**BEFORE THE PUBLIC SERVICE COMMISSION**
**OF THE STATE OF MISSOURI**

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| In the Staff's Review of Commission Rules 4 CSR 240-20.060 (Cogeneration), 4 CSR 240-3.155 (Filing Requirements for Electric Utility Cogeneration Tariff Filings) and 4 CSR 240-20.065 (Net Metering). | ) ) ) ) ) | File No. EW-2018-0078 |

**COMMENTS OF UNION ELECTRIC COMPANY**
**d/b/a AMEREN MISSOURI**

COMES NOW Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company"), and submits the following *Comments* in response to the Missouri Public Service Commission's ("Commission") *Order Opening a Working Case to Review the Commission's Rules Related to Cogeneration* ("*Order*") issued September 27, 2017. The *Order* invited interested parties to submit comments by October 15, 2017, addressing its rules 4 CSR 240-20.060 and 4 CSR 240-3.155 ("QF[1] rules"), and 4 CSR 240-20.065 ("Net Metering rule") (collectively, "Rules").

**BACKGROUND**

1. The Commission's *Order* was issued in response to a *Request for Workshop Docket* submitted by the Commission's Staff ("Staff") on September 19, 2017. Staff noted that it specifically sought the following information from interested stakeholders regarding the subject Rules:

- The effectiveness of the subject Rules;
- Any suggested changes to the subject Rules; and
- Any issues in proposed amendments to the Rules that are not currently, but should be, addressed.

[1] Qualifying facility.

2. Staff previously issued a report in File No. EW-2017-0245 that suggested additional discussions might be warranted regarding methodologies for calculating avoided costs, standardized contracts, net metering excess generation credits, and disconnection standards.

## DISCUSSION

3. Ameren Missouri suggests that: 1) the existing Rules are effective; 2) adoption of cogeneration or renewable generation is more heavily influenced by factors other than the avoided cost rate; and 3) the Commission should exercise great care when considering changes to the determination of utilities' avoided cost, as well as other administrative issues.

4. Ameren Missouri presents its rationale behind these positions below, organized into the following sections:

A. Effectiveness of the Existing Rules;

B. Other Factors;

C. The Law of Unintended Consequences; and

D. Conclusion.

### A. Effectiveness of the Existing Rules;

5. As previously expressed, Ameren Missouri finds the existing Rules to be effective. Gauging the effectiveness of a policy, statute, or rule involves more than simply looking in isolation at whether the desired "outcome" occurred. Rather, one must consider all economic factors that influence the actual outcome and determine the impact of each factor.

6. For example, the Commission Rules have no impact on a number of material issues facing potential QF customers, such as equipment/installation costs, financing costs and fuel costs. For retail customers who primarily wish to avoid retail purchases from the utility, the magnitude and structure of a utility's retail rates will determine the potential savings and will not be impacted by the Rules discussed in this case; other Commission rules are already providing these customers with sufficient protections.

7. Further, there may be other policies at work that overlap with or circumvent the policy being evaluated. For example, if the effectiveness of the Commission's Net Metering Rule were evaluated solely on the basis of the number of new net metering installations occurring annually, the rule might appear to have been ineffective during the period 2007-2011, wildly effective during the period 2012-2014, and ineffective again during the period 2015-present. However, an analysis done in this silo ignores the material impacts of falling solar installation costs as well as the impact that the Missouri Renewable Energy Standard ("RES") solar rebate had on the marketplace. In other words, there are many factors that influence the degree to which customers adopt cogeneration and net metering, and the Rules cannot be evaluated as effective or ineffective in isolation of these other factors.

8. Examining the Rules in light of the factors that they can directly influence, they are indeed effective. These Rules establish the framework for non-discriminatory interconnection to the utility as well as the determination of a utility's avoided cost. In addition, the Net Metering rule specifies a format for the interconnection agreement. This is made practical due to the very specific constraints placed on Net Metering

qualification under Missouri's Net Metering statute, including those related to size (100 KW or less) and type (renewable) of generation. In each of these areas, upon which the Rules have a direct influence, the Rules are highly effective.

9. With respect to QF interconnection and contracts, it would actually be a hindrance to require a single form of contract for all QFs because of the extremely wide variation in the type of installations that can receive FERC[2] QF certification. Creating a single agreement that is suitable for the most complex interconnections would actually be unnecessarily burdensome for more modest renewable projects that are too large to qualify for Net Metering. Because they can be similar in scope, Ameren Missouri has a standardized QF interconnection agreement for renewable projects up to 1,000 KW that very closely mimics the more simplified, less burdensome language, structure, and administrative processes established for Net Metering. This provides an efficient, familiar mechanism for solar developers interconnecting systems sized between 100 KW and 1,000 KW. However, this standard QF agreement is wholly inadequate to address all of the potential interconnection requirements and system impacts of a large QF unit. There must remain room for tailoring based on the needs, size, and system impacts of the facility.

10. The majority of QF installations the Company sees are modestly sized renewable projects. Using the agreement that addresses the most concerns (i.e., suitable for the most complex interconnections) for all QF installations would actually force Ameren Missouri to eliminate the current – and appropriately streamlined - document/process to the disadvantage of the majority of our applicants. We want to

[2] Federal Energy Regulatory Commission.

retain a process that works for these customers' needs rather than create a procedural and paperwork burden that might discourage some of those in our largest group of QF applicants.

**B. Other Factors**

11. Broadly, QF customers fall into two categories: Self-Supply and Utility Sales. The typical Self-Supply customer primarily wants to self-supply the load of a site in order to reduce purchases under retail rates. The typical Utility Sales customer is primarily interested in making QF sales of power and energy to the utility. Most QF customers are Self-Supply customers, although there are a few in certain niche circumstances and industries that prefer the Utility Sales model. By statute, Net Metering is limited to Self-Supply customers by prohibiting its use by customers with generation that is oversized relative to their loads.

12. For Self-Supply customers, the implementation of QF or Net Metering is greatly influenced by economic factors outside the scope of the Rules. Factors such as capital and installation costs (or savings), financing costs/leasing availability, incentives, fuel costs, interconnection costs (usually minor), and achievable retail rate savings are the material factors that impact Self-Supply customers' economic interest in QF or Net Metering. This is clearly demonstrated by the history of the Missouri RES. For a period of time, the value of the RES rebate was $2.00 per watt, an amount that increased, albeit quite modestly, Net Metering applications in Ameren Missouri. However, when such rebates were paired with installed costs approaching $4.00 per watt, applications skyrocketed. Interestingly, even as installed costs continued to decline, Net Metering applications decreased as dramatically as they had increased once all of the available

solar rebate funds were committed. Throughout this approximately three-year period, the underlying statute remained unchanged and the Commission's Net Metering rule was essentially unchanged. In other words, it was outside economic factors that impacted changes in the rate of Net Metering utilization over time, not the Net Metering rule itself.

13. For a Self-Supply customer considering either QF certification or Net Metering, the utility avoided cost is generally not a material factor. Further, under Net Metering, the size of the generator is limited, to prevent oversizing, based on the load at the site to be offset. However, if dramatically higher QF rates were made available to customers, then as with the $2.00 solar rebate, this could become *the* economic factor and influence customers to forego Net Metering in favor of QF projects with a dramatically oversized systems (relative to Net Metering limits).

14. As previously noted, in Missouri, Utility Sales QF projects are rare relative to the number of Self-Supply projects. Still, for Utility Sales QF projects, the utility avoided cost *is* a material factor in the overall economics of the project since, by their very nature, there is no retail load to be self-supplied. All, or virtually all, of the economic benefit of the QF is derived from the sale of energy to the utility at the avoided cost rate. However, except for very small installations, Utility Sales projects have access to energy markets (e.g., Midcontinent Independent System Operator, Inc. and Southwest Power Pool) that did not exist until relatively recently. While a Utility Sales project might desire to have options other than those markets or contract features other than what those markets provide, that does not automatically mean that it is in the interest of utility customers for the Commission to mandate that the host utility offer these features.

15. With respect to the effectiveness of the QF rules, they have operated effectively in the Company's experience. It is worth noting that every Net Metering interconnection also qualifies for interconnection as a QF. However, since Net Metering is nominally more economic, it is more popular. In other words, even if Net Metering did not exist, the previously discussed solar rebate still would have driven an increase in solar installations; they would simply have been interconnected under QF rules instead. In other words, the fact that the solar projects elected to use Net Metering does not imply that the existing QF rules are ineffective.

**C. The Law of Unintended Consequences**

16. As always, it is best to – when possible – look to the analogous past and see what lessons can be learned. Here, we have a rich federal history related to QFs. After its passage, it took several years for the Public Utility Regulatory Policies Act ("PURPA") to become a factor in creating a new market for non-utility generation. Several years of rulemakings at FERC and by the states, as well as court cases, delayed any immediate impact. Once implementation did occur, the greatest impact occurred in those states that established methods for determining utility avoided costs, by any number of different methods that FERC accepts, that resulted in high QF rates relative to a utility's short run marginal cost. Frequently, the higher QF rates also required the utility to make a long-term commitment to that price. As EEI identified in its 2006 Report *PURPA: Making the Sequel Better than the Original*:

> …all long-term estimates of avoided cost are critically dependent on underlying assumptions about fuel costs, demand growth, financing costs, labor and material costs and permitting and siting costs, among other factors,
>
> But all long-run estimates of avoided cost will be prone to forecast error regardless of the method used.

17. Beginning with the early implementation of PURPA and continuing today, almost 40 years later, there are numerous examples where well intentioned regulatory policy became burdensome for utility customers due to unforeseen changes in circumstances (e.g. dramatic fuel price changes, technology improvements that change the least cost resource to be deployed, loss of load growth, QF generation that exceeded actual resource requirements due to lack of capacity limits, etc.). While it is true that utility-owned resources are not completely free of similar risks, the key difference is the time element. Up until the point the Commission grants a certificate of convenience and necessity, and perhaps even after, the Commission has the ability to influence the resource acquisition. However, once QF rates and rules are established, like the utility, the Commission's hands become largely tied and course corrections to reflect changes in the market often can only be made with great controversy.

18. While not within the Commission's purview, the solar rebate within the RES statute is a prime example. Once the sweet spot on installed cost of solar was reached, there became a gold rush type atmosphere. After it became apparent that solar rebates would likely consume most of the RES investment under the retail rate impact limit to the exclusion of other resources, the legislature took the painful action of reducing the solar rebate over time. Similar events have happened over time under PURPA in New York, California, Idaho, and Montana where the amount of QF resources the utility is required to accept far exceeds the level contemplated by otherwise thoughtful policy considerations.

19. Again, all utility resources, owned or contracted, have risk. However, QF contracts represent a unique risk when prices or contract terms offered today, based on

assumptions about the future, represent resources that the utility would not otherwise begin procurement of for many years or even a decade in the future. After all, utilities in Missouri submit triennial Integrated Resource Plans, in part, so that resource acquisition plans can be adjusted as the time of the actual need for resources is approached. Since a QF resource is brought online when it is available, rather than at the time of the actual need,[3] any opportunity to adjust to changing market conditions and provide customers with the lowest cost resource is lost.

20. Finally, it is important to remember that QF status encompasses a very broad range of projects and sizes. A QF can be a 1 KW solar panel or an 80,000 KW cogeneration plant.[4] In examining approaches to make sure Net Metering and QF are being optimally employed in Missouri, a significant number of factors will need to be examined to minimize, to the extent possible, any unintended consequences.

**CONCLUSION**

21. It is not Ameren Missouri's position that any particular avoided cost methodology or particular term of contract is automatically bad or inappropriate. Rather, it is the Company's position that the current QF and Net Metering Rules are largely effective. If there are any concerns regarding the number of QFs in the state, it could be any number or combination of factors impacting participation. If there is any sense of urgency to modify the Rules simply to encourage additional participation, a high level of

[3] Additionally, some resources, such as energy efficiency, must be planned well in advance because of their small, incremental nature. It is neither practical nor cost effective – and potentially not even possible - to procure large blocks of energy efficiency savings the year before it is needed.

[4] For Ameren Missouri, the size QF size is limited to 20,000 KW per FERC Docket No. QM16-2-000 and MPSC Tariff Tracking No. JE-2017-0155.

caution must be employed to be sure that the impacts truly will be positive – not just on QF and Net Metering participation numbers, but on utilities and *all* of their customers.

WHEREFORE, for the foregoing reasons, the undersigned respectfully requests that the Commission take these comments under advisement.

Respectfully submitted,

UNION ELECTRIC COMPANY,
d/b/a Ameren Missouri

*/s/ Paula N. Johnson*

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy of the foregoing Comments of Union Electric Company d/b/a Ameren Missouri was served on all parties of record via electronic mail (e-mail) on this 13th day of October, 2017.

*/s/ Paula N. Johnson*
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