act of 1978 (“PURPA”). Although PURPA is nearly 40 years old, the statute is enjoying fresh relevance across the country due to technological innovation and the increasingly low cost of solar.

To ensure that Missouri ratepayers maximize the benefits of solar technology, we encourage the Commission to open a formal workshop process to examine the state's implementation of PURPA through the aforementioned rules. Michigan and Washington State are now conducting formal proceedings to modify their PURPA implementation. As evidenced in the initial comments, PURPA implementation is a complex matter requiring detailed discussion issues of technology cost, project finance, legal authority and many other issues. We join with Renew Missouri and the Missouri Division of Energy in supporting a workshop on this topic.

In its initial order, the Commission identified three existing rules and asked stakeholders for comment "regarding the effectiveness of the rule, suggested changes to the rule, and any other comments relating to the rule." Seven entities provided comment, including Cypress Creek, and our comments here are submitted in response to other stakeholders' comments.

Before moving into specific replies, it is important to clarify some key realities, as messages in initial comments seem to have muddled the facts:

1. Utility-scale renewables are functionally different than behind-the-meter generation. Although both may use photovoltaic cells, USS produces electricity at lower cost-per-unit of energy, interacts with the grid differently than behind-the-meter technology, and has separate policy and financing drivers.
2. The legislative intent of PURPA Section 210 was to "encourage cogeneration and small power production," through rates that are "just and reasonable to the electric consumers of the electric utility and in the public interest."

SPECIFIC REPLIES

A. Effectiveness of Existing Rules

In general, CCR believes that Missouri's utility cogeneration tariff filings (governed by 4 CSR 240-20.060) do not comply with PURPA and have not been effective in achieving the law's statutory goals. Today, only nine PURPA-eligible solar qualifying facilities ("QFs") are operating in Missouri according to the US Department of Energy's Energy Information Administration. This compares to 433 solar QFs in North Carolina, which are collectively responsible for billions of dollars in private sector energy investment.

In their comments, Ameren Missouri ("Ameren") and Kansas City Power & Light ("KCP&L") state that the rules are working, but offer no evidence and incomplete or even peculiar reasoning to support their claim. KCP&L claimed that "PURPA was designed to further three fundamental goals: conserve electric energy, increase utility efficiency, and achieve equitable rates for consumers." While the goals cited by KCP&L are part of the legislative intent section of the law, the Commission must read the statute in its entirety, including Section 210, which states that Federal Energy Regulatory Commission ("FERC") must issue rules "to encourage cogeneration and small power production which rules require electric utilities to offer to [...] purchase electric energy from such facilities."

FERC has since enacted such rules, beginning with Order 69 in 1980¹, which states:

These rules provide that electric utilities must purchase electric energy and capacity made available by qualifying cogenerators and small power producers at a rate reflecting the cost that the purchasing utility can avoid as a result of obtaining energy and capacity from these sources, rather than generating an equivalent amount of energy

¹ FERC Order 69: <https://www.ferc.gov/industries/electric/gen-info/qual-fac/orders/order-69-and-erratum.pdf>

² Missouri 4 CSR 240-20.060: <https://www.sos.mo.gov/cmsimages/adrules/csr/previous/4csr/4csr0508/4c240->

itself or purchasing the energy or capacity from other suppliers. To enable potential cogenerators and small power producers to be able to estimate these avoided costs, the rules require electric utilities. to furnish data concerning present and future costs of energy and capacity on their systems.

KCP&L's statement is overly narrow and ignores the primary purpose of Section 210, as well as subsequent FERC rules, which are clearly intended to promote the development of independently-owned renewable and cogenerations facilities -- specifically because of Congressional concerns about the reluctance of traditional utilities to develop these types of facilities and about the anti-competitive impact of monopoly control of the electric industry.

Ameren provided an even more questionable interpretation of PURPA, challenging the very definition of the word "effective." In its comments, Ameren states: "Gauging the effectiveness of a policy, statute, or rule involves more than simply looking in isolation at whether the desired 'outcome' occurred." It borders on the absurd to claim that a law's effectiveness should not be judged on whether it is effective in achieving its stated outcomes. A fair and accurate measure of the effectiveness of Missouri's PURPA implementation must be based on the whether the state's implementation of the law is succeeding in accomplishing the central purpose of Section 210 to promote the development of independently owned renewable energy facilities. The relatively low number of QFs in the state clearly demonstrates that PURPA has not been effectively implemented in Missouri, and it is unreasonable to claim otherwise.

B. Impact of Rules on Project Development

Regulatory decisions are instrumental in guiding that state's resource mix, and administrative rules such as 4 CSR 240-20.060 plainly shape commercial motivations in

Missouri. Ameren claims that few QF projects have been built in Missouri due to factors outside control of regulators, such as equipment or financing costs. The utility also claims that the Commission should focus on “examining the rules in light of the factors that they can directly influence.”

Clearly, administrative rules *can* impact the level of QF investment in a state, as evidenced by the success of PURPA in attracting investors to build QF solar projects in North Carolina, South Carolina and other states. There are not material differences in financability of solar technology in the above states vs. Missouri, nor is the solar resource in NC and SC materially better than Missouri. The primary reason why those jurisdictions have seen billions of dollars in cumulative investment compared to close to zero in Missouri is because those states have issued rules that accurately reflect the statutory goals of PURPA and provide for long-term financing of new QF projects.

Ameren's comments seem to at least tacitly acknowledge this fact, stating that “utility avoided cost *is* [*sic*] a material factor in the overall economics of the project.” Acknowledging that avoided cost is a material factor in project economics seems in conflict with the utility’s own comments earlier in the document stating that Missouri regulators have little control over the factors impacting QF growth in the state. Nonetheless, CCR agrees strongly with this statement, and believe that since avoided cost is, in fact, a factor that the rules “can directly influence,” and should therefore be examined further in a workshop process.

With a few exceptions, most new electric generation built in the US today – including generation built by investor-owned utilities – requires some form of long-term revenue certainty. Banks will not lend tens or even hundreds of millions of dollars to project developers unless they can demonstrate a power purchase agreement (“PPA”) or other financial mechanism that

provides a sufficient hedge against price volatility. Resources built by regulated utilities similarly require a long-term revenue certainty, and this is provided by the principle of cost-recovery that undergirds traditional utility regulation in the United States. The Missouri Commission’s rules of cost-recovery have obviously had a material impact on financing utility-owned generation in the state, and its rules regarding QFs can have a similar material impact.

If QFs in Missouri do not have the ability to sell power under a long-term, fixed price contract, then equipment and financing costs are irrelevant. Because the Commission’s rules govern utilities responsibilities to buy power through long-term, fixed price contracts, Cypress believes it is prudent for the Commission to revisit rule 4 CSR 240-20.060 through a comprehensive workshop process.

C. Access to Competitive Power Markets and the “Must-Purchase” requirement

PURPA was enacted long before the advent of competitive electricity markets or regional transmission organizations (“RTOs”). One result of PURPA was that it introduced a modicum of competition, allowing some of the nation’s first independent power producers to sell electricity to utilities.

While some power markets have evolved since the late 1970s, neither changes to federal energy statute, FERC rulings, nor Missouri’s own regulations have wholly exempted Missouri utilities, from the must-purchase requirements under PURPA.

From the 4 CSR 240-20.060 tariff²:

Each electric utility shall purchase, in accordance with section (4), any energy and capacity which is made available from a qualifying facility—

1. Directly to the electric utility; or

² Missouri 4 CSR 240-20.060: <https://www.sos.mo.gov/cmsimages/adrules/csr/previous/4csr/4csr0508/4c240-20.pdf>

2. *Indirectly to the electric utility in accordance with subsection (3)(D) of this rule*

However, Ameren's comments claim that "Utility Sales projects [in Missouri] have access to energy markets (e.g., Midcontinent Independent System Operator, Inc. and Southwest Power Pool)" and therefore should not be eligible for "contract features other than what those markets provide." While it is unclear what "contract features" this refers to, it should be noted that FERC has not exempted vertically integrated utilities in RTOs from PURPA's must-purchase requirement. On the contrary, a utility that seeks such an exemption must obtain approval from FERC and carry a significant burden of proof regarding the QF's access to competitive markets.

As the Edison Electric Institute noted in its *PURPA Title II Compliance Manual*³, FERC has provided some relief from the must-purchase requirement, but it is not an unlimited exemption:

Order 688 also created a rebuttable presumption that QFs larger than 20 MW have non-discriminatory access to at least one of these competitive markets. FERC did not terminate the must-purchase obligation, however.

FERC Order 688⁴ clearly states that fact, noting that that in MISO and other RTOs:

*QFs with a net capacity no greater than 20 MW, **do not have nondiscriminatory access to wholesale markets.** Unless an electric utility seeking the right to terminate its requirement to purchase small QF power specifically rebuts this small QF presumption, and that electric utility's request is granted by the Commission, a small QF would be eligible to require the electric utility to purchase its electric energy. [emphasis added]*

³ PURPA Title II Compliance Manual:

http://www.eei.org/issuesandpolicy/stateregulation/Documents/PURPA_Title_II_Manual.pdf

⁴ FERC Order 688: <https://www.ferc.gov/whats-new/comm-meet/101906/E-2.pdf>

CCR is not aware that any utility in Missouri has applied for, nor been awarded, an exemption from the must-purchase requirements in accordance with the test outlined in Order 688.

D. Avoided Cost Rates and Long-Term Contracts

At the heart of PURPA implementation is the avoided cost (“AC”) rate. The AC rate is first and foremost a ratepayer protection mechanism, ensuring that consumers are not required to pay more for QF power than they would for power provided by a utility in other ways. Coupled with the must-purchase requirement above, properly-set avoided cost rates ensures ratepayers are able to benefit from solar energy *only when it is cost-effective and in their interest*.

However, Ameren cautions the commission against setting long-term AC rates, citing a report claiming “long-run estimates of avoided cost will be prone to forecast error regardless of the method used.” Such a view is short-sighted and ignores the nature of investing in electric generation. Any long-term contract or investment bears some risk, including any investment in new utility-owned generation or the selection of a particular fuel source for that unit. But such arrangements also bring price stability to ratepayers. When balanced appropriately, long-term rates can protect consumers against unforeseen price spikes that will inevitably occur.

While these comments are not the appropriate venue to dissect the myriad issues that could place upward pressure on power prices over the coming decades (forward price curves for natural gas prices, the potential of federal carbon regulation, pipeline constraints, etc), the complexities of these issues merit further discussion and vetting in a formal workshop process, including an examination of how zero-fuel generation sources reduce risk to ratepayers in the longer term.

In any case, a recent FERC ruling makes clear that PURPA *requires* utilities to offer long-term, fixed -price PPAs to QFs. In its ruling regarding Windham Solar vs. Connecticut Public Utilities Regulatory Authority,⁵ FERC ruled that:

*“Its regulations pertaining to legally enforceable obligations “are intended to reconcile the requirement that the rates for purchases equal to the utilities’ avoided cost with the need for qualifying facilities to be able to enter into contractual commitments, by necessity, on estimates of future avoided costs” and has explicitly agreed with previous commenters that “stressed the need for certainty with regard to return on investment in new technologies.” Given this “need for certainty with regard to return on investment,” coupled with Congress’ directive that the Commission “encourage” QFs, **a legally enforceable obligation should be long enough to allow QFs reasonable opportunities to attract capital from potential investors.**”*[Emphasis added]

Not only does FERC require long-term contracts, but it requires transparent and public AC rates. As noted in the joint CCR/Renew Missouri comments earlier in this docket, the availability of utility cost data is required by PURPA, and applies to all utilities producing more than 500 million kilowatt-hours per year.

From PURPA regulations Subpart C, Section 292.302⁶:

“[Utilities shall] make available data from which avoided costs may be derived, not later than November 1, 1980, June 30, 1982, and not less often than every two years thereafter, each regulated electric utility described in paragraph (a) of this section shall provide to its State regulatory authority, and shall maintain for public inspection, and

⁵ Windham Solar and Allco Finance Limited vs the Connecticut Public Utilities Regulatory Authority: <https://www.ferc.gov/CalendarFiles/20161122181956-EL16-115-000.pdf>

⁶PURPA Subpart C, Section 292 regulations under Sections 201 and 210: <https://www.gpo.gov/fdsys/pkg/CFR-2012-title18-vol1/pdf/CFR-2012-title18-vol1-part292.pdf>

each nonregulated electric utility described in paragraph (a) of this section shall maintain for public inspection, the following data:

(1) The estimated avoided cost on the electric utility's system, solely with respect to the energy component, for various levels of purchases from qualifying facilities. Such levels of purchases shall be stated in blocks of not more than 100 megawatts for systems with peak demand of 1000 megawatts or more, and in blocks equivalent to not more than 10 percent of the system peak demand for systems of less than 1000 megawatts. The avoided costs shall be stated on a cents per kilowatt-hour basis, during daily and seasonal peak and off-peak periods, by year, for the current calendar year and each of the next 5 years;

(2) The electric utility's plan for the addition of capacity by amount and type, for purchases of firm energy and capacity, and for capacity retirements for each year during the succeeding 10 years; and

(3) The estimated capacity costs at completion of the planned capacity additions and planned capacity firm purchases, on the basis of dollars per kilowatt, and the associated energy costs of each unit, expressed in cents per kilowatt hour. These costs shall be expressed in terms of individual generating units and of individual planned firm purchases.

A key provision for Commission staff to consider for rulemaking is the requirement to make avoided cost forecasts “available for public inspection” on a per kilowatt-hour basis per year. While utilities in every state have valid concerns about the release of proprietary data, these concerns can easily be managed in Missouri, as they have been managed in other states. Fair and legal protection of utility data is a topic ideally suited for a workshop process.

E. Standard Offer Contracts

Under PURPA, utilities are required to have standard offer tariffs for purchases from QFs of 100 kW or less. It is permissible that standard offer tariffs be available for purchases from QFs of greater than 100 kW. Multiple states, including Montana, North Carolina, Oregon, South Carolina, have authorized standard contracts greater than 100 kW.

While Ameren claims it allows “standardized QF interconnection agreement for renewable projects up to 1,000 KW,” it does not allow for Standard Offer Contracts of a similar size. As noted in the joint CCR/RenewMO comments, this Commission does not currently have such a standard offer contract in place, and we encourage the PSC to consider this in a workshop process.

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In conclusion, we again thank the Commission for the opportunity to provide these Response Comments on the aforementioned regulations and urge the PSC to open a formal workshop to examine these rules.

Respectfully Submitted,

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