April 10, 2023

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission 121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

PUBLIC DOCUMENT

RE: PUBLIC Reply Comments of Voltus, Inc. Docket No. E999/CI-22-600

Dear Mr. Seuffert:

Attached are the PUBLIC Reply Comments of the Voltus, Inc. and the Testimony of Rao Konidena, consultant to Voltus, in the following matter:

In the Matter of a Commission Investigation into the Potential Role of Third-Party Aggregation of Retail Customers.

Voltus' Reply Comments provide the Commission with responses to the comments made by parties to this proceeding on or before March 13, 2023. The Testimony of Mr. Konidena provide evidence rebutting assertions made by various parties to this proceeding in those originally filed comments. Voltus is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ Jon Wellinghoff, Chief Regulatory Officer

JW/as Attachments

Reply 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 April 10, 2023

INTRODUCTION

Voltus, Inc. ("Voltus") by these **Reply Comments** will respond to the parties who have filed Comments with the Commission in this Docket. These **Reply Comments** will address the policy, legal and procedural issues raised by parties in this proceeding who oppose allowing Minnesota consumers to access wholesale electricity markets with the assistance of Aggregators of Retail Customers (ARCs). In addition, attached to these **Reply Comments** is the **Testimony of Rao Konidena**, consultant to Voltus in this proceeding. Mr. Konidena was formerly a MISO planning engineer and is a highly experienced MISO market expert. His testimony provides this Commission with substantial evidence rebutting the operational and market allegations of parties to this proceeding who oppose Minnesota consumer ARC supported participation in the MISO market.

POLICY ISSUES

Function of ARCs

There seems to be considerable confusion among the commenters in this proceeding regarding the function of an ARC.

An ARC is a provider of services to consumers who may have a number of energy resources behind their meter for which the consumer may have an interest in selling into a wholesale electric market. These energy resources, called Distributed Energy Resources or DERs, take the

form of load flexibility or control (also called demand response), energy storage (chemical or thermal, stationary or associated with an electric vehicle or EV) and distributed generation (ranging from rooftop solar to backup generation). An ARC is a broker and facilitator of the aggregation, registration, delivery and settlement of these consumer owned and operated resources into wholesale electricity markets such as MISO. These resources can be used to provide a full array of energy services in those wholesale markets. Demand response is not a wholesale market service, per se. It is instead, as indicated above, an alternative name for the consumer resource of load flexibility or load control.

All of these behind the meter DERs are capable of providing an array of services to the wholesale energy markets. FERC made clear that demand response resources, which are the subject of this docket, have been utilized to provide the full range of energy services to wholesale markets.

Specifically, FERC has indicated:

> *"Also, the Commission has issued numerous orders over the last several years on various aspects of electric demand response in organized markets, with the goal of removing unnecessary obstacles to demand response participating in the wholesale power markets of RTOs and ISOs. To that end, some of these orders approved various types of demand response programs, including programs to allow demand response to be used as a capacity resource and as a resource during system emergencies, to allow wholesale buyers and qualifying large retail buyers to bid demand response directly into the day-ahead and real-time energy markets and certain ancillary service markets, particularly as a provider of operating reserves, as well as programs to accept bids from ARCs. The Commission also has approved special demand response applications such as use of demand response for synchronized reserves and regulation service. The theme underlying the Commission's approval of these programs*

> *has been to allow demand response resources to participate in these markets on a basis that is comparable to other resources."*[1]

So demand response or load flexibility has been and continues to be used in the wholesale electricity markets under FERC's jurisdiction to provide energy, capacity and the full array of ancillary services. ARCs broker those services to the wholesale market as the agent for the consumer who owns and operates the resource which provides the services.

As indicated in the above quote from FERC Order 719, FERC has supported the participation of demand response resources in wholesale markets *on a comparable basis to other resources*, i.e. supply-side resources, since the issuance of Order 719 in 2008. ARCs perform that function. Utilities typically do not. It is generally not cost effective for utilities to aggregate and broker customer load flexibility and other DERs to participate in wholesale markets. Utility transaction costs are usually too high. And utilities are not sufficiently proficient in stacking value in wholesale markets with consumer resources to ensure cost effective programs. As proof of this point, in Minnesota the Brattle Group determined in a study commissioned by the Ottertail Power that none of its demand response programs are cost effective.[2]

ARC's, on the other hand, have no alternative source of revenue to subsidize their consumer aggregation business. As a competitive provider of services they must make certain that their activities provide sufficient revenues to continue in business or they will go bankrupt. Those revenues must come from the wholesale market services that they broker and facilitate.

[1] Federal Energy Regulatory Commission, Docket Nos. RM07-19-000 and AD07-7-000, par. 18, p. 10-1, October 17, 2008.
[2] Docket No. E017-RP-21-339, Appendix H: Brattle Group Study on Demand Response.

Jurisdiction and the Role of This Commission

Given this understanding of the function and business role of an ARC, what is the role and jurisdiction of a state commission. The confusion regarding the role of state commissions under FERC Order 719 is exemplified by the Dakota Electric Association, who state in their comments filed in this docket:

> "However, Order 719 reserved the question of retail aggregation to the individual state commissions…"[3]

A reading of FERC Order 719 indicates FERC did not did simply reserve this question for state commissions. What FERC did do was to ask states to determine if there is a state law or regulation which to prohibits customers from participating with ARCs in wholesale markets. Specifically, Order 719 states:

> *"…(iii) Aggregation of retail customers. Each Commission-approved independent system operator and regional transmission organization must permit a qualified aggregator of retail customers to bid demand response on behalf of retail customers directly into the Commission-approved independent system operator's or regional transmission organization's organized markets,* ***unless the laws and regulations of the relevant electric retail regulatory authority expressly do not permit a retail customer to participate****."*[4]

Whether there are duly enacted Minnesota law or regulations that expressly prohibit a retail electric customer from participating in wholesale markets with a competitive third party aggregator or ARC is a legal question for this Commission to determine and the extent of its inquiry under FERC Order 719. FERC provided no authority to the states beyond that question. And the exclusive jurisdiction of FERC's authority over retail customers who chose to bid their DER behind-the-meter assets into wholesale electric markets, with or without the assistance of

[3] Dakota Electric Association Comments, p. 2.
[4] Order 719, Docket Nos. RM07-19-000 and AD07-7-000, § 35.28, p. 311-312, October 17, 2008.

an aggregator has been settled by the U.S. Supreme Court.[5] Thus this Commission's inquiry should begin with its authority or the authority found in Minnesota statute to prohibit a retail electric customer from participating in wholesale markets with and ARC.

None of the commenters in this docket cite any Minnesota statutes which provide that express authority. A review of those statutes fails to elicit any. The Commission may then look to its general statutory powers to regulate electric utility rates and services. It is specifically given the power by statute to promulgate rules.[6] However, this Commission has never promulgated a rule related to Order 719. It instead opened an investigation in Docket No. E999/CI-09-1449, and issued an Order prohibiting ARCs in Minnesota. In its Order in that docket, issued May 18, 2010, the Commission stated as its reasoning for prohibiting ARCs from doing business in Minnesota:

> "[T]he Minnesota Public Utilities Act creates a comprehensive regulatory structure to ensure that all state providers of electrical service have just and reasonable rates and just and reasonable terms and conditions of service.[7] It is unclear at this point how ARCs would fit into that regulatory structure and what mechanisms the Commission would use to ensure that their actions and practices met the "just and reasonable" legal standard and served the public interest."[8]

This Order appears to premised on a questionable assertion. That being that this Commission has jurisdiction over ARCs as providers of electrical service. An legal analysis conducted by the Minnesota Department of Commerce submitted in its comments suggests the contrary. And as indicated above the roles and function of an ARC is not to provide electrical service to a

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[5] *Federal Energy Regulatory Commission v. Electric Power Supply Association* (*EPSA*),136 S. Ct. 760 (2016).

[6] **216A.07 COMMISSIONER POWERS AND DUTIES.**

Subd. 5.**Rulemaking.** The commissioner shall make substantive and procedural rules to implement the provisions of this chapter and chapters 216B and 237. Rules adopted under this authority shall be promulgated pursuant to the Administrative Procedure Act and shall have the force and effect of law.

[7] Minn. Stat. Chapter 216B; Minn. Stat. §216B.03

[8] Docket No. E-999/CI-09-1449.

consumer, but to act as a broker and facilitator of providing the consumer's wholesale electric services, which are purely FERC jurisdictional, into the wholesale electric market.

The Minnesota Department of Commerce legal analysis seems to be correct. The Minnesota statutory definition of a public utility:

> *"Public utility" means persons, corporations, or other legal entities, their lessees, trustees, and receivers, now or hereafter operating, maintaining, or controlling in this state equipment or facilities for furnishing at retail natural, manufactured, or mixed gas or electric service to or for the public or engaged in the production and retail sale thereof…"*[9]

This statute would, when correctly read with Minnesota Statutes § 216B.38, which defines electric service as:

> "Electric service—means electric service furnished to a customer at retail for ultimate consumption;"

clearly exclude an ARC as a entity who furnishes electric service at retail. The Department of Commerce ultimately concludes after conducting its legal analysis of an ARCs status under Minnesota statutes and case law that:

> "It is difficult to think of ARCs as providing anything to their customers "for consumption." Rather, the customers are providing DR to the ARC, which the ARC is able to sell into the wholesale market.
>
> Further, it would be impossible for an ARC to act as a utility in serving an exclusive territory because the ARC does not provide electricity that is necessary for the generation of DR. An ARC necessarily provides a service that is ancillary to the electric service that its customers receive from a utility."[10]

Given there is no specific Minnesota statute that prohibits consumers in Minnesota from participating in wholesale markets, this Commission never promulgated a rule to prohibit such

[9] Minn. Stat. Chapter 216B; Minn. Stat. §216B.02, *subd. 4*
[10] Minnesota Department of Commerce, Comments, p. 5

activity and the legal analysis by the Minnesota Department of Commerce concluded that this Commission has no jurisdiction over ARCS, this Commission's required analysis under FERC Order 719 should be at an end.

CONCLUSION

ARCs provide benefits to wholesale markets and thereby to not only the consumers that they assist in participating in those markets, but to all consumers who are impacted by the prices those markets pass on to retail customers. FERC has substantiated this in dozens of orders it has issued on demand response resources in wholesale markets.

ARCs provide a service to retail electric customers as a broker and facilitator of consumer participation in those wholesale markets. It was held by the U.S. Supreme Court that FERC has exclusive jurisdiction over ARC as providers of that wholesale service and the consumers who, with their ARC facilitators, are participants in those wholesale markets. This Commission has a limited role under the parameters set forth by FERC in Order 719. That role extends to determining is any state laws or regulations prohibit a consumer in Minnesota from participating in a wholesale market through an ARC. At this point in time, there appear to be none.

Voltus recognizes that with the participation of ARCs in facilitating wholesale participation by Minnesota consumer in the MISO market that there may be communication and coordination issues to resolve. That communication and coordination is outlined in the following testimony of Voltus consultant, Rao Konidena together with his rebuttal to certain substantive issues raised by other parties in this proceeding.

Respectfully submitted,

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TESTIMONY OF RAO KONIDENA
On Behalf of Voltus, Inc.
Docket No. E999/CI-22-600

Q. Please state your name, employer, title, and business address.

A. My name is Rao Konidena. I am the President of Rakon Energy LLC. My business address is Roseville, MN, 55113.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of Voltus, Inc.

Q. Please describe your current position and provide your education and professional experience related to this testimony.

A. I have been an independent energy consultant for the past five years primarily focusing on MISO practices and policy. Before that, I was employed by Midcontinent Independent System Operator ("MISO") from September 2003 through May 2018. I started as an Applications Engineer for Planning, where I ran Loss of Load Expectation ("LOLE") studies used in the Planning Reserve Margin Requirement. I gained familiarity with MISO's Planning Resource Auction and Module E Capacity Tracking (MECT) tool in various roles at MISO. Specifically, in the Resource Forecasting department, I used peak demand and annual energy data from the MECT to run the resource forecasting model called the Electric Generation Expansion Analysis System (EGEAS), which is familiar to the Minnesota Department of Commerce.

Before leaving MISO, my title was Principal Advisor in Transmission Asset Management. In that role, I was the Project Manager for the load forecasting report published by Purdue University's State Utility Forecasting Group. I collected, reviewed and analyzed Load Modifying Resources data from internal MECT subject matter experts for Purdue University experts to determine gross and net load forecasts for MISO Local Resource Zones.

Q. Please describe the purpose of your testimony.

A. My testimony focuses on four areas:

- First, my testimony corrects the characterization set forth in the comments filed by the Minnesota Department of Commerce regarding the MISO's Planning Resource Auction and the role of Aggregators of Retail Customers.
- Second, I conduct an analysis of Xcel's Demand Response programs which shows that Xcel is barely meeting the 400 MW of Commission's Demand Response requirement by the end of 2023.
- Third, I show that Xcel's assertion of procuring peaking resources if ARCs are allowed is a false choice for the Commission.
- Fourth, I rebut Xcel's claims about resource planning and cost shifts if ARCs are allowed.

I also have 2 Exhibits.

Q. What are the specific characterizations of the Minnesota Department of Commerce comments raise concerns for you?

A. Mr. Steve Rakow, writing for the Minnesota Department of Commerce, mentions "lost capacity" twice[1] in his comments, implying that capacity resources will be "lost" to Minnesota retail distribution utilities if ARCs are allowed. More specifically, the Department of Commerce comments lead the Commission to believe that by allowing ARCs to assist customers in Minnesota to access

[1] Minnesota Department of Commerce Comments, page 20, "The first result is that customers leave the utility-run DR program, causing the utility to lose accredited capacity. The **lost capacity** would have to be replaced." And "We know the **lost capacity** would have to be replaced because the utilities' existing capacity surpluses will disappear in the near future as large coal plants and other resources retire."

wholesale markets, Minnesota utilities will lose Load Modifying Resource (LMR) capacity and must find replacements for this lost capacity in the MISO Planning Resource Auction.

Q. Is it your opinion that there will be no lost capacity to Minnesota utilities if ARCs are allowed to assist Minnesota customers with wholesale market participation in MISO?

A. Yes. I believe there will be no lost capacity to Minnesota utilities if ARCs are allowed by this Commission.

Q. Why is that the case?

A. Mr. Rakow mis-characterizes the impact on MISO LMR capacity in the MISO Planning Resource Auction (PRA) when ARCs are allowed. It is true that Minnesota's Load Serving Entities (LSEs) will continue to have the capacity obligation to meet the Planning Reserve Margin Requirement even if ARCs are allowed. But by actively engaging with Minnesota customers and facilitating their enrollment in the MISO LMR market, ARCs expand capacity available for Minnesota utilities. They don't "lose" it. ARCs, if allowed to operate in Minnesota, would create a viable wholesale market within Minnesota for the buying and selling of MISO LMR capacity.

Q. But can't an ARC then transfer capacity procured in Minnesota out of state and sell it elsewhere in MISO?

A. Yes, but not always. That capacity continues to be physically located in the same location as before ARCs were allowed. The load reduction capacity enrolled by the ARC from a Minnesota location becomes an LMR-Demand Response (LMR-DR) capacity that can be available to meet another utility's capacity obligations where it is located, outside Minnesota. But, there is no guarantee that this

Minnesota capacity will be procured outside Minnesota because buyers of LMR-DR capacity tend to prefer capacity located within the zone, not outside the zone. So if ARCs are allowed to operate in Minnesota, the ARC-backed capacity is not lost to Minnesota utilities.

Q. How does MISO keep track of this LMR capacity in States where ARCs are allowed?

A. First, ARCs can only register LMRs with the Load Serving Entity (LSE)[2], Local Balancing Authority (LBA)[3], and the Relevant Electric Retail Regulatory Authority (RERRA)[4] approval. Second, once LSE, LBA, and RERRA approve, MISO checks the LMR registration for double counting. MISO makes sure[5] that an ARC-asset LMR is not counted by an LSE. That's how MISO keeps track of LMR capacity in the Module E Capacity Tracking tool. Hence there is no "lost capacity."

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[2] MISO Market Registration Business Practices Manual rev 18, Section 9.6.2.1. LSE Approvals, "Once the LSE has received notification of the enrollment, the LSE has ten (10) business days to review and approve/provide the following data: **Confirm customer is not a LMR or EDR for the LSE**, Confirm end use customer is served by the LSE, Provide LSE CPNode for each location."

[3] Ibid, Section 9.6.2.2. LBA Approvals, "Once the LBA has received notification of the enrollment, the LBA has ten (10) business days to review and approve/provide the following data: **Confirm location information** – address is located within the identified LBA, **Confirm designated unique ID** – valid account number, tied to the correct address, Provide the EPNode(s)*"

[4] Ibid, Section 9.6.2.3. RERRA Approvals, "**If the RERRA does not allow the ARC to participate**, the RERRA may respond to the email notification from MISO within ten (10) business days and **MISO will halt the registration processs**.

- If the RERRA does not wish to allow the ARC to participate, and it is **after the ten (10) business day period**, the **RERRA may respond to MISO and the ARC will not be able to continue participation** in the Energy and Operating Reserve or Capacity Markets."

[5] MISO Resource Adequacy Business Practices Manual rev 27, Section 4.2.7.1. Demand Resource Registration Process, "**If the DR is accredited as an LMR**, it will be **given a unique name for tracking purposes** and made available in the MECT screens for use by the MP."

Q. Can you explain what happens to LMR-DRs registered by ARCs in the MISO Planning Resource Auction?

A. When ARCs register LMR-DRs, the LSE still has the load obligation because ARCs are providing a supply resource (LMR-DR), not a demand bid. If ARC offers LMR-DR in MISO PRA and that bid clears the Auction, ARC can sell that capacity to a utility. ARCs can either monetize the LMR-DR capacity by selling them directly to a counterparty or by clearing them in the auction.

Q. How does ARC-owned LMR-DR registrations affect the LSE's capacity requirements?

A. The LSE still has the same capacity requirement with ARC participation in MISO, and there is no capacity lost due to the fact that ARCs bring more LMR-DRs into the Auction. With ARCs registering Minnesota consumers LMR-DR capacity in the MISO auction, those consumers and all Minnesota consumers will benefit because more supply resources are offered to meet the LSE load obligation putting downward pressure on the capacity prices. This will make lower priced capacity available to Minnesota utilities thereby saving Minnesota consumers money.

Q. What supporting data suggests MISO capacity prices are reduced when ARC-owned LMR-DR participates in MISO Auction?

A. First, the Federal Energy Regulatory Commission (FERC) made specific findings after extensive proceedings regarding the provision of demand resources into wholesale electric markets. In its Order 719 FERC stated:

> *"**Demand response can provide competitive pressure to reduce wholesale power prices**; increases awareness of energy usage; provides for more efficient operation of markets; mitigates market power; enhances reliability; and in combination with*

> *certain new technologies, can support the use of renewable energy resources, distributed generation, and advanced metering. Thus, enabling demand-side resources, as well as supply-side resources, improves the economic operation of electric power markets by aligning prices more closely with the value customers place on electric power."*[6]

Second, PJM's Market Monitor conducted an analysis five years ago that analyzed PJM's capacity prices with and without Demand Response and Energy Efficiency resources. The sensitivity analysis found[7] that without Demand Response and Energy Efficiency, PJM's capacity prices increased by 124%. The implication of this sensitivity analysis for MISO and specifically Minnesota is, without ARC-based LMR-DR, the capacity prices in Minnesota could reach the Cost of New Entry again.

Q. So, what is the benefit of allowing ARCs to enroll Minnesota consumers in the MISO Planning Resource Auction?

A. With MISO's recent 2022/23 Auction, we saw a $250 per MW-day Cost of New Entry (CONE) capacity price for the Minnesota zone. The benefit from ARC's participation in Minnesota is that they bring additional LMR-DR capacity into the

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[6] Federal Energy Regulatory Commission, Docket Nos. RM07-19-000 and AD07-7-000, par. 16, p. 9, October 17, 2008.

[7] PJM Market Monitor, Monitoring Analytics, The 2017/2018 RPM Base Residual Auction: Sensitivity Analyses, Page 5, "**If there were no offers for DR or EE in the 2017/2018 RPM** Base Residual Auction, total RPM market revenues for the 2017/2018 RPM Base Residual Auction would have been $16,859,658,203, **an increase of** $9,347,428,573, or **124.4 percent**, compared to the actual results" http://www.monitoringanalytics.com/reports/Reports/2014/IMM_20172018_RPM_BRA_Sensitivity_Analyses_20140710.pdf

MISO Auction, thus reducing the opportunity for the Minnesota zone to hit the CONE value.

Q. What concerns do you have regarding Xcel's Demand Response programs?

A. Xcel claims in its comments in this proceeding that it is making enough progress towards meeting the Commission's requirement[8] of acquiring 400 MW of DR by the end of 2023[9] when it mentions[10] 980 MW in this proceeding. But I find that[11] Xcel is barely meeting the Commission's requirement of 400 MW of DR because Xcel is adding only 143 MW of existing DR programs by 2023. On top of the Active programs, Xcel is including 55 MW of new Load Flexibility Pilot and 110 MW of new "Other Programs in Development", which adds up to 308 MW by 2023, not the required 400 MW.

Q. So, when does Xcel reach the 400 MW requirement?

A. According to Xcel's estimates, Xcel reaches 404 MW by 2024 when it projects to add 48 MW of Active programs, 35 MW of new Load Flexibility Pilot and 13 MW of new "Other Programs in Development". These values are shown in the Exhibit -A at the end of this testimony. Xcel estimates 404 MW in 2024 but it not

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[8] Xcel Comments, page 11, "In 2022, the Company launched Peak Flex Credit in an effort to comply with the **Commission's direction to obtain an additional 400 MW** of DR capacity."

[9] Xcel's Demand Response Compliance Filing Docket #'s E002/M-20-421 & E002/RP-19-368, submitted February 1, 2022, "With these new programs and tactics, the Company is confident that we will reach our regulatory requirements **by the end of 2023**."

[10] Xcel Comments, page 6, "The Company has developed an extremely robust DR program that provides **approximately 980 MW of system peak load control** (more than 11% of the NSP System total requirements load)."

[11] Xcel's Demand Response Compliance Filing Docket #'s E002/M-20-421, E002/RP-19-368, E002/M-21-101 & E002/CI-17-401, submitted February 1, 2023

clear whether this capacity would meet the March 1st deadline[12] for new LMR registration in the MECT for 2024/25 PRA.

Q. What is the significance of Xcel not meeting this 400 MW requirement?

A. The Commission must weigh this deficiency against the backdrop of MISO capacity auction prices. If ARCs are allowed, additional DR capacity in MISO auction could reduce the likelihood of CONE pricing in 2024/25 auction.

Q. Has Xcel made claims in this proceeding regarding procurement of peaking capacity resources that concern you?

A. Yes. In its description of DR as a "Foundational Capacity Resource", Xcel claims[13] it has to procure "additional peaking resources" to meets its capacity needs if ARCs are allowed[14]. This is unsubstantiated claim and should not be relied on by this Commission.

Q. Why is Xcel's claim unsubstantiated?

A. Because, as I indicate above, allowing ARCs to enroll Minnesota consumers in MISO LMR-DR market auction will produce more available capacity for Minnesota utilities, not less as suggested by Xcel.

Q. Will ARCs help contribute to meeting the Minnesota zero carbon goals.

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[12] MISO Resource Adequacy Business Practices Manual rev 27, Appendix K – Resource Adequacy Timeline.
[13] Xcel Comments, page 5, "Without the important capacity provided by our DR resource, **we would need to procure additional peaking resources to meet our capacity needs**."
[14] Ibid, "**If ARCs are allowed** to offer DR directly into MISO, there is a risk that our system **could lose important DR resources** that we currently use to meet capacity obligations."

A. Yes. This Commission recently approved Xcel's resource plan which requires primarily renewable resources be developed, not peaking resources. With the Commission's approval[15] of 4,650 MW of renewable resources in the 2019 IRP, for the 2020-34 time frame, Xcel will require as much load flexibility as possible to balance new variable renewable supply with changing loads. ARCs bring that needed load flexibility for Xcel.[16]

Q. What concerns do you have about Xcel's comments regarding the Commission's 2010 order about resource planning if ARCs are allowed?

A. Xcel in its comments points to the Commission 2010 order[17] and asserts that resource planning will become complicated if ARCs are allowed in Minnesota. No evidence suggests that the utility resource planning process will become complicated and less reliable if ARCs are allowed.

Kansas is a vertically integrated state like Minnesota. There an investor owned utility, Evergy[18], is planning to "integrate demand flexibility to address extreme weather events" in its 2021 Integrated Resource Plan (IRP). Yet Kansas allows

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[15] Press Release dated February 8, 2022, Minnesota Public Utilities Commission Approves Xcel Energy's Resource Plan – Prioritizing Low Costs to Consumers, and Environmental and Community Protections, "The IRP approved today included a provision for **Xcel to acquire or build up to 4,650 megawatts (MW) of renewable resources (solar, wind, and storage) by 2032**. Xcel's plan will lower carbon emissions by 86%, relative to 2005 levels." https://mn.gov/puc/about-us/news/archives/?id=14-518158

[16] Voltus comments, page 9, "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**."

[17] Xcel Comments, page 5, "It could make **utilities' long-term resource planning efforts more complex and less reliable,** because utilities would no longer control the most effective demand-side management resources within their service areas."

[18] Page 14, Evergy 2021 Integrated Resource Plan Overview https://www.evergy.com/-/media/documents/smart-energy/evergy-2021-irp-overview.pdf

ARCs, who do a robust business in the Evergy service territories in Kansas, without any apparent negative impacts on the Evergy planning process.

Similarly, Oklahoma is a vertically integrated state in SPP. An AEP company in Oklahoma, Public Service Company of Oklahoma recently filed its IRP with the Oklahoma Corporation Commission with no apparent concerns over the operation of ARCs within its service territory. ARCs operating in these states apparently have had no impact on reliability or utility planning.

Voltus was first aggregator in the SPP market, which prompted SPP's then Chief Operating Officer to issue a statement[19], "We've watched closely as Voltus has worked to open other markets to third-party demand response, and we respect their leadership in the industry." It is apparent that the ARC industry has moved beyond this Commission's 2010 concerns and amply demonstrated the benefits of ARC participation in wholesale markets. Voltus is already operating in Minnesota through Brainerd Public Utilities and Glencoe Light & Power Commission. This demonstrates that those Minnesota entities, who have the same MISO capacity demonstration requirements and planning requirements as Minnesota IOU utilities do not see any issues with allowing ARCs to operate in their Minnesota service territories.

Q. What concerns do you have with Xcel's contention in its comments that there will be cost shifts from customers participating with ARCs to non-participating customers?

[19] Voltus Press Release, "Voltus First to Deliver Demand Response to Southwest Power Pool", December 9, 2019 https://www.voltus.co/press/voltus-first-to-deliver-demand-response-to-southwest-power-pool

A. Xcel points to the Commission 2010 order[20] that costs shift from customers participating with ARCs to customers not participating with ARCs. Aggregators do not shift the costs, plain and simple. They are competitive and independent business entities that bear all the costs of doing business with their customers. Further, when ARCs create additional LMR-DR capacity in the MISO auction, MISO capacity prices are reduced and all utility customers benefit[21] not just those who signed up with ARCs. If, on the other hand, Xcel is referring to the costs of its own DR programs, those costs should be properly allocated on a customer class cost of service basis and properly borne by the customers who cause the cost to be incurred. This Commission has the full authority to ensure no costs shift onto small or energy-dependent customers from the operation of those programs.

Q. What final concern do you have about Xcel's and its reliance on the Commission's 2010 order about stranded utility investments if ARCs are allowed?

A. Xcel points to the Commission 2010 order[22] that indicates that utility investments will be stranded if ARCs are allowed. Yet it offers no evidence to support this contention. Utility DR programs may have some minimal level of undepreciated utility hardware that has been installed in customer's premises to support those programs. This level of investment is totally insufficient, however, to justify prohibiting ARCs from providing substantial benefits to Minnesota consumers. Further, to the extent that such hardware capital costs were incurred, they should

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[20] Xcel Comments, page 6, "It could shift most of the costs of DR to customers too small or energy-dependent to be attractive to ARCs, while **shifting nearly all the benefits to ARC customers."**

[21] See Exhibit – B

[22] Xcel Comments, page 6, "It could raise costs to ratepayers by **stranding utility investments in demand-side management infrastructure** (e.g., radio transmitters, metering equipment, load limiters), abandoned by large customers for **new, ARC-provided infrastructure**."

be primarily borne by the individual utility customers who directly benefited and were paid in those utility programs. Thus, stranded costs are not a significant issue that this Commission should consider in its decision in this case.

Q. Can you summarize your conclusions?

A. Yes. First, I demonstrate that there will be no "lost capacity" to Minnesota utilities if the Commission allows ARCs to enroll LMR-DR capacity from Minnesota consumers in the MISO PRA because buyers of LMR-DR capacity tend to prefer capacity located within the zone, not outside the zone and historically ARCs bring additional capacity that puts downward pressure on MISO capacity prices.

Second, Xcel paints a picture that they are meeting the 400 MW DR Capacity requirement in 2024 but it is not clear from Xcel's estimates whether those programs will be available in the 2024/25 auction to lower MISO capacity prices.

Third, Xcel's claims about needing more peaking resources if ARCs are allowed to operate in Minnesota is not accurate because ARCs will create more available capacity in the MISO PRA rather than less. This additional capacity will be available to Minnesota utilities generally at prices lower that they now pay for incremental new capacity. In addition, this new capacity as "flexible load" will provide support for the Commission approved Xcel 2019 IRP requiring additional renewable resources to be brought onto the Xcel system.

And finally, Xcel's assertion that allowing ARCs to assist Minnesota consumers with access to the MISO wholesale market with their behind-the-meter assets will complicate the resource planning process for Minnesota utilities and make the MISO grid is unsupported by the evidence. In fact, evidence in MISO, SPP and

the other RTOs where ARCs are allowed to assist consumers with wholesale market access contradicts these unfounded assertions of Xcel.

Q. Does this conclude your testimony?

A. Yes, it does.

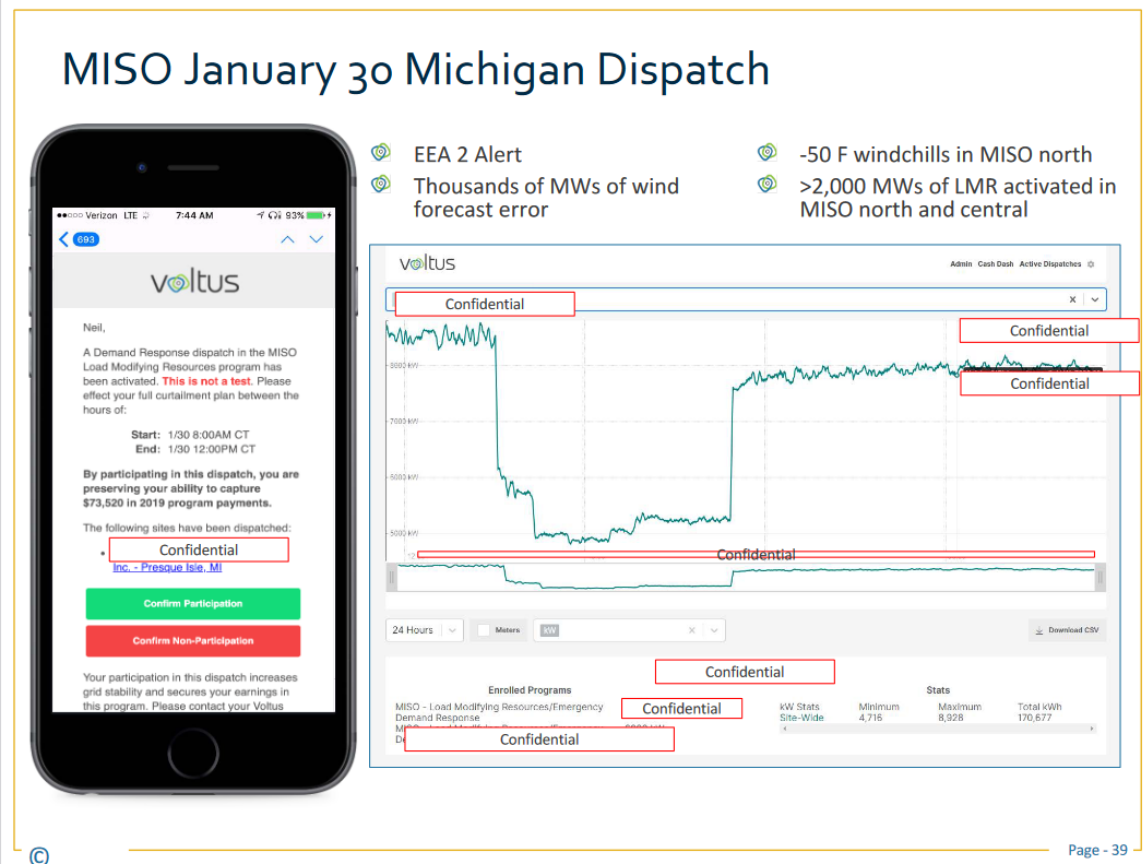
Exhibit - A

Analysis of Xcel's Demand Response Compliance Filing February 1, 2023

			Estimated Cumulative Potential Gen. MW				
	Program	**2022**	**2023**	**2024**	New in 2023	New in 2024	
Active Programs (including new programs in 2020 and 2021)	Electric Rate Savings	425	506	506	81	0	
	Residential Demand Response (Including Saver's Switch and --\C Rewards)	432	445	452	13	7	
	Commercial Demand Response (including Saver's Switch and --\C Rewards)	101	106	111	5	5	
	Peak Partner Rewards	10	54	90	44	36	
	Subtotal Existing	**968**	**1,111**	**1,159**	143	48	191
Load Flexibility Pilots	Peak Flex Credit (Tranche 1)	0	26	43	26	17	
	Peak Flex Credit (Tranche 2)	0	26	43	26	17	
	Commercial Thermal Storage	0	2	3	2	1	
	Static EV Optimization	0	1	1	1	0	
	Subtotal New	0	55	90	55	35	
Other Programs in Development	Peak Day Partners	0	20	23	20	3	
	Critical Peak Pricing	0	20	20	20	0	
	Flex Pricing	0	0	0	0	0	
	Behavioral Demand Response	0	50	60	50	10	
	Third-Party Services	0	20	20	20	0	
	Subtotal Other	0	110	123	110	13	
Total	**Total Gen. MW**	**968**	**1,276**	**1,372**	308	96	404
	Incremental Gen. MWs	**117**	**425**	**521**			

Exhibit – B

Voltus was able to activate more than 2,000 MW of Load Modifying Resources during the winter storm event on January 30, 2019[23].



[23] Page 39, https://www.michigan.gov/mpsc/-/media/Project/Websites/mpsc/workgroups/dr/MPSC_Format_DR_Aggregation.pdf

Affidavit of Rao Konidena

STATE OF MINNESOTA)
)
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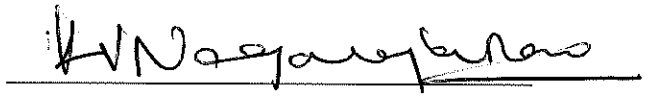
SS COUNTY OF Ramsey)

I, Rao Konidena, state that the above proffered testimony is true and correct to the best of my knowledge.

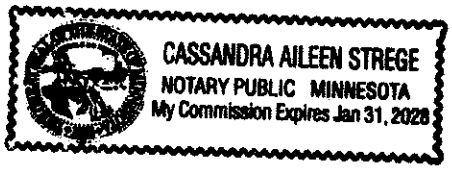


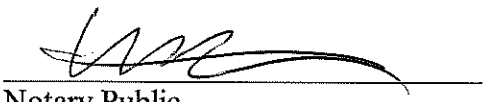
By: Rao Konidena

Dated: April 7th, 2023

Sworn/Affirmed before me this

7th day of April, 2023





Notary Public