

**STATE OF MICHIGAN**

**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

In the matter, on the Commission’s own motion, )  
to open a docket for load serving entities in )  
Michigan to file their capacity demonstrations as ) Case No. U-21099  
Required by MCL 460.6.w. )  
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In the matter, on the Commission’s own motion, )  
to outstanding issues regarding demand )  
response aggregation for alternative electric ) Case No. U-20348  
supplier load. )  
\_\_\_\_\_ )

In the matter, on the Commission’s own motion, )  
to request comment on the MIDCONTINENT )  
INDEPENDENT SYSTEM OPERATOR, INC.’s ) Case No.U-21032  
implementation of Federal Energy Regulatory )  
Commission Order No. 841 regarding energy )  
storage resources. )  
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In the matter, on the Commission’s own motion, )  
to open a docket for load serving entities in )  
Michigan to file their capacity demonstrations as ) Case No.U-21225  
required by MCL 460.6.w. )  
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## INTRODUCTION

The Michigan Energy Innovation Business Council<sup>1</sup> (“Michigan EIBC”), Advanced Energy Economy<sup>2</sup> (“AEE”), and the Advanced Energy Management Alliance<sup>3</sup> (“AEMA”; collectively “Michigan EIBC/AEE/AEMA”) appreciate the opportunity to provide comments in Case No. U-21099 related to potential solutions to improve the capacity position of Michigan’s local resource zones. The Commission requested stakeholder feedback on eight questions in its June 23, 2022 Order in this docket (“Order”). Michigan EIBC/AEE/AEMA offer feedback on several of these questions below.

## RESPONSES TO QUESTIONS

- 1. In light of the tightening capacity market within the MISO footprint and LRZ 7 in particular, Commission seeks comment on whether the ban on DR aggregation described in the August 8 order should now be lifted.*

### **The Commission should lift its ban on DR Aggregations.**

Michigan EIBC/AEE/AEMA respectfully asserts that now is the time to lift the ban on demand response (“DR”) aggregation in light of a variety of factors. These factors include tightening supply conditions, which not only causes customers to pay substantially more for electricity, but also impacts reliability and increases the likelihood of supply related emergencies.<sup>4</sup> The vital reforms pursuant to the Midcontinent Independent System Operator, Inc’s (“MISO”) Reliability Imperative, including changes to the MISO capacity market, including seasonal capacity

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<sup>1</sup> The Michigan Energy Innovation Business Council (“Michigan EIBC”) is a Michigan-based trade organization of more than 140 advanced energy businesses. Our mission is to grow Michigan’s advanced energy economy by fostering opportunities for innovation and business growth and offering a unified voice in creating a business-friendly environment for the advanced energy industry in Michigan. This filing represents the collective consensus of Michigan EIBC as an organization and does not necessarily represent the individual positions of all of Michigan EIBC’s member companies.

<sup>2</sup> Advanced Energy Economy (“AEE”) is a national association of businesses that are making the energy we use secure, clean, and affordable. We work to accelerate the move to 100% clean energy and electrified transportation in the U.S. Advanced energy encompasses a broad range of products and services that constitute the best available technologies for meeting energy needs today and tomorrow. These include energy efficiency, demand response, energy storage, solar, wind, hydro, nuclear, electric vehicles, and smart grid. AEE represents more than 100 companies in the \$238 billion U.S. advanced energy industry, which employs 3.2 million U.S. workers. This filing represents the collective consensus of AEE as an organization and does not necessarily represent the individual positions of all of AEE’s member companies.

<sup>3</sup> Advanced Energy Management Alliance (“AEMA”) is a trade association under Section 501(c)(6) of the federal tax code whose members include national distributed energy resource companies and advanced energy management service and technology providers, including demand response (“DR”) providers, as well as some of the nation’s largest DR and distributed energy resources (“DERs”). AEMA members support the beneficial incorporation of DERs into wholesale markets for purposes of achieving electricity cost savings for consumers, contributing to system reliability, and ensuring balanced price formation. This filing represents the collective consensus of AEMA as an organization, although it does not necessarily represent the individual positions of the full diversity of AEMA member companies.

<sup>4</sup> Midcontinent System Operator, Inc. *MISO projects risk of insufficient firm generation resources to cover peak load summer months*. April 28, 2022. Available at <https://www.misoenergy.org/about/media-center/miso-projects-risk-of-insufficient-firm-generation-resources-to-cover-peak-load-in-summer-months/>.

requirements, are another factor driving the need for continued evolution of policy in Michigan.<sup>5</sup> According to MISO,

[t]he transformation of electricity sector (e.g., a changing resource mix, more frequent extreme weather events, and increasing electrification) is creating new and shifting needs and increasing the challenges of ensuring sufficient resources during high-risk periods. Significant enhancements to MISO’s foundational market constructs in place today – resource adequacy, energy, and ancillary reserves markets – are needed to ensure continue reliability and value in the future.<sup>6</sup>

Other factors include orienting Michigan’s policies to integrate the burgeoning growth of distributed energy resources (“DERs”) to support distribution system planning and operations, as well as participation in RTO/ISO markets, and the transition to a decarbonized grid. Particularly in light of all the work the Commission has done to explore the question of DR aggregation and then enable DR aggregators to work with the 10% of Michigan customers on retail choice,<sup>7</sup> the time is particularly ripe for the Commission to enable all Michiganders to reap the benefits DR aggregators can provide through maximizing load flexibility potential.

### **Realizing the potential value of DR through enabling DR aggregation.**

As discussed, aggregation of DR resources will be critical to providing the greatest benefit to the grid, utilizing renewable generation, and meeting Michigan’s environmental and energy goals. DR aggregators have developed significant experience working in other markets and can bring a wealth of experience and technologies to benefit Michigan customers who elect to work with an aggregator. DR aggregators can work with customers to develop individual curtailment plans that align with their operations, and they provide hardware for monitoring load and tracking performance during DR events. Automation of customer DR capabilities is also a service many aggregators can provide, helping to bolster the reliability that the DR curtailment is executed consistently. Beyond providing resource adequacy through capacity products, DR resources are well suited to provide short- and medium-duration grid services that balance the availability of renewable resources. In fact, DR energy and ancillary services dispatches are often aligned with under-production of intermittent renewables.

Current DR programs often require hundreds of kilowatts shifted for utility grid service programs per customer account. These load requirements limit DR participation to commercial and industrial customers, but the residential sector accounts for approximately 37% of electricity consumed in the state of Michigan.<sup>8</sup> As such, the residential sector is one of the largest loads affecting Michigan’s grid but is the least controlled because of the current DR aggregation ban. Lifting the ban on DR aggregation would unlock significant potential demand flexibility not only

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<sup>5</sup> MISO. *Market Redefinition – Reliability Imperative*. Available at <https://www.misoenergy.org/stakeholder-engagement/MISO-Dashboard/market-redefinition---reliability-imperative/>.

<sup>6</sup> *Ibid.*

<sup>7</sup> Michigan Public Service Commission. *Participation of Aggregators of Retail Demand Response Customers in Markets Operated by Regional Transmission Organizations and Independent System Operators*. RM21-14-00. Federal Energy Regulatory Commission. July 23, 2021. pp. 3-6.

<sup>8</sup> Energy Information Association. *Michigan State Energy Profile, Electricity*. Available at <https://www.eia.gov/state/print.php?sid=MI>.

in the commercial and industrial sectors, but also in the residential sector. DR programs must be designed for all customer classes and allow for aggregation.

**Repealing the ban on DR aggregation is necessary but not sufficient to fully realize DR potential in Michigan.**

There is tremendous untapped potential of demand side resources in Michigan, as evidenced in the DR potential study completed by Guidehouse in 2021.<sup>9</sup> Removing Michigan’s partial ban on DR aggregation is an important and necessary precondition to developing Michigan’s substantial DR potential to address tightening supply conditions. The Commission’s prior decision to move from a full to a partial ban allowing DR aggregators to work with the 10 percent of customers in the competitive retail market was a positive step. However, the partial ban currently in effect has not and will not spur meaningful investment for several practical reasons. There are additional steps the Commission must undertake in order to more fully harness DR resource potential and drive the clean energy transition.

While the RTO/ISO markets add value to enable reliable system integration of diverse energy resources, it is state resource planning and the exercise of state policy prerogatives that are and will remain a primary driver for development of new resources. Michigan will continue to chart its path to a secure, reliable, and clean energy future.

There are many features of the MISO market design that create barriers to new entrants bearing merchant investment risk. DR aggregators are not under cost-of-service regulation that guarantees an opportunity to earn a reasonable rate of return on regulated investment. DR aggregators must have an opportunity to access the market and sell services in a market largely represented by vertically-integrated utilities who generally plan for, develop, and procure resources under the auspices of state regulation outside of the MISO Planning Resource Auction (“PRA”). The PJM market, for its part, has faced substantial FERC litigation that has delayed capacity auctions and created regulatory uncertainty that has substantially raised increased merchant investment risk.

To understand the barrier faced by DR aggregators participating in the MISO PRA, consider that in the current Planning Year (“PY”), 92 percent of capacity supply used to meet Resource Adequacy (“RA”) needs in MISO comes from utility-owned or pre-arranged bilateral contracts with resources capable of providing capacity. The MISO auction is a strictly voluntary auction;<sup>10</sup> the overwhelming majority of procurement of resources to meet capacity obligations are made prior to and outside of the auction. Only 8 percent were traded through the most recent MISO PRA.<sup>11</sup> Moreover, the PRA occurs for the prompt PY only, after most MISO utilities have

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<sup>9</sup> Guidehouse Inc. *Michigan Demand Response Statewide Potential Study (2021-2040)*. September 24, 2021.

Available at [https://www.michigan.gov/mpsc/-/media/Project/Websites/mpsc/workgroups/potential\\_studies\\_2021/MI\\_DR\\_Statewide\\_Potential\\_Study\\_Report\\_-\\_Final.pdf](https://www.michigan.gov/mpsc/-/media/Project/Websites/mpsc/workgroups/potential_studies_2021/MI_DR_Statewide_Potential_Study_Report_-_Final.pdf).

<sup>10</sup> MISO. *Resource Adequacy*. (“This voluntary auction provides a way for Market Participants to meet resource adequacy requirements.” [emphasis added]) Available at <https://www.misoenergy.org/planning/resource-adequacy/-t=10&p=0&s=FileName&sd=desc>.

<sup>11</sup> See MISO. *2022/2023 Planning Resource Auction (PRA) Results*. April 14, 2022. Available at <https://cdn.misoenergy.org/2022%20PRA%20Results624053.pdf>. p. 19. In recent PYs, this amount was just 5.5% in 2020/21 and 3.6% in 2021/22.

largely met their obligations. As such, the PRA is truly a residual auction acting as a backstop for existing market participants (“MP”) to trade long and short capacity positions. The PRA has historically shown wild pricing swings precisely because it is a thinly traded auction with a vertical demand curve that does not reflect the supply and demand conditions on the MISO system, nor send durable price signals to suppliers. Because the PRA represents a tiny part of the market and has not resulted in constructive price signals reflective of supply and demand conditions, the MISO capacity auction is not conducive to serving as the point of new entry for DR aggregator participation.

In summary, in addition to lifting the ban, DR aggregators need a constructive means to offer DR resources to utilities and other Load Serving Entities (“LSE”) outside of the auction, pursuant to state commission supervised resource planning determinations and policies. Fortunately, there is a constructive framework in place in MISO to facilitate this. DR aggregators can sell capacity to utilities through existing mechanisms. Aggregators can use the existing MISO enrollment mechanism to have MW accredited as Zonal Resource Credits (“ZRCs”), and then sell these MW to utilities, whether through Requests for Proposals (“RFP”) RFP, auction, bilateral trades, or a tariff. LSEs can use these accredited MW as part of their Fixed Resource Adequacy Plans (“FRAP”) or Self-Schedules to reduce the amount of MW they must procure through the PRA.

### **Models to facilitate utility procurement of capacity from DR aggregators.**

The Commission has several options at its disposal for how to facilitate procurement of DR resources, which, in conjunction with lifting the ban on DR aggregators, will result in an increase in capacity resources to address tightening capacity reserve margins. The Commission could consider one or more such options to encourage and facilitate regulated utilities’ procurement of capacity from DR aggregators to meet utilities’ MISO obligations for resource adequacy.

#### Capacity RFP model

One model would be to adopt a tender or regular solicitation or RFP that invites aggregators to offer capacity to meet the resource adequacy needs of the utility. The tender could be adapted to procure on a forward basis as appropriate, consistent with Michigan utilities’ resource adequacy plans and be used in support of all LSEs in Michigan that must comply with the Capacity Demonstration process. This model would permit DR aggregators to offer capacity resources that meet MISO or PJM capacity requirements either as part of an all-source capacity procurement RFP or a specific RFP soliciting DR capacity.

A version of this type of model that is open to DR aggregators is being utilized successfully in Illinois under the supervision of the Illinois Power Agency.<sup>12</sup> The terms and conditions of the procurement could ensure that the resources procured meet MISO requirements as well as any other requirements that are necessary and appropriate. This approach has the important advantage of creating the opportunity to sell capacity to a willing utility buyer that can incorporate the resources in its resource adequacy plan. For the DR aggregator it would provide a constructive alternative to the PRA.

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<sup>12</sup> While Illinois utilizes an independent agency to run the procurements, a procurement could be managed by the utility itself, or where utility or affiliate participation is expected through a third-party independent manager. See *Allegheny Energy Supply Co.*, 108 FERC ¶ 61,082 (2004).

### DR Aggregator Feed In Tariff

Another model would be adopting a DR aggregator “feed in tariff” approach that would allow qualified DR aggregators to offer DR capacity to utilities at a price stated in the tariff. Under this approach, the DR aggregator would contract with retail customers and enroll customers with MISO and convert their capacity to ZRCs. The DR aggregator would have the ability to offer the ZRCs directly to the utility under a tariff, and the utility would purchase ZRCs from DR aggregators under the terms of the tariff.

The tariff would impose the requirements for MISO qualifying capacity that could be included in the utility’s FRAP or Self-Schedule offers in the PRA. The tariff price could be determined and/or approved by the Commission to reflect a fair and reasonable price that is the appropriate value of capacity to the utility.<sup>13</sup>

### Turn-key Programs

Either of the preceding models could be developed and implemented quickly and would likely yield substantial results to help address the tightening capacity supply. There are still other models of spurring DR aggregator investment that may be considered, although they are more complex and may have some drawbacks, especially if not designed with great care. For example, Michigan could direct its utilities to develop models for DR aggregators to have the ability to compete to serve customers in retail programs or turn-key programs in which the utility contracts with one or more aggregators to bring customers into the program. There are examples of such tariffs today, such as the Indiana Michigan Power Company’s DR tariffs<sup>14</sup> (“AEP Indiana Tariff”), Xcel Minnesota’s proposed Peak Flex Credit Pilot,<sup>15</sup> as well as a model tariff proposed in a whitepaper produced by AEMA<sup>16</sup> that has been referenced in prior comments in Case U-20348.<sup>17</sup> However, it is important to note that the AEP Indiana Tariff has not yielded much aggregator participation, and Xcel’s pilot has not yet been implemented to be able to judge the success of this particular example.

The primary drawback of the turn-key and customer-facing DR tariff approaches permitting DR aggregators to participate is that is that they present challenges to enabling performance aggregation (i.e., the netting of individual customer over- and underperformance by the

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<sup>13</sup> Although feed in tariffs have been deployed as a policy to subsidize resources, this recommendation should not be read as a request for a subsidy. Rather, the price would be the value of capacity as determined by the Commission. An attractive feature of a feed in tariff approach would be that DR aggregators would have known and stable pricing similar to the capacity compensation arrangements for utility-owned resources and other capacity suppliers contracted to the utility.

<sup>14</sup> See Indiana Michigan Power Company. Rider D.R.S.1. Available at

<https://www.indianamichiganpower.com/lib/docs/ratesandtariffs/Indiana/IMINTB19-07-29-2022.pdf>.

<sup>15</sup> Northern States Power Company, dba Xcel Energy. *Supplemental Compliance Filing – Peak Flex Credit Petition Load Flexibility Pilot Programs and Financial Incentive Mechanism*. May 27, 2022. Minnesota Public Utilities Commission Docket No. E002/M-21-101.

<sup>16</sup> See Advanced Energy Management Alliance. *Advancing Demand Response in the Midwest*. February 18, 2018. Available at <https://aem-alliance.org/download/121043/>.

<sup>17</sup> See Michigan EIBC/AEE Comments in Case No. U-20348. Filed November 30, 2020. Available at <https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t000000GctNmAAJ>. See also, Comments of The Advanced Energy Management Alliance in Case No. U-20348. Filed November 30, 2020. Available at <https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t000000GctsuAAB>. See also, Reply Comments of The Advanced Energy Management Alliance in Case No. U-20348. Filed December 14, 2020. Available at <https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t000000HwATXAA3>.

aggregator). Performance aggregation allows risk management practices that can, among other things, ensure strong performance and mitigate penalty risk. This attribute allows DR aggregators to offer customers attractive terms that may include insulating the customer from performance penalty exposure while incentivizing strong performance. This concern may be overcome with careful program design, and this leads to another drawback to these approaches: they can take a long time and a lot of resources to develop successful approaches.

### **Michigan regulation over DR aggregators.**

As it lifts the ban on DR aggregation and facilitates a means for DR aggregators to support utility resource adequacy, the Commission may determine that some amount of state regulation of DR aggregators is necessary. Although we do not believe this is a precondition of repealing the ban, the Commission can impose such regulation if necessary and as it sees fit.<sup>18</sup>

Most states that allow DR aggregation have not found it necessary to impose significant regulatory requirements, although a few have done so as outlined below. Those states that have imposed regulation over DR aggregation could be consulted by the Commission as it considers whether and what types of regulatory requirements to impose.

- California has adopted an extensive framework of regulation over DR providers participating in the wholesale market.<sup>19</sup> The extent of regulation in California is largely driven to the uniquely interwoven nature of resource adequacy responsibility between the California Public Utilities Commission and the California Independent System Operator, Inc. (“CAISO”). Accordingly, many aspects of California’s regulation over DR aggregators would likely be inapplicable or unnecessary in the Michigan context. Nevertheless, the California rules provide a broad inventory on the types of regulatory issues that may be considered.
- The New York State Public Service Commission (“NYPSC”) has also adopted an extensive framework of regulation of DR aggregation in a set of rules referred to as the Uniform Business Practices for Distributed Energy Resource Suppliers (“UBP DERS”).<sup>20</sup> While the NYPSC regulations are similar to California’s, the UBP DERS are directed at DER aggregation under state programs, while the California rules are aimed at participation in both state and CAISO programs. For practical purposes, however, this is a distinction without a difference. New York has adopted highly successful model policies and programs that allow “stacking” of state programs with participation in the New York Independent System Operator, Inc. (“NYISO”) market to achieve

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<sup>18</sup> PJM Interconnection, L.L.C. 131 FERC ¶ 61,069. 2019. p. 15.

<sup>19</sup> California has adopted what are known as Rule 24 applicable to Pacific Gas and Electric and Southern California Edison and Rule 32 applicable to San Diego Gas and Electric. Rule 24/32 and extensive information about DR aggregator regulation in California is available from the CPUC website, available at <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/demand-response-dr/drp-registration-information>.

<sup>20</sup> See New York Public Service Commission. Case 15-M-0180. In the Matter of Regulation and Oversight of Distributed Energy Resource Providers and Products. *Order Establishing Oversight Framework and Uniform Business Practices for Distributed Energy Resource Suppliers*. March 14, 2019. Appendix A. Available at <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={C00A2699-04E3-4931-8813-67D2D90FEB94}>.

enhancement in state policies promoting demand flexibility to meet distribution utility needs. DR/DER aggregators in New York generally participate in both retail and wholesale programs, and therefore DR/DER aggregators must comply with the NYPSC's requirements.

- Ohio and Maryland have elected to regulate DR aggregators under provisions of competitive retail electric suppliers. Although DR aggregators do not necessarily also sell retail electricity supply, these states have imposed many of the same administrative and other regulatory requirements applicable to retail suppliers upon DR aggregators.

The Commission should be mindful that developing new regulation as a precursor to lifting the ban and developing DR aggregator procurement models could create undesirable delay in developing DR potential to bring down costs and improve reliability. There is a balance to be struck in this regard. As the Commission has observed, capacity margins have tightened, and this trend is likely to continue as traditional generation continues to come offline in the coming years. The Commission should consider adoption of appropriate regulatory requirements for DR aggregators as more experience is gained in the Michigan market.

2. *In the context of the resource adequacy concerns expressed in this order and in the Staff Report, the Commission seeks comment on whether the Commission should now allow the simultaneous participation of ESRs in the wholesale and retail markets.*

Michigan EIBC/AEE/AEMA submit that the Commission should allow simultaneous (“dual”) participation of ESRs in the wholesale and retail markets. Direct participation in retail and wholesale programs (as opposed to wholesale value passed through a retail tariff) may sometimes provide better compensation for storage as a result of bidding services directly into markets. And through participation in wholesale and retail markets, storage can directly respond to dispatch signals, increasing operational value to both distribution and bulk systems. Without that dual participation, operational benefits may be limited to only one system. Finally, increased insight and telemetry provided by wholesale market integration will allow for more transparency than is currently available under utility distribution valuation and optimization, enabling increased beneficial evolution of retail markets and associated retail-level services.

Michigan EIBC/AEE/AEMA support a regulatory structure at the state and RTO level that takes full advantage of energy storage for the benefit of customers. While not every energy storage project will find dual participation beneficial, allowing dual participation for those that do will open up more opportunities for storage to provide value and cost-savings. In some cases, dual participation may make the economics of storage more attractive because it would open multiple lines of compensation and better recognize the suite of values storage can provide.

Energy storage is unique in the number of services and benefits it can provide across all aspects of the electricity grid (generation, transmission, distribution, and customers) and to all user channels (customers, utilities, and regional transmission operators). Storage is also unique in that it can serve as both a generator and a load, leading to its value as a load balancing/load management resource. These characteristics also enable storage to support the integration of



greater amounts of variable renewable resources into the grid, which will be essential to meeting Governor Whitmer’s greenhouse gas reduction goals and individual utility emission reduction goals.

Storage can provide numerous benefits, including peak shaving and DR services that lower overall costs to procure energy; increasing distribution grid hosting capacity to support increased integration of DERs; capacity enhancements for renewable energy by smoothing variability; and a number of additional services, such as power factor correction, when coupled with a smart inverter.

The key to unlocking the full value of energy storage is allowing a resource to be accurately and fully compensated for all of the services it provides. Although identifying specific monetary benefits associated with each service in Michigan might currently be difficult, especially for third-parties lacking access to utility data, it is well-known that these monetary benefits are significant and quantifiable as storage assets provide a service not otherwise available (e.g., lower electricity costs via time-of-use rates) or provide an available service more efficiently (e.g., frequency regulation). Currently, only utilities have access to data to be able to quantify some of these specific benefits and determine whether, for a given use case, energy storage would be a more cost-effective solution than traditional “poles and wires” upgrades.

One of the key steps to enable dual participation is the need for more transparency in both the wholesale and retail markets and operations. Storage can offer services currently provided by traditional generation, transmission and distribution assets in more cost-effective ways, but third-party storage developers often lack data and access into utility distribution system planning and grid conditions in a manner that allows them to present alternatives for consideration. Along with the need for making data available in a timely fashion and in a useful format, utilities should be open to outside ideas to address identified system needs. Competitive bidding or an RFP process that allows third parties to inject new ideas is key to realizing the cost and efficiency benefits of storage.

There are a number of processes and rules that will need to be established to enable dual participation. For example, bidding parameters need to be established in the wholesale market and operating requirements are needed for retail services, to ensure that system operators can confidently call on a resource for a particular use. In addition, requirements will need to be established to ensure that an energy storage resource cannot receive compensation for the same service in both the retail and wholesale markets.

By enabling dual participation, as energy storage resources are developed, they too can be incorporated into both wholesale and retail markets and programs, while contributing to the RA needs identified in the PRA shortfalls resulting in the price spikes observed in the 2020/21 and 2022/23 PYs.

- 3. The Commission seeks comment on whether it should consider setting a four-year forward capacity obligation under Section 6w of Act 341 that is higher than MISO’s prompt year PRMR to encourage the development of additional capacity resources with the aim of protecting the future resource adequacy and reliability of service for Michigan*

*retail electric customers. The Commission seeks specific comment on how such a capacity obligation should be determined and calculated, and how the Commission should proceed in this manner.*

The Commission should consider whether increasing RA requirements within the Capacity Demonstration process beyond those set under MISO’s Planning Reserve Margin Requirement (“PRMR”) for non-carbon emitting technologies is necessary to meet Michigan’s goals under the MI Healthy Climate Plan. If this is the case, the Commission should make clear that resources used to satisfy the increased RA requirements within the Capacity Demonstration process must contribute to meeting Michigan’s clean energy goals as established under the MI Healthy Climate Plan. If such increases are to be implemented, they should be commensurate with proportional increases in such resources as defined in utility IRPs to ensure these technologies and resources are developed to satisfy both the RA needs as well as the state’s goals in line with or ahead of schedules set forth in the respective plans. Should the Commission pursue this approach, it should also carefully consider impacts on ratepayers if it chooses to require capacity to be procured beyond an amount that is deemed to be necessary to maintain reliability.

*6. The Commission seeks comment on what improvements should be pursued in RTO markets to better account for and to send better market signals to merchant and/or nonutility owned generators to inform both generation additions and retirements.*

Given that the current capacity market design addresses the current PY only, MISO’s PRA only provides a signal to MPs and developers to the sufficiency, or lack thereof, of capacity resources. Only if an LSE falls short of its PRMR obligation is it required by MISO to procure additional capacity to satisfy the PRMR. As most LSEs in MISO operate within the vertically-integrated utility model and either own and operate or have contracted with other resources (via Power Purchase Agreements or similar), only a small portion of the capacity needed to meet MISO and state-level RA requirements is procured within the PRA. In fact, just 8.1 percent of capacity was procured in the 2022/23 PRA that was not part of a FRAP or Self-Schedule.<sup>21</sup> The current timelines for resource registration requirements are reasonable for new resources planning to enter the market for the first time. However, without a market-based forward price signal, and given the accelerated timeline for existing generator retirements and the need for new resources to satisfy planning requirements, a forward market should be considered that aligns with traditional vertically-integrated state utility structures and their planning processes.

Currently, resources must be registered with MISO prior to the PRA being administered. Resources that are not included as part of a FRAP or Self-Schedule that have an out-of-market bilateral arrangement that may provide greater price certainty are left subject to compensation solely at the PRA zonal clearing price. An MP representing resources relying only upon PRA pricing results will not know prior to registering with MISO how its resources will be valued. Given the potential for large year-over-year swings in pricing, this situation is not likely to result in development of resources to fill the shortfall gap. Simply put, solely relying on PRA

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<sup>21</sup> See Midcontinent System Operator, Inc. 2022/2023 Planning Resource Auction (PRA) Results. April 14, 2022. Available at <https://cdn.misoenergy.org/2022%20PRA%20Results624053.pdf>. p.19. In prior PYs, this amount was just 5.5% in 2020/21 and 3.6% in 2021/22.

participation is not a viable strategy for MPs to develop new generation in the MISO market as the PRA only clears annually with great volatility and no long-term certainty.

The Commission should additionally advocate for full compliance with Order No. 2222 in MISO well in advance of the 2030 timeframe that has been proposed. While MISO's Order 2222 compliance plan is still pending before FERC, we encourage the Commission to continue to work within the MI Power Grid process, and consider launching further initiatives regarding areas of Order 2222 that fall under state jurisdiction, to ensure that Michigan is prepared to support aggregations of DERs within wholesale markets.

Finally, the Commission should seek to address barriers to the participation of energy waste reduction ("EWR") resources in MISO's capacity market as Energy Efficiency Resources ("EE Resources"). EWR registered as EE Resources is a valuable supply-side resource that, while allowed under MISO's tariff, has faced greater scrutiny and opposition in recent years, from both MPs and the MISO's Independent Market Monitor. Ensuring that EWR that can be verified to reduce the coincident peak demand of MISO's system remains eligible to provide capacity should be prioritized.

*8. The Commission seeks and encourages comment on any additional measures the Commission should consider to enhance the state's reliability and resource adequacy position.*

In light of the capacity shortfalls at MISO, the Commission should encourage the deployment of clean capacity resources like energy storage. As modeled in the Michigan Department of Environment, Great Lakes, and Energy's *Energy Storage Roadmap for Michigan*,<sup>22</sup> the state will need 2,500 MW of energy storage by 2030 to cost-effectively maintain reliability. In addition to this target, the MI Healthy Climate Plan recommended a statewide storage target of deploying 4,000 MW of grid-scale storage by 2040 with a short-term target of 1,000 MW by 2025. In order to achieve these goals, the Roadmap recommends improvements in IRP modeling to ensure the deployment of cost-effective storage; requiring utility IRPs to include an accurate evaluation of opportunities for storage resources and, at a minimum, meet any established storage target; and requiring competitive energy storage procurements that provide a level playing field for third-party ownership models.

The Commission should also consider improving the methods for DERs and other customer-owned resources to provide capacity. These types of behind-the-meter resources, if appropriately incentivized, and with appropriate technology in place, can provide capacity including during critical periods of capacity shortfalls. As such, DERs should be modeled as both supply-side and demand-side resources in utility IRPs.<sup>23</sup> It is important, as customer-sited DERs like rooftop solar, energy storage, residential demand management technologies, and combined-heat and

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<sup>22</sup> Institute for Energy Innovation for the Michigan Department of Environment, Great Lakes, and Energy. *Energy Storage Roadmap for Michigan*. March 2022. Available at [https://mieibc.org/wp-content/uploads/2022/03/IEI\\_EnergyStorageReport\\_FINAL.pdf](https://mieibc.org/wp-content/uploads/2022/03/IEI_EnergyStorageReport_FINAL.pdf).

<sup>23</sup> From a modeling perspective, some DERs could be eligible to provide capacity and other services at either wholesale or retail, or even both. When modeling, resource attributes and their associated benefits should only be counted once to avoid potential instances of double-counting or double-compensation.

power units become more prevalent across the state, that Michigan’s utilities model these resources both as demand-side and supply-side resources. We note, for example, in the recent settlement agreement in the Consumers IRP case (Case No. U-21090), that Consumers Energy agreed in the company’s next IRP “to develop a distributed generation as a resource model approach that considers economic distribution connected solar to be modeled by bundling resources installed at the customer level to compare the total economic costs to the utility of distributed generation as a resource to other selectable supply-side resources, consistent with the methodology used for EWR.”<sup>24</sup>

It may also be valuable for the Commission to consider how the aggregation of DERs could play a role to address capacity shortfalls. Third parties and/or utilities could act as aggregators of DERs and residential demand response to provide capacity to the wholesale market when needed or at certain price signals. Compensation for the benefits provided would be passed back to the customers who own the resources. To unlock the value that these technologies provide, it will be important to design programs to enable participation for circumstances for various customers, particularly multifamily and rental residential customers. When a premise is rented or is a multifamily property, the account holder is often unable to incorporate devices to participate in an aggregation program and the property owner is not incentivized to ensure the property has availability of devices because the incentive flows to the utility account holder. Multifamily residents have a limited ability to install devices while retaining a separate utility account. Policies which recognize property ownership and utility account ownership for the intricacies of rental and multifamily customers will enhance adoption of demand flexibility programs while providing the utility, MISO, and aggregators with a guarantee of available load to control. For example, enrollment of multifamily residents through premise address rather than utility account number ensures ease of enrollment and customer data protection.

It is also important to consider the role that electric vehicles (“EVs”) and growing vehicle-grid-integration (“VGI”) capabilities may play in addressing capacity needs. For example, managed charging of EVs can be optimized to further reduce carbon emissions and reduce grid costs.<sup>25</sup> In addition, even among the most conservative projections of EV adoption, the cumulative storage capacity contained in the batteries of Michigan drivers’ personal EVs, as well as within fleets of medium and heavy duty EVs, will quickly become relevant as a storage and capacity asset. As it stands now, Bloomberg New Energy Finance estimates that there is 482 GWh of battery capacity in EVs currently on the road, globally, which is more than ten times the amount of installed stationary storage. Tapping into a fraction of the storage capacity of EVs through VGI technology could have enormous benefits for an electric grid with high renewable penetration.

As highlighted by the Commission in several MI Power Grid workgroup reports, to harness the value that DERs could play to provide capacity, it will be essential to ensure that third parties, including those with generation capacity, have access to the necessary data to be meaningful and active participants in the marketplace. Ensuring that third parties have access to the necessary data to facilitate dual participation in wholesale and retail markets will allow the value and utilization of these resources to be maximized for the benefit of all ratepayers. It is important that

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<sup>24</sup> MPSC Order dated June 23, 2022. Case No. U-21090.

<sup>25</sup> Daniels, L. *et al.* Rocky Mountain Institute. 2022. *More EVs, Fewer Emissions*. Available at <https://rmi.org/insight/more-evs-fewer-emissions/>.

customer data and grid data are provided in usable formats with appropriate privacy protections. In addition, utilities should streamline the customer and third-party authorization process to release data to ensure robust participation in any data exchange, enabling further innovation and energy-related products and services. Of course, appropriate security protocols must be utilized to protect and secure customer and electric system data from unauthorized disclosure or system breaches.

Finally, customer education and participation are increasingly important aspects of the energy transition, particularly as DERs and EVs proliferate in the market. Customer engagement and informed engagement is important to the success of Commission-approved utility programs and for growing the market for third-party DER products and services. This ultimately accelerates progress toward Michigan's clean energy goals, provides new avenues for customers to provide valuable services to the grid, such as peak demand reductions, and increases opportunities for financial benefits.

## **CONCLUSION**

Michigan EIBC/AEE/AEMA appreciate the opportunity to provide comments in this important proceeding. We look forward to our continued participation.