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 Operated by Regional Transmission Organizations and Independent Systems Operators	))))))	**<u>Case No. EW-2021-0267</u>**

STAFF'S REPORT

COMES NOW the Staff ("Staff") of the Missouri Public Service Commission ("Commission"), by and through counsel, and for its *Report* states the following:

1. On February 24, 2021, the Commission opened this docket to evaluate the Federal Energy Regulatory Commission's (FERC) Order 2222, regarding the regulation of distributed energy resource (DER) aggregators and their participation in the capacity, energy and ancillary service markets operated by Regional Transmission Organizations (RTO) and Independent System Operators (ISO).

2. The Commission organized an informational workshop, held June 29, 2021, at which several presentations were made and stakeholders discussed the potential future of DER aggregation in Missouri. The Commission asked the stakeholders to follow up the workshop by providing comments to the Commission. Several of the stakeholders involved in the docket provided such comments.

3. Staff has reviewed all of the provided comments and compiled them into a *Report* which it now files for the Commission's consideration. The *Report* organizes the comments to be reviewed in comparison to one another, and outlines the positive and negative projections stemming from the comments. Staff recommends that the Commission set forth a timeline to outline further stakeholder engagement related to the current ARC prohibition in this docket.

WHEREFORE, Staff prays that the Commission will accept its *Report*; set forth a timeline for further stakeholder engagement; and grant such other and further relief as is just in the circumstances.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served by electronic mail, or First Class United States Postal Mail, postage prepaid, on this 1st day of October, 2021, to all counsel of record.

/s/ Whitney Payne

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

IN THE MATTER OF THE ESTABLISHMENT OF A WORKING CASE REGARDING FERC ORDER 2222 REGARDING PARTICIPATION OF DISTRIBUTED ENERGY RESOURCE ADEQUACY IN MARKETS OPERATED BY REGIONAL TRANSMISSION ORGANIZATIONS AND INDEPENDENT SYSTEM OPERATORS

FILE NO. EW-2021-0267

OCTOBER 1, 2021

STAFF REPORT

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A. Executive Summary

On August 4, 2021, the Commission issued an Order Offering an Opportunity to Comment Regarding Modification of Temporary ban on Aggregators for Commercial and Industrial Customers. Specifically, the Commission's order invited interested stakeholders to provide input about the following six questions:

1. Whether the Commission should modify the current prohibition on the operation of ARCs in Missouri?
2. What modifications should be made to the current prohibition?
3. What impact would a modification to permit operation of ARCs for commercial and industrial customers have on existing MEEIA programs?
4. What impact would a modification to permit operation of ARCs for commercial and industrial customers have on the commercial and industrial customers?
5. What impact would a modification to permit operation of ARCs for commercial and industrial customers have on non-commercial and nonindustrial customers?
6. Are any changes to the Commission's existing rules necessary?

In response to the Commission's Order the following electric utilities provided comments: Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri") and Evergy Metro, Inc., d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc., d/b/a Evergy Missouri West ("Evergy"). Additionally, the Office of the Public Counsel ("OPC"), Enerwise Global Technologies, LLC, d/b/a CPower ("CPower"), Voltus, Inc. ("Voltus"), and Walmart, Inc. ("Walmart") responded to the Commission's opportunity to comment. Additionally, Voltus provided reply comments in response to Ameren Missouri and Evergy's response to the Commission's questions.

1. Whether the Commission should modify the current prohibition on the operation of ARCs in Missouri?

Ameren Missouri and Evergy assert that the Commission should not modify the current prohibition at this time “without having proper protections in place for utility customers and the utility.”[1] Specific near term challenges cited by Ameren Missouri and Evergy include:

(i) Existing tariffs do not include provisions for inclusion of retail customers into the wholesale markets;[2]

(ii) Aggregators of Retail Customers (“ARCs”) may bypass regulatory oversight;[3,4] and

(iii) Communication protocols between different parties (i.e., utilities, ARCs, RTOs) do not exist.[5]

On the other hand, non-utility stakeholders (i.e., OPC, CPower, Voltus, and Walmart) supports the modification or rescission of the Commission’s current prohibition because, among other reasons,

(i) ARCs have successfully participated (on behalf of industrial/commercial customers) in wholesale markets for many years in other states;[6,7,8]

(ii) The participation of ARCs will improve market competitiveness[9,10] and grid reliability;[6]

(iii) Missouri electric companies have the experience of working with ARCs through their operations in the neighboring states (Kansas and Illinois) that do not prohibit ARC participation in demand response (“DR”);[11] and

(iv) Economic development.[12]

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[1] Ameren Missouri’s response to the Commission’s order, P. 3.
[2] Ameren Missouri’s response to the Commission’s order, P. 3.
[3] Evergy’s response to the Commission’s order, P. 2.
[4] Ameren Missouri’s response to the Commission’s order, P. 5.
[4] Ameren Missouri’s response to the Commission’s order, P. 4.
[6] OPC’s response to the Commission’s order, P. 1.
[7] Voltus’ response to the Commission’s order, P. 10.
[8] Cpower’s response to the Commission’s order, P. 3.
[9] OPC’s response to the Commission’s order, P. 2.
[10] Cpower’s response to the Commission’s order, P. 2.
[11] Walmart’s response to the Commission’s order, P. 2.
[12] Walmart’s response to the Commission’s order, P. 4.

In its reply comments, Voltus states that it operates in other vertically integrated states such as Louisiana, Oklahoma, and Kansas and has done so "without any policy changes and…without adverse impacts."[13]

2. What modifications should be made to the current prohibition?

Ameren Missouri and Evergy argue to maintain the prohibition without modification at this time, mainly because of the reasons mentioned in the above question. However, the four non-utility stakeholders argue for removal of the prohibition. Voltus contends that not only should the prohibition be removed, the Commission should not limit participation based on the size of the commercial or industrial customer, explaining that neighboring states do not have a size limitation.[14] Walmart agrees that ideally the prohibition should be removed but offers two alternative modifications: (1) allow entities with demand in excess of 100 kW to participate in a distributed energy resource ("DER") aggregation or (2) allow commercial and industrial customers with demand in excess of 300 kW to participate through an ARC.[15]

3. What impact would a modification to permit operation of ARCs for commercial and industrial customers have on existing MEEIA programs?

Ameren Missouri and Evergy contend that removing the prohibition would negatively impact existing MEEIA programs, while other stakeholders believe it would have either a positive or no impact on MEEIA. Ameren Missouri notes the importance of state regulator involvement in DR programs to protect customer data and maintain reliability,[16] while Evergy expresses concerns that removing the prohibition would result in a direct competition to utility-offered programs and would "divert potential benefits away from" MEEIA programs.[17] OPC, however, notes "[r]atepayers would benefit by no longer having to pay MEEIA related costs for this niche program function, but would still receive the benefit of a lowering of the clearing price (in theory)."[18] Voltus argues ARCs participation in the wholesale markets can complement the existing DR programs, noting aggregators in different states simply offer customers different program

[13] Voltus' reply comments, P. 2.
[14] Voltus' response to the Commission's order, P. 11.
[15] Walmart's response to the Commission's order, P. 5-6.
[16] Ameren Missouri's response to the Commission's order, P. 8.
[17] Evergy's response to the Commission's order, P. 6.
[18] OPC's response to the Commission's order, P. 2.

options.[19] Additionally, Voltus explains demand response through an aggregator can enhance customer knowledge that, "causes customers to become interested in other energy services, like efficiency, storage, or distributed generation. In this respect, aggregator's advanced technology can actually build a bridge by piquing customers' interest in other MEEIA programs."[20] Walmart offers that allowing commercial and industrial customers to participate in DR through ARCs would help eliminate the tension inherent in MEEIA opt-out customers participating in utility DR programs.[21]

Evergy further notes the Commission "would likely need to re-evaluate long-term planning efforts as DR is a key input to the IRP."[22] In its reply comments, Voltus argues that aggregated demand response "does not impact management of the distribution system or undermine utility planning" further explaining that aggregated DR will appear as normal load fluctuations or are deployed in emergencies.[23] Staff offers that stakeholder engagement has already occurred in regards to distributed energy resources in the context of the Commission's resource planning rules (see EW-2017-0245).

4. What impact would a modification to permit operation of ARCs for commercial and industrial customers have on the commercial and industrial customers?

Ameren has not identified any specific impacts on commercial and industrial customers, because it believes that at this time it is unknown what Commission regulations and tariff changes would be needed to accommodate ARCs participation.[24] Evergy acknowledges that enhancing market competition would lower prices; however, Evergy believes that there would be a potential for increased costs due to broader activity on the distribution system that may offset some of the savings. Evergy asserts the majority of such benefits will be accrued primarily to the ARC and to the retail customers that choose to participate in such activities.[25] Voltus believes that it would help improve the profitability of participating commercial and industrial customers as electricity

[19] Voltus' response to the Commission's order, P. 11.
[20] Voltus' response to the Commission order, P. 12.
[21] Walmart's response to the Commission's order, P. 6.
[22] Evergy's response to the Commission's order, P. 6.
[23] Voltus reply comments, P. 3.
[24] Ameren Missouri's response to the Commission's order, P. 8.
[25] Evergy's response to the Commission's order, P. 7.

costs for larger industrials might constitute 30% of their operating costs. For narrow margin businesses, meanwhile, demand response revenues greatly increases their profit margins.[26] Similarly, Walmart believes that it would generate a revenue stream for such customers; it would create more opportunities for Missouri commercial and industrial customers to participate in DR; and it would be a more suitable approach for commercial and industrial customers to manage the risks of participation in the wholesale markets than what utility-sponsored DR program currently provide.[27]

5. What impact would a modification to permit operation of ARCs for commercial and industrial customers have on non-commercial and nonindustrial customers?

Ameren Missouri identifies negative impacts on retail customers if protections are not in place, such as unnecessary risks associated with their market participation and the potential cost shift between participating and non-participating customers.[28] In particular, these risks include customer data privacy and cybersecurity issues.[29] Evergy believes that it would create a direct competition with the existing utility-sponsored DR programs, which will negatively impact the revenue generated through utility DR programs, shifting the benefits of participation of the commercial and industrial customers in DR programs from utilities to ARCs. This would result in nonparticipating customers carrying the burden of remaining system costs.[30]

On the other hand, CPower believes that removing the prohibition would have a positive impact on retail customers as ARC participation helps customers reduce energy costs, makes the grid more reliable, and enhances the diversity of energy resources.[31] Similarly, OPC believes that it would have a positive impact as it would improve competition, create jobs, and reduce the need for governmental interferences through regulation of businesses.[32] Voltus also asserts that permitting ARC demand response will have a net benefit for residential customers.[33] Walmart, too, believes that "allowing ARCs to participate will reduce utility peak demand, which, in turn,

[26] Voltus' response to the Commission's order, P. 13.
[27] Walmart's response to the Commission's order, P. 8.
[28] Ameren Missouri's response to the Commission's order, P. 9.
[29] Ameren Missouri's response to the Commission's order, P. 4.
[30] Evergy's response to the Commission's order, P. 8.
[31] Cpower's response to the Commission's order, P. 3.
[32] OPC's response to the Commission's order, P. 2.
[33] Voltus' response to the Commission's order, P. 14.

benefits all customers by cancelling or postponing utility generation additions."[34] Walmart further notes that the ARC contribution to peak demand is not directly funded by non-participants unlike with MEEIA programs[35]. Walmart also points to the importance of aggregated DR to "serve as a crucial resource during emergencies."[36]

In response to Ameren Missouri's concerns with cybersecurity, Voltus explains aggregators pay for the utility to install a KYZ pulse on the customer's meter and transmit data via its own cellular network; further arguing that "there is no cybersecurity threat to the utility's system."[37] Staff agrees, in part, that separation of the aggregator systems from the utility system minimizes cybersecurity threat to the utility systems. However, bad actor use of such aggregated data, if the aggregation becomes significantly large, could present a utility with novel operational issues if the aggregated data is used in an attempt to destabilize a utility system. This also creates sufficient reason to consider commission rules regarding aggregation. Looking forward to residential customer aggregation, and distributed energy resources that inject energy, the need for a review of commission rules regarding aggregations gets only stronger.

6. Are any changes to the Commission's existing rules necessary?

Ameren Missouri believes that significant changes in policies, rules, and tariff provisions will be needed but recommends that such changes be delayed until the RTOs have finalized and FERC has accepted their compliance plans, in order to avoid the need for substantial revisions and duplicative costs.[38] Ameren suggests the need to modify Commission rules and utility tariffs to:

- Establish qualification requirements that prohibit dual enrollment and manipulation and unreasonable arbitrage of utility sponsored programs;
- Delineate the respective rights and obligations of the electric utility and customer;
- Establish communication protocols between states, load-balancing authorities, and electric distribution companies;
- Improve metering, communication systems, and data access; and to
- Ensure that customer participation in wholesale markets does not result in cost shifts between participating and non-participating customers.

[34] Walmart's response to the Commission's order, P. 9.
[35] Walmart's response to the Commission's order, P. 9.
[36] Walmart's response to the Commission's order, P. 9.
[37] Voltus' reply comments, P. 3.
[38] Ameren Missouri's response to the Commission's order, P. 12.

Evergy notes the importance of working in partnership with the Commission to review current utility programs and consider expanding customer programs to accommodate new technology trends and customer preferences.[39] Both utilities express concern that a modification to the current prohibition would allow aggregators to bypass the retail authority of the Commission.[40]

CPower suggests it is not necessary to adopt regulation over aggregators, as most states do not.[41] Similarly, Voltus points to five states[42] who regulate ARCs in a limited manner, through qualification and a DR aggregator registry.[43] Similarly, Voltus, OPC[44], and Walmart do not believe that any rule changes would be needed ,though Voltus notes: "the Commission is of course free to exercise its jurisdiction in any manner necessary to protect the Missouri public interest."[45] Walmart suggests the Commission may consider rules requiring data sharing and an annual registration of ARCs.[46]

Voltus further offers that third-party demand response of commercial and industrial customers can occur within weeks without any rule changes.[47] While Ameren Missouri argues that the Commission should delay modifying the current prohibition, Voltus points out that aggregation of commercial and industrial customers will provide experience and context for DER aggregations.[48] Voltus also points to the respective MISO or SPP web portal as an example of existing communication method between aggregators, the RTO, and the utility.[49]

In regards to communication protocols, the MISO Business Practices Manual for Demand Response (Manual No. 026) discusses the ARC participation and review process and outlines responsibilities of the Load Serving Entity, Electric Distribution Company, and approvals from the Relevant Electric Retail Regulatory Authority (RERRA).[50] Although aggregators, like Voltus,

[39] Evergy's response to the Commission's order, P. 8.
[40] Ameren Missouri's response to the Commission's order, P. 5; Evergy's response to the Commission's order, P. 2.
[41] Cpower's response to the Commission's order, P. 7.
[42] New York, Pennsylvania, California, Virginia, and Maryland.
[43] Voltus' response to the Commission's order, P. 15.
[44] OPC's response to the Commission's order, P. 3.
[45] Voltus' response to the Commission's order, P. 15.
[46] Walmart's response to the Commission's order, P. 10.
[47] Voltus' reply comments, P. 2.
[48] Voltus' reply comments, P. 9.
[49] Voltus' reply comments, P. 3.
[50] Business Practices Manuals (misoenergy.org)

are experienced with the existing communication protocols, the utilities appear to be less confident and the Commission would also need to consider its approval processes as the RERRA.

Staff recommends the Commission outline a timeline for additional stakeholder engagement on removing the current prohibition for third-party aggregation of commercial and industrial customers. Additionally, Staff compiled the following arguments for and against removing the current prohibition with respect to commercial and industrial customers for the Commission to consider.

Pros

- The participation of ARCs will improve market competitiveness;
- Provide an additional revenue stream for commercial and industrial customers;
- DR-focused companies may be able to dedicate more time to help customers explore DR options and explore different options; and
- DR aggregation of commercial and industrial customers will provide the utilities and the Commission experience and context for future DER aggregations.

Cons

- DR aggregation of commercial and industrial customers may introduce cybersecurity concerns in the future as participation increases;
- Once the prohibition is lifted it would be difficult to reinstate if issues arose; and
- At this time, no specific framework for Missouri exists related to reporting of aggregated DR.