

**STATE OF MISSOURI  
PUBLIC SERVICE COMMISSION**

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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

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File No. EW-2021-0267

**Voltus Comments on Order Regarding Opportunity For Additional Comments Regarding Modification of Temporary Ban on Aggregators for Commercial and Industrial Customers**

Voltus, Inc. (Voltus) again appreciates the Missouri Public Service Commission’s (MPSC or Commission) continued evaluation of its 2010 temporary ban on demand response aggregators, or “ARCs” and this opportunity for additional comments. Voltus also appreciates the additional context provided by Lawrence Berkeley National Laboratory’s (LBNL) survey of the regulatory landscape in the MISO and SPP footprints. Notable in particular is the observation in the LBNL report regarding the “tradeoff [] between simplicity and quick implementation versus comprehensive and prolonged implementation.”

Voltus has pointed out in previous comments and workshops the degree to which existing, well-developed processes in MISO and SPP address the concerns expressed by MPSC and distribution utilities. The LBNL report recognizes that the pursuit of more significant changes including involvement of additional parties through stakeholder engagement or legislative action can introduce considerable delay. Prolonged implementation will deprive Missouri consumers of the demonstrated value and benefits of aggregated demand response. LBNL noted for example MISO’s recognition of “DR’s ability to improve operational reliability in the short term, offer least-cost resource adequacy in the long term, reduce price volatility and

overall costs, and mitigate market power.” LBNL also highlighted the Organization of MISO States argument “that Order 2222 should be implemented sooner than 2030 in order to take advantage of the reliability and economic benefits of DER aggregation.”

Voltus has pointed out the even more direct benefits to Missouri businesses through the opportunity to earn revenue by using less energy. The Commission should think of this revenue opportunity as if it were able to issue an order providing most commercial and industrial consumers (and eventually residential, too) a means to reduce their energy bills by as much as ten percent (10%)<sup>1</sup> with there being additional benefits of increased reliability and reduced wholesale prices for all customer classes. As Voltus previously pointed out, Voltus could register Missouri resources in the wholesale markets in a matter of weeks. This is particularly meaningful given the surge in electricity prices (14.3% in 2022, double overall inflation<sup>2</sup>).

Another specific result of the opt out is the lack of an economic solution to MISO paying significant cost, approximately \$21,000/MW, to keep Ameren’s Rush 1,195 00 MW Island Coal plant as a System Support Resource (reliability must run unit).<sup>3</sup> MISO identified Demand Response as a System Support Resource alternative but found no contracted DR because of Missouri’s opt out.<sup>4</sup>

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<sup>1</sup> This is the average in revenue received from wholesale market participation and energy savings from increased operational visibility Voltus is seeing from consumers who participate in Voltus’s programs.

<sup>2</sup> <https://www.utilitydive.com/news/electricity-prices-inflation-consumer-price-index/640656/>

<sup>3</sup> <https://cdn.misoenergy.org/2023-04-24%20Docket%20No.%20AD19-16628668.pdf>

<sup>4</sup> <https://cdn.misoenergy.org/20230606%20CSPM2%20Item%2003b%20Subregional%20Planning%20Rush%20Island%20Meeting629174.pdf>

The sooner Missouri modifies the ban the sooner these benefits can be unlocked for Missouri consumers.

The MPSC order inviting additional comments asked these specific questions:

**A. Size Limitations for Demand Response (DR) eligibility:**

The MPSC noted that:

Previous comments proposed various size limitations for commercial and industrial (C&I) customers to participate in wholesale DR either directly or through third-party ARCs. Proposals ranged from no size limit, to thresholds of 10kW, 100kW, 300kW, or a modification limited to large customers. In addition, the Michigan Public Service Commission approved 1MW as the threshold for ARC participation in its jurisdiction.

**1. What impact could any of these limits have on implementation of a modified opt-out as applied to C&I customers in terms of reliability, participation or the need for additional regulations?**

One of the benefits aggregators provide is that they can work with customers who are too small to qualify for utility demand response programs or too small to have sufficient time, money and effort to negotiate the process and procedures necessary to register with and consistently participate in a wholesale market on their own. So, if the Commission were to only allow resources above a certain size threshold to work with aggregators, it would unfairly exclude smaller loads from earning revenues through wholesale market participation.

Furthermore, national businesses with locations in Missouri would be unable to unify their resources under a single aggregator if Missouri were to institute a size minimum. To illustrate, the curtailable load for a drug store like CVS or Walgreens is only around 10 kW. If a

size minimum were adopted, these types of businesses could work with an aggregator in Illinois or Kansas, but not Missouri. Demand response participation has a meaningful impact on the bottom lines of commercial and industrial businesses. Substantial evidence of record should be provided to justify excluding any resources based on their load size and any minimum should be the lowest feasible to satisfy those justifications. There has been no such justification presented in this docket.

**2. Should the Commission establish different size limits for different utilities based on customer classes?**

For the reasons stated above, Voltus again believes Missouri should modify the ban to allow any commercial or industrial customer to work with an aggregator.

**3. Should these size limits apply to a single location, or should a single customer be permitted to aggregate multiple locations to meet the threshold?**

If any limit applies, a single customer should be permitted to aggregate multiple locations or many customers, like the example Voltus customers above, would be excluded. Otherwise, such a rule could largely defeat the point of demand response aggregation which is to aggregate smaller, discrete loads.

**4. How many in terms of numerical value and as a percentage of the C&I customer classes and any specific sub-classes and what types of customers (with and without aggregated load) would be included within the proposed thresholds?**

It is not clear what purpose limiting the threshold to a numerical value or percentage of C&I customers in any class or sub-class would achieve except arbitrarily excluding similarly-situated customers with no meaningful distinction in service characteristics from an opportunity to participate.

**5. Should there be a maximum aggregated size limit?**

MISO is currently investigating and is better situated to determine an appropriate maximum size limit if any. Different states developing a patchwork of regulations inconsistent with or unnecessarily duplicative of ISO/RTO standards and protocols can render the registration and participation so burdensome and uneconomic that Missouri fails to unlock the benefits of demand response discussed above.

**B. Dispute Resolution:**

**1. As to utilities with affiliates in states that allow ARCs:**

- a. How are relationships between utilities and ARCs managed?**
- b. What types of disputes arise, and how frequently?**
- c. How are disputes resolved?**

**2. As to the ARCs:**

- a. How do they manage relationships with utilities?**

There are already wholesale market participation models and rules for demand response resources. When a resource is enrolled, the utility and the state regulator receive notice of the

registration and have time to review, to seek clarification or to object. Customers share their registration information with the aggregator, which is transmitted to MISO or SPP via a secure web portal or over email, depending on the program. The utility then also accesses the web portal or receives data to review over email. Aggregators install a KYZ pulse on the customer's meter. KYZ pulses are used to transmit instantaneous energy use information from the electric meter to another piece of equipment. ARC operations personnel work with utility field and metering personnel to facilitate the installation of the KYZ pulse. Aggregators then use their own meter data recorders to transmit data over their own cellular network to comply with any telemetry or post-dispatch data submission requirements.

**b. What types of disputes arise, and how frequently?**

Occasionally there are discrepancies regarding address or account data or metering point or questions regarding registered load volumes. Both MISO and SPP have processes that allow utilities to ask questions and resolve these discrepancies.

**c. How are disputes resolved?**

As explained, notice of registration is given to utilities and state regulators who have the right to question or object. MISO and SPP determine whether any discrepancies are resolved and whether to register the resource or require the ARC to modify and resubmit the registration.

**3. As to MISO and SPP:**

**a. What types of disputes arise related to third-party demand response, and how frequently?**

**b. How are those disputes typically resolved?**

**c. What disputes, if any, have been resolved by the state utility commission or other state regulatory authority?**

**C. Double Counting/Dual Participation:**

**1. Should the Commission clarify whether a C&I customer can participate only in the wholesale market or only in the retail market? How should this clarification be made?**

In their enrollment reviews, LSEs and LDCs can bar participation in MISO or SPP programs for customer locations if those megawatts are already being used already to provide the same service at the same time in the retail market.

That said, megawatts can provide a variety of different services to the electric grid, including emergency capacity, ancillary services, and energy. The MPSC should allow any given megawatt to provide all these services, even if each is brought to market via a different service provider (e.g., emergency capacity through a retail program and ancillary services through an aggregator).

In Oklahoma, a utility proposed its own curtailment tariff with a strict prohibition on participation in its tariff by customers who also participate in RTO demand response programs. The Oklahoma Corporation Commission rejected a strict prohibition, finding that, “The Commission is not persuaded that the Company’s concerns outweigh the benefits of allowing customers to participate in the VCS Tariff and in an RTO demand response program.” The

Commission instead ordered the utility to include in its tariff reporting requirements for customers who participate in both tariffs so that no double counting could occur.<sup>5</sup>

**2. If dual participation in the wholesale and retail markets for different services is allowed, how would improper double counting be identified and avoided?**

Rules already exist to prevent “double counting,” i.e., a resource being paid twice for the same service. SPP and MISO already have rules to ensure the same customer is not providing the same service through its utility or another aggregator. Utilities receive registrations to which they can object if the customer is already enrolled in a conflicting retail program. To avoid registrations being rejected, aggregators identify any retail programs that would qualify as unlawful dual participation and verify that prospective customers are not enrolled in those programs. Otherwise, they waste time pursuing customers who are unable to participate.

MISO and SPP have developed settlement processes for paying for demand response participation. The utility meter determines utility charges. The aggregator hardware and software report performance data to the wholesale market, which determines the wholesale market revenue. This may be audited against utility data. And the required telemetry identifies when and where a load drop occurred.

However, for clarity on the retail level, as explained above, utilities can add to any retail demand response or curtailment tariffs a requirement that customers report participation in any wholesale demand response and/or a requirement to attest to no double counting as was done in Oklahoma.

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<sup>5</sup> <https://public.occ.ok.gov/WebLink/DocView.aspx?id=12600625>



**3. What specific internal processes and procedures would utilities need to implement to address double counting under the requirements and procedures imposed by MISO or SPP?**

See above.

**D. Data Governance:**

**1. Do existing utility tariffs include provisions related to customer data privacy?**

**a. What revisions related to third-party demand response aggregation, if any, would be necessary?**

Customers voluntarily agree to share their registration information with the aggregator, which is transmitted to MISO or SPP via a secure web portal or over email. The utility then also accesses the web portal or receives data over email. Utilities do not need to develop a web portal to review registrations. Communication channels already exist between the customer, aggregator, the utility, and the RTO. Aggregators have been operating in both MISO and SPP for years. Utilities receive registration information and receive settlement data after a dispatch, both of which they may audit. In SPP, utilities can view aggregator data including ICCP telemetry in real-time.

**2. What customer information is generally shared between the utility and the ARC?**

Customer information shared includes account name(s), account and meter number(s), interval data, point of interconnection, pricing nodes, and meter data submittal location.

**a. What information, if any, is public information?**

The information is not public and generally transmitted securely, though Voltus has advocated in MISO, for example, for more developed protocols including portals to enhance security of communications and registrations.

**3. How do ARCs protect customer information?**

Voltus is subject to the same cybersecurity requirements as other registered wholesale market participants and uses a secure, native cloud platform where data is encrypted and controlled using an end-user's generated password in line with established security best practices. For example, the Voltlet™ is secured with standard intrusion detection/intrusion prevention techniques. Access to a Voltlet private key is highly restricted within Voltus--only four senior members of the engineering team possess the credentials to access a Voltlet, and tickets must be escalated out of the standard operations/enablement process before remote access is used.

**4. How do ARCs protect their systems from cybersecurity threats?**

See above.

**5. Would adoption of Green Button or similar alternative facilitate timely and accurate demand response registration?**

It could assist in the transference of customer retail utility data to ARCs.

**a. Are there any implementation constraints related to adopting Green Button or similar alternative?**

This a question for the utilities.

**E. Regulatory Gaps:**

**If the Commission modifies its opt-out to permit third-party demand response for C&I customers, what regulatory gaps, if any, exist under MISO and SPP rules governing demand response?**

As explained above and in prior comments, MISO and SPP have sufficient processes in place. Additional state regulatory requirements could potentially create a patchwork of inconsistent and even conflicting requirements that would prevent meaningful participation in wholesale markets by Missouri businesses. Aggregators are subject to state and federal consumer protection and privacy laws, ISO/RTO oversight, enforcement and penalties and the FERC Office of Enforcement. In the ISO/RTO processes, aggregators work to resolve issues as they arise in real-time, for example through a MISO issue submission or through the SPP RMS system. A protracted promulgation and implementation process could mean Missouri businesses would be deprived of the substantial recognized benefits direct participation in the wholesale market can provide.

Respectfully submitted,



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