Comments of Voltus, Inc.

Re: Docket No. E999/CI-22-600, I/M/O a Commission Investigation into the Potential Role of Third-Party Aggregation of Retail Customers

Submitted March 13, 2023

INTRODUCTION

Voltus, Inc. (Voltus) appreciates the opportunity to provide comments regarding the above referenced matter pursuant to the Minnesota Public Utilities Commission's (Commission) Notice for Public Comment (Notice) issued December 9, 2022, and the Notice of Extended Comment Period issued February 6, 2023.

Voltus is one of the largest distributed energy resource (DER) platform service providers to residential, commercial, and industrial customers across the United States and Canada. Voltus acts as an Aggregator of Retail Customers (ARC) to enable consumers to profitably participate in various wholesale programs across, among other markets, the MISO footprint. Voltus enables consumers to provide benefits from behind-the-meter assets (*i.e.*, load flexibility, energy storage, distributed generation, and energy efficiency) by delivering energy, capacity, and ancillary services that the grid need to operate. In return, Voltus secures for its customers wholesale market revenues for payment for the use of their assets which participate in wholesale electric markets.

TOPICS FOR CONSIDERATION

There are four topics open for comments in this docket.

1. ***Should the Commission permit aggregators of retail customers to bid demand response into organized markets?***

Yes, the Commission should eliminate the opt out under FERC Order 719 and permit Aggregators of Retail Customers (ARCs) to aggregate the demand response (load flexibility) resources of Minnesota electric consumers into MISO markets because:

MINNESOTA CONSUMERS WILL SUBSTANTIALLY BENEFIT FROM ALLOWING THEM TO ACCESS WHOLESALE MARKETS VIA ARCS

Allowing consumers in Minnesota to participate in the MISO wholesale market through ARCs will significantly increase wholesale market participation by Minnesota consumers, leading to five positive impacts:

- **Lower Costs for All Minnesota Consumers**
- **Direct Revenue for Participating Minnesota Consumers**
- **Enhanced Grid Stability and Reliability**
- **A Cleaner, Lower Carbon Grid**
- **Added Value to Consumers with Integrated and De-risked Wholesale Grid Services Beyond Demand Response**

If the Minnesota Public Utilities Commission (Commission) eliminated the opt out by November 1, 2023, new Minnesota consumer ARC generated resources could be enrolled in the 2024/25 MISO Planning Resource Auction (PRA). A timely decision would allow ARCs time to contract and test new resources before the December-February enrollment period for MISO Load Modifying Resources (LMRs). Adding new LMRs in MISO will lower prices in the MISO auction, saving Minnesota consumers money on their electric bills while also improving the reliability of the Minnesota/MISO grid system.

Other MISO states have recognized the benefits of ARC participation. Illinois and Texas have no prohibitions against ARCs. Michigan recently lifted its partial ban[1] on ARC participation for Commercial & Industrial customers with aggregated loads greater than 1 MW in size. The Michigan Commission is also currently considering lifting the ban on third-party aggregation for all consumers in Michigan. Several municipal and cooperative utilities across the MISO footprint, notably including the City of New Orleans, allow ARC participation.

In addition to these states and cities, MISO's Independent Market Monitor – Potomac Economics supports[2] the benefits of the demand response program's participation in MISO markets.

Outside of MISO, other vertically integrated rate regulated states like Kansas, Oklahoma, Vermont, Virginia, and West Virginia[3] have chosen not to opt out their consumers from wholesale market participation via ARCs. Like these other states, Minnesota would realize sizable benefits in terms of reduced consumer electricity costs, increased reliability, and additional capacity without needing significant costly additional infrastructure.

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[1] Michigan Public Service Commission, December 21, 2022, Order https://mi-psc.force.com/sfc/servlet.shepherd/version/download/0688y000005iClRAAU

[2] 2021 STATE OF THE MARKET REPORT FOR THE MISO ELECTRICITY MARKET, ANALYTIC APPENDIX, Prepared By: Potomac Economics, Independent Market Monitor for the Midcontinent ISO, June 2022, Appendix: Demand Response, Page 153, "DR allows for participation in the energy markets by end users and contributes to reliability in the short term, least-cost resource adequacy, and (c) reductions in price volatility and other market costs. **Even modest reductions in consumption by end-users during high-priced periods can greatly reduce the costs of committing and dispatching generation**", https://cdn.misoenergy.org/2021%20State%20of%20the%20Market%20Analytical%20Appendix625294.pdf

[3] See page 9 at "Regulating Demand Response and Aggregators in the Midwest While Safeguarding Local Jurisdiction: A Guide for State Regulatory Commissions, Electric Cooperatives and Municipal Electric Utilities" by Peter Dotson-Westphalen and Kenneth D. Schisler, CPower, https://cpowerenergymanagement.com/wp-content/uploads/2022/12/Midwest-DR-Framework.pdf

Lower Costs for All Minnesota Consumers

Bringing more ARC provided consumer resources into the wholesale markets directly impacts consumer bills because these behind-the-meter resources, such as demand response, are low-cost market resources that are acquired and capitalized by the consumer for reasons other than to provide a wholesale market product. When demand response clears in capacity, ancillary service, and energy markets it usually displaces the highest-cost (and often dirtiest) assets in the supply stack, which are typically natural gas peaking power plants. The Organization of MISO States (OMS) in its Statement of Principles for Demand Resources[4] notes that "**Robust participation on the demand side of the market can work in real time to signal that a reduction of some electric use is more valuable than the dispatch of more expensive supply.**" Additional demand response participation will increase supply and reduce capacity prices.

A 2018 published paper by the Great Plains Institute (GPI), titled "Consumer Savings, Price, and Emissions Impacts of Increasing Demand Response in the Midcontinent Electricity Market," explored the effects of increasing the use of demand response assets in the MISO's wholesale market.[5] Through the use of a supply and demand market model, GPI estimated the price and emissions impacts of a hypothetical case in which demand response in the region is integrated into MISO's energy supply stack and competes against other generation technologies to meet the energy demand of the region. **The study found significant price reductions and consumer**

[4] Originally adopted by the OMS Board of Directors November 8, 2007 and Amended on February 20, 2015, https://www.misostates.org/images/stories/Filings/Statements-Principles/OMSPrinciples-DemandResources-Rev20Feb15.pdf

[5] See: Consumer Savings, Price, and Emissions Impacts of Increasing Demand Response in the Midcontinent Electricity Market, January 31, 2018 in Carbon Management, Reports & Whitepapers, Authors: Matt Prorok, Steve Dahlke

savings can be achieved through increased demand response dispatch during peak demand hours, especially during high price events. ARCs can deliver these savings to Minnesota consumers.

From a functional perspective, ARCs shift the supply curve to the right[6] in the MISO Planning Resource Auction. In recent auctions, MISO notes that the amount of Unforced Capacity (UCAP) MWs offered into the Planning Resource Auction (PRA) are decreasing. If more than 141,000 MW was offered in 2020-21 PRA, only 136,906 MW was offered in 2022-23[7]. MISO is concerned about this difference of nearly 5,000 MW (4%) in past 2 years.[8] Removing the prohibition on ARCs in Minnesota will allow more UCAP MWs to be offered into MISO's PRA, shifting the unconstrained offer curve to the right and reducing the likelihood of Auction Clearing Price hitting the Cost of New Entry (CONE) value.

ARC-procured consumer behind-the-meter wholesale market resources can also provide ancillary services and energy in addition to capacity, while utility-backed demand response typically only provides capacity. As in the capacity market, these services are typically the lowest-cost resources, so they reduce the market clearing price for ancillary services and can reduce energy pricing as well.

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[6] See MISO presentation titled, "2022/2023 Planning Resource Auction (PRA) Results" April 14, 2022, slide 17 for reference - https://cdn.misoenergy.org/2022%20PRA%20Results624053.pdf

[7] See MISO presentation titled, "2022/2023 Planning Resource Auction (PRA) Additional Detail" May 25, 2022 Resource Adequacy Subcommittee, Revised June 3, 2022 – slide 38 for reference - https://cdn.misoenergy.org/20220525%20RASC%20Item%2004d%20PRA%20Detail624732.pdf

[8] In contrast, PJM's latest auction cleared 2,000 MW less compared to last year's auction, "This auction had **approximately 2,000 fewer megawatts offered than the previous auction**, continuing a three-year trend of decreasing amounts of megawatts offered." https://www.prnewswire.com/news-releases/pjm-capacity-auction-procures-adequate-resources-301757156.html

Direct Revenue for Participating Minnesota Consumers

Taking Commission action now by allowing Minnesota consumers to participate in wholesale markets via ARCs would provide new revenue opportunities for customers. Those revenues would flow directly from MISO through ARCs who would register new Minnesota consumer market participants in MISO wholesale market programs to those customer participants. Minnesota businesses or even residential consumers who would participate through ARCs in the MISO market receive checks in their hand, not credits on their retail bill. They can use the money for anything they need to support their business or home.

ARCs work as MISO Market Participants. They can package small residential and commercial customer behind-the-meter resources that may be too small to qualify for utility programs. Voltus has contracted locations as small as 4 kW in MISO. In fact, according to US Energy Information Administration data (2018 EIA CBECS[9]), more than 70% of all commercial facilities are less than 10,000 square feet with a peak demand of less than 100 kW. Voltus supports many of these types of customers (e.g., local grocery stores, school systems, convenience stores, retail outlets) and provides them access to wholesale markets in every market in the US and Canada. These small and medium sized businesses aren't being offered an opportunity to make money with their load flexibility by utilities in Minnesota. This is a huge missed opportunity that denies these consumers vitally needed revenues that will improve their financial health and even in some instances be the difference between staying in business or closing their doors.

[9] Commercial Buildings Energy Consumption Survey, https://www.eia.gov/consumption/commercial/data/2012/index.php?view=consumption#c13-c22

Like any other business, ARCs like Voltus will work competitively to sign up as many customers as possible and to provide those customers as many options as possible to earn revenues. One way that ARCs can reach more customers is by offering more paths to market, including stacking the MISO Emergency Demand Response (EDR) and Operating Reserves programs on top of the Load Modifying Resources (LMR) program that MISO offers.

Value stacking (providing capacity on top of energy and/or ancillary services) of Minnesota consumers' behind-the-meter resources provides those consumers with even more revenue opportunities and grid benefits. Value stacking is optionality – providing more options on the table just in case a market need arises. Voltus has experience in value stacking not only in MISO but in other markets. ARCs stack capacity benefits in wholesale electric markets by enrolling eligible customers in ancillary services and energy markets. Consumers then can add those market benefits to those benefits they derive from such MISO programs as LRM. The market benefits when the same resource can provide multiple services. ARCs can best provide these value stacking services to Minnesota consumers.

In the current MISO construct, 1 MW of LMR can not only provide capacity benefit but additional benefits such as ancillary services[10] if the situation arises in the MISO market. Specifically, since MISO's market clearing engine is co-optimizing for energy and ancillary

[10] Source – See page 12 of 98, MISO BPM – 026, Demand Response Business Practices Manual "**In addition to providing Energy**, DRR-Type I and DRR-Type II resources that are technically qualified to do so **may provide one or more forms of Operating Reserve Service**."

services, should a situation[11] arise for a resource to provide contingency reserves (spinning and supplemental reserves), an LMR resource will be ideally positioned to provide those reserves.

The Minnesota's distribution utilities are unlikely to be able to do value stacking for consumers as can ARCs. Take Xcel's Demand Response programs in the last decade, as shown in the Table 1-4, below. There is no growth in Load Reduction MWs for both Saver's Switch for Residences and Electric Rates Savings programs. This lack of growth in retail programs is impacting the LMR for Emergency wholesale programs at MISO.

Table 1-4: Xcel's Demand Response program Load Reduction MWs (2010-2022)

Xcel Program	Customer Type	Retail Program Type	MISO Program Type	2010[12] (MW)	2012[13] (MW)	2022[14] (MW)
AC*Rewards	Residential/ Small Business	Direct Load Control	LMR for Emergency			19
Saver's Switch for Business	Business	Direct Load Control	LMR for Emergency	25	46	
Saver's Switch for Residences	Residential/ Small Business	Direct Load Control	LMR for Emergency	366	291	345
Electric Rates Savings	Commercial, Industrial	Interruptible Rate	LMR for Emergency	496	524	270
Peak Day Partners	Commercial, Industrial	Interruptible Rate	N/A	19	Discontinued	9
			TOTAL	906	861	643

[11] MISO has a market restriction for Demand Response Resources that provide spinning reserves, "DRRs cleared for Spinning Reserve Service cannot exceed 40% (on a MW basis) of the market-wide total for cleared Spinning Reserve." Ibid

[12] Xcel's Compliance Filing submitted in DOCKET NO. E999/CI-09-1449 on November 1, 2012

[13] ibid

[14] Voltus Information Request 1, Attachment B, 4 of 5.

Enhanced Grid Stability and Reliability

MISO is concerned about the increase in the frequency of high grid stress events[15] that may impact system reliability as evidenced by the storms the MISO system experienced this winter.[16] But MISO cannot call upon additional demand response to mitigate these events due to ARC prohibition in a number of MISO states including Minnesota. According to MISO, 3,000 MWs of available LMRs or load flexibility through consumer demand response allowed MISO[17] to keep reliable operations under increased load and support its neighbors during Winter Storm Elliott in December 2022. Compare that 3,000 MW to PJM's 7,000 MW of estimated demand response available[18] on December 24, 2022.

Additionally, where ARCs are allowed, Voltus helped minimize storm impact on grid operations by reducing[19] 11.6 GWh across the US and Canadian markets.

Minnesota utility data suggests that the Commission can no longer rely on utility demand response programs alone to provide load flexibility during MISO grid stress reliability events. Based on a data request response[20] from Minnesota Power, the utility has initiated its demand

[15] In MISO parlance these events are called Max Gen Alerts or Maximum Generator Warnings. They are times of high grid stress caused usually from severe storms or heat waves where load on the MISO grid approaches available generation resources available to meet that load.
[16] See https://www.powermag.com/arctic-blast-roiling-reliability-in-tva-miso-spp-pjm/
[17] Overview of Winter Storm Elliott December 23, Maximum Generation Event, Reliability Subcommittee, January 17, 2023 - Slide 12, https://cdn.misoenergy.org/20230117%20RSC%20Item%2005%20Winter%20Storm%20Elliott%20Preliminary%20Report627535.pdf
[18] Estimated Demand Response Activity December 23 and 24, 2022, Demand Response Operations, January 5, 2023, Slide 5, https://www.pjm.com/-/media/markets-ops/demand-response/estimated-demand-response-december-23-24-2022.ashx
[19] Voltus press release, https://www.voltus.co/press/voltus-helps-mitigate-impact-of-winter-storm-elliott
[20] Minnesota Power data request response, "There have been **three MISO Max Generation Events** where Minnesota Power utilized demand response programs during the MISO Emergency Event Step II, which were January 30, 2019; June 10, 2021; and December 23, 2022."

response programs only three times in 2019, 2021, and 2022 respectively, during MISO system emergencies. Another utility, Otter Tail Power,[21] did not activate its demand response programs during Winter Storm Elliott.[22]

As to the performance of consumers participating via ARCs in MISO, Voltus exceeded[23] the LMR commitment during the June 10, 2021, demand response event. There are reliability benefits to MISO and Minnesota if ARCs are allowed to provide additional load flexibility to MISO through customer ARC participation.

A Cleaner, Lower Carbon Grid

Experience from grid operators in California and New York and technology companies like Google suggests load flexibility is key in meeting clean energy goals. Like Minnesota, California aims for 100% clean energy and recognizes[24] that load flexibility is key to managing the variability from renewables. Evidence[25] from California ISO's September 6, 2022 event suggests that demand response was key in preventing a system blackout. According to a Brattle report[26]

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[21] Otter Tail Power Corporation data request response, "However, preliminary information indicates that Otter Tail's Day Ahead forecasts were reasonable and sufficient when compared to the Real Time during this period. As such, its **control program did not perceive a need to interrupt customers' service**."

[22] No data is available for Xcel Energy as they refused to provide Voltus data when requested.

[23] Voltus press release, https://www.voltus.co/press/updated-voltus-exceeds-its-commitment-to-provide-needed-demand-relief-to-the-miso-grid-during-june-extreme-weather-event

[24] See California Energy Commission, "To ensure grid reliability, power available from renewable resources needs to match the amount of electricity used and time used. The most cost-effective way to accomplish this is through automated load flexibility." https://www.energy.ca.gov/programs-and-topics/topics/load-flexibility

[25] See Ethan Howland of Utility Dive story, "CAISO avoided outages in September heat wave – a 'remarkable outcome' – with 4 GW storage, conservation", https://www.utilitydive.com/news/caiso-california-iso-outages-heat-wave-report/635806/

[26] Presentation titled, "New York's Evolution to a Zero Emission Power System" JUNE 22, 2020, PREPARED FOR NYISO Stakeholders, MODELING OPERATIONS AND INVESTMENT THROUGH 2040 INCLUDING ALTERNATIVE SCENARIOS, Slide 22, https://www.nyiso.com/documents/20142/13245925/Brattle%20New%20York%20Electric%20Grid%20Evolution%20Study%20-%20June%202020.pdf/

presented to the New York ISO, demand response is needed for short-term balancing and capacity for New York to meet its 100% clean energy goals. Large Energy Buyers like Google are shifting data center demand to durations when renewable energy generation is at its peak.[27]

Minnesota has an exceptional challenge when it comes to increasing levels of renewable generation and the integration of those renewables into the grid. Minnesota has installed 30% more renewable generation[28] since the last ARC proceeding in Docket number CI-09-1449. The Minnesota legislature also passed this year a 100% Clean Energy standard by 2040.[29] Allowing consumers to participate in the MISO wholesale market via ARCs enables enhanced levels of operating reserves in MISO zone 5[30] to support the higher levels of renewable penetration in Minnesota to comply with the state's clean energy requirements. The MISO Market Monitor has validated[31] this need for additional operating reserves to support enhanced renewable integration.

As for providing these reserve resources in Minnesota to support renewable growth, Voltus has experience in bringing resources quickly to market in Michigan, Illinois, and other MISO Local Resource Zones. In Southern Illinois, for example, Voltus was able to develop 800 MWs of new demand resources over a short two years of operation – representing close to 10% of the regional

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[27] "6 Ways Large Energy Buyers Can Transform the US Electrical Grid," World Resources Institute website - https://www.wri.org/insights/how-large-energy-buyers-modernize-power-grid-us

[28] Source - EIA Data, https://www.eia.gov/state/analysis.php?sid=MN#38

[29] Governor Walz Signs Bill Moving Minnesota to 100 Percent Clean Energy by 2040, https://mn.gov/governor/news/?id=1055-563453

[30] Minnesota is part of Operating Reserve Zone 5. See OMS presentation titled "Use of "Zones" and "Regions" at MISO," OMS CAPCom, January 11, 2021, Slide 7, https://www.misostates.org/images/stories/meetings/Cost_Allocation_Principles_Committee/2021/MISO_Zones_and_Regions.pdf

[31] 2021 State of the Market report, Analytical Appendix, page 10, "To the extent that increasing load and unit retirements reduce the capacity surplus in MISO, **more frequent operating reserve shortages will play a key role in providing long-term economic signals to invest in new resources**." https://cdn.misoenergy.org/2021%20State%20of%20the%20Market%20Analytical%20Appendix625294.pdf

load. Voltus and other ARCs can ramp up quickly to support renewable integration for Minnesota's 100% clean energy requirements.

ARCs Provide Added Value to Consumers with Integrated and De-risked Wholesale Grid Services Beyond Demand Response

ARCs may add operating reserves and energy market participation to their portfolio of services for their customers. Distribution utilities typically only offer fixed interruptible tariff services to customers. It is often unclear as to the extent that these utility interruptible tariffs even actually provide effective services to the wholesale market as many of these retail tariffs are only used for local distribution system support.

By ARCs value stacking services, offering one provider across all zones in the MISO market and offering one software integration to automate the use of their behind-the-meter resources, a significant number of new consumers will chose to participate in wholesale markets from Minnesota. A big box store such as Walmart does not want to deal separately with multiple interruptible distribution tariffs from an array of Minnesota utilities. They would much rather negotiate with a competitive ARC and work through one market integration platform in all of MISO. This is especially true where an ARC can stack value for the consumer and provide substantially more revenue to the consumer through ARC participation.

As discussed above, this stacking of values provides typically higher returns to consumers who choose to participate in wholesale markets with ARCs under competitive contracts rather than with distribution utilities through non-competitive fixed tariffs that may or may not even be providing wholesale market services.

This ability of ARCs to bring value to their customers and outperform utility interruptible tariff based programs is evidenced by Voltus' performance in Michigan. In Michigan Voltus has secured 100 MWs of demand response in just two years from Michigan choice customers. That's 5% of the approximately 2,000 MWs of peak demand from choice customers. In contrast, all Michigan utilities have a combined 600 MWs of demand response capacity in an approximately 20,000 MW system peak, which they've had decades to acquire.

ARCs also de-risk the wholesale services for consumers who chose to participate in those services. Specifically ARCs shield their customers from MISO non-performance penalties, whereas all Minnesota ratepayers pay the penalty if the utility's offered LMR is unavailable during a MISO emergency event. Unlike typical utility programs, ARCs are able to assume the burden of financial penalties for demand response participation by managing the risk of asset non-performance at a portfolio level. Taking on such risk eliminates one of the most significant barriers to customer participation in demand response programs.

RETAIL MONOPOLY UTILITY OBJECTIONS TO CONSUMER PARTICIPATION THROUGH ARCs IN WHOLESALE MARKETS ARE MISPLACED AND ANTI-COMPETITIVE

Retail monopoly utilities consistently pose arguments against consumer participation in wholesale markets through competitive third-party aggregators. If these arguments are examined from a consumer benefit perspective it becomes evident that none of them have merit. The two primary arguments often heard from utilities are: 1) Consumer participation in wholesale markets through ARCs will conflict with retail demand response and interruptible programs; and 2) The planning function of the utility will be compromised and procurement of MISO Zonal Resource Credits impaired.

Conflicts with Retail Programs and the Double Compensation Issue

Voltus has extensive experience in MISO and other ISOs with procedures and processes that prevent conflicts between retail programs and wholesale market products. The concept of dual registration (same MW registered for multiple programs but dispatched at different times) of market products has been addressed by FERC. Specifically, the dual registration of behind-the-meter resources in wholesale markets is allowed under FERC Order 2222 and FERC Order 841 as long as double compensation and conflicts in resource use are adequately addressed.

The first issue that FERC was concerned with in these orders was paying a resource twice (dual or double compensation) for providing the same wholesale service at the same time under two registrations- potentially one under an ARC and the other via a distribution utility program.

With respect to the dual compensation issue the Michigan Commission recently held:

"MISO's aggregation tariff has in place a process to identify and prevent double counting, which the Commission finds sufficiently addresses and ensures that double counting and double compensation is avoided such that moving forward with lifting the DR aggregation ban for C&I customers is advisable." P. 37 Michigan PSC, U-21099 *et al., December 21, 2022.*

In addition to the double counting issue through double market registration that MISO will review, there is the issue of conflicting resource use between consumers who participate with ARCs in the MISO wholesale market and that customer also participating in a retail interruptible program used by the utility for distribution related issues. The Minnesota PUC, as the Relevant Electric Retail Regulatory Authority (RERRA), will have 10 Business Days under MISO's tariffs to determine whether a customer is participating in a conflicting retail program before MISO approves an Aggregation application.[32] If it is determined that a Minnesota consumer is

[32] See page 32 of 98, ibid, "MISO will automatically accept a DRR's registration following the ten-day deadline, **unless the RERRA objects** and **unless the approval is subject to RERRA** review with respect to a utility with

participating in both a retail utility tariff such as an interruptible rate and a MISO wholesale program via an ARC, conflicts can be resolved with the provision of adequate communication between the consumer and its distribution utility. The Oklahoma Corporation Commission recently established such communication protocols for customers in that situation.[33]

The Planning Function of the utility will NOT be compromised and procurement of MISO Zonal Resource Credits will NOT be impaired.

Lifting the ban on ARCs does not disrupt Minnesota utility's capacity planning efforts and the Zonal Resource Credits (ZRC) procurement. Minnesota utilities and ARCs follow the same capacity signal at MISO. The MISO Planning Reserve Margin Requirement (PRMR) is based on peak load. If a utility consumer signs up with Voltus, that load is added back to the PRMR[34]. Hence the utility where that load resides does not have to replace that load with an additional ZRC procurement. Thus, the planning function of Minnesota's utilities will not be compromised by Minnesota consumer participation in the MISO market via ARCs.

When Zonal Resource Credits are created due to ARC participation with consumers, they are sold on the secondary market for utilities and other market participants who need them to meet their PRMR. Hence Minnesota utilities will not be deficient in ZRCs if ARCs contract with retail consumers because there will be a secondary market for the additional ZRCs created from these Minnesota consumers. In lifting the ban on ARCs in Michigan, the Michigan Public Service

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sales equal to or less than 4 million MWhs/fiscal year, **in which case failure of the RERRA to confirm within ten business days will result in auto rejection**"

[33] See: Final Order 731145, Cause No. PUD 202100172, ECF Case No. PUD2021-000172, Before the Corporation Commission of the State of Oklahoma, January 5, 2023.

[34] See Page 9, MISO Peak Forecasting Methodology Review, "Reductions associated with LMRs should be added back to the historical load values prior to the analysis."
https://cdn.misoenergy.org/Peak%20Forecasting%20Methodology%20Review%20Whitepaper173766.pdf

Commission noted[35] that demand response resources provided by consumers participating in MISO via ARCs can participate in all of the 3 options afforded by MISO for utilities to meet their PRMR.

All Minnesota Consumers Pay for the Cost to Maintain Retail Interruptible Programs, but Consumer Participation in Wholesale Markets Through ARCs is Totally Market Funded

ARCs like Voltus pay for and maintain dedicated sales, operations, and markets teams to assist consumers in all aspects of wholesale market participation. This includes facility and resource assessment, metering and telemetry, market product selection, registration, event notification, and market settlement and payment. If monopoly utilities perform any of these functions under their interruptible rate tariffs, those functions are performed by ratepayer funded utility personnel with rate based utility equipment all subsidized by Minnesota utility customers. These anti-competitive practices clearly put the ARCs at a competitive disadvantage as they have no ratepayer revenue source to tap for these business expenses.

Despite this competitive disadvantage, consumer wholesale market assets managed by ARCs typically perform better than utility interruptible tariff assets because ARCs possess superior wholesale market experience and a dedicated team and deliver more consumer value. ARCs create for their customers highly achievable and deliverable wholesale market product plans. Unlike utilities, ARCs have both positive (profits) and negative (penalties) motivators to ensure

[35] Michigan PSC December 21, 2022, Order Page 35, "currently, MISO LSEs can meet their resource adequacy obligations by securing sufficient ZRCs through a combination of Fixed Resource Adequacy Plans (FRAPs), self-supplied MW, and purchasing capacity from the MISO PRA. **DR resources backed by ARCs can be utilized under all three methods**." https://mi-psc.force.com/sfc/servlet.shepherd/version/download/0688y000005iClRAAU

that they can maximize customer acquisition, optimize customer participation, and deliver positive benefits to both the consumers they serve but also the markets where they operate.

OTHER TOPICS

2. Should the Commission require rate-regulated electric utilities to create tariffs allowing third-party aggregators to participate in utility demand response programs?

Voltus conditionally supports the Commission requiring rate-regulated electric utilities to create tariffs allowing third-party aggregators to participate in utility retail demand response programs as long as it is supplemental to the Commission eliminating the opt out for wholesale aggregation and allowing third-party aggregators to directly facilitate Minnesota consumer participation in MISO wholesale market programs. Utility tariffs should not create barriers to dual registration by Minnesota consumers in utility retail programs and ARC facilitated wholesale market programs where consumer resources are registered in each program but dispatched at different times for different purposes.

3. Should the Commission verify or certify aggregators of retail customers for demand response or distributed energy resources before they are permitted to operate, and if so, how?

No. Voltus believes the Minnesota Public Utilities Commission need not verify nor certify aggregators of retail customers for demand response in wholesale markets as there are sufficient requirements and protections in the MISO tariffs and business practice manuals to more than sufficiently regulate third party competitive aggregators. Further, given that third party aggregators are competitive non-utility entities operating wholly in FERC jurisdictional wholesale markets, it is unclear that the Minnesota Commission has sufficient statutory authority or jurisdiction to enact such regulations.

As a FERC jurisdictional market operator, MISO has sufficient provisions to oversee the activity of ARCs operating as a jurisdictional wholesale market participant. Further, Minnesota state and federal consumer protection laws and contract laws provide customers of ARCs with sufficient remedies to provide adequate protection for consumers even beyond those imposed by MISO. As a business entity doing business in the state of Minnesota, ARCs will be subject to state and federal laws on consumer protection, false advertising, deceptive trade practices, and anti-trust. So there is sufficient regulation in place to ensure that Aggregators act in a legal and responsible manner.

It should be noted that only one state that currently allows ARCs to aggregate consumers' resources into FERC jurisdictional wholesale markets provides for any type of verification or certification of ARCs.

To the extent that the Commission and utilities are concerned about protecting the distribution system, the Commission has full power to do so in the retail tariffs that it approves for its jurisdictional utilities related to the terms of service taken by customers of those utilities. Voltus fully recognizes that ARCs are aggregators of retail utility customers. To the extent that those customers take retail distribution service from a state regulated utility those customers are subject to the terms of the retail distribution tariffs under the Minnesota Commission's jurisdiction.

4. Are any additional consumer protections necessary if aggregators of retail customers are permitted to operate?

No. Voltus believes that additional consumer protections are unnecessary. As noted above, ARCs are subject to state and federal laws on consumer protection, false advertising, deceptive

trade practices, and anti-trust. Michigan recently held that no such additional protections are necessary for consumers with aggregated loads of 1 MW or more and will hold further proceedings to determine if any additional protections are necessary for smaller consumers.

CONCLUSION

The benefits to Minnesota consumers from allowing them to participate with ARCs in the MISO wholesale market are substantial. Not only will the consumers who directly participate reap substantial market revenues from their participation, those non-participating consumers will also benefit from lowered market prices in MISO. In addition, all Minnesotans will benefit from enhanced MISO grid reliability and reduced carbon from the facilitation of higher penetration of renewable resources into the MISO grid.

The Minnesota Commission should recognize that third party aggregation is in fact already authorized by FERC in Minnesota and all other states that are part of a wholesale organized market for all other distributed energy resources (DERs) such as distributed generation, battery storage and energy efficiency. There is no allowance by FERC for a state opt out for these other consumers behind-the-meter resources[36]. Additionally, the District of Columbia Circuit Court of Appeals decided[37] on July 10, 2020, in favor of FERC in Order 841 and 841-A, which removed

[36] See para 22 of FERC Order 2222-A issued March 18, 2021, 174 FERC ¶ 61,197, "**we decline to extend this opt-out to demand response resources that participate in heterogeneous distributed energy resource aggregations**—i.e., those that are made up of different types of resources including demand response as opposed to those made up solely of demand response. The opt-out will continue to apply to aggregations made up solely of resources that participate as demand response resources, consistent with our regulations." https://www.ferc.gov/sites/default/files/2021-03/E-1.pdf

[37] D.C. Circuit decision, https://cases.justia.com/federal/appellate-courts/cadc/19-1142/19-1142-2020-07-10.pdf?ts=1594395053

opt out for Electric Storage Resources. There is no opt out for behind the meter storage resources in MISO.

Hence consumer demand response or load flexibility should be treated no differently than these other resources. They all are capable of providing market services to MISO and, most importantly, significant benefits to all Minnesota consumer.

Respectfully submitted,

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