

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the investigation, on the )  
Commission’s own motion, into the electric supply )  
reliability plans of Michigan’s electric utilities for )  
the years 2017 through 2021. )  
\_\_\_\_\_ )

Case No. U-18197

At the September 15, 2017 meeting of the Michigan Public Service Commission in Lansing,  
Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman  
Hon. Norman J. Saari, Commissioner  
Hon. Rachael A. Eubanks, Commissioner

**ORDER**

This order establishes the format and requirements for electric providers in the state to make demonstrations to the Commission that they have sufficient electric capacity arrangements pursuant to Section 6w of 2016 PA 341 (Act 341).

1. History of Proceedings

Beginning in 1998, the Commission commenced annual investigations into the adequacy and reliability of the electric generation capacity available for meeting customer requirements in the Consumers Energy Company (Consumers), DTE Electric Company (DTE Electric), and Indiana Michigan Power Company (I&M) service territories. The Commission expanded its annual capacity investigations over time to, among other things, include all Michigan-regulated electric utilities, including member-regulated cooperatives, and extend the horizon to a five-year period, in light of expected power plant retirements in Michigan and the Midwest region.

As in past years, the Commission opened Case No. U-18197 on January 12, 2017, to obtain from electric utilities regulated by the Commission, alternative electric suppliers (AESs), utility affiliates, and certain power supply cooperatives and associations, a self-assessment of their ability to meet their customers' expected electric requirements and associated planning reserves during the five-year period of 2017 through 2021.

On December 21, 2016, Governor Rick Snyder signed Act 341 into law. Section 6w of Act 341 requires each electric utility, AES, cooperative electric utility, and municipally-owned electric utility to demonstrate to the Commission, in a format determined by the Commission, that the load serving entity (electric provider) owns or has contractual rights to sufficient capacity to meet its capacity obligations as set by the appropriate independent system operator (ISO), or by the Commission, as applicable. MCL 460.6w. In the event an AES cannot make the required capacity showing (or elects not to), Section 6w requires that a State Reliability Mechanism (SRM) capacity charge would be assessed, to be determined by the Commission, with the associated capacity for such AES customers provided by the incumbent utility. Thus, Section 6w mandated a new form of annual capacity investigation, with associated new deadlines. Act 341 went into effect on April 20, 2017.

Recognizing this, on March 10, 2017, the Commission issued an order in Case Nos. U-18239 *et al.* (March 10 order) that directed the Commission Staff (Staff) to consult with Midcontinent Independent System Operator, Inc. (MISO) and other parties to:

1. Continue to examine resource adequacy issues as part of the annual assessment in Case No. U-18197.
2. Develop recommendations regarding requirements for capacity demonstrations for electric utilities, cooperatives, municipalities, and AESs in this state subject to the SRM, including filing requirements.
3. Develop recommendations regarding load forecasts, planning reserve margin requirements and locational requirements for capacity resources.

4. Develop recommendations regarding the capacity obligations for load that pays an SRM charge to a utility, including MISO's annual PRA [Planning Resource Auction or auction].

March 10 order, p. 19. In light of the compressed schedule mandated by Section 6w and the need for certainty to plan for capacity requirements, as well as the directive from the Legislature to establish the capacity obligations for all providers, including areas with and without electric choice, the Commission engaged stakeholders through briefing and technical conferences to solicit input on the capacity obligations. The Commission also opened dockets in Case Nos. U-18239, U-18248, U-18253, U-18254, and U-18258 for the five electric providers with choice load potentially affected by the SRM charge requirement of Section 6w.

On May 11, 2017, the Commission issued a follow-up order in Case Nos. U-18197 *et al.* finding that the format for the demonstration required of an electric utility by MCL 460.6w(8)(a) that the utility “owns or has contractual rights to sufficient capacity to meet its capacity obligations as set by the appropriate independent system operator, or commission, as applicable” for the “planning year beginning 4 years after the beginning of the current planning year” would be determined through collaborative efforts in the technical conferences, along with the format for the demonstrations required of AESs, cooperative electric utilities, and municipally-owned electric utilities under MCL 460.6w(8)(b) (May 11 order). In the May 11 order, the Commission also afforded stakeholders the opportunity to provide comments and reply comments regarding three threshold issues that concerned timing, a uniform methodology, and a locational requirement.<sup>1</sup>

The order directed the Staff to file a Staff Report (Report) on August 1, 2017,<sup>2</sup> with

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<sup>1</sup> Attachment A to the May 11 order included a list of additional issues for consideration during the technical conferences.

<sup>2</sup> On June 30, 2017, the Staff filed a separate report reviewing the data submitted by providers and reporting on the overall capacity outlook for Michigan under the pre-Act 341 framework for

recommendations and an explication of unresolved issues; and indicated that parties could file comments on the Report by August 15, 2017, and reply comments by August 30, 2017.

On June 15, 2017, the Commission issued an order addressing the threshold questions (June 15 order). The Commission found that: (1) the capacity demonstrations should be filed in accordance with the deadlines established in Section 6w(8); (2) a uniform methodology should be applied to all electric providers and service territories; (3) Section 6w authorizes a locational requirement to be applied to individual electric providers, but allocating such a requirement based on individual electric providers' proportional share of the peak load may not be equitable or reasonable; and (4) the remaining technical conferences should be used to address the appropriate design of a locational requirement for capacity obligations.

Technical conferences took place on April 11, April 26, June 8, June 29-30, and July 10, 2017. All stakeholders who wished to do so filed written position statements by July 17, 2017.

On August 1, the Staff filed the Report. On August 15, 2017, MISO, DTE Electric, the Association of Businesses Advocating Tariff Equity (ABATE), Energy Michigan, the Grand Rapids Area Chamber of Commerce (GRACC), Michigan Chemistry Council (MCC), Wolverine Power Cooperative, Inc. (Wolverine), Representative Gary Glenn, Constellation NewEnergy, Inc. (CNE), and the Michigan Municipal Electric Association, Michigan Public Power Agency, Michigan South Central Power Agency, and WPPI Energy (collectively the Michigan Municipal Group or MMG) filed comments on the Report. On August 30, 2017, MISO, United States Steel

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the 2017 through 2021 time period. On July 31, 2017, the Commission issued an order reviewing the capacity outlook and closing that original part of the Case No. U-18197 docket opened on January 12, 2017.

Corporation (USSC), MCC, DTE Electric, Consumers, CNE, and Energy Michigan filed reply comments.

## 2. Federal and State Regulatory Background

Section 6w established a new framework for resource adequacy in Michigan – that is, ensuring electric providers can meet customers’ electricity needs over the long term even during periods of high electricity consumption or when power plants or transmission lines unexpectedly go out of service. Both the states and the Federal Energy Regulatory Commission (FERC) have jurisdiction over resource adequacy. FERC has explained:

[T]he question of jurisdiction over resource adequacy is a complex matter that represents “the confluence of state-federal jurisdiction.” [Note omitted.] While we are cognizant of the traditional role of state and local entities in regulating resource adequacy, we are also aware of our responsibility under the FPA [Federal Power Act] to ensure the reliability of the system and that wholesale rates are just and reasonable. We will defer to state and local entities’ decisions when possible on resource adequacy matters, but in doing so we will not shirk our congressionally-mandated responsibilities. We find that the adequacy of resources can have a significant effect on wholesale rates and services and therefore is subject to Commission jurisdiction.

*California Independent System Operator Corp (CAISO)*, 119 FERC ¶ 61,076 at P 540, p. 212 (2007); *see, also, ISO New England, Inc.*, 121 FERC ¶ 61,125 at P 47, p. 13 (2007), and *CAISO*, 116 FERC ¶ 61,274 at P 1112, p. 305 (2006). States can set both the amount of capacity each electric provider is required to have available for reliability and how that capacity requirement should be met. *Id.* Notwithstanding, FERC has clarified its role in reviewing the impact that such state determinations have upon interstate rates and the capacity resource mechanism approved by FERC. *See, Connecticut Dept of Pub Utility Control Bd v FERC*, 569 F3d 477 (DC Cir 2009).

FERC also explicitly recognized the authority of states over resource adequacy in approving the MISO resource adequacy construct. *See*, 16 USC 824(a), (b)(1); *Midwest Indep Transmission System Operator, Inc.*, 153 FERC ¶ 61,229, pp. 23-24 (2015). MISO’s capacity market is

intended to complement state resource adequacy authorities and actions, such as retail rate regulation of vertically-integrated utilities and integrated resource planning. *Id.* The MISO capacity market serves as a mechanism to sell and buy capacity in the near-term (i.e., current year) through a centralized auction to allow for a more efficient exchange of planning resources across energy providers and local planning zones.

The MISO capacity auction is conducted at the end of March each year, and allows for the purchase and sale of capacity for the upcoming year, referred to as a planning year, which runs from June 1 through May 31 of the following year. Each year, MISO establishes the planning reserve margin requirement (PRMR), or the amount of capacity each electric provider must acquire to reliably serve projected peak demand. In lieu of participating in the auction, an electric provider can submit a fixed resource adequacy plan (FRAP) demonstrating it has sufficient capacity, and/or pay a capacity deficiency charge. Each year, MISO also establishes the local clearing requirement (LCR), which represents the minimum amount of generation that must be physically located within the local resource zone (*Zone*) in order to meet reliability criteria (a one day in ten year loss of load expectation (LOLE)) after taking into account import capability.<sup>3</sup>

MISO has established ten Zones in its footprint to accomplish this purpose. Even though the bulk transmission system can transport electricity over long distances, congestion and other constraints can affect the deliverability of resources to customer load, which impacts system reliability. MISO incorporated the LCR into its resource adequacy construct at the direction of FERC in order to account for these constraints and better ensure reliability of the electric grid.

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<sup>3</sup> “Local Clearing Requirements” are defined as “the minimum amount of Unforced Capacity [UCAP] that is physically located within the Zone that is required to meet the LOLE while fully using the Capacity Import Limit [capacity import limit] for such Zone.” FERC Electric Tariff, Module E-1, 1.365a, Local Clearing Requirement, 1.0.0.

*Midwest Indep Transmission System Operator, Inc.*, 139 FERC ¶ 61,199, p. 41 (2012); 153 FERC ¶ 61,229, pp. 23-24 (2015).

In order to make the determination of the LCR, MISO first establishes the local reliability requirement (LRR), which represents the resources that would be needed if a particular local resource zone were an island – i.e., if there was no ability to import resources over the bulk transmission system – to meet the one day in ten years LOLE standard. MISO also determines the capacity import limit, which represents the availability of transmission capacity to import resources into a local resource zone. By subtracting the capacity import limit from the LRR, MISO determines the LCR.

The LCR applies to the entire Zone, with the zonal auction prices affected if this requirement is not met. Specifically, entities participating in the auction, whether through the self-supply option or not, would be required to pay the cost of new entry (CONE), which is based on the cost of construction of new gas combustion turbine generation, if the local planning zone as a whole does not meet the LCR. In other words, if there are not enough resources physically located in the Zone to meet the LCR, then the auction price automatically goes to the cost of new entry. In such instance, the probability of an outage due to lack of supply may be higher because the MISO auction only serves as a financial mechanism and does not ensure new capacity resources will be secured to meet the reliability standards.

If an electric provider uses a FRAP in lieu of participating in the auction, the FRAP must demonstrate that the electric provider's proportional share of the Zone's LCR is met using resources located in that local Zone or otherwise count toward that Zone's LCR under MISO's

tariff.<sup>4</sup> Currently, the LCR in Zone 7,<sup>5</sup> covering most of the Lower Peninsula, represents approximately 95% of the overall PRMR; thus, the large majority of resources must be physically located in the Zone in order for the LCR to be met.

A level of complexity is added to issues related to resource adequacy in Michigan due to the state's unique retail electric market structure, where up to 10% of load in an incumbent utility's service territory is allowed to purchase electricity from an AES under Michigan's electric choice law. Incumbent utilities plan to have adequate capacity to serve their full-service customers, but have made a point of not taking steps to plan for choice load located in their service territories. See, note 10, *infra*. AESs that rely on the annual MISO auction to procure the capacity necessary to cover all or some of their customers' needs for the upcoming summer period can do so at below cost because of the historical surplus of supplies. The MISO auction prices have been far below the cost of existing or new generation. Thus, an AES that relies on the auction for its capacity needs may not technically be using the generation of investor-owned utilities in Michigan to meet its customers' short-term capacity needs, but it is using excess supply at below-cost from other entities in the MISO footprint. Under this system, an AES that relies heavily on annual auction purchases is saving its customers money in the short term, but is not contributing to reliability like other electric providers that are planning and investing in resources to meet long-term needs. And

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<sup>4</sup> MISO's tariff currently allows resources located in another local resource zone to count toward the importing zone's LCR if adequate transmission service is obtained and approved by MISO. Discussions are underway at MISO to potentially modify or eliminate this provision.

<sup>5</sup> Zone 7 covers the Lower Peninsula of Michigan, with the exception of the southwest corner of the state, which is in PJM Interconnection, LLC's (PJM) territory. The Upper Peninsula is in Zone 2.

as supplies tighten with the potential for costs to increase through the auction, there are cost impacts to Michigan utility customers.<sup>6</sup>

MISO and other entities have explained that the MISO market, on its own, does not provide the necessary price signals to new or existing generators in order to meet long-term resource adequacy needs.<sup>7</sup> Additionally, it only addresses the current planning year. FERC has also identified inadequate price signals, or “price formation,” in wholesale markets as a concern for electric reliability and the efficient entry and exit of generators. The U.S. Department of Energy recently emphasized this issue in its study on baseload generation.<sup>8</sup> The issue of price formation is more pronounced in areas with retail electric choice because power supplies are generally deregulated. This concern was the impetus for MISO to propose the Competitive Retail Solution, or CRS, with a three-year forward auction for areas with retail electric choice (i.e., Illinois and portions of Michigan). FERC rejected the CRS proposal in February 2017, citing concerns with the market design.<sup>9</sup>

Concerns about the ability of the existing resource adequacy construct to ensure reliability were echoed by the Legislature and Governor in enacting new energy legislation. In 2016,

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<sup>6</sup> Even the potential that the auction price may rise due to the supply outlook in Zone 7 may affect the ability or cost to purchase capacity from suppliers outside of Michigan several years into the future. This is due in part to MISO’s zonal deliverability charge that would be applied to a bilateral purchase included in a FRAP.

<sup>7</sup> See, <http://www.senate.michigan.gov/committees/files/2016-SCT-ENERGY-04-27-1-01.PDF>; and <https://www.misoenergy.org/Library/Repository/Report/IMM/2015%20State%20of%20the%20Market%20Report.pdf>

<sup>8</sup> [https://energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability\\_0.pdf](https://energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf)

<sup>9</sup> *Midcontinent Independent System Operator, Inc.*, 158 FERC ¶ 61,128 (2017).

Michigan enacted the new statutory framework for resource adequacy in Section 6w of Act 341 to ensure that all energy providers – including AESs, municipal utilities, electric cooperatives, and regulated electric utilities – contribute to the state’s long-term electric capacity needs. The legislation expressly provided for the implementation of MISO’s CRS proposal but also included the State Reliability Mechanism as the backstop in the event the CRS was not approved by FERC by a date certain. The application of charges under the SRM is limited to areas with retail electric choice (choice), but is reliant on the capacity demonstration requirements and processes applicable to all areas and energy providers in the state.

Under this capacity demonstration framework, the Commission must determine the capacity obligations for individual electric providers over a four year period and create a process to evaluate whether such obligations are met. In setting the obligations, the law directs the Commission to request technical assistance from MISO in determining the LCR and PRMR for purposes of the Section 6w capacity obligations. Notably, the LCR and PRMR would cover periods beyond MISO’s one-year planning year and auction. Section 6w provides remedies in instances when an electric provider is unable to demonstrate it has procured adequate capacity to cover its load, including allowing for uncovered AES load to be assessed a capacity charge (i.e., the SRM charge) determined by the Commission and paid to the incumbent utility in exchange for meeting that load’s capacity obligations. Special provisions exist for electric utilities, municipally-owned utilities, and electric cooperatives that fail to meet the Section 6w capacity obligations.

Pertinent subsections of MCL 460.6w related to the capacity obligations and process are as follows:

(2) . . . If, by September 30, 2017, the Federal Energy Regulatory Commission does not put into effect a resource adequacy tariff that includes a capacity forward auction or a prevailing state compensation mechanism, then the commission shall establish a state reliability mechanism under subsection (8). The commission may commence a

proceeding before October 1 if the commission believes orderly administration would be enabled by doing so. If the commission implements a state reliability mechanism, it shall be for a minimum of 4 consecutive planning years beginning in the upcoming planning year. A state reliability charge must be established in the same manner as a capacity charge under subsection (3) and be determined consistent with subsection (8). . . .

(6) A capacity charge shall not be assessed for any portion of capacity obligations for each planning year for which an alternative electric supplier can demonstrate that it can meet its capacity obligations through owned or contractual rights to any resource that the appropriate independent system operator allows to meet the capacity obligation of the electric provider. The preceding sentence shall not be applied in any way that conflicts with a federal resource adequacy tariff, when applicable. Any electric provider that has previously demonstrated that it can meet all or a portion of its capacity obligations shall give notice to the commission by September 1 of the year 4 years before the beginning of the applicable planning year if it does not expect to meet that capacity obligation and instead expects to pay a capacity charge. The capacity charge in the utility service territory must be paid for the portion of its load taking service from the alternative electric supplier not covered by capacity as set forth in this subsection during the period that any such capacity charge is effective. . . .

(8) If a state reliability mechanism is required to be established under subsection (2), the commission shall do all of the following:

- (a) Require, by December 1 of each year, that each electric utility demonstrate to the commission, in a format determined by the commission, that for the planning year beginning 4 years after the beginning of the current planning year, the electric utility owns or has contractual rights to sufficient capacity to meet its capacity obligations as set by the appropriate independent system operator, or commission, as applicable.
- (b) Require, by the seventh business day of February each year, that each alternative electric supplier, cooperative electric utility, or municipally owned electric utility demonstrate to the commission, in a format determined by the commission, that for the planning year beginning 4 years after the beginning of the current planning year, the alternative electric supplier, cooperative electric utility, or municipally owned electric utility owns or has contractual rights to sufficient capacity to meet its capacity obligations as set by the appropriate independent system operator, or commission, as applicable. One or more municipally owned electric utilities may aggregate their capacity resources that are located in the same local resource zone to meet the requirements of this subdivision. One or more cooperative electric utilities may aggregate their capacity resources that are located in the same local resource zone to meet the requirements of this subdivision. A cooperative or municipally owned electric utility may meet the requirements of this subdivision through any resource, including a resource acquired through a capacity forward

auction, that the appropriate independent system operator allows to qualify for meeting the local clearing requirement. A cooperative or municipally owned electric utility's payment of an auction price related to a capacity deficiency as part of a capacity forward auction conducted by the appropriate independent system operator does not by itself satisfy the resource adequacy requirements of this section unless the appropriate independent system operator can directly tie that provider's payment to a capacity resource that meets the requirements of this subsection. By the seventh business day of February in 2018, an alternative electric supplier shall demonstrate to the commission, in a format determined by the commission, that for the planning year beginning June 1, 2018, and the subsequent 3 planning years, the alternative electric supplier owns or has contractual rights to sufficient capacity to meet its capacity obligations as set by the appropriate independent system operator, or commission, as applicable. If the commission finds an electric provider has failed to demonstrate it can meet a portion or all of its capacity obligation, the commission shall do all of the following:

- (i) For alternative electric load, require the payment of a capacity charge that is determined, assessed, and applied in the same manner as under subsection (3) for that portion of the load not covered as set forth in subsections (6) and (7). If a capacity charge is required to be paid under this subdivision in the planning year beginning June 1, 2018 or any of the 3 subsequent planning years, the capacity charge is applicable for each of those planning years.
  - (ii) For a cooperative or municipally owned electric utility, recommend to the attorney general that suit be brought consistent with the provisions of subsection (9) to require that procurement.
  - (iii) For an electric utility, require any audits and reporting as the commission considers necessary to determine if sufficient capacity is procured. If an electric utility fails to meet its capacity obligations, the commission may assess appropriate and reasonable fines, penalties, and customer refunds under this act.
- (c) In order to determine the capacity obligations, request that the appropriate independent system operator provide technical assistance in determining the local clearing requirement and planning reserve margin requirement. If the appropriate independent system operator declines, or has not made a determination by October 1 of that year, the commission shall set any required local clearing requirement and planning reserve margin requirement, consistent with federal reliability requirements.
- (d) In order to determine if resources put forward will meet such federal reliability requirements, request technical assistance from the appropriate independent system operator to assist with assessing resources to ensure that any resources will

meet federal reliability requirements. If the technical assistance is rendered, the commission shall accept the appropriate independent system operator's determinations unless it finds adequate justification to deviate from the determinations related to the qualification of resources. If the appropriate independent system operator declines, or has not made a determination by February 28, the commission shall make those determinations. . . .

(11) Nothing in this act shall prevent the commission from determining a generation capacity charge under the reliability assurance agreement, rate schedule FERC No. 44 of the independent system operator known as PJM Interconnection, LLC, as approved by the Federal Energy Regulatory Commission in docket no. ER10-2710 or similar successor tariff.

(12) As used in this section:

(a) "Appropriate independent system operator" means the Midcontinent Independent System Operator. . . .

(c) "Electric provider" means any of the following:

(i) Any person or entity that is regulated by the commission for the purpose of selling electricity to retail customers in this state.

(ii) A municipally owned electric utility in this state.

(iii) A cooperative electric utility in this state.

(iv) An alternative electric supplier licensed under section 10a.

(d) "Local clearing requirement" means the amount of capacity resources required to be in the local resource zone in which the electric provider's demand is served to ensure reliability in that zone as determined by the appropriate independent system operator for the local resource zone in which the electric provider's demand is served and by the commission under subsection (8).

(e) "Planning reserve margin requirement" means the amount of capacity equal to the forecasted coincident peak demand that occurs when the appropriate independent system operator footprint peak demand occurs plus a reserve margin that meets an acceptable loss of load expectation as set by the commission or the appropriate independent system operator under subsection (8). . . .

(h) "State reliability mechanism" means a plan adopted by the commission in the absence of a prevailing state compensation mechanism to ensure reliability of the electric grid in this state consistent with subsection (8).

Case Nos. U-18239, U-18248, U-18253, U-18254, and U-18258 are dockets in which the Commission will determine the capacity charge, if any, associated with choice load affected by Section 6w by December 1, 2017. Whether any capacity charge is actually imposed will be

determined after February 9, 2018, when AESs make their capacity demonstrations. The definitions of LCR and PRMR in Section 6w(12) explicitly acknowledge the role of the Commission in setting the LCR and PRMR under subsection (8) for purposes of Section 6w. Thus, in the June 15 order, pp. 10-11, the Commission directed the Staff and stakeholders to explore and attempt to define an allocation methodology for a locational requirement in the remaining technical conferences. The Commission suggested consideration of two possible approaches – one being to phase-in requirements over time, and another based on identifying the incremental capacity needed in the Zone in order to meet the PRMR and LCR over a longer term.

### 3. The Staff Report

#### A. Areas of Apparent Agreement

The Staff begins by describing the areas where consensus among the stakeholders appeared to have been reached, as follows:

1. In the fall of 2017, one shared docket should be opened for all LSEs to file initial capacity demonstrations for planning years 2018 through 2022.
  - a. Once the LSEs have filed demonstrations, Staff will review and issue recommendations to the Commission and the Commission will decide if the initial demonstration is sufficient.
  - b. Prior to filing demonstrations, LSEs would like an informal “pre-filing window” where they may informally consult with Staff on whether they need to submit additional support.
2. The Planning Reserve Margin Requirement (PRMR) and Local Clearing Requirement (LCR) shall be based on data from MISO’s Loss of Load Expectation (LOLE) report and determined using interpolation/extrapolation where necessary.
  - a. There should be a short comment period after Staff files the PRMR and LCR report in the docket.
  - b. Parties would like an educational meeting with Staff regarding the PRMR and LCR determinations, with the ability to ask Staff questions about the determination.
3. The statute sets a four year forward obligation.
4. Possible area of consensus: 20+ year municipal contracts that were entered into prior to the development of MISO local resource zones (LRZs) should be grandfathered in towards meeting any locational requirement that may be adopted. Michigan South Central Power

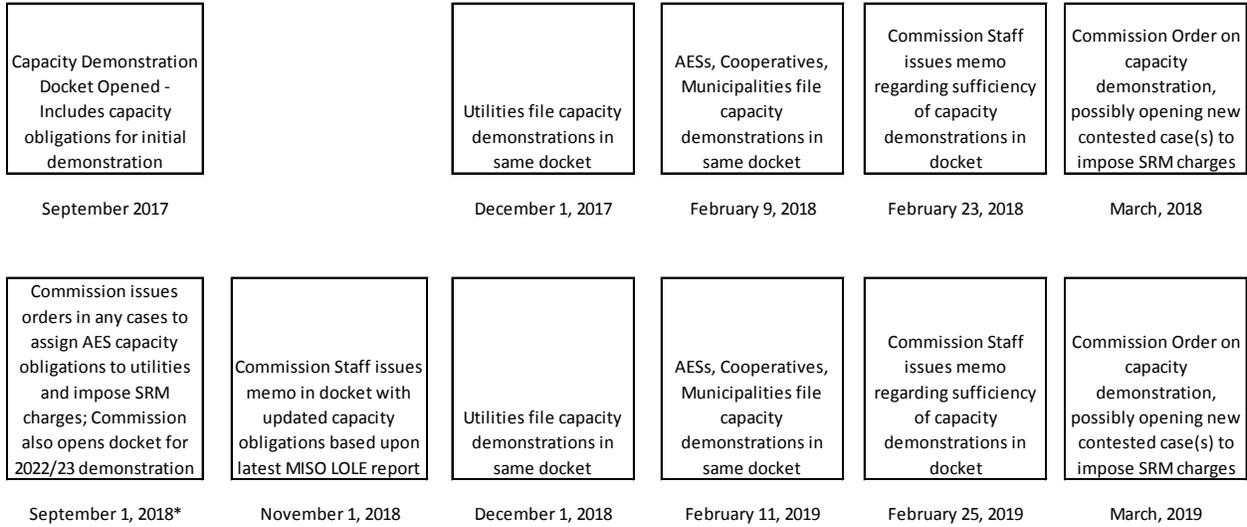
Agency has 30.5 MW of such contracts. (Cannelton Hydro – 2007 bought into for 40-year life of plant, 5.6 MW; Smithland – 2007 bought into for 40-year life of plant, 4.9 MW; Prairie State – 2007 bought into for 40-year life of plant, 12 MW; Menomonee [sic] – LRZ 2 Hydro 20-year power purchase agreement, 4.4 MW; Oconto Falls – LRZ 2 Hydro 2-year power purchase agreement, 3.6 MW.)

- a. DTE supported this concept during the technical conference.
  - b. Consumers Energy’s written position statement provides a statement of non-objection to this concept.
5. What does a LSE have to show in the capacity demonstration for new generation?
- a. Case-by-case determination.
  - b. Completed MISO Generation Interconnection Agreement or Certificate of Necessity is not necessary.
  - c. Four years out, at a minimum, an officer affidavit plus an additional evidence of intent, such as hiring an engineering study, etc.
  - d. Two years out the LSE would have to make a more substantial showing of progress, such as participating in the MISO generator interconnection queue, request for proposal process, or similar forward-moving demonstration.
  - e. If Staff is not satisfied with a 2-year-out demonstration, Staff should request that a show cause contested case be initiated.
  - f. If the project fails to materialize, but the LSE can replace the project with a power purchase agreement or other resource that would have initially qualified, there should be no consequences for failing to do the project.
6. Unforeseen shortages that arise in the interim years, after a satisfactory demonstration had been made four years forward, will be handled through the PRA [auction] without consequence.
7. Demand Response resources meeting MISO capacity requirements would qualify towards meeting the four-year forward capacity demonstration.

Report, pp. 3-4. In light of the consensus areas, the Staff proposes a capacity demonstration process timeline reflecting actions and filings needed in the September 2017 to March 2019

timeframe, as follows:

**Capacity Demonstration Process**



\* process would repeat annually

Report, p. 5. The Staff recommends that the Commission issue an order opening a single docket in the fall of 2017 for the filing of the initial capacity demonstrations for planning years 2018/2019 through 2021/2022. The Staff indicates that the stakeholders agreed to use data from the most recent MISO LOLE study, using interpolation and extrapolation methods when appropriate, and recommends use of those methods to determine the PRMR and LRR for each Zone in Michigan, applying the most recently published capacity import limit as follows:

Staff recommends calculating the LCR as the LRR minus CIL. Staff acknowledges that applying this calculation to the data in the 2017 MISO LOLE Study, the resulting LCR for LRZ 7 does not precisely match the LCR for LRZ 7 that MISO reported as part of the auction in 2017. Staff stresses that the need to communicate obligations in a timely fashion that have been determined in a transparent repeatable manner far outweighs the need for absolute precision. Based upon the most recently published LOLE study by MISO, Staff proposes the following data be utilized for capacity obligations for the initial capacity demonstration for planning years 2018/19 through 2021/22.

MISO Zone 2										
Year	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
	0	1	2	3	4	5	6	7	8	9
Load	12399	12399	12399	12399	12399					
PRM(UCAP)	7.8%	7.5%	7.3%	7.3%	7.4%	7.5%	7.6%	7.6%	7.7%	7.8%
PRMR	13366	13329	13304	13304	13316					
LRR	14495	14604	14712	14767	14822					15098
CIL	2075	2075	2075	2075	2075					
LCR (LRR-CIL)	12420	12529	12637	12692	12747					
LCR/PRMR	92.9%	94.0%	95.0%	95.4%	95.7%					

MISO Zone 7										
Year	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
	0	1	2	3	4	5	6	7	8	9
Load	20682	20682	20682	20682	20682					
PRM(UCAP)	7.8%	7.5%	7.3%	7.3%	7.4%	7.5%	7.6%	7.6%	7.7%	7.8%
PRMR	22295	22233	22192	22192	22212					
LRR	24654	24620	24585	24644	24704					25001
CIL	3320	3320	3320	3320	3320					
LCR (LRR-CIL)	21334	21300	21265	21324	21384					
LCR/PRMR	95.7%	95.8%	95.8%	96.1%	96.3%					

Report, pp. 5-6 (notes omitted). The Staff recommends including five years of projected load and resources (as has been requested in recent capacity investigations), and use of the same forms for reporting purposes as were used in the capacity investigation part of this docket.

For the initial four planning years (which are treated as a single time period by the Staff for purposes of the capacity obligations under Section 6w), and for every fourth planning year thereafter, the Staff recommends the following minimum guidelines for making demonstrations:

**Existing generation (owned)**

Staff recommends that the minimum acceptable support for existing generation that is included in a capacity demonstration include: 1) an affidavit from an officer of the company claiming ownership of the unit(s), including a commitment of the unit(s) to the LSE four years forward, 2) a copy of the existing [Zonal Resource Credit] ZRC qualification of the unit(s) from the MISO Module E Capacity Tracking Tool, and 3) if there are retail tariffs or customer contracts associated with the resources, copies should be provided.

**Existing demand response or energy efficiency resources (that have not been netted against load)**

Staff recommends that the minimum acceptable support for existing demand response resources or energy efficiency resources that have not already been netted against load include: 1) an affidavit from an officer of the company outlining the resource(s), including a commitment to maintain at least that same level of resources four years forward, 2) a copy of the existing ZRC qualification of the resource(s) from the MISO Module E Capacity Tracking Tool, and 3) if there are retail tariffs or customer contracts associated with the resources, copies should be provided.

**New or upgraded generation (owned)**

Staff recommends that the minimum acceptable support for proposed new generation include: 1) an affidavit from an officer of the company outlining the detailed plans for the new generation including milestones such as planned in-service date, expected regulatory approval date(s), planned date to enter the MISO generator interconnection queue, expected date for MISO generator interconnection agreement, construction timeline, etc., and 2) documentation supporting the expected ZRC qualification from MISO for the new unit(s), and 3) if there are retail tariffs or customer contracts associated with the resources, copies should be provided. For new generation submitted as part of a capacity demonstration, Staff recommends that all of the above data be updated and submitted on an annual basis with each subsequent capacity demonstration until the unit(s) are in service.

**New demand response or energy efficiency resources (that have not been netted against load)**

Staff recommends that the minimum acceptable support for new demand response resources or energy efficiency resources that have not already been netted against load included in a capacity demonstration include: 1) an affidavit from an officer of the company outlining the plans for the resource(s), including a commitment to achieve and/or maintain at least that same level of resources four years forward, and 2) specific plans to have the resource(s) qualified by the independent system operator, and 3) if there are retail tariffs or customer contracts associated with the resources, copies should be provided. For new demand response or energy efficiency resources submitted as part of a capacity demonstration, Staff recommends that all of the above data be updated and submitted on an annual basis with each subsequent capacity demonstration until the resource(s) are in service. Final qualification/approval from the independent system operator should be submitted in a subsequent demonstration.

**Existing generation (capacity contract)**

Staff recommends that the minimum acceptable support for capacity contracts with existing generation include: 1) an affidavit from an officer of the company including a copy of the contract that specifies the unit(s) or pool of generation that is the source of the contract, including the location of the unit(s) or pool. The affidavit should include a

commitment to maintain the contracted amount four years forward regardless of any early out clauses in the contract, and 2) a copy of the existing ZRC qualification of the unit(s) or pool from the MISO Module E Capacity Tracking Tool that the LSE obtains from the asset owner and includes with the demonstration filing.

### **Forward ZRC contracts**

Staff recommends that the minimum acceptable support for forward ZRC contracts include an affidavit from an officer of the company including a copy of the contract that specifies the zonal location of the ZRCs. The affidavit should include a commitment to maintain the contracted amount four years forward regardless of any early out clauses in the contract. A forward ZRC contract that does not specify the zonal location of the ZRCs will be deemed insufficient towards meeting any portion of a locational requirement, unless the LSE provides other alternative support for the location of the ZRCs.

Report, pp. 7-8. With respect to utilization of the MISO auction, the Staff opines that a plan to purchase ZRCs in the auction four years in the future does not constitute a demonstration that the electric provider can meet its capacity obligations. The Staff interprets Section 6w to require that sufficient resources are offered by electric providers in the auction, and not to simply allow electric providers to wait and see if enough ZRCs are offered to meet reliability requirements. Thus, the Staff recommends that the Commission find that the statutory obligation to “own or contract” resources does not include a plan to purchase from the auction in a future year. The Staff suggests that the auction continue to be viewed as a clearing mechanism for electric providers when load variations occur, such that an electric provider can make an auction purchase without fear of penalty when necessary due to exigencies, but the auction cannot be the basis for a complete demonstration.

The Staff recommends that other types of documentation submitted in support of a demonstration be evaluated on a case-by-case basis. Commercially sensitive documentation would continue to be treated confidentially, as it has been in past capacity investigations.

The Staff recommends that it be directed to file a memo in the capacity demonstration docket two weeks after the final demonstrations are filed outlining its findings. A contested case docket,

in the form of an order to show cause (show cause), would be opened for any electric provider that has not made a satisfactory demonstration as soon as practicable after the memo is filed, and the case should be completed within six months from the date of opening. The Staff acknowledges that, for the 2018 planning year, this process will not allow any utility to assume capacity obligations in time for the 2018 MISO auction. However, in future years, “Staff opines that decisions from the Commission by September 1 regarding any capacity obligations being transferred to the utility should provide the utility with sufficient time to make arrangements before its next capacity demonstration on December 1, as well as provide a meaningful amount of time for parties to address the issues in the contested case and develop a record for the Commission’s decision.” Report, p. 10.

The Staff indicates that it is looking into the development of a Michigan Capacity Tracking Tool, which could provide a process for trading capacity four years forward, but notes that it would not be useful if generators do not participate. The Staff states that it will continue to work with stakeholders to determine whether a capacity tracking tool would be worthwhile.

#### B. Areas of Apparent Disagreement

The Staff described areas of disagreement as follows:

1. Capacity Demonstration Process
  - a. Contested cases with full transparency versus non-contested confidential capacity demonstration filings.
  - b. The process and timing for the determination from the Commission regarding the AES demonstrations, particularly for the 2018/19 planning year.
2. Whether forward contracts for Zonal Resource Credits (ZRCs) that are not tied to specific planning resources should meet the requirements for a successful capacity demonstration.
3. Locational Requirement
  - a. Whether a LCR should be applicable to individual LSEs or not.
  - b. If applicable to individual LSEs, the methodology and amount.

Report, p. 4. Much of the disagreement concerned the locational requirement.

In the June 15 order, the Commission proposed two distinct approaches for implementation of a locational requirement. In the Report, the Staff fleshes out the two approaches and discusses their advantages and disadvantages, without recommending one over the other, noting its opposition to the requirement. *See*, June 15 order, p. 9. The Staff states that “the vast majority of local generation is either owned by or contracted to the rate-regulated utilities,” who have little incentive to sell this capacity to other electric providers. Report, p. 13, n. 6.

With respect to the phased-in approach, the Staff begins by positing that any locational requirement imposed in the near term should be attainable. Thus, the Staff recommends an LCR of 0.0% for the two 2018-2020 planning years, 10.0% for the two 2020-2022 planning years, and more significant annual increases thereafter, reaching 94.7% for the 2025/2026 planning year (which would be subject to demonstration in 2022). Report, p. 13. “Staff notes that 94.7% is the current pro-rata share of the LCR requirement for MISO Zone 7 based upon the data in the most recent auction results. This value can and likely will change over time, consistent with changes in generator performance and transmission topography. Staff’s proposal is that the steady state value of locational requirements should equal the most current pro-rata share, defined as LCR/PRMR and calculated utilizing the data in the most recent MISO LOLE Study Report.” *Id.* The Staff also offers limits on the amount of the PRMR that can be met through the auction for purposes of the Section 6w capacity obligations, beginning at 100% in planning year 2018/2019, and decreasing to 5.3% by planning year 2022/2023. The Staff expresses concerns about the rate-regulated utilities’ market power in the short term, and the need to avoid overbuilding in the longer term in the event that load forecasts decrease. The Staff’s phased-in proposal would eventually result in imposing a

minimum locational requirement on each electric provider of approximately 80% of capacity requirements sourced from within the zone.

The Staff describes the main advantage of this approach as being the contribution to reliability requirements. As for disadvantages, the Staff lists the significant additional burden on AESs, and “the eventual 80+% locational requirement could lead to up to an estimated 5% increase in planning reserves in Michigan that would be over and above the minimum reliability requirements at additional costs to Michigan customers.” Report, p. 15.

The Staff then turns to a discussion on how to calculate the incremental capacity approach, which would begin with an annual review of each zone’s ability to meet its LCR five years into the future. Based on retirements and other data, the Staff would determine any projected shortfall with respect to the LCR five years forward, which would be taken into consideration in the Staff’s memo. The Staff proposes that the Commission could allow comments on the proposed shortfall before determining a final zonal LCR shortfall value annually, which would be shared by all electric providers in the zone on a pro rata basis and be applicable for the capacity demonstrations due in December and February.

The Staff proposes that the LCR for the initial capacity demonstration be zero. The LCR would remain at zero for the first four planning years, and then to-be-determined thereafter. The Staff opines that no incremental capacity would be required at least up to planning year 2021/2022, so the LCR would be 0.0% during that time, and becomes each electric provider’s pro rata share of 1,000 megawatts (MW), increasing to 1,500 MW in planning year 2025/2026. Over time, “the locational requirement would eventually reach a full pro rata share of the LCR for all LSEs.” Report, p. 16. The Staff states that the locational requirement under the incremental approach would likely be lower than it would be under the phased-in approach, and cites the

advantages of the former as requiring all electric providers to contribute towards new resources, and as benefiting ratepayers by ensuring that they do not bear any additional economic burden as a result of over-compliance and underutilization of imports. The Staff posits that rate-regulated utilities do not have a forward planning strategy that maximizes the capacity imports that are available to them, because they earn a return of and on local investments. Disadvantages of the incremental approach include the opportunity to game the system, and the lengthy time period until the full pro rata share of the requirement is imposed.

#### C. Capacity Demonstrations and the PJM Interconnection, LLC Footprint

The Staff notes that, unlike MISO, PJM has a mandatory forward capacity market for electric providers. The Staff recommends that the timing of PJM electric providers' capacity demonstrations be adjusted to allow them to file their demonstrations after the completion of PJM's Reliability Pricing Model Base Residual Auction (RPMBRA).

#### 4. Comments on the Report

The MMG generally supports the areas of consensus described by the Staff. However, the MMG states that the Commission should recognize, with respect to the affidavit requirements, that circumstances change over time and contracts may be revised or terminated within a four year period, which makes it difficult to promise not to modify a contract. The MMG suggests inclusion of a provision prohibiting an electric provider from modifying or ending an existing contract without procuring a replacement resource. The MMG also questions whether copies of supply contracts should be required, because the Staff has the ability to request additional information at any time.

The MMG states that no locational requirement should be imposed until there is a projected shortfall, and that it supports the incremental approach. It adds that the Commission should

consider the higher risk imposed on utilities with highly concentrated loads made up of one or only a few customers, due to the unique load forecasting required. The MMG supports the recommendation to adjust the timing of the PJM electric providers' filings. Finally, the MMG points out that Section 6w(9) limits challenges to the demonstrations of municipally-owned utilities to the Attorney General or customers.

Consumers states that the Staff captured the areas of consensus, and that the company agrees with the Staff's proposed calculation of the LCR and description of the minimum acceptable support for various kinds of capacity resources. Consumers expresses concern over the timeline. In particular, with the Staff's memo filed in February, the show causes opened in March, and the final order coming in September, a utility that ends up with some amount of AES capacity load will not be able to use the auction in 2018 because it will not know how much choice load to cover. Consumers posits that the Staff's timeline does not align with the statute, or with the practical realities of planning. Consumers objects to a solution that would allow deficient AESs to purchase capacity for the 2018/2019 planning year through the auction, stating that this is simply the status quo and allows "AESs to be deficient if they believe they can gain an advantage by simply buying auction capacity for an additional year." Consumers' comments, p. 3. Consumers also states that it is unclear when the charge would begin, and argues that capacity should have to be provided at the commencement of the planning year.

Consumers contends that all providers' resource adequacy filings should be available for review by utilities and other interested parties subject to a protective order, and all retail electric providers should be treated similarly with respect to confidentiality.

Consumers expresses a preference for the phased-in locational requirement. Consumers argues that no provider should be considered to have demonstrated sufficient capacity if it only has

enough to meet 85% of its PRMR four years ahead. Consumers maintains that the 15% gap unreasonably risks grid reliability.<sup>10</sup>

In its reply comments, Consumers disagrees with Energy Michigan's assertion that there should be no limit on the ability of AESs to use the auction for demonstration purposes, because the auction provides no forward assurance that capacity will be available. In response to CNE, Consumers argues that all electric providers should be treated equally with respect to the ability to rely on the auction, and that 5% is an appropriate level for addressing changing circumstances. Consumers also posits that capacity needs to be tied to a specific resource. Finally, Consumers objects to confidentiality provisions that would preclude review of the information subject to a protective order.

MISO commends the Commission's proactive approach to the issues arising from Section 6w. MISO provides a description of its own requirements, and indicates its agreement with the Staff's proposed interpolation/extrapolation method. In its reply comments, MISO emphasizes that its resource adequacy processes are complementary to state reliability mechanisms.

GRACC comments that a locational requirement violates Act 341, noting that such a requirement was included in the Senate-passed version of the bill and was eventually replaced with compromise language allowing the use of any resource that MISO allows without reference to a locational requirement. If required, GRACC prefers the incremental approach.

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<sup>10</sup> Consumers also asserts that it has, historically, built and acquired generation in order to serve bundled and choice load. Consumers' annual filings in the Commission's reliability investigations appear to contradict this assertion. *See, e.g.*, Consumers' Exhibit 3 in its responsive filings in Case Nos. U-18197 and U-17992. According to the Staff's assessment, Consumers appears to have begun subtracting choice load for capacity planning purposes at least as far back as 2006.

MCC expresses concern about the legality of a locational requirement, and opines that the Commission may be entering into matters of federal jurisdiction. If required, MCC prefers the incremental approach. In its reply, MCC indicates that it agrees with the comments of GRACC and Energy Michigan regarding the locational requirement.

ABATE supports the Staff's proposed resource demonstration guidelines, but suggests that the calculation of zonal LCR should include the subtraction of non-pseudo tied exports (which, ABATE argues, may appear in Zones 2 or 7 someday). ABATE suggests that the zonal capacity import limit be drawn from the most recent MISO LOLE study using interpolation/extrapolation as necessary to estimate the zonal capacity import limit values for the planning year in issue.

ABATE also expresses the following concerns:

ABATE also has concerns with respect to Staff's proposed requirement that new demand response or energy efficiency resources include in an affidavit "a commitment to achieve and/or maintain at least the same level of resources four years forward." (Staff R&R at 8.) First, Staff has not applied this requirement to new or upgraded generation. (Id. at 7.) Second, the requirement makes no sense since there is nothing to maintain at the same level since the new demand response or energy efficiency is not currently being provided and will only be provided for the first time beginning four years forward. For these reasons, we recommend the Commission delete the words "including a commitment to achieve and/or maintain at least the same level of resources four years forward" from the affidavit requirement for new demand response or energy efficiency resources.

ABATE's comments, p. 4. ABATE agrees that the annual calculation of the PRMR and LCR should be subject to comment, and suggests the comments be supported by an affidavit. ABATE opposes the locational requirement, but prefers the incremental approach if required.

DTE Electric comments that the LCR proposals put forward by the Staff are inadequate. It also expresses concern that the proposed timeline will leave utilities with insufficient time to plan, stating "utilities should not be subject to penalties associated with insufficient capacity procurement in the initial years." DTE Electric's comments, p. 4 (note omitted). The company

states that the Commission should issue a final order in a show cause by May 23, 2018, authorizing the relevant utility to bill AES customers the appropriate charge beginning June 1, 2018; or, alternatively, authorize some charge that would be subject to a refund. DTE Electric comments that, for new generation resources, an officer affidavit alone is not sufficient for demonstration purposes, and additional evidence such as a permit application should be supplied. In its reply comments, DTE Electric indicates its agreement with the Staff that a plan to purchase ZRCs in the auction does not constitute a sufficient demonstration, and asserts that it is critical that demonstrations are backed by specific, physical units intended as resources, because MISO's resource adequacy construct does not ensure adequacy in states with retail competition.

Energy Michigan comments that neither federal nor state law authorize the Commission to "exceed its state or wholesale jurisdictional authority in setting either a LCR or a locational requirement applicable to individual electric providers," and states that Section 6w(6) prohibits the Commission from imposing a load-ratio share requirement of the LCR on AESs. Energy Michigan's comments, p. 3. Energy Michigan notes that a locational requirement was contained in earlier drafts of Senate Bill 437 but was later removed, signaling the legislative intent. Energy Michigan claims that any restriction on an AES's use of the MISO market to meet capacity obligations violates federal law, and that no such power has been delegated by FERC or MISO to the Commission.

Energy Michigan supports the Staff's proposal to use a format similar to the traditional annual investigations, but disagrees that it should cover five years, suggesting four years instead. Energy Michigan also objects to any requirement that forward ZRC contracts must specify the zonal locations of the ZRCs, and to any restriction on the use of the auction by AESs, noting that utilities have stated that they intend to use the auction for short-term purchases. If a locational requirement

is set, Energy Michigan prefers the incremental approach. In its reply comments, Energy Michigan indicates that it agrees with the comments of ABATE, MMG, and CNE regarding the affidavit supporting demand response and other resources, and supports the Staff's recommendation to continue the confidentiality measures in use with the current reporting forms. Energy Michigan indicates that it agrees with Wolverine that electric providers (and not customers) are responsible for capacity demonstrations and SRM payments, and customers should not pay a direct SRM charge.

Wolverine generally supports the Staff's proposals, but opposes any locational requirement, and any charge being placed directly on choice customers. Wolverine comments that a locational requirement will result in applying a charge when excess capacity exists. Wolverine encourages the Commission to establish the ability to use inter-peninsula transmission.

Representative Gary Glenn, 98th District, Michigan House of Representatives, comments that the Commission has no legal authority to impose a locational requirement under Act 341, and points to the comments filed by the Staff on May 26, 2017, in this docket opposing a locational requirement. Rep. Glenn posits that the requirement conflicts with the federally approved tariff of the regional electric grid operator and will cost Michigan schools and businesses hundreds of millions of dollars. Rep. Glenn states that a locational requirement will potentially end the choice program and re-monopolize Michigan electricity to the benefit of the incumbent utilities.

CNE supports the Staff's proposed timeline and most of the guidelines for the resource demonstrations, as well as the contested case process. CNE agrees with the five year requirement and the use of the existing forms. CNE proposes that the Commission use the data to determine a self-supply threshold for each AES for the applicable year, and proposes that electric providers be

allowed to plan to procure greater than 5% of their planned resources from the auction. CNE asserts that this will accommodate load changes that occur.

CNE suggests that, with respect to demand response (DR), the Commission recognizes that it is unlikely that customers will be willing to make a contractual DR commitment four years in advance, making it difficult for a corporate officer to sign an affidavit to that effect. CNE recommends that electric providers be allowed to update their capacity demonstrations annually to add DR resources, which is consistent with current contracting customs. CNE also suggests that the Commission recognize wholesale contracting customs in MISO with respect to forward contracts for delivery of ZRCs, which may not identify a specific resource. CNE comments that electric providers should be permitted to plan to meet up to 10% of their capacity demonstrations using ZRCs secured in the auction. CNE supports the Staff's recommendation that information continue to be submitted confidentially, under seal.

CNE opposes any locational requirement, arguing that "If Act 341 imposes a local resource requirement, then the law may be determined to conflict with federal wholesale power regulations providing suppliers with the ability to participate in the auction and acquire any ZRCs. It also could be viewed to unfairly erect a barrier to out-of-state resource participation in violation of the dormant Interstate Commerce Clause." CNE's comments, p. 14. If required, CNE prefers the incremental approach. In its reply comments, CNE emphasizes that electric providers should be allowed to update their demonstrations on an annual basis to reflect new DR resources, and urges the Commission to retain the confidentiality measures in place for past reliability investigations.

In its comments, USSC argues that a locational requirement would unnecessarily limit the amount of capacity that could be imported into Michigan, and would force choice customers to pay the utility's embedded capacity costs.

5. The Commission's Determination of Process and Capacity Obligations Under Section 6w

A. The Planning Reserve Margin Requirement

As discussed above, each year, MISO establishes the PRMR. Through its stakeholder process, MISO determines the appropriate planning reserve margin for the applicable planning year based on a probabilistic analysis of the MISO region's ability to reliably serve its coincident peak demand for that planning year. The planning reserve margin is calculated to meet the reliability standard for the region. Applying the incremental planning reserve margin to the coincident peak demand for a particular electric provider yields its PRMR, or the total amount of capacity resources that are required to reliably serve the provider's projected peak demand.

Under Section 6w, the Commission is required to establish a forward planning reserve margin requirement. MCL 460.6w(8)(c) requires the Commission to request technical assistance from the ISO in determining the PRMR applied under Section 6w, and, where necessary, set the PRMR, consistent with federal requirements, to be applied under Section 6w. MCL 460.6w(12)(e) defines PRMR for purposes of Section 6w as the amount "as set by the commission or the appropriate [ISO] under subsection (8)."<sup>11</sup> Technical assistance from MISO has already been requested and rendered. The Commission accepts the PRMR as set by MISO for the prompt year, but must set its own for the three additional planning years addressed by Section 6w, because MISO does not. This approach is the fundamental improvement to reliability resulting from Section 6w and is consistent with the federal requirements.

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<sup>11</sup> The Commission notes that there is language in MISO Module E-1 (Sections 68A and 69A of the MISO Tariff) that addresses the ability of a state regulatory body to establish a PRMR different from MISO's. The Commission finds that Section 6w is not referring to this language, and that the PRMR set by MISO for each prompt year is the PRMR that applies in Michigan.

The Commission adopts the Staff's proposed calculation of the PRMR, which appears on p. 2 of Attachment A. This calculation method comports with MISO processes, and does not appear to have been the subject of much contention in the conferences or comments. By December 15, 2017, each electric distribution company must provide to MISO the peak load contribution for each AES in its service territory, which reflects each AES's share of responsibility for serving load on MISO's peak day. By January 15, 2018, each AES must have reviewed its peak load contribution and must notify MISO if revisions are necessary, or confirm to MISO that it is responsible for its assigned load. At that point, each AES's capacity responsibility under MISO's construct will be set for the planning year that begins on June 1, 2018, and the Commission will adopt MISO's determinations. Thus, the Staff's calculation relies on the aggregate peak load contribution of the relevant electric provider in 2018.

For planning years 2019-2021, the electric provider's capacity obligation shall be equal to its 2018 peak demand plus the planning reserve margin projection for the applicable year, as specified by MISO in its LOLE Study Report for the applicable year, or as interpolated and tabulated in Attachment A. The Commission understands that there is significant complexity and uncertainty surrounding the determination of peak load contribution for electric providers, and that electric providers have until January 15 to dispute their assignment with MISO. That said, the Commission will ultimately adopt the peak load contributions as determined on January 15 in the existing MISO process.

Due to fluctuations in customer demand and availability of resources that may occur over the four-year period, the Commission is also allowing electric providers to plan on up to 5% of their portfolio to be acquired through MISO's annual capacity auction. Based on MISO data, this is consistent with the historical use of the MISO auction in Michigan at the aggregate level (some

individual providers may use the auction more or less).<sup>12</sup> Any excess or deficiency in supplies in real time can be bought or sold in this annual auction as well, just as it is done today. As such, the Commission has determined that the capacity demonstrations made by the electric providers in this matter will be subject to the following requirements for owned or contracted resources sourced outside of the auction:

Planning Year	2018/ 19	2019/ 20	2020/ 21	2021/ 22	2022/ 23	2023/ 24	2024/ 25	2025/ 26	2026/ 27
Non-auction Purchases (%)	NA	95%	95%	95%	TBD	TBD	TBD	TBD	TBD

The first planning year is a transitional year, and the Commission finds that electric providers will need the maximum amount of flexibility in light of the compressed timeline that Section 6w presents and the direct overlap with the MISO requirements; thus, electric providers can use the auction for 100% of the demonstration if necessary. Defaulting to the MISO requirements in the first year is also the best way to ensure consistency with the MISO tariff.

After the first planning year, the nature of the locational requirement will have been determined in a separate proceeding (discussed below), and the Commission and electric providers will have one year of experience under their belts. The Commission rejects commenters’ proposal to allow more than 5% of auction-based resources in the out years, because anything more than 5% could create a situation where the determination comes too late for the affected utility to plan to meet the incremental capacity obligation. The Commission will evaluate, as part of a contested case process, the percentage of non-auction purchases applicable for planning years 2022 and beyond in order to make refinements if needed based on the impact of energy waste reduction initiatives or other considerations.

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<sup>12</sup> <https://www.misoenergy.org/Library/Pages/ManagedFileSet.aspx?SetId=2054>

It is essential to note that the Commission is in no way restricting access to the auction. Electric providers are neither relieved from nor restricted from fully participating in the MISO auction. The Commission also recognizes the risk that the overall capacity position of a particular electric provider may change (either through load variability, or the UCAP capacity rating of generation resources, or other unforeseen circumstances) between the time that they make their capacity demonstration and the time in which the load and resources are cleared in the MISO auction. The Commission supports the continued use of the MISO auction as a clearing mechanism, in which any variation in load requirements, generator capacity ratings, or other unforeseen circumstances can be rectified. Subsequent to an electric provider making a capacity demonstration that satisfies all requirements put forth by the Commission, any and all variation realized in an interim year may be handled through ZRC purchases or sales in the auction.

Once the Commission has determined that the capacity demonstration made by an electric provider is sufficient, it shall not be re-litigated or “trued-up” in the interim years. If, subsequent to its initial satisfactory capacity demonstration, an electric provider experiences an unforeseen significant outage at one of its generation assets, or has an unforeseen variation in its total load obligations, these matters will be settled in the auction without penalty. The Commission finds that an electric provider’s initial capacity demonstration will not be re-examined to reconcile projected interim year load obligations or generating resource capacity ratings with actual values that are experienced in that interim year. The Commission recognizes that all of these determinations depend on projections, and finds that giving finality to the process will benefit all parties by creating certainty that demonstrations will not be subject to retroactive reviews.

## B. The Legal Underpinnings of the Forward Locational Requirement

By far the most contentious issue, in both the development of Section 6w through the legislative process and during the collaborative proceeding to establish a capacity demonstration process, has to do with establishment of a forward locational requirement for generation resources used to meet capacity obligations to enhance reliability in Michigan.

As discussed above, MISO establishes a locational requirement each year, known as the LCR, which recognizes the necessity for a certain amount of the capacity resources needed to meet PRMR to be located within a specific geographic area. The LCR can be expressed as a percentage of the overall PRMR. In the Lower Peninsula (MISO Zone 7), for the 2017/18 planning year, the LCR is 94.7% of PRMR. This means that 94.7% of the capacity resources that Zone 7 needs to be able to reliably serve electric customers have to come from within Zone 7. This is relatively high compared to other zones in the MISO footprint, as shown:

Local Resource Zone	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10
PRMR	18,316	13,366	9,781	9,894	8,598	18,422	22,295	8,329	20,850	4,902
LCR	15,975	11,980	7,968	5,839	5,885	13,005	21,109	6,766	17,295	4,831
LCR/PRMR (%)	87.2%	89.6%	81.5%	59.0%	68.4%	70.6%	94.7%	81.2%	82.9%	98.6%

Zone 7's LCR is higher than other areas in MISO due to a number of factors, including the age and reliability of resources within the zone, the geographic nature of the zone (a peninsular state with limited interconnection), and the amount of available transmission import capacity. It is important for the Commission to be cognizant of these factors when setting capacity obligations under Section 6w, both to ensure that its decisions do not hinder the reliability of Michigan's electric grid, as well as to take into consideration the potential financial consequences associated with not meeting the MISO LCR. As envisioned by Section 6w, it is also important to ensure the state's capacity obligations are consistent with and complementary to MISO's tariff to avoid or minimize any impact on MISO's auction process.

Under Section 6w, the Commission is required to establish a forward local clearing (locational) requirement. MCL 460.6w(8)(c) requires the Commission to request technical assistance from the ISO in determining the LCR applied under Section 6w, and, where necessary, set the LCR, consistent with federal requirements, to be applied under Section 6w. MCL 460.6w(12)(d) defines LCR for purposes of Section 6w as the amount as determined by the appropriate ISO “and by the commission under subsection (8).” As stated, technical assistance from MISO has already been requested and rendered.

Several commenters have argued that Section 6w does not give the Commission authority to establish a forward locational requirement. As the Commission found in its June 15 order, pp. 10-11:

As defined in Section 6w(12)(d), “local clearing requirement” means “the amount of capacity resources required to be in the local resource zone in which the electric provider’s demand is served to ensure reliability in that zone as determined by the appropriate independent system operator for the local resource zone in which the electric provider’s demand is served and by the commission under subsection (8).” As noted above, in requesting assistance from MISO in determining capacity obligations, the Commission is tasked with requesting technical assistance in determining this local clearing requirement.

Section 6w(8) also requires individual electric providers to demonstrate to the Commission that they can meet capacity obligations. The Commission is directed to require each electric provider to demonstrate that it “owns or has contractual rights to sufficient capacity to meet its capacity obligations as set by the appropriate independent system operator, or commission, as applicable” four years into the future. These capacity obligations necessarily include a local clearing requirement.

It is clear that the statute requires the Commission to create capacity obligations, that these capacity obligations include a locational requirement, and that the Commission, in setting locational capacity obligations, is allowed to require a demonstration by individual electric providers that the resources that they use to meet their capacity obligations meet a local clearing requirement. The Commission acknowledges the inter-relatedness of the MISO and Section 6w capacity demonstration processes, but also points out that these are distinct activities. These activities should be harmonized to the extent practicable, but the

fundamental responsibility of the Commission is to meet Michigan’s statutory obligations.

Thus, the Commission finds that a locational requirement is required under Section 6w and that a locational requirement applicable to individual LSEs is allowed as part of the capacity obligations set forth by the Commission pursuant to Section 6w in order to ensure all providers contribute to long-term resource adequacy in the state.

GRACC and Energy Michigan point to previous versions of the legislation. The Commission acknowledges that previous versions of the legislation included a detailed methodology relative to determining the share of a forward locational requirement each provider would have to demonstrate. What changed from the version passed by the Senate to the one ultimately enacted into law is not that a locational requirement went away entirely, but that an explicit methodology was removed and replaced with provisions that leave decisions on the methodology of how to establish the locational requirement up to the Commission. Rather than a prescriptive requirement that, say, each electric provider is required to demonstrate 50% of their proportional share of an overall LCR, the statute gives the Commission flexibility to determine how best to establish a forward locational requirement and the resources that qualify to meet that requirement.

Several commenters also rely on Section 6w(6) to argue that a forward locational requirement is not authorized under the statute because providers are allowed to meet capacity obligations “through owned or contractual rights to any resource that the appropriate independent system operator allows to meet the capacity obligation of the electric provider,” which “shall not be applied in any way that conflicts with a federal resource adequacy tariff, when applicable.” As described above, MISO annually sets both a PRMR and an LCR. Resources used to meet the PRMR may be sourced from anywhere within MISO. Resources used to meet the LCR must come from within the zone in question. This means that in order to determine what resources count to meet MISO capacity obligations, it must be determined which MISO capacity obligation is being

referred to – when it is MISO’s LCR, then resources sourced from anywhere within MISO will not necessarily count. The statutory language is important, because there are resources that are not physically located in the Zone but count toward that Zone’s LCR under current MISO rules. Ensuring consistency between the Section 6w obligations and MISO rules on details such as this was an important consideration in the legislation; these provisions as well as Section 6w’s requirement for the Commission to seek technical assistance from the independent system operator in setting the PRMR and LCR and “assessing resources to ensure that any resources will meet federal reliability requirements” reinforce how the legislation sought to align the federal and state resource adequacy mechanisms.

Commenters also argued that the locational requirement should not be applied to individual electric providers because the statute does not allow it, and the LCR in MISO applies to the Zone as a whole through the auction. The Commission disagrees. First, any entity that FRAPs under MISO’s process must demonstrate they have sufficient resources that are physically located in the local zone (or otherwise count toward the LCR) to meet their proportional share of the LCR. MISO’s FRAP process is akin to what is envisioned with the Section 6w capacity demonstration process. Second, the Commission notes additional language in Section 6w that supports the conclusion that a locational requirement should be applied to an individual electric provider.

Section 6w(8)(b) provides that:

One or more municipally owned electric utilities may aggregate their capacity resources that are located in the same local resource zone to meet the requirements of this subdivision. One or more cooperative electric utilities may aggregate their capacity resources that are located in the same local resource zone to meet the requirements of this subdivision. A cooperative or municipally owned electric utility may meet the requirements of this subdivision through any resource, including a resource acquired through a capacity forward auction, that the appropriate independent system operator allows to qualify for meeting the local clearing requirement.

This provision allowing municipally-owned and cooperative electric utilities to aggregate their resources in order to meet the requirements of Section 6w(8) clearly implies that these utilities would otherwise be required to meet the requirements on an individual basis. The Commission finds that it would be unreasonable to interpret the statute such that this obligation for individual compliance “for meeting the local clearing requirement” is placed solely on municipally-owned and cooperative utilities under Section 6w. The Commission can find nothing in the law, and no rational basis, to indicate an intent to place a local clearing requirement only on non-profit utilities. Instead, the law is more logically understood to require that all individual utilities be treated similarly in terms of requirements, and that the aggregation option was intended to assist non-profit utilities (many of which are small) to comply more easily. Thus, this language further supports the Commission’s interpretation that a locational requirement is authorized and may be applied to individual electric providers. It is worth emphasizing that this does not mean the Commission accepts the regulated utilities’ positions on this matter. Indeed, the Commission reinforces a point made in its June 15 order that allocating a proportional share may not be equitable or reasonable, could lead to excess procurement, and would put incumbent utilities at a distinct advantage.

Many commenters also argue that if the Commission establishes a forward locational requirement, this will conflict with MISO’s FERC-approved tariff. The Commission reiterates that MISO establishes capacity obligations for the upcoming planning year, while Section 6w requires that providers demonstrate they can meet their capacity obligations four years into the future. By setting a forward capacity obligation, the Commission does not replace or supplant the MISO prompt year capacity obligation. Rather, the Commission, pursuant to Section 6w, is attempting to ensure that the needs of all electric customers in the state are being planned for in

advance. The Commission views the forward capacity obligations it sets under Section 6w, and the demonstrations that will be made by providers, as being distinct from but complementary to MISO's resource adequacy construct, and as providing visibility into the state's projected resource adequacy farther into the future than existing processes allow. Suppliers will still be required to meet capacity obligations established by MISO once the planning year in question arrives.

Even MISO acknowledges this in its reply comments, p. 1, stating:

MISO's resource adequacy processes do not preclude the Michigan PSC from requiring LSEs to make a forward showing of its ZRCs. Because of the prevalence of bilateral contracting and cost-of-service regulation within MISO's footprint, it is not uncommon for LSEs to procure ZRCs well in advance of the relevant Planning Year. MISO's Resource Adequacy Requirements do not in any way affect state actions over entities subject to a state's jurisdiction. Rather, MISO's resource adequacy processes are complementary to the reliability mechanisms of the states.

As MISO's comments reflect, FERC does not claim exclusive jurisdiction in the field of resource adequacy. Rather, FERC is required to ensure that all rates and charges in connection with the wholesale sale or transmission of electric energy are just and reasonable. 16 USC 824(b)(1); 16 USC 824d(a); 16 USC 824e(a). FERC has repeatedly confirmed that both FERC and the states have jurisdiction over resource adequacy, stating "We will defer to state and local entities' decisions when possible on resource adequacy matters," and that "as a general matter, a state or region may determine in the first instance the appropriate level of planning reserves by balancing reliability and cost considerations." *California Independent System Operator Corp (CAISO)*, 119 FERC ¶ 61,076 at P 540, p. 212 (2007); *ISO New England, Inc.*, 121 FERC ¶ 61,125 at P 47, p. 13 (2007) (citation omitted); *see also, CAISO*, 116 FERC ¶ 61,274 at P 1112, p. 305 (2006). Clearly, the LCR is a central part of MISO's tariff and FERC's approval of that tariff. The Commission, in designing any forward locational requirement, would seek to ensure that the energy providers in the state can meet the LCR over the long term in a cost-effective manner and avoid impacting the

federal resource adequacy provisions or wholesale markets. The Commission has the discretion under Section 6w to establish a forward locational requirement, and doing so is not inconsistent with – indeed, is complementary to – the MISO tariff.

### C. The LCR and Future Contested Case

Notwithstanding the preceding discussion, the Commission is concerned that the collaborative process utilized in this proceeding did not result in information regarding either the phase-in approach or incremental approach sufficient to allow the Commission to make a decision on a forward locational requirement at this time. The Commission believes that a full record, which more deeply explores issues related to establishment of a forward locational requirement and which is developed through a contested case process, is necessary to establish an appropriate allocation of the forward locational requirement. Thus, the Commission declines to set an individual allocation of the forward locational requirement for the 2018/19 through 2021/22 planning years. Instead, the Commission is adopting the calculation methodology to set the zonal forward locational requirement, as proposed by the Staff, discussed in the technical conferences, and clarified in MISO's August 15 comments, for the 2018/2019 through 2021/2022 planning years. The Commission intends to open a new docket for the purpose of making a determination on the methodology to set a forward locational requirement for the 2022/2023 planning year and subsequent planning years, and to examine the methodology for determining the PRMR starting with the 2022/2023 planning year as well. The reasons for this are several.

In the near term, reliability remains a concern; but the Staff observed in its June 27 memo in this docket that it is expected that MISO has adequate capacity over the next five planning years. The Commission is well aware how these projections can change abruptly and significantly based on load forecasts and generator availability. Despite this uncertainty, the current supply outlook,

combined with the other aspects of the capacity demonstration requirements set forth in this order, will ensure that all electric providers are taking proactive steps to secure available capacity or invest in new capacity over the next four years. This is a marked improvement over the status quo, which relied on “just in time” capacity through the MISO annual auction. The Staff and others, in comments posted in this docket, have also stressed the potential financial risk associated with a local resource zone not meeting MISO’s LCR, so there are still financial incentives in place to source capacity locally.

Further, utilities have built out their electric generation systems over decades and have sourced nearly all of their generation resources locally, while any forward locational requirement that is instituted will be applicable to AESs for the first time. It has been noted by some commenters that, depending on how a locational requirement is structured, there may not be adequate capacity in Zone 7 for AESs to meet such a requirement in the upcoming planning year. Providing adequate time to implement a new locational requirement is an acknowledgement of this reality.

There have been arguments made that costs are shifted to full service utility customers that otherwise would have been borne by AES customers – that is, if AES customers were actually utility customers, and were helping to offset utility embedded costs, then rates for full-service customers would be lower. The Commission is not persuaded that this is the case – both Consumers and DTE Electric have indicated in their filings in this docket and elsewhere that while they have adequate resources to serve their projected full-service load, they are expressly not planning to serve potential choice load. Further, both have argued that they would likely have to procure capacity resources from MISO’s auction to serve choice load under the SRM until new resources could be acquired or built over a longer term.

Ultimately, the Commission wants to ensure that the electric grid is reliable and that resource adequacy needs are being met. Given the realities of Michigan's retail market structure and the interplay with MISO's resource adequacy construct, as well as the potential impact any new locational requirement may have on customer costs, it is important for the Commission to ensure that appropriate standards are developed through a fair and open process.

Thus, allowing for more time before a forward locational requirement is implemented, and making decisions about how the requirement is determined through a more formal proceeding, is justified. In a new docket which will be opened in the near future, the Commission will seek additional information to establish the methodology and mechanics for determining an allocation of the forward locational requirement. For example, in potentially looking at an incremental requirement, the time period covered (starting and ending dates), load forecasts, how to determine what plant retirements to factor into the projected need, and what capacity additions should be considered, would all need to be determined. Allocations among providers would also be an issue with any methodology. In examining an approach where shares of a forward requirement would be allocated among providers, determination of projected future needs, how allocations should take place, and in what amounts, would all be crucial. These are just some of the issues that will need to be considered in the upcoming case, and the Commission looks forward to robust participation from interested parties.

#### D. The Capacity Demonstration Process

Turning to the demonstration requirements, the Commission appreciates the hard work of the stakeholders and especially the Staff to reach the significant amount of consensus that was achieved in the technical conferences. Today, the Commission adopts much of the content of the

Staff's Report, with some minor revisions, as reflected in Attachment A to this order, the Capacity Demonstration Process and Requirements.

i. Timeline for Filings and the Staff's Determinations

The Commission finds that the suggested timeline was supported by the stakeholders, but agrees with commenters that the demonstrations should cover four years rather than five, because Section 6w focuses on the initial four year period. The Commission acknowledges that, in the first year, if any show cause proceedings are commenced and result in the imposition of an SRM charge beginning on or near September 1, 2018, the utility covering that load would not have been able to rely on the auction from the prior spring, and will see the charge commence approximately three months later than the earliest possible date allowed under the statute, but cannot see any other way to carry out the duties placed upon the Commission in a prudent and thoughtful manner, and in compliance with due process requirements.

The show cause proceedings are subject to the typical standards for intervention, and the Administrative Law Judge will be in charge of the schedule for each proceeding, subject to the need to accommodate a final order no later than September 1 of each year. The AES that is the subject of the show cause proceeding would still have its obligation under the MISO tariff to participate in the auction on behalf of its load, because its capacity obligations would not have been transferred to the incumbent utility at that point in time. Any SRM charges authorized by the Commission on or after September 1 may be adjusted to reflect the amount of auction purchases made by the AES on behalf of the load in question based on record evidence presented in the case.

In today's order in Case No. U-18441, the Commission opens the docket that will be the repository for all of the electric providers' filings for the initial demonstrations. In that order, the Commission finds that the regulated electric utilities and AESs shall file demonstrations for the

first four planning years, and the cooperatives and municipally-owned utilities shall file demonstrations for the planning year four years out (but requests that they provide demonstrations for the full four years, as discussed below). The Commission has adjusted the timeline slightly to require that the Staff file the memo in that docket indicating its determination on each electric provider's demonstration by March 6, 2018. The Staff is directed to prepare and file in the docket a table that identifies the capacity by type for each individual electric provider. To avoid revealing the identity of individual electric providers, the capacity can be stated in percentages with the electric providers identified by number instead of name (e.g., electric provider 1's capacity is 50% from owned resources, 25% under PPA, and 25% new DR).

The extent of the information required by the Commission underlies the decision to give the Staff additional time. However, the Commission recommends that, where it is quickly obvious to the Staff that a show cause order is warranted, the Staff could so indicate in the docket prior to March 6, 2018, so that those proceedings may be commenced as soon as possible and before the full analysis is due. Pursuant to Section 6w(8)(d), the Staff is required to work with MISO to determine whether specific resources put forward by an electric provider meet federal reliability requirements, and the Staff's determinations will be supported by that requirement for federal-state cooperation.

#### ii. Resource Demonstrations

The Commission adopts the guidelines for resource demonstrations as reflected in Attachment A. These are largely identical to those contained in the Report, except to add that commitments of resources must apply to load in the applicable Michigan Zone. The Commission finds that copies of supply contracts are essential because the Staff cannot be put in the position of needing to request more documentation – the timeline simply does not allow for that. The

Commission approves the proposal to grandfather the 20+ year municipal contracts. The Commission has considered the comments, and is not persuaded that the language of the affidavits requires revision. The Commission understands that the affidavits represent a snapshot in time – reflecting the resource circumstances as known to the company officer at the time that the affidavit is signed – and that the situation may change. The demonstrations are annual and, if resource applicability has changed during the preceding year, then the demonstration information should be updated, even if the electric provider will continue to satisfy its capacity requirements.

iii. Confidentiality

The Commission is not persuaded that all electric provider filings should be made available to all stakeholders subject to a protective order. The regulated utilities have failed to provide a convincing reason to deviate from the treatment these filings have received in the annual reliability investigations. *See*, the May 11, 2017 order in this docket, item no. 51. The Commission adopts the confidentiality provisions pertaining to the proceeding initiated by the January 12, 2017 order in this docket. All electric providers will be treated identically with respect to confidentiality. Thus, electric providers may request assistance from the Executive Secretary in making confidential filings of commercially sensitive information in the docket in Case No. U-18441. Confidential filings may be viewed by the Staff, but may not be viewed by other electric providers. If a show cause is commenced, any party may seek intervention in that matter, and questions regarding discovery will be handled in the first instance by the Administrative Law Judge.

iv. Providers in the PJM Footprint

Finally, the Commission disagrees with the Staff's recommendations respecting the timing of capacity demonstrations for electric providers in the PJM footprint. PJM has a mandatory three-

year forward capacity market for electric providers.<sup>13</sup> While the Commission does not have enforcement authority over cooperative and municipally-owned electric utilities, Section 6w(11) leaves it to the Commission's discretion to determine a generation capacity charge under PJM's reliability assurance agreement. MCL 460.6w(8)(b)(ii), 460.6w(11). The Commission has not opened any SRM charge proceedings for electric providers in PJM's footprint. However, the Commission finds that electric providers in the PJM footprint should file capacity demonstration plans on the same date as other providers, that is, December 1 for regulated utilities and February 9 for cooperatives and municipally-owned utilities. The RPMBRA is in May, and the Commission finds that providers should indicate in their demonstrations whether they intend to participate in that auction or not. If an electric provider participates in the RPMBRA, it should file an amended capacity demonstration two weeks after the close of the RPMBRA.

#### 6. Summary of Findings and Conclusions

Section 6w of PA 341 was enacted to enhance the reliability of Michigan's electric grid, specifically by requiring all electric providers to secure sufficient supplies of electric capacity to serve their anticipated customer needs four years in advance. Through this order, the Commission is establishing the requirements and process for each electric provider to make such demonstrations to the Commission.

The Commission is providing flexibility for electricity providers to use a broad range of options to meet the requirements such as new or existing generation, purchased power contracts, and new or existing energy waste reduction or demand response programs consistent with the applicable independent system operator's tariff. Capacity supplies can be sourced from out of state

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<sup>13</sup> In the September 25, 2012 order in Case No. U-17032, the Commission approved a state compensation mechanism for AES capacity in I&M's Michigan service territory. I&M currently has no choice load.

but the electric provider must own or have contractual rights to the supply. This will improve reliability because capacity at the state and regional level will actually be secured in advance, whether that is taking advantage of excess supply that exists today or investing in new resources. This approach is also cost effective because the electric provider is in the best position to pursue the lowest-cost options to meet its customers' needs in a reliable manner and to manage the risk of importing capacity supplies from out of state. Unlike approaches in some states that provide incentives or subsidies to specific types of generation in an attempt to protect reliability or meet other policy objectives, Michigan's approach is "fuel neutral." That is, electric providers know their capacity requirement four years into the future through this order and the provider – not the state – determines what fuel or combination of fuels to use, potentially taking into account factors such as reliability, fuel diversity, plant performance, cost, environmental impact, and risk.

Due to fluctuations in customer demand and availability of resources that may occur over the four-year period, the Commission is also allowing electric providers to plan on up to 5% of the portfolio to be acquired through MISO's annual capacity auction. Based on MISO data, this is consistent with the historical use of the auction in Michigan at the aggregate level.

While the Commission has the authority under Section 6w to apply a local clearing requirement to individual electric providers, it does not impose such a requirement for planning years 2018-2021. The Commission instead seeks additional information through a formal hearing process in order to determine the proper methodology and allocation of a locational requirement, which would apply in 2022.

The Commission recognizes that ensuring resource adequacy entails involvement of both state and federal regulators, and is implementing the provisions of Section 6w with an eye towards maintaining consistency with federal resource adequacy requirements as reflected in the FERC-

approved MISO tariff. In setting capacity obligations and establishing a capacity demonstration process pursuant to Section 6w, the Commission does not seek to supplant or replace the MISO prompt year capacity obligations, but to complement MISO's resource adequacy construct by providing longer-term visibility into the resource adequacy planning efforts of electric providers in the state. Further, the Commission recognizes that efforts to ensure resource adequacy have impacts on both full-service and electric choice customers, and intends to continue to work toward maintaining reliability of the electric grid in a consistent and cost-effective manner.

Key findings and conclusions are as follows:

1. Each load serving entity in the state must show it owns or has contractual rights to sufficient capacity to meet capacity obligations set by MISO or the Commission, as applicable, as set forth in the order and the requirements in Attachment A of this order, under the timelines established in Section 6w for the respective type of load serving entity. Electric cooperatives and municipally-owned utilities may aggregate capacity resources to meet the capacity requirements pursuant to Section 6w(8)(b).

2. The Commission adopts the review process for evaluating each individual load serving entity's capacity demonstration filings as outlined by the Staff, discussed in this order, and set out in Attachment A. Show cause proceedings shall be initiated if an individual load serving entity does not appear to have sufficient capacity based on the Staff's assessment. Such a proceeding will provide an opportunity for parties to present evidence on whether the electric provider has failed to demonstrate it can meet a portion or all of its capacity obligations, thereby triggering Commission action as set forth in Section 6w(8)(b)(i)-(iii).

3. Pursuant to Section 6w(8)(c), the Commission requested and received technical assistance from MISO, the appropriate independent system operator, in determining the PRMR and LCR for

purposes of determining capacity obligations. For purposes of the capacity obligations, in establishing the PRMR for planning years 2018-2021 the Commission adopts the calculation methodology outlined in Attachment A, which utilizes the MISO PRMR data published in the MISO Loss of Load Expectation Study, pursuant to Module E of its FERC-approved tariff. For planning years 2018-2021, the Commission is adopting the proposed calculation methodology to set the forward locational requirement of each Zone, as proposed by the Staff, discussed in the technical conferences, and clarified in MISO's August 15 comments.

4. Based on Section 6w, the MISO tariff, and applicable case law, a properly designed locational requirement applied to individual load serving entities as part of a demonstration that capacity obligations have been met is consistent with these requirements. Except as applicable under MISO's tariff, a locational requirement will not be applied to individual load serving entities during planning years 2018-2021 as part of the transition to the new capacity obligations required under Section 6w. A formal contested case proceeding is necessary to provide an opportunity for parties to present and challenge evidence in order for the Commission to determine a just and reasonable locational requirement and methodology that is consistent with federally approved tariffs, which will be applied beginning in the 2022 planning year.

5. The Commission's determination of capacity obligations under Section 6w does not relieve or restrict a load serving entity's rights and responsibilities under the FERC-approved tariffs, including access to and participation in the capacity auction.

6. Pursuant to Section 6w(8)(d), the Commission requests continued technical assistance from MISO, the applicable independent system operator, to assist with determining whether resources meet federal reliability requirements as part of the Section 6w capacity demonstration review process. The Staff shall coordinate with MISO accordingly.

7. Electric providers in the PJM footprint should file capacity demonstration plans on the same date as other electric providers, that is, December 1, 2017, for regulated utilities and February 9, 2018, for cooperatives and municipally-owned utilities, and should indicate in their demonstrations whether they intend to participate in PJM's auction or not. If an electric provider participates in the auction, it should file an amended capacity demonstration two weeks after the close of the RPMBRA.

THEREFORE, IT IS ORDERED that:

A. The Capacity Demonstration Process and Requirements, attached hereto as Attachment A, are approved.

B. Capacity demonstrations shall be filed in Case No. U-18441, in accordance with Attachment A.

C. This docket is closed.

The Commission reserves jurisdiction and may issue further orders as necessary.

Any party desiring to appeal this order must do so in the appropriate court within 30 days after issuance and notice of this order, pursuant to MCL 462.26. To comply with the Michigan Rules of Court's requirement to notify the Commission of an appeal, appellants shall send required notices to both the Commission's Executive Secretary and to the Commission's Legal Counsel.

Electronic notifications should be sent to the Executive Secretary at [mpscedockets@michigan.gov](mailto:mpscedockets@michigan.gov) and to the Michigan Department of the Attorney General - Public Service Division at [pungp1@michigan.gov](mailto:pungp1@michigan.gov). In lieu of electronic submissions, paper copies of such notifications may be sent to the Executive Secretary and the Attorney General - Public Service Division at 7109 W. Saginaw Hwy., Lansing, MI 48917.

MICHIGAN PUBLIC SERVICE COMMISSION

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Sally A. Talberg, Chairman

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Norman J. Saari, Commissioner

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Rachael A. Eubanks, Commissioner

By its action of September 15, 2017.

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Kavita Kale, Executive Secretary

ATTACHMENT A: CAPACITY DEMONSTRATION PROCESS AND REQUIREMENTS

**Capacity Demonstration Process**

Capacity Demonstration Docket Opened - Includes capacity obligations for initial demonstration	Commission Staff issues memo in docket with updated capacity obligations based upon latest MISO LOLE report	Utilities file capacity demonstrations in same docket	AESs, Cooperatives, Municipalities file capacity demonstrations in same docket	Commission Staff issues memo regarding sufficiency of capacity demonstrations in docket	Commission Order on capacity demonstration, possibly opening new contested case(s) to impose SRM charges
September 2017	Nov-17	December 1, 2017	February 9, 2018	March 6, 2018	March, 2018
Commission issues orders in any cases to assign AES capacity obligations to utilities and impose SRM charges; Commission also opens docket for 2022/23 demonstration	Commission Staff issues memo in docket with updated capacity obligations based upon latest MISO LOLE report	Utilities file capacity demonstrations in same docket	AESs, Cooperatives, Municipalities file capacity demonstrations in same docket	Commission Staff issues memo regarding sufficiency of capacity demonstrations in docket	Commission Order on capacity demonstration, possibly opening new contested case(s) to impose SRM charges
September 1, 2018*	November 1, 2018	December 1, 2018	February 11, 2019	March 6, 2019	March, 2019

\* process would repeat annually

One docket will be opened in the fall of 2017 for the initial capacity demonstrations for planning years 2018/19 through 2021/22. The Commission order opening the docket will provide requirements for LSEs to follow in making capacity demonstrations and include the capacity obligations to be applicable for 2018/19 through 2021/22.

The capacity demonstration obligations will be determined in a consistent and transparent manner. Based upon the most recently published LOLE study by MISO, the following data shall be utilized for capacity obligations for the initial capacity demonstration for planning years 2018/19 through 2021/22.<sup>1</sup>

The capacity demonstrations filed in this docket shall include four years of load obligations and owned or contracted resources, similar to the requests that the Commission has made in previous years. Each LSE’s applicable capacity obligation will be based upon its most recent PRMR determination, as specified by MISO. For the initial four planning years, and then for every fourth planning year following the initial demonstration, the following minimum guidelines shall be utilized for the demonstration of planning resources.

<sup>1</sup> 2017 MISO LOLE Study, <https://www.misoenergy.org/Library/Repository/Study/LOLE/2017%20LOLE%20Study%20Report.pdf>, accessed 7/27/17.

For the purposes of the first demonstration for purposes of the SRM (Utilities filing in December 2017; AES/Municipals/Cooperatives filing in February 2018) the total capacity obligation shall be defined as follows:

$$\text{LSE Capacity Obligation} = (\text{Aggregate PLC of LSE in 2018}) * (\text{PRM UCAP})^2$$

Planning Year	2018/19	2019/20	2020/21	2021/22
PRM UCAP	7.5%	7.3%	7.3%	7.4%

Based on this formula, an LSE’s total capacity obligation that it will be required to demonstrate that it has owned or contracted resources to satisfy will be based on its total 2018 peak demand for all four years of its demonstration. For years 2019 – 2021, the LSE’s capacity obligation shall be equal to its 2018 peak demand plus the planning reserve margin projection for the applicable year, as specified in by MISO in its LOLE Study Report, and outlined in the table above.

The peak load contribution (PLC) determination for ROA customers should be made through a cooperative process which is consistent with current MISO rules for dispute resolution. These PLC determinations will ultimately drive the total amount of capacity obligation that an AES will be required to meet in its annual demonstration before the Commission.

Based on comments received by MISO, the determination of the zonal LCR will be calculated as shown in the tables below:

<b>MISO Zone 2</b>					
<b>Planning Year</b>	<b>Peak Demand {1}</b>	<b>LRR UCAP per-unit of LRZ peak demand {2}</b>	<b>LRR ({1}*{3})</b>	<b>Capacity Import Limit {4}</b>	<b>LCR ({3}-{4})</b>
<b>2017/18</b>	12,982.0	111.7%	14,500.9	2,075	12,425.9
<b>2018/19</b>	14,006.0	111.8%	15,651.7	2,075	13,576.7
<b>2019/20</b>	15,030.0	111.8%	16,803.5	2,075	14,728.5
<b>2020/21</b>	15,030.0	112.1%	16,855.1	2,075	14,780.1
<b>2021/22</b>	15,030.0	112.5%	16,906.6	2,075	14,831.6
<b>2022/23</b>	15,030.0	112.8%	16,958.1	2,075	14,883.1
<b>2023/24</b>	15,030.0	113.2%	17,009.7	2,075	14,934.7
<b>2024/25</b>	15,030.0	113.5%	17,061.2	2,075	14,986.2
<b>2025/26</b>	15,030.0	113.9%	17,112.7	2,075	15,037.7
<b>2026/27</b>	15,030.0	114.2%	17,164.3	2,075	15,089.3

<sup>2</sup> PRM UCAP values by year as reported in the most recent MISO LOLE Study Report.

MISO Zone 7					
Planning Year	Peak Demand {1}	LRR UCAP per-unit of LRZ peak demand {2}	LRR ({1}*{3})	Capacity Import Limit {4}	LCR ({3}-{4})
2017/18	21,607.0	114.1%	24,653.6	3,320	21,333.6
2018/19	21,666.5	113.7%	24,624.0	3,320	21,304.0
2019/20	21,726.0	113.2%	24,593.8	3,320	21,273.8
2020/21	21,736.6	113.4%	24,652.4	3,320	21,332.4
2021/22	21,747.1	113.6%	24,711.0	3,320	21,391.0
2022/23	21,757.7	113.8%	24,769.6	3,320	21,449.6
2023/24	21,768.3	114.1%	24,828.3	3,320	21,508.3
2024/25	21,778.9	114.3%	24,887.0	3,320	21,567.0
2025/26	21,789.4	114.5%	24,945.8	3,320	21,625.8
2026/27	21,800.0	114.7%	25,004.6	3,320	21,684.6

For planning years 2018/19 through 2021/22, the zonal LCR will not be allocated to individual LSEs except as required by MISO in the administration of its tariff and business practices, as applicable. Any individual allocation of the zonal LCR for planning year 2022/23 and beyond will be established by the Commission at a future date.

## **Resource Demonstrations**

### **Existing generation (owned)**

The minimum acceptable support for existing generation that is included in a capacity demonstration include:

- 1) an affidavit from an officer of the company claiming ownership of the unit(s), including a commitment of the unit(s) to LSE load in the applicable Michigan zone four years forward,
- 2) a copy of the existing ZRC qualification of the unit(s) from the MISO Module E Capacity Tracking Tool, and
- 3) if there are retail tariffs or customer contracts associated with the resources, copies should be provided.

### **Existing demand response or energy efficiency resources (that have not been netted against load)**

The minimum acceptable support for existing demand response resources or energy efficiency resources that have not already been netted against load include:

- 1) an affidavit from an officer of the company outlining the resource(s), including a commitment to maintain at least that same level of resources four years forward,
- 2) a copy of the existing ZRC qualification of the resource(s) from the MISO Module E Capacity Tracking Tool, and

- 3) if there are retail tariffs or customer contracts associated with the resources, copies should be provided.

### **New or upgraded generation (owned)**

The minimum acceptable support for proposed new generation include:

- 1) an affidavit from an officer of the company outlining the detailed plans for the new generation including milestones such as planned in-service date, expected regulatory approval date(s), planned date to enter the MISO generator interconnection queue, expected date for MISO generator interconnection agreement, construction timeline, etc., and
- 2) documentation supporting the expected ZRC qualification from MISO for the new unit(s), and
- 3) if there are retail tariffs or customer contracts associated with the resources, copies should be provided.

For new generation submitted as part of a capacity demonstration, the Commission finds that all of the above data be updated and submitted on an annual basis with each subsequent capacity demonstration until the unit(s) are in service.

### **New demand response or energy efficiency resources (that have not been netted against load)**

The minimum acceptable support for new demand response resources or energy efficiency resources that have not already been netted against load included in a capacity demonstration include:

- 1) an affidavit from an officer of the company outlining the plans for the resource(s), including a commitment to achieve and/or maintain at least that same level of resources four years forward, and
- 2) specific plans to have the resource(s) qualified by the independent system operator, and
- 3) if there are retail tariffs or customer contracts associated with the resources, copies should be provided.

For new demand response or energy efficiency resources submitted as part of a capacity demonstration, the Commission finds that all of the above data be updated and submitted on an annual basis with each subsequent capacity demonstration until the resource(s) are in service. Final qualification / approval from the independent system operator should be submitted in a subsequent demonstration.

### **Existing generation (capacity contract)**

The minimum acceptable support for capacity contracts with existing generation include:

- 1) an affidavit from an officer of the company including a copy of the contract that specifies the unit(s) or pool of generation that is the source of the contract, including the location of the unit(s) or pool. The affidavit should include a commitment to maintain the contracted amount four years forward regardless of any early out clauses in the contract, and
- 2) a copy of the existing ZRC qualification of the unit(s) or pool from the MISO Module E Capacity Tracking Tool that the LSE obtains from the asset owner and includes with the demonstration filing.

### **Forward ZRC contracts**

The minimum acceptable support for forward ZRC contracts include an affidavit from an officer of the company including a copy of the contract that specifies the zonal location of the ZRCs. The affidavit should include a commitment to maintain the contracted amount four years forward regardless of any early out clauses in the contract. A forward ZRC contract that does not specify the zonal location of the ZRCs will be deemed insufficient towards meeting any portion of a locational requirement, unless the LSE provides other alternative support for the location of the ZRCs.

### **PRA Purchases**

The amount of ZRCs planned to be purchased in the MISO PRA that will be deemed prudent in an approved capacity demonstration will be limited to the following percentage of the LSE’s total PRMR requirement.

<b>Planning Year</b>	<b>2018/ 19</b>	<b>2019/ 20</b>	<b>2020/ 21</b>	<b>2021/ 22</b>	<b>2022/ 23</b>	<b>2023/ 24</b>	<b>2024/ 25</b>	<b>2025/ 26</b>	<b>2026/ 27</b>
PRA Purchases (%)	N/A	5%	5%	5%	5%	5%	5%	5%	5%

### **Utilization of the MISO PRA in interim years**

A capacity demonstration filed by an LSE that includes a plan to purchase ZRCs in the PRA four years in the future in excess of the allowable amounts outlined above, will not constitute a demonstration that the LSE owns or has contracted resources to meet its future capacity obligations.

Once the Commission has determined that the capacity demonstration made by an LSE is deemed to be sufficient, it shall not be re-litigated or “trued-up” in the interim years. If, subsequent to its initial satisfactory capacity demonstration, an LSE experiences an unforeseen significant outage at one of its generation assets, or has an unforeseen variation in its total load obligations, these matters will be settled in the PRA. The LSE’s initial capacity demonstration will not be re-examined to reconcile projected interim year load obligations or generating resource capacity ratings with actual values that are experienced in that interim year.

### **Additional Considerations for Capacity Demonstrations**

Other types of documentation submitted as part of a capacity demonstration will be evaluated on a case by case basis. While some of the documentation that is required to be filed in these proceedings is commercially sensitive, competitive information and should continue to be treated in a confidential manner, as has been done in the past. The Staff shall file a memo in the docket two weeks after the final capacity demonstrations are filed outlining its findings from the demonstration filings including a listing of any entities whose demonstration, in Staff’s opinion, did not completely pass muster.

In the case where a demonstration filing does not pass Staff’s muster, Staff would recommend that the Commission open a contested case docket, whereby the LSE in question could attempt to prove that its capacity demonstration should be deemed acceptable. The outcome of that case would be a

Commission order potentially authorizing SRM capacity charges to ROA customer load. Any contested demonstration cases will be opened as soon as practicable following the issuance of the Staff memo and be completed within six months.

If an LSE had met the capacity demonstration requirements, no contested case will be opened and no further action will be taken regarding any capacity demonstration that was deemed sufficient by Staff and accepted by the Commission.

### **Capacity Demonstrations for LSEs in PJM service territory**

PJM Interconnection LLC (PJM) has a mandatory forward capacity market for LSEs in its service territory. LSEs in the PJM service territory meet their Independent System Operator capacity obligations either through participation in PJM's Reliability Pricing Model (RPM) Base Residual Auction (BRA) or through PJM's Fixed Resource Requirement (FRR) capacity plan. The PJM capacity market is a three year forward market with the calendar aligned slightly differently than what exists with the MISO capacity market. PJM's tariff requires FRR entities (those that self-supply capacity as Indiana Michigan Power has done since the inception of the RPM construct in 2007) to prove capacity for the 2021/22 delivery year (June 2021 through May 2022) in April 2018. The BRA will be completed in May 2018 for the 2021/22 delivery year.

The timing of PJM LSEs capacity demonstrations will remain the same as expected of MISO LSEs, however, PJM LSEs will be allowed to file an amended capacity demonstration two weeks after the completion of the PJM RPM BRA if the LSE participates in the BRA. The capacity demonstration should include the FRR capacity plan and/or BRA results. Meeting PJM's capacity obligations, including any applicable Percentage Internal Resources Required for the delivery year will constitute a satisfactory demonstration.

### **Demonstration Format**

In addition to all of the items outlined above, the following forms shall also be utilized by the LSE in filing its demonstration.

**Planning Reserve Margin Requirements and Planning Resources to be Acquired (UCAP MW)**

Line	(a)	(b)	(c)	(d)	(e)
	Sample Calc.	PY 2018-2019	PY 2019-2020	PY 2020-2021	PY 2021-2022
1	Forecasted Bundled (or AES) Non-Coincident Peak Demand, MW (from Ex. 1 or Ex. 2)	11,111			
2	Internal Demand Response Programs that are applied as an adjustment to the Peak forecast, MW	11			
3	Adjusted Forecasted Bundled (or AES) Non-Coincident Peak Demand, MW (line 1 - line 2)	11,100			
4	Load Diversity Factor coincident to MISO, %	98.00%			
5	Adjusted Forecasted Bundled (or AES) Coincident Peak Demand, MW (line 3 x line 4)	10,878			
6	Transmission Losses, %	2.80%			
7	Adjusted Total Peak Demand, MW (line 5 -(line 5 x line 6))	10,573			
8	Applied Transmission Losses, MW (line 5 x line 6)	305			
9	Adjusted Total Peak Demand, MW (same as line 7)	10,573			
10	Planning Reserve Margin % UCAP Basis	7.10%	7.50%	7.30%	7.30%
11	Total Planning Reserve Margin Requirement (expected reserves), UCAP MW ((line 8 + line 9) x (1 + line 10))	11,650			
12	Company Owned, In-State, Non-Intermittent, MW	8,890			
13	Company Owned, Out-of-State, Non-Intermittent, MW	120			
14	Company Owned, In-State, Intermittent, MW	660			
15	Company Owned, Out-of-State, Intermittent, MW	100			
16	Total Company Owned Generation, MW (line 12 + line 13 + line 14 + line 15)	9,770			
17	Load Modifying Resources, Treated as Capacity, MW	420			
18	Applied Transmission Losses, MW (line 17 x line 6)	12			
19	Total Qualified Demand Response Resources including PRM <sub>UCAP</sub> , MW ((line 17 + line 18) x (1 + line 10))	462			
20	PPA, In-State Intermittent Resource, MW	100			
21	PPA, Out-of-State Intermittent Resource, MW	200			
22	PPA, PURPA (BTMG), MW	26			
23	PPA, Intermittent (BTMG), MW	6			
24	Other Forward Capacity Contract, MW - In-State	220			
25	Other Forward Capacity Contract, MW - Out-of-State	0			
26	Total PPA, MW (line 20 + line 21 + line 22 + line 23 + line 24 + line 25)	552			
27	Total Planning Resources, MW (line 16 + line 19 + line 26)	10,784			
28	UCAP Surplus/(Shortfall), MW (line 27 - line 11)	(866)			

**Demand Response - Capacity Resources**

( a )	( b )	( c )	( d )	( e )
	Demand Response Program Name	Demand Response Program (MW)	Credit Transmission Losses and PRM <sub>UCAP</sub> (MW)	Total MW per Program Name
<b>PY 2018-UCAP</b>				
<b>Total Demand Response - Capacity Resources PY 2017-2018 (MW)</b>				
<b>PY 2019-UCAP</b>				
<b>Total Demand Response - Capacity Resources PY 2018-2019 (MW)</b>				
<b>PY 2020-UCAP</b>				
<b>Total Demand Response - Capacity Resources PY 2019-2020 (MW)</b>				
<b>PY 2021-UCAP</b>				
<b>Total Demand Response - Capacity Resources PY 2020-2021 (MW)</b>				

\* Expand each planning year section as necessary to accommodate all DR programs that are used as capacity resources.

**Company Owned Electric Generation Resources**

Line	(a) Electric Generation Unit Name	(b) Fuel or Renewable Type	(c) Specify: LRZ 2, LRZ 7, I&M, Other	(d) Located in Michigan (Y/N)	(e) If outside of MI, Contracted Trans Service (Y/N)	(f) P.A. 295 Resource (Y/N)	(g) (h) (i) (j) ICAP (MW)				(k) (l) (m) (n) UCAP (MW)			
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\* Add rows to accommodate all generating units as necessary.  
 \* Please use UCAP data for ICAP columns for run-of-river hydroelectric power, wind power and solar power resources.

**Generation Resources Under PPA or Other Capacity Contract**

Line	(a) Electric Generator Name	(b) Fuel or Renewable Type	(c) Specify: LRZ 2, LRZ 7, I&M, Other	(d) Located in Michigan Y/N	(e) PA 295 Y/N	(f) PA 295 BTMG Y/N	(g) PURPA Y/N	(h) Other Bilateral PPA Y/N	(i) ICAP MW Contracted				(m) UCAP MW Contracted				
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\* Add rows to accommodate all generating units as necessary.  
 \* Please use UCAP data for ICAP columns for run-of-river hydroelectric power, wind power and solar power resources.

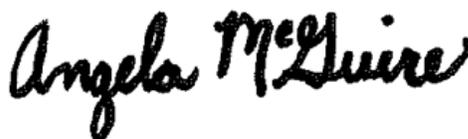
# P R O O F O F S E R V I C E

STATE OF MICHIGAN )

Case No. U-18197

County of Ingham )

Angela McGuire being duly sworn, deposes and says that on September 15, 2017 A.D. she electronically notified the attached list of this **Commission Order via e-mail transmission**, to the persons as shown on the attached service list (Listserv Distribution List).



---

Angela McGuire

Subscribed and sworn to before me  
this 15th day of September 2017



---

Carol M. Casale  
Notary Public, Saginaw County, Michigan  
Acting in Eaton County  
My Commission Expires: December 13, 2020

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