STATE OF MISSOURI
PUBLIC SERVICE COMMISSION

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	File No. EW-2021-0267

Voltus Reply Comments on Missouri Modifying Aggregator Ban for Commercial and Industrial Customers

Voltus, Inc. ("Voltus") respectfully submits the following reply to comments submitted on September 1, 2021 regarding the Missouri Public Service Commission ("Commission") modifying its 2010 ban on demand response aggregators, or "ARCs." Six stakeholders submitted comments: Voltus, CPower, Walmart, the Missouri Office of Public Counsel, and utilities Ameren Missouri and Evergy[1] (collectively, "Utilities"). Only the Utilities support retaining the ban.[2] Voltus provides information responding to the Utilities' factual claims, so that the Commission has accurate information upon which to make its determination.

Critical facts must be kept front and center. First, demand response has now operated in the wholesale markets for nearly two decades, and it currently operates in MISO and SPP. There are well developed rules and no need for market changes to integrate these resources. Second, demand response resources have been found to be just and reasonable by the Federal Energy

[1] Evergy Metro, Inc. d/b/a Evergy Missouri Metro ("Evergy Missouri Metro") and Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("Evergy Missouri West") (collectively, "Evergy"),

[2] *See generally* Evergy Response to Order Offering an Opportunity to Comment on Modification of Temporary Ban, *In the Matter of the Establishment of a Working Case Regarding FERC Order 2222,* Mo. P.S.C. File No. EW-2021-0267 (filed Sept. 1, 2021) ("Evergy Comments"); Ameren Response to Order Opening a Working Case, *In the Matter of the Establishment of a Working Case Regarding FERC Order 2222,* Mo. P.S.C. File No. EW-2021-0267 (filed Sept. 1, 2021) ("Ameren Comments").

Regulatory Commission. These resources can only be deployed if they pass the "net benefits test," which "makes certain that accepting a lower priced demand response bid over a higher-priced supply bid will actually save LSEs (i.e., wholesale purchasers) money."[3] Finally and critically, aggregators have entered vertically integrated territories without any policy changes, and operated in these territories without adverse impacts.[4]

Utilities have the ultimate responsibility to provide reliable electric service. Voltus is cognizant that this is a new topic for certain utilities, and provides the following information to demonstrate that allowing aggregators is consistent with reliable electric service and the Missouri public interest. The question before the Commission is whether it is in the public interest to obtain additional reliability and reduced power supply costs by allowing Missouri businesses to earn revenue by using less energy.[5]

I. Third-Party Demand Response Can Be Easily Implemented in Missouri.

While the Utilities assert that a variety of changes must be made before integrating third-party demand response, in fact third-party demand response can be integrated without any rule or technology changes. This has been the experience in numerous service territories. If the Commission were to allow C&I aggregations, resources could be registered for operating reserves programs within a matter of weeks.[6] If the Commission were to decide before December 1st to allow aggregations, resources could be registered for MISO's next Planning Reserve Auction.

---

[3] *F.E.R.C. v. Elec. Power Supply Ass'n*, 577 U.S. ___, 136 S. Ct. 760, slip. op. at 10 (2016), *as revised* (Jan. 28, 2016).

[4] Voltus operates in New Orleans, a vertically integrated service territory in MISO, as well as Oklahoma and Kansas which are part of SPP. Voltus also operates in numerous municipal and cooperative territories.

[5] *See* Comments of the Missouri Office of Public Counsel, *In the Matter of the Establishment of a Working Case Regarding FERC Order 2222,* Mo. P.S.C. File No. EW-2021-0267 (filed Sept. 1, 2021) ("OPC Comments") ("The lower clearing price resulting from bidding demand response in a RTO/ISO benefits all customers in that RTO/ISO, not just the bidding demand response aggregator.").

[6] MISO operating reserve resources are registered quarterly, while SPP's are registered monthly.

No additional technologies are needed from the utility's end to integrate third-party demand response, and any costs of doing so are borne by the aggregator.[7] Aggregators pay a utility to install a KYZ pulse on the customer's meter. Aggregators then use their own metering and transmit data over their own cellular network. As a result, there is no cybersecurity threat to the utility's system, as might exist with a resource interconnected to the distribution system: if one were to hack an aggregator's hardware, that does not compromise the utility's system. The stated data privacy concerns are similarly unfounded. Customers share their registration information with the aggregator, which is transmitted to MISO or SPP via a secure web portal. The utility then also accesses the web portal. Utilities do not need to develop a web portal to review registrations.[8] Therefore, communication channels also already exist between the aggregator, the utility, and the RTO.[9] Aggregators have been operating in both MISO and SPP for years. Utilities receive registration information and receive settlement data after a dispatch. In SPP, utilities can view aggregator data in real-time.

Aggregator demand response does not impact management of the distribution system or undermine utility planning. Dispatches either alleviate grid stress during emergency events or look like normal load fluctuations. MISO's load modifying resources are deployed during emergencies, when the utility is aware that there is a system scarcity condition. Operating reserve events (in both MISO and SPP), are ~10-minute deployments that look to the system like normal

[7] *See* Evergy Comments at 3 (citing as issues the "need to enhance technology and data management systems to protect the safety and reliability of distribution system operations" and "[q]uestions about which entity shall bear the costs of integration for metering and telemetry requirements to support ARC operations (i.e., the Company, the customer, or the ARC).")

[8] Ameren Comments at 4 ("At the Commission's June 29, 2021 workshop on this topic, representatives of Ameren Illinois, which has implemented certain third-party programs including DR aggregation, presented information about the necessity of digital systems that create portals for aggregators to submit information to utilities about the customers that have enrolled with them.").

[9] Ameren Comments at 4 ("[T]he necessary communication protocols among the utilities, the ARCs, the participating customers, and the RTO do not yet exist and must be developed, implemented, and tested.").

load fluctuations and are well within "the utility's ability to predict and schedule actual hourly loads" and "meet NERC real-time regulation requirements."[10] Energy dispatches can be brief (minutes or hours) and are no different than a customer reducing consumption when energy is expensive. Regarding planning, it is inaccurate to say that, "Current market protocols do not have a mechanism that would enable the utility to reduce its capacity reserve obligation for non-utility-controlled DR resources."[11] In both MISO and SPP, an aggregator can contract with a utility to provide demand response resources via a bilateral contract, and these resources would count towards a utility's resource adequacy obligation. Voltus does not agree with Evergy's statement that, "If a non-utility participant bids its DR resource into the SPP market, the capacity value of the DR resource is lost under current planning processes."[12] If an aggregator contracted to provide demand response operating reserves, that would not undermine Evergy's ability to use that resource for its capacity value.[13] In SPP, only the utility can claim the resource adequacy value of a demand response resource. Utilities having to account for demand response does not outweigh the public interest of additional reliability and consumer freedom. As one public interest group has responded to utility claims of difficulty in planning for demand response: "Utilities are experts in planning for multiple uncertainties across many fronts, including for example the impacts of rooftop solar/net metering, energy efficiency, power plant fuel costs, economic growth, weather, and technology, to name a few."[14]

---

[10] Evergy Comments at 3, restating issues identified in 2010.

[11] Evergy Comments at 6.

[12] *Id*.

[13] In PJM, for example, one provider can claim a demand response resource's capacity value while another can offer that resource into operating reserves. *See* Section 10.2.1, PJM Manual 11: Energy & Ancillary Services Market Operations, https://www.pjm.com/~/media/documents/manuals/m11.ashx. A resource doing operating reserves should not affect the utility's ability to use that resource for resource adequacy.

[14] John Moore, Natural Resources Defense Council, *Major Barrier to Demand Response Needs to End* (Aug. 25, 2021), https://www.nrdc.org/experts/john-moore/major-barrier-demand-response-needs-end.

Rules already exist to prevent "double counting," *i.e.*, a resource being paid twice for the same service.[15] 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 which they can object to 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. In 2021, there are therefore already mechanisms to reconcile energy consumption and billing data, contrary to Evergy's restated 2010 claim that there are complications "in revenue and energy accounting due to the differences between market settlement load of the system and actual load of the system."[16]

The Utilities' concerns that aggregator demand response will result in shifting costs to non-participating customers[17] are inconsistent with numerous facts. If cost-shifting occurred, the

---

[15] *See* Ameren Comments at 4 (stating that changing administrative rules or tariffs "will help, but not guarantee, that the same demand response resources do not participate in multiple programs, which is necessary to prevent unfair overcompensation of ARCs and any customers they might aggregate and to prevent improper subsidization by utilities and their customers of ARC activities."); *id*. at 9 ("If ARCs were going to be allowed to aggregate demand response directly into wholesale markets, it would be critical that there first be clear qualification requirements in utility tariffs to not only prohibit customers with the resource from enrolling both in the utility's demand response program and allowing the ARC to aggregate the same resource, but also to prohibit the manipulation and unreasonable arbitrage of utility sponsored programs.").

[16] Evergy Comments at 3 ("Complications in revenue and energy accounting due to the differences between market settlement load of the system and actual load of the system, as well as differences between billed energy and demand for customers and actual energy and demand for customers.").

[17] *See, e.g.*, Evergy Comments at 5 ("More importantly, greater participation by commercial and industrial customers with third-party aggregator programs is likely to have the net effect of shifting the benefits of demand response participation to third-party aggregators and their program participants, with nonparticipating customers carrying the burden of remaining system costs."); Ameren at 11 (stating there is a need to evaluate tariffs "to ensure

Federal Energy Regulatory Commission could not have found wholesale demand response to be just and reasonable. Demand response resources are also only deployed when they clear the market and pass a net benefits test demonstrating that the resource would actually save wholesale power purchasers money. [18] Demand response dispatched by the wholesale market benefits all ratepayers, as the Chief Economist of the Missouri Office of Public Counsel has noted.[19] It defies common sense to claim that utility demand response lowers energy costs for all customers[20] while wholesale demand response—which is only dispatched when it clears the market and passes a net benefits test—does not.

Utilities claimed rules or tariffs must be changed before allowing aggregators,[21] yet did not give an example of rule or a tariff that would actually need to be changed. There is, for example, no need for tariff changes to "delineate the respective rights" between the customer and the utility.[22] Customers are free to turn off their electricity at any time. If customers were unable to participate in a market event because of utility maintenance, that's the aggregator's problem.[23] The aggregator takes on that risk and pays any penalty, though Voltus has not seen this hypothetical materialize in its years of experience in nine wholesale markets. The customer's wholesale market participation in no way undermines the utility's ability to perform maintenance

---

that the interaction of customers' billing on retail tariffs and the direct participation of those customers in wholesale markets through an aggregator do not result in costs shifts between participants and non-participating customers.").

[18] *F.E.R.C. v. Elec. Power Supply Ass'n*, slip. op. at 10.

[19] OPC Comments at 1.

[20] Evergy Comments at 5 ("Evergy has invested $294 million in demand-side management ("DSM") programs in Missouri since 2005. These programs have been designed with the express goal of maximizing benefits to all customer classes, regardless of direct participation, and to help keep energy costs low for everyone.").

[21] Evergy Comments at 4 ("The current structure affords the MPSC the needed time to carefully assess potential policy gaps and existing tariff structures prior to the implementation of FERC Order 2222[.]");

[22] Ameren Comments at 9.

[23] *See*, *e.g.*, Ameren Comments at 10 ("Such actions may be as simple as temporarily removing a circuit from service for maintenance. Doing so would likely be seen by the customer as interfering with its ability to sell a service to the wholesale market during that period, or if the service has already been sold, the customer may face financial consequences from its inability to perform.").

on its distribution system. Voltus has entered vertically integrated service territories without any rule or tariff changes, and the Utilities have not presented policies that would need to be revised to allow aggregators. A separate rulemaking to identify potential issues would be a waste of resources. In other jurisdictions, including MISO and Michigan, the aggregators work to resolve issues as they arise in real-time, for example through a MISO issue submission. This is more targeted and efficient than a rulemaking addressing theoretical situations.

Finally, the Utilities claim that the Commission would have no oversight and visibility over aggregators' activities.[24] This is not true. The Commission and the utilities have full visibility into an aggregator's actions within a state, since both receive an aggregator's registrations and have the opportunity to object. Aggregators are still subject to a state's consumer protection laws and fraud statutes. It's irrational to claim that the Commission must implement rules to prohibit aggregators from doing that which is already illegal, such as deceptive advertising.[25] FERC enforces market manipulation.[26] Other claims are simply impossible. Aggregators have no capacity to "slam" customers by switching their utility provider without their consent.[27] Nor can demand response aggregators or customers engage in a type of

[24] *See* Evergy Response to Order Offering an Opportunity to Comment Regarding Modification of Temporary Ban, *In the Matter of the Establishment of a Working Case Regarding FERC Order 2222,* Mo. P.S.C. File No. EW-2021-0267 (filed Sept. 1, 2021) ("Evergy Comments") ("A modification to the current prohibition under the current legislative and policy framework effectively allows ARCs to bypass regulatory oversight." at 2; "Staff further acknowledged that allowing ARCs would prevent the Commission from regulating services that ARCs seek to provide and that the Commission would have 'no control over the manner in which the aggregators conducted business.'" at 4); Ameren Missouri's Response to Order Opening a Working Case, at 5, *In the Matter of the Establishment of a Working Case Regarding FERC Order 2222,* Mo. P.S.C. File No. EW-2021-0267 (filed Sept. 1, 2021) ("Ameren Comments") ("Put another way, question No. 1 in the Commission's Order should not be whether a 'prohibition on ARCs' should continue, but rather, the question should be whether those ARCs should be able to bypass the retail authority (of the Commission, through its regulation of electric utilities) and bid aggregated demand response resources directly into the wholesale markets.").

[25] *See e.g.*, Ameren Comments at 7 ("They could also include safeguards related to such things as enrollment (addressing slamming/cramming), deceptive advertising practices, and unconscionable contract provisions.").

[26] *See* Office of Enforcement, Federal Energy Regulatory Commission, https://www.ferc.gov/office-enforcement-oe (The Division of Analytics and Surveillance polices market manipulation).

[27] Ameren Comments at 7.

arbitrage where they re-sell energy or capacity that customers haven't paid for.[28] Aggregators simply enable customers to be paid for not using energy during a particular time period. Yet ultimately the Commission can enact any rules necessary regarding aggregators, though few states have elected to do so.

Consumer protection is critical. One benefit of competitive aggregator demand response is that our customer is the Missouri energy consumer, not the utility. The Utilities cite concerns of customer confusion.[29] Aggregators work to educate customers on their energy use. The commercial and industrial customers that are the subject of this proposed modification are sophisticated. Consumers also make non-utility energy decisions regularly, like installing solar panels or a building management system. Customers in other vertically integrated states like West Virginia or Oklahoma understand aggregators, and Missourians will too. Aggregators can develop materials[30] to address customer questions that the utility might field, and aggregators are of course happy to meet with utilities to answer questions. But ultimately if competitive aggregators mistreat their consumers, they will be out of business.

Voltus has entered vertically integrated markets in MISO and SPP without any policy changes. Missouri does not need to be different. The Utilities' claims raise issues that have already been resolved in the wholesale markets.

---

[28] *See* Ameren Comments at 11 ("Customers participating with ARCs that reduce load in response to a market driven event may avoid paying retail rates to compensate the utility (and it's non-participating customers) for the energy or capacity that was procured for that customer's benefit during that event, then that same customer may turn around and sell that energy or capacity that the utility procured on their behalf, but for which the subscribing customer did not pay due to the impact of its reduced load on its retail bill, back to the market.").

[29] Evergy Comments at 7 ("Removing the Opt-Out provision to allow demand response aggregation by ARCs without Commission oversight could confuse customers that may not understand the difference between utility-offered DR programs and the relationship to grid stability for all customers and new unregulated ARCs.").

[30] These could include scripts, mailing materials, or an informational video.

II. The 2222 Processes are No Reason to Delay Modifying the Aggregator Ban.

Demand response aggregation is not tied to the implementation of Order No. 2222. Demand response resources participate in MISO and SPP *today*, and MISO and SPP are not revising their participation models for demand response pursuant to 2222. It is irrelevant that MISO and SPP have not developed their 2222 implementation plans, and there is no threat that utilities will have a "proverbial return to the drawing board" after 2222 is implemented.[31] Order No. 2222 will not affect demand response aggregation. Demand response aggregation would actually provide helpful experience and context for integrating other distributed energy resources and DER aggregators.

Evergy alleges that Order No. 2222 implementation could cause "increased costs to support broader activity on the distribution system [that] may offset" reduced wholesale power supply costs, which it claims make "it is possible that the majority of such benefits will accrue primarily to the ARC and to the retail customers that choose to participate in such activities." This does not apply to demand response, which reduces stress on the system. Reducing system peaks does not increase costs of managing the distribution system. The benefits to all customers are assured by demand response clearing the market clearing and passing the net benefits test.

III. Vertical Integration Does Not Mandate Banning Competitive Aggregators.

Aggregator demand response has clear benefits, distinct from utility programs. This includes significant value paid directly to local businesses: as Voltus previously stated, customers could have earned approximately $100,000 per MW of curtailment during SPP's

[31] Ameren Comments at 10-11 ("As MISO (and SPP) have not yet developed and filed their Order 2222 compliance plans, it would be premature to eliminate the opt-out at this time. Doing so would risk the likelihood that the changes made to the Commission's administrative rules and the electric utilities' tariffs and processes required to accommodate ARC activity in Missouri would not meet the ultimate requirements of the RTOs' Order 2222 compliance plan, and thus require the proverbial return to the drawing board, along with its now redundant cost burden.").

February 2021 energy crisis, while also providing valuable reliability to the grid.[32] Voltus spent years developing this operating reserves technology that enables participation of loads as small as 1 kW. Voltus's own competitors, let alone utilities, have not developed this technology. Additional benefits of aggregators include: (1) working work with smaller customers; (2) offering services utilities don't provide; (3) paying customers penalties; and (4) developing new technologies that are not socialized across the utility's rate base. There is also no evidence that retail demand response is more cost-effective than wholesale programs offered by aggregators.[33]

Ameren relies heavily on the comments on the Organization of MISO States ("OMS") in the opt-out proceeding, which the Missouri Public Service Commission supported. Supporting a state's ability to opt-out is different from the question here, which is whether banning aggregators benefits Missouri consumers. The Commission can use its authority to regulate aggregators to determine how "customer data is protected" while the Commission's authority to design retail programs determines how, "utilities' retail customers are able to participate in a variety of programs. . . and ultimately how the correct level and location of resources are made available to maintain reliability."[34] Utilities can still manage retail programs, but consumers also have choice and competition. Utility control does not outweigh the benefits aggregators provide through competition, technological innovation, and additional reliability.

The "Indiana model" is not preferable. In almost all cases, utility programs are only for capacity—not ancillary services—so this model limits options for market participation (e.g.,

---

[32] *See* Voltus Comments on Commission Order Opening a Working Case, at 6-7, *In the Matter of the Establishment of a Working Case Regarding FERC Order 2222,* Mo. P.S.C. File No. EW-2021-0267 (filed March 31, 2021).
[33] *See, e.g.*, Evergy at 6 (stating MEEIA programs "are designed to maximize benefits to all customers" and claiming without support that "Direct competition with existing and future Company-sponsored programs could . . . weaken the Commission and Company goal of helping lower energy costs for everyone."). ARC demand response does not detract from utility programs. It is additive, serving demand response customers that utilities do not.
[34] Ameren Comments at 6, citing Comments of the Organization of MISO States, Inc., at 10.

aggregators are not able to offer operating reserves). This limitation does not provide the utility with any additional oversight (since utilities already see customer registrations). Working through a utility requires different technical integrations, breaking up the market and making it uneconomic to operate demand response programs. For this reason, these territories have minimal aggregator demand response, and that which exists is limited to large loads.

Aggregators are consistent with free-market principles: consumer choice, customization, and payments based on market clearing prices. Missouri's decision to use a vertically integrated power supply model does not require that it prohibit aggregators. Demand response is not a core utility function. Here, the economics are completely inverted: power generation and supply has high fixed costs and nominal marginal costs, while demand response has high marginal costs to recruit, retain, and dispatch customers. There is no logical correlation for placing demand response under the utility's umbrella—particularly given the utility's overriding self-interest in selling additional electricity [35]—MEEIA notwithstanding.

IV. Conclusion

Voltus asks that the Commission allow demand response aggregators to work with commercial and industrial customers to enable their direct participation in the wholesale markets. Aggregator demand response reduces the power supply costs, while also benefiting the public through additional reliability. For these reasons, national public interest groups and Missouri's Office of Public Counsel support allowing aggregators. Claims that it would be difficult to integrate ARCs are contrary to decades of experience in wholesale power markets and vertically

[35] *See* John Moore, Natural Resources Defense Council, *Major Barrier to Demand Response Needs to End* (Aug. 25, 2021), https://www.nrdc.org/experts/john-moore/major-barrier-demand-response-needs-end. ("Demand response threatens to replace some of those big investments with lower-cost energy conservation so it's no surprise that utilities worked to convince their regulators to preserve their monopoly over it."). *Contra* Ameren Comments at 5 ("Ameren Missouri believes that the best way to take advantage of demand response as a resource is for utilities, under the Commission's supervision, to tailor demand response programs to match the utility's and its customers' needs. . .").

integrated states. The time has come for Missouri businesses to have the same revenue generating opportunities available in Kansas, Illinois, and over a dozen other states.

Respectfully submitted,

_____

Allison Bates Wannop, Esq.
Director of Legal and Regulatory Affairs
Voltus, Inc.
2443 Fillmore St.
San Francisco, CA 94115
(617) 548-6221
awannop@voltus.co

Dated: September 28, 2021