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

In the Matter of the Establishment of a Working Case Regarding FERC Order 2222 Regarding Participation Of Distributed Energy Resource Aggregators in Markets Organized by Regional Transmission Organizations and Independent System Operators.	)))))	File No. EW-2021-0267

AMEREN MISSOURI'S RESPONSE TO ORDER OPENING A WORKING CASE

COMES NOW Union Electric Company d/b/a Ameren Missouri (the "Company" or "Ameren Missouri"), and in response to the Commission's February 24, 2021 *Order Opening a Working Case to Consider the Commission's Response to FERC Order 2222 (the "Order"),* states as follows:

INTRODUCTION

1. After providing background on the Federal Energy Regulatory Commission's ("FERC") issuance of Order 2222,[1] the Commission ordered each investor-owned electric utility in Missouri to "respond with suggestions" on "how the Commission may best respond to the changes that will result from implementation of FERC Order 2222, and to review its current practices in this area," and to do so by March 31, 2021.

2. As a preliminary matter, the Company states that the implications of FERC Order 2222 on regional transmission organization ("RTO") tariffs and operations are multifaceted and complex, with many unknowns existing at the current time in terms of how the RTOs will implement the FERC's order. FERC Order 2222 and the implementing regulations define a Distributed Energy Resource ("DER") broadly as "any resource located on the distribution

[1] *Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 2222, 172 FERC ¶ 61,247 (2020) ("Order 2222").

system, any subsystem thereof or behind a customer meter."[2] These resources include, for example, technologies such as electric storage resources, distributed generation, demand response and energy efficiency, and a DER aggregation could consist of a portfolio of diverse resources and technologies.

3. It should also be noted that while the RTOs were given a deadline of 270 days after Order No. 2222's publication in the Federal Register (July 2021) to file necessary tariff changes, several RTOs (including the Midcontinent Independent System Operator, Inc. ("MISO")) have petitioned FERC for extensions of time to complete the tariff development process. MISO requested a nine-month extension until April 18, 2022 to submit a compliance filing.[3] The Company expects FERC to grant the extension.

4. MISO's request for an extension summarizes the complex compliance work that must still be undertaken. Specifically, MISO's request acknowledged there are a substantial number of complex compliance requirements that must be addressed, including locational requirements, distribution factors and bidding parameters, metering and telemetry requirements and processes to coordinate and communicate with distribution utilities and RERRAs. MISO also explained that each of those affect MISO stakeholders, including relevant electric retail regulatory authorities ("RERRAs") and electric distribution utilities. To effectuate compliance with Order No. 2222, MISO also explained that it is pursuing the development of a holistic "coordination framework" to address communications and coordination amongst all affected parties. MISO further identified numerous issues, including data flows and communication amongst MISO, the DERA, distribution utilities, and RERRAs across MISO's fifteen-state

[2] *Order 2222* at footnote 1.
[3] See, Motion of Midcontinent Independent System Operator, Inc. for Extension of Order No. 2222 Initial Compliance Requirement (Feb. 17, 2021), Docket No. RM18-9-000.

footprint; and the need to address distribution utilities override of MISO's dispatch of a resource when needed to maintain the safe and reliable operation of the distribution system. Importantly, MISO also acknowledged that it must now engage in discussions with certain RERRAs, something MISO has not historically done.[4]

5. Regardless of how those RTO processes conclude, there will be significant coordination required between the RTO and distribution-level utilities, including Ameren Missouri. Some RTOs have greater experience with this type of coordination, e.g., California Independent System Operator, whereas others have less.

6. As noted, MISO continues to work on several issues it identified in late 2020 that have applicability to the matter posed by the Commission. For example, MISO has identified visibility into the distribution system as an issue that has potential impact on reliable operations.

7. One final preliminary point: as discussed above, implementation of FERC Order 2222 presents several operational, visibility, reliability, cost allocation, cost assignment and cost recovery issues, and recently FERC issued two orders that have bearing on this. FERC issued an order on rehearing of Order No. 2222 that clarified that the opt-out previously established in Order No. 719 does not apply to demand response resources that participate in a heterogeneous distributed energy resource aggregation (i.e., those made up of different types of resources including demand response as opposed to those made up solely of demand response).[5] FERC also initiated a new inquiry into the existing opt-out for demand response.[6] Consequently, at this still fairly early stage of attempting to determine how to respond in the face of the FERC Order No. 2222 and the more recent orders, Ameren Missouri believes that the most it can do to aid the

---

[4] *Id*. at pages 5-7.
[5] Order No. 2222-A, 174 FERC ¶ 61,197 (2021) at P 22.
[6] *Participation of Aggregators of Retail Demand Response Customers in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 174 FERC ¶ 61,198 (2021).

Commission's inquiry is to identify a number of those issues and to offer a high-level discussion of the implications of each. The remainder of this Response endeavors to do so.

DISCUSSION

a. Missouri Consumer Protection:

6. By definition, with the exception of self-aggregation, DER aggregation requires a relationship between the owner of the DER and the aggregator. Many (if not most) of these DER owners will be retail electric customers served under the Commission's jurisdiction pursuant to utility tariffs on file with the Commission, and whose resource(s) exist on-premise and behind their retail meter. This raises issues of potential deceptive business practices, marketing, slamming/cramming, registration of aggregators, and privacy of customer data, among others. It is not clear what role the MoPSC has in ensuring that Missouri consumers are protected from these potential concerns, but it is an issue the Commission would need to examine and resolve. More specifically, a relevant question is:

Does the Commission (or other State entity) have the authority to require the registration of aggregators doing business in Missouri, and to place conditions on this registration?

b. Retail Customer Metering and Data Issues:

7. DER represents a wide variety of products and services, including energy, capacity, and ancillary services. Not only do these services require the ability to measure both outflows and inflows, to the extent that these services are comingled behind a retail customer's meter, and being sold individually, (including no longer being used to offset the customer's on-site, retail load), it is necessary to be able to meter and monitor each of these separate services.

8. When one considers that an individual retail customer may have a combination of on-site generation (Photovoltaic panels, back up generation), active load management (smart

appliances/thermostats), battery storage capacity and EV's (which can both consume and discharge energy), each of which may be participating in a different DER program with one or more aggregators, the need for this metering is abundantly clear.

9. Without such metering and monitoring, it is quite uncertain as to how both retail and wholesale billing and settlements could be accomplished, as well as how one can ensure that the provision of services is not either double counted, or under counted. The metering and communication technology to meter and monitor each unique service at a customer's premise does not currently exist and is not currently required.

10. These issues likely require the Commission to approve rules, or individual utility tariff changes (depending on how RTO implementation occurs), and/or rate schedule changes to address the metering and monitoring issues, ensuring the provision of services is properly counted, and addressing cost responsibility.

c. Distribution system infrastructure issues

11. Significant investments in distribution system infrastructure and a significantly greater need for distribution system monitoring and two-way communication capabilities should reasonably be expected to be required because of DER aggregation. This raises questions of cost responsibility, allocation, and cost recovery. For example, to what extent will impacted distribution utilities be able to utilize FERC-jurisdictional whole distribution charge mechanisms to recover costs, as opposed to doing so through retail service rates?

12. These issues likely require the Commission to approve rules, or individual utility tariff changes (depending on how RTO implementation occurs), and/or rate schedule changes to address the metering and monitoring issues, ensuring the provision of services is properly counted, and addressing cost responsibility.

d. Data Communication Between Load Serving Entities, Distribution Utilities and MISO (RTO).

13. As noted above, a need exists to have adequate metering in place to measure and monitor the various services that retail customers would provide to aggregators. This same need exists for standalone DERs. In addition, there will be a need for operations and communication protocols to ensure reliability between the load-serving entity ("LSE"), DER, any third-party DER aggregator, and the RTO/ISO.

14. The LSE will also need to have access to the data that is needed to ensure coordination with applicable retail tariffs, and to make necessary modifications to its demand bids to the RTO market, as reductions in load resulting from DER operation would likely be expected to be added back to the host utility's load for settlement purposes**.**

15. What the Commission may need to do regarding these issues is unclear, especially since RTO processes regarding implementation of Order 2222 remain under development.

e. Changes to existing rules, standards, tariffs and standard terms and conditions.

16. Commission rules that touch on interconnection standards, related tariffs, and other standard terms and conditions will need to be reviewed to identify changes that will be required to address the issues identified above, and those that may arise from resulting changes in distribution system flows.

17. Rule changes may be, and tariff changes by each utility likely will be, required to protect against unintended consequences such as double counting/compensation of resources, inappropriate arbitrage of standard offer tariffs, and to address customer privacy issues. The Commission will need to consider if its rules need to be changed both to address such issues and the processing of needed tariff changes.

f. Increased system study requirements:

18. Each DER in a proposed aggregation must complete an interconnection process. In addressing concerns that lengthy review by the distribution utility could frustrate distributed energy resource participation in the RTO/ISO markets, FERC clarified that distribution utility review must be completed within a "limited, but reasonable amount of time" and "should not exceed 60 days."[7] It is not clear at this time what additional burden these additional study requests will impose on each utility. Questions of whether each resource must be studied or whether the aggregation in total is to studied are as yet unanswered. Regardless of the scope, it will be important to ensure that cost causation is identified so that the associated cost can be properly allocated. The Commission may need to adopt rules and/or approve retail tariff provisions to ensure this is properly done.

g. DER curtailment

19. DER aggregation is reasonably expected to contribute to the increase in the total amount DER interacting with the wholesale market, including those DER which are injecting energy into the distribution system. Unlike demand response, which typically would be expected to reduce system loadings, these injections may increase loadings and result in localized issues on the distribution system. This could require distribution system investment or other expenses for electric utilities in Missouri.

20. Rules regarding process and procedures for curtailments arising from management of the distribution system would need to be established. The basis for curtailment should include not only scheduled distribution management (e.g., maintenance) but also

[7] Order No. 2222 at P 295.

unexpected events such as those due to weather. Protocols will also be necessary to develop to address the communication and coordination of these various curtailments with aggregators and the MISO/RTO.

h. Cost Causation and Allocation:

21. As noted earlier, the changes to metering, communication infrastructure, distribution system components, customer data management and billing systems, arising from DER aggregation will require the development of a means to identify cost causation and allocate the associated costs accordingly.

22. A determination will need be made by the Commission regarding whether a tariff of general applicability, stand-alone agreements, or other is the most appropriate vehicle to recover the costs of upgrades to the distribution and transmission grids necessary to allow a distributed resource aggregation's participation in the wholesale markets. This determination should identify and take into consideration any associated impact to retail customer rates.

CONCLUSION

23. There are many unanswered questions both regarding RTO implementation of FERC Order No. 2222 and, depending on that implementation, the exact rule or process changes that will be necessary at the Commission, or tariff changes the Commission may need to approve. Sorting out answers to those questions will require significant engagement at the RTOs and significant technical and legal work by individuals with knowledge of RTO markets and operation, distribution systems, and retail utility ratemaking.

24. The Commission should direct its Staff to lead working groups of such persons so that they may discuss these issues and work to develop solutions and recommendations to them but should be mindful of the fact that until the RTO processes become much clearer and well-

developed, there will be significant challenges respecting what policies, rules, or tariff changes the Commission or perhaps the state may need to adopt, and when state-level changes can occur.

WHEREFORE, Ameren Missouri submits this response in accordance with the Order.

Respectfully Submitted,

/s/ James B. Lowery
James B. Lowery, MO Bar #40503
JBL Law, LLC
3406 Whitney Ct.
Columbia, MO 65203
Telephone: (573) 476-0050
lowery@jbllawllc.com
Wendy K. Tatro, MO Bar #60261
Director and Assistant General Counsel
1901 Chouteau Avenue, MC-1310
St. Louis, Missouri 63103
Telephone: (314) 554-3484
Facsimile: (314) 554-4014
AmerenMOService@ameren.com

ATTORNEYS FOR UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing Motion was served on all parties of record in this case via electronic mail (e-mail) or via regular mail on this 31st day of March, 2021.

/s/ James B. Lowery
James B. Lowery