

139 FERC ¶ 61,199
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Philip D. Moeller, John R. Norris,
and Cheryl A. LaFleur.

Midwest Independent Transmission System
Operator, Inc.

Docket No. ER11-4081-000

ORDER ON RESOURCE ADEQUACY PROPOSAL

(Issued June 11, 2012)

	<u>Paragraph Numbers</u>
I. Background	<u>2.</u>
II. Notice of Filings and Responsive Pleadings.....	<u>7.</u>
III. Discussion.....	<u>15.</u>
A. Procedural Matters	<u>15.</u>
B. Substantive Matters	<u>18.</u>
1. Proposed Resource Adequacy Construct in the Context of Resource Planning in the MISO Region.....	<u>18.</u>
a. MISO Proposal	<u>18.</u>
b. Comments and Protests	<u>20.</u>
c. Answers	<u>29.</u>
d. Commission Determination	<u>37.</u>
2. Minimum Offer Price Rule Mitigation.....	<u>44.</u>
a. MISO Proposal	<u>44.</u>
b. Comments and Protests	<u>49.</u>
c. Answers	<u>57.</u>
d. Commission Determination	<u>66.</u>
3. Locational Market Mechanism.....	<u>71.</u>
a. Creation of Local Resource Zones	<u>78.</u>
b. Zonal Deliverability Charge.....	<u>89.</u>
c. Grandmother Agreements	<u>107.</u>
d. Zonal Deliverability Charge Hedge	<u>116.</u>
e. Zonal Deliverability Benefit.....	<u>141.</u>
f. Multi-Zone Optimization Methodology	<u>156.</u>
4. Annual Planning Resource Auction and Forward Period.....	<u>175.</u>
a. MISO Proposal	<u>175.</u>

b. Comments and Protests	<u>176.</u>
c. Answers	<u>182.</u>
d. Commission Determination	<u>187.</u>
5. Load Forecasting	<u>189.</u>
a. Coincident Peak Demand Forecast Methodology	<u>190.</u>
b. MISO Review of Forecasts	<u>199.</u>
c. Load Forecasting in Retail Choice Areas	<u>205.</u>
6. Energy Efficiency Resources	<u>227.</u>
a. MISO Proposal	<u>227.</u>
b. Comments and Protests	<u>229.</u>
c. Answer	<u>232.</u>
d. Commission Determination	<u>233.</u>
7. Planning Resource Requirements	<u>238.</u>
a. MISO Proposal	<u>238.</u>
b. Comments and Protests	<u>239.</u>
c. Answers	<u>241.</u>
d. Commission Determination	<u>245.</u>
8. Confidentiality Provisions	<u>246.</u>
a. MISO Proposal	<u>246.</u>
b. Comments and Protests	<u>247.</u>
c. MISO Answer	<u>249.</u>
d. Commission Determination	<u>250.</u>
9. Physical and Economic Withholding Thresholds	<u>252.</u>
a. MISO Proposal	<u>252.</u>
b. Comments and Protests	<u>253.</u>
c. MISO Answer	<u>259.</u>
d. Commission Determination	<u>260.</u>
10. Transition from Module E to Module E-1	<u>266.</u>
a. MISO Proposal	<u>266.</u>
b. Comments and Protests	<u>267.</u>
c. Answer	<u>273.</u>
d. Commission Determination	<u>274.</u>
11. Transmission Losses	<u>275.</u>
a. MISO Proposal	<u>275.</u>
b. Comments and Protests	<u>276.</u>
c. Commission Determination	<u>280.</u>
12. Cost of New Entry	<u>281.</u>
a. MISO Proposal	<u>281.</u>
b. Comments and Protests	<u>282.</u>
c. Answer	<u>287.</u>
d. Commission Determination	<u>288.</u>
13. FRAP Mechanics	<u>292.</u>
a. MISO Proposal	<u>292.</u>

b. Comments and Protests	294.
c. Commission Determination.....	300.
14. Miscellaneous Issues	303.
a. Treatment of Jointly-Owned Facilities.....	303.
b. Business Practice Manuals Issues	305.
c. Zonal Resource Credits from Mothballed Facilities	307.
d. Price Taker Language.....	309.
e. Demand Response Issues	311.
f. Capacity Portability	316.
g. Additional Clarifications.....	333.

1. On July 20, 2011, Midwest Independent Transmission System Operator, Inc. (MISO) filed proposed revisions to its resource adequacy construct, as set forth in Module E of its Open Access Transmission, Energy and Operating Reserve Markets Tariff (Tariff).¹ MISO states that these revisions were intended to comply, in part, with Commission's order addressing concerns about the deliverability of capacity resources throughout the MISO region.² In addition, MISO proposes several wholesale changes to its capacity market. As discussed below, we conditionally accept MISO's filing to be effective October 1, 2012, subject to further compliance.

I. Background

2. The Commission conditionally approved MISO's existing resource adequacy construct in March 2008.³ In the March 2008 Order, the Commission generally accepted MISO's plan to create a mandatory planning reserve margin for each Load Serving Entity (LSE) and to require each LSE to bilaterally procure capacity to satisfy its planning reserve margin.⁴ On compliance, the Commission required MISO to propose financial settlement provisions for the resource adequacy construct, which would assess a financial settlement charge on LSEs that are deficient in meeting their resource adequacy

¹ Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Fourth Revised Vol. No. 1.

² See *Midwest Indep. Transmission Sys. Operator, Inc.*, 126 FERC ¶ 61,144 (2009) (Locational Requirements Order), *order rejecting compliance filing*, 131 FERC ¶ 61,228 (2010) (Locational Requirements Compliance Order), *order on clarification*, 135 FERC ¶ 61,081 (2011).

³ *Midwest Indep. Transmission Sys. Operator, Inc.*, 122 FERC ¶ 61,283 (March 2008 Order), *reh'g denied*, 125 FERC ¶ 61,061 (2008).

⁴ *Id.* PP 360, 365, and 376.

requirements.⁵ Observing the importance of resource deliverability, the March 2008 Order also required MISO to “clarify the method it [would] use to ‘establish additional planning zones . . . to address regional issues,’” such as transmission constraints, and to include the details of its zonal methodology in the Tariff.⁶

3. MISO submitted the requisite financial settlement provisions in June 2008. At that time, MISO proposed to assess financial settlement charges against LSEs that failed to satisfy the resource adequacy requirement.⁷ In addition, MISO proposed to establish the current voluntary capacity auction “to allow LSEs with insufficient capacity to satisfy their resource adequacy requirements with planning resources from market participants that have excess planning resources.”⁸ In support of the voluntary construct, MISO argued that its proposal represented “a reasonable compromise position between those stakeholders that opposed any type of capacity auctions and those that advocated mandatory capacity auctions.”⁹ In the Financial Settlement Order, the Commission accepted the voluntary construct because “[t]he voluntary auction will afford LSEs with an additional mechanism to procure needed capacity and increase transparency in the procurement of capacity.”¹⁰ The Commission further emphasized that its acceptance was based “solely on the reasonableness of the auction mechanism in providing a useful alternative option for obtaining capacity in the [MISO].”¹¹ The Commission further explained that it did not consider the voluntary auction as a precursor to a mandatory

⁵ *Id.* P 179.

⁶ *Id.* P 169.

⁷ *Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,060, at P 9 (2008) (Financial Settlement Order), *order on reh’g and compliance*, 127 FERC ¶ 61,054 (2009) (Financial Settlement Rehearing Order), *order on reh’g and compliance*, 137 FERC ¶ 61,213 (2011) (Financial Settlement Second Rehearing Order).

⁸ *Id.* P 8.

⁹ *Id.* P 32.

¹⁰ *Id.* PP 36-38.

¹¹ *Id.* P 38.

capacity auction.¹² The Commission also rejected arguments that a mandatory auction or a mandatory centralized capacity market is necessary to ensure resource adequacy.¹³

4. With respect to the development of additional planning zones, the Commission conditionally accepted MISO's compliance filing.¹⁴ However, the Commission remained concerned with resource deliverability, as it has throughout the development of MISO's resource adequacy construct.¹⁵ The Commission observed that, "[a]ny congestion limits the ability of the system operator to import additional resources and those limitations must be reflected in the creation of additional zones."¹⁶ Specifically, the Commission shared deliverability concerns raised by numerous stakeholders about a possible "disconnect between the deliverability analysis used in the creation of planning zones and the analysis used to evaluate designated capacity resources."¹⁷ As a result, the Compliance Order required MISO to further "clarify . . . and/or align the deliverability requirements of planning reserve zones and capacity resources."¹⁸

5. The Commission once again expressed its concern that transmission constraints would limit aggregate deliverability in the Locational Requirements Order.¹⁹ Despite conditionally accepting MISO's proposed clarification, the Commission explained "that a more robust and permanent approach to addressing congestion that limits aggregate deliverability is ultimately required."²⁰ In order to resolve these deliverability concerns,

¹² *Id.*

¹³ *Id.* P 39. The Commission also declined to require MISO to "adopt a downward-sloping demand curve in the mold of PJM and the New York ISO." *Id.*

¹⁴ *Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,062, at P 160 (2008) (Compliance Order), *order on reh'g and compliance*, Locational Requirements Order, 126 FERC ¶ 61,144 (2009).

¹⁵ For example, the Commission emphasized that "deliverability within zones is an important principle that [MISO] should weigh when determining the zonal configurations." March 2008 Order, 122 FERC ¶ 61,283 at P 170.

¹⁶ Compliance Order, 125 FERC ¶ 61,062 at P 160.

¹⁷ *Id.* P 162.

¹⁸ *Id.*

¹⁹ Locational Requirements Order, 126 FERC ¶ 61,144 at P 47.

²⁰ *Id.*

the Commission directed MISO to evaluate locational capacity requirements in other regions to ensure sufficient capacity is available in import-restricted zones to satisfy the planning reserve margin. Further, the Locational Requirements Order directed MISO to “inform the Commission . . . what steps are being taken to develop a more permanent approach.”²¹ The Commission subsequently rejected MISO’s filing submitted in compliance with the Locational Requirements Order because MISO had failed to address aggregate deliverability in the region.²² Thus, the Commission clarified that the Locational Requirements Order requires MISO to “develop a plan that details the steps that will be taken to incorporate [locational] market mechanisms into the Resource Adequacy Plan.”²³

6. In the instant filing, MISO proposes numerous changes to the existing resource adequacy construct. First, whereas the current construct embodies a monthly planning reserve margin, MISO proposes to require LSEs to obtain sufficient planning resources on an annual basis. Second, MISO proposes to allow LSEs to satisfy the planning reserve margin through self-scheduling and opt-out procedures, in addition to participation in a voluntary annual capacity auction. Third, MISO proposes to establish seven local resource zones to ensure that sufficient qualified planning resources, including load modifying resources, are deliverable to meet load requirements in each portion of the MISO region. MISO also proposes a Zonal Deliverability Charge to reflect differences in zonal prices for LSEs with load and resources in different zones.²⁴ Fourth, MISO’s proposal establishes a Minimum Offer Price Rule (MOPR) to mitigate the exercise of buyer-side market power for certain resources.

II. Notice of Filings and Responsive Pleadings

7. Notice of MISO’s filing was published in the *Federal Register*, 76 Fed. Reg. 45,241 (2011), with comments and protests due on or before September 15, 2011.

²¹ *Id.*

²² Locational Requirements Compliance Order, 131 FERC ¶ 61,228 at P 23.

²³ *Id.* P 24.

²⁴ Zonal Deliverability Charge is defined as “[a] charge per [zonal resource credit] that may be assessed to an LSE based upon the congestion contribution to the constraints between [local resource zones] of any [zonal resource credits] that are located outside of the [local resource zone] where the LSE has Load.” Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [1.705a, Zonal Deliverability Charge \(ZDC\), 0.0.0.](#)

8. Timely motions to intervene were filed by: Constellation Energy Commodities Group, Inc. and Constellation NewEnergy, Inc.; Dominion Resources Services, Inc.; Edison Mission Energy; Energy Curtailment Specialists, Inc.; EnergyConnect, Inc.; EnerNOC, Inc.; Exelon Corporation; Great River Energy; Invenergy Wind Development LLC and Invenergy Thermal Development LLC; JP Morgan Ventures Energy Corp.; LS Power Associates, L.P.; Wolverine Power Supply Cooperative, Inc.; Shell Energy North America (US), L.P.; PPL EnergyPlus, LLC.

9. Notices of intervention and comments/protests were filed by: the Organization of MISO States; Illinois Commerce Commission (Illinois Commission); and Indiana Utility Regulatory Commission (Indiana Commission).

10. Motions to intervene and comments/protests were filed by: Alliant Energy Corporate Services, Inc.; Ameren Services Company (Ameren); American Electric Power Service Corp.; American Municipal Power, Inc. (AMP); American Public Power Association; Capacity Suppliers;²⁵ Citizens Against Rate Excess; Coalition of Midwest Transmission Customers, Illinois Industrial Energy Consumers and Wisconsin Industrial Energy Group; Consumers Energy Company (Consumers Energy); Dairyland Power Cooperative, Hoosier Energy Rural Electric Cooperative, Inc., and Southern Illinois Power Cooperative (Cooperatives); Demand Response Supporters;²⁶ Detroit Edison Company (Detroit Edison); Duke Energy Indiana, Inc. (Duke); Electric Power Supply Association (EPSA); Xcel Energy Services, Inc. (Xcel); GenOn Energy Management, LLC and GenOn Wholesale Generation, LP (GenOn); Illinois Municipal Electric Agency (Illinois Municipal); Indiana Municipal Power Agency; Indiana Office of Utility Consumer Counselor, Iowa Office of Consumer Advocate, Minnesota Department of Commerce, Missouri Office of the Public Counsel, Montana Consumer Counsel, and Citizens Utility Board of Wisconsin (collectively, Consumer Advocates); Indianapolis Power & Light Company (Indianapolis Power and Light); Manitoba Hydro; Michigan Citizens Against Rate Excess (MICH-CARE); Michigan Public Power Agency and Michigan South Central Power Agency (Michigan Agencies); MidAmerican Energy

²⁵ Capacity Suppliers is an *ad hoc* coalition of power providers and LSEs in MISO comprised of Ameren Energy Marketing; Calpine Corporation; Constellation Energy Commodities Group, Inc.; Constellation NewEnergy, Inc.; Dynegy Power Marketing, LLC; Dynegy Midwest Generation, LLC; Exelon Corp.; FirstEnergy Solutions Corp.; and NextEra Energy Resources, LLC.

²⁶ Demand Response Supporters is an *ad hoc* coalition composed of Comverge, Inc.; EnergyConnect by Johnson Controls; EnerNOC, Inc.; and Energy Curtailment Specialists, Inc.

Company (MidAmerican); Midwest TDUs;²⁷ Midwest Transmission Customers, Illinois Industrial Energy Consumers and Wisconsin Industrial Energy Group (collectively, Industrial Customers); Northern Indiana Public Service Company; NRG Companies (NRG); Otter Tail Power Company (Otter Tail); Retail Energy Supply Association (RESA); Southern Indiana Gas & Electric Company; Union Power Partners, L.P. (Union Power); Wal-Mart Stores, Inc., Comverge, Inc., and Leggett & Platt, Inc. (collectively, Wal-Mart); Wisconsin Electric Power Company (Wisconsin Electric); and Wisconsin Public Service Corp. and Upper Peninsula Power Company (collectively, Wisconsin PSC).

11. Comments were filed by: the Minnesota Public Utilities Commission (Minnesota Commission); the South Dakota Public Utilities Commission (South Dakota Commission); Environmental Law & Policy Center (Environmental Center); the Citizens Utility Board (CUB Illinois); and the Citizens Utility Board of Wisconsin (CUB Wisconsin).

12. Motions to intervene out-of-time were filed by: PJM Power Providers Group (P3 Group); PJM Interconnection, L.L.C. (PJM); MISO's Independent Market Monitor (Market Monitor); and Monitoring Analytics, LLC (PJM Market Monitor).

13. On September 30, 2011, Capacity Suppliers filed an answer to several protests and comments filed in this proceeding. Cooperatives filed an answer in response to the comments of various parties. FirstEnergy Solutions Corp. filed answers to comments and/or protests filed by the Market Monitor, Ameren, and Capacity Suppliers. AMP filed an answer to comments submitted by the Market Monitor. Midwest TDUs filed an answer in response to the comments of the Market Monitor and Capacity Suppliers' September 30 Answer. On October 14, 2011, MISO submitted an answer to several comments/protests filed in this proceeding.²⁸ On February 6, 2012, MISO submitted an additional answer in response to comments submitted by PJM. Duke submitted an answer in response to comments submitted by the P3 Group. The Organization of MISO States filed an answer in response to comments submitted by the Market Monitor and Capacity Suppliers. Detroit Edison and Consumers Energy submitted a joint response to comments submitted by Ameren.

²⁷ Midwest TDUs consist of Great Lakes Utilities; Madison Gas & Electric Company; Midwest Municipal Transmission Group; Missouri Joint Municipal Electric Utility Commission; Missouri River Energy Services; as well as Southern Minnesota Municipal Power Agency; and WPPI Energy.

²⁸ MISO's answer included proposed revisions to correct various typographical errors in the July 20 Filing.

14. Michigan Agencies submitted an answer to the protest and answer of Capacity Suppliers and to the comments submitted by the Market Monitor. On October 31, 2011, Capacity Suppliers submitted an additional answer in response to the answer submitted by MISO, among others. Wisconsin PSC submitted an answer in response to MISO's answer. Midwest TDUs filed an answer to the answer submitted by MISO. On October 31, 2011, Ameren filed an answer to the answer filed by MISO, as well as the answer jointly submitted by Detroit Edison and Consumers Energy. Indianapolis Power & Light filed an answer in response to MISO's answer, as well as various other pleadings filed in this proceeding. Duke submitted a supplemental answer addressing arguments raised in Capacity Suppliers' October 31 answer. PJM submitted an answer addressing capacity portability between MISO and the PJM region. The Market Monitor submitted an answer in response to PJM's comments. On March 22, 2012, Ameren filed an answer addressing capacity portability between the MISO and PJM regions. On April 18, 2012, Detroit Edison filed an additional answer addressing capacity portability between the MISO and PJM regions.

III. Discussion

A. Procedural Matters

15. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2011), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

16. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2011), the Commission will grant the late-filed motions to intervene given the parties' interests in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

17. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2011), prohibits an answer to a protest or answers unless otherwise ordered by the decisional authority. We will accept the answers because they have provided information that assisted us in our decision-making process.

B. Substantive Matters

1. Proposed Resource Adequacy Construct in the Context of Resource Planning in the MISO Region

a. MISO Proposal

18. MISO proposes to overhaul its resource adequacy construct and has filed Module E-1 to replace the currently effective Module E. As part of its filing, MISO proposes to allow LSEs to meet their planning resource requirements by: (1) participating in the

Planning Resource Auction (auction); (2) self-scheduling resources into the auction; or (3) opting out of the auction by submitting a fixed resource adequacy plan (FRAP). The self-scheduling option allows LSEs to offer capacity resources into the auction at a price of zero and then bid to purchase the same amount of resources. In other words, an LSE that selects the self-schedule option would be left financially indifferent because it would be buying and selling the same amount of capacity through the auction at the same capacity price. MISO also proposes to replace the current monthly auction framework in Module E with an annual auction.

19. MISO also asserts that LSEs can “opt out” of the auction by submitting a FRAP demonstrating that they have sufficient resources to cover all or a portion of their resource requirements. LSEs that own resources or have contractual commitments for resources that are in excess of their FRAPs may submit offers into the auction for all such excess resources.²⁹ Finally, under MISO’s proposal, LSEs whose FRAP does not cover all of their resource requirements will be required to make up any shortfall through the auction.

b. Comments and Protests

20. Some parties, including the Organization of MISO States, Otter Tail Power, and Midwest TDUs, argue that MISO’s proposal is well beyond the Commission’s previous orders,³⁰ has not been justified, and is not beneficial (if not harmful) to the MISO market. These parties claim that MISO is trying to create a centralized mandatory forward auction that is unnecessary and request a Commission order rejecting the filing in its entirety.³¹

21. In particular, some parties contend that a centralized capacity auction is not needed given the historic success of state integrated resource planning and the large amount of excess capacity in MISO.³² Accordingly, Consumer Advocates argue there is

²⁹ Excess resources refer to planning resources in excess of planning resources that are not designated to satisfy the capacity obligations of an LSE in the MISO region or exported. The zonal resource credits of such excess resources that are not offered into the auction are monitored by the Market Monitor and may be subject to mitigation. *See* Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [64.1.1](#), [63.3](#), [Categories of Conduct that May Warrant Mitigation, 1.0.0](#).

³⁰ Locational Requirements Compliance Order, 131 FERC ¶ 61,228; *Midwest Indep. Transmission Sys. Operator, Inc.*, 131 FERC ¶ 61,057 (2010).

³¹ Organization of MISO States Protest at 3-6; Otter Tail Protest at 3-4; Midwest TDUs Protest at 4-10.

³² MidAmerican Protest at 6; Organization of MISO States Protest at 3-6.

no capacity problem now, there has not been a capacity problem in the past, and there is not going to be a capacity problem in the foreseeable future.³³ Some parties also contend that MISO has not demonstrated the existence of a “missing money” problem where resource owners could not recover all of their fixed costs through the energy market that has been used to justify centralized capacity markets in the East.³⁴

22. Other parties question how a centralized capacity construct will impact self-supply and bilateral contracting and whether such a market will lead to high and volatile capacity prices.³⁵ Some parties also assert that the dynamic rule changes that tend to accompany mandatory capacity constructs would complicate and frustrate states’ and LSEs’ efforts to obtain or construct adequate resources at reasonable prices to customers.³⁶

23. Not all parties however, oppose a centralized capacity market construct. Parties such as Capacity Suppliers and others broadly support centralized capacity markets and assert that that they comply with the Commission’s prior directive that MISO develop a “permanent approach. . . that utilize[s] market mechanisms . . . to obtain sufficient local resources to ensure reliability.”³⁷ According to Capacity Suppliers, implicit in this directive is a finding by the Commission that the current capacity market is insufficient to ensure reliability over the long term. They further contend that single markets are most likely to result in the most efficient amount and mix of capacity.³⁸

24. Capacity Suppliers also argue that revenues for resource owners are currently not nearly sufficient in MISO to incent the development of new generation.³⁹ Capacity Suppliers also contend that a new construct is needed because conditions could change based on an aging generation fleet and potential consequences of environmental

³³ Consumer Advocates Protest at 19.

³⁴ American Public Power Association Protest at 12-13.

³⁵ Industrial Customers Protest at 7.

³⁶ *Id.* 7-8; *see also* American Public Power Association Protest at 13-15 (claiming that centralized capacity markets in the East have been unsuccessful because they have not elicited the development of new resources where they are most needed).

³⁷ Capacity Suppliers Protest at 4 (citing Locational Requirements Compliance Order, 131 FERC ¶ 61,228 at PP 23-24).

³⁸ *Id.* at 3-4.

³⁹ *Id.* at 7-8.

regulations.⁴⁰ Certain parties disagree with the assertion that Eastern capacity markets have been unsuccessful. These parties contend that such markets have proven successful in eliciting new resources, particularly demand response and kept other older resources from retiring.⁴¹

25. Various parties raise concerns about MISO's opt-out proposal. Some parties – especially those concerned about the mandatory nature of the auction – assert that the opt-out provision should allow LSEs to fully opt out of the auction. For example, the Indiana Commission notes that MISO's proposal requires LSEs to offer any excess capacity into the auction and, thus, requires LSEs to participate in the auction. Several parties, state commissions and utilities, including the Organization of MISO States and Alliant, argue that if the Commission accepts MISO's proposal, a full opt-out and the self-scheduling procedure is essential to protecting customers from higher costs and providing LSEs with needed flexibility.⁴²

26. EPSA also expresses concern about MISO's opt-out proposal and whether it should be a full opt-out, like in PJM. EPSA argues that LSEs could use the FRAP to exempt resources from mitigation and then bid them into the auction at an unmitigated price.⁴³ EPSA and other parties argue that such a strategy would enable them to exercise buyer-side market power by opting out with expensive resources and bidding lower cost ones into the market, suppressing prices.⁴⁴ Finally, EPSA questions whether both the opt out and self-scheduling provision are necessary in the MISO region.⁴⁵

27. Demand Response Supporters assert that the ability to partially opt-out hurts the ability of demand response resources to determine market opportunities, potentially compromising the establishment of a reliable supply of capacity over the long-term. Further, they argue that the ability to enter and leave the market freely will also serve to distort the long-term price signals that the capacity auction mechanism is intended to reveal because LSEs will be able to move capacity resources in and out of the auction supply stack.⁴⁶ Other parties, such as GenOn, also assert that the ability of LSEs to

⁴⁰ *Id.* at 4-5.

⁴¹ Wal-Mart Protest at 3-4.

⁴² Organization of MISO States Protest at 14; Alliant Protest at 8.

⁴³ EPSA Protest at 10.

⁴⁴ Capacity Suppliers September 30 Answer at 21.

⁴⁵ EPSA Protest at 10.

⁴⁶ Demand Response Supporters Protest at 11.

switch resources between being opted out and in the auction from year to year differs from PJM, which features a multi-year opt out, and facilitates gaming strategies.⁴⁷ NRG argues that if the Commission accepts an opt-out, it should direct MISO to make the opt-out at least five years.⁴⁸

28. Finally, certain parties contend that MISO's proposal infringes on state jurisdiction. Consumer Advocates argue that section 201(b)(1) of the Federal Power Act preserves state authority "over facilities used for the generation of electric energy" and that the Commission should "tread lightly" in ensuring that wholesale markets including such resources operate effectively.⁴⁹ Other parties argue that resource adequacy is state jurisdictional and that MISO's "mandatory auction in conjunction with the proposed mitigation provisions, could impinge on states pursuing their own policies."⁵⁰

c. Answers

29. MISO responds that, in addition to addressing the Commission's compliance requirements, its proposal appropriately resolves capacity issues raised by an independent consultant,⁵¹ improves reliability and addresses potential capacity shortages among other items. MISO notes that virtually all parties agree that its proposal is different from Eastern RTO capacity markets since it includes self-scheduling and opt-out provisions which permit LSEs to avoid the economic consequences of the auction, among other items. Therefore, MISO concludes that its proposal is far different from the types of mandatory capacity markets that Commission has approved for other RTOs.

30. MISO argues that the speculative gaming concerns raised by parties fail to consider the state regulatory oversight that market participants face. MISO notes that the self scheduling procedures enable market participants to exercise flexibility in meeting their planning requirements and expresses confidence that the Market Monitor will address any problems that may arise with respect to the self scheduling provisions.

⁴⁷ NRG Protest at 19; GenOn Protest at 5.

⁴⁸ NRG Protest at 19.

⁴⁹ Consumer Advocates Protest at 11-14.

⁵⁰ Industrial Customers Protest at 6-7; Organization of MISO States Protest at 6-8.

⁵¹ See The Brattle Group, Inc. (Brattle Group), *Midwest ISO's Resource Adequacy Construct: An Evaluation of Market Design Elements*, 56-57 (Jan. 19, 2010), available at http://www.brattle.com/_documents/UploadLibrary/Upload832.pdf (Brattle Report).

31. With regard to the FRAP provisions, MISO notes that it respects the rights of states and asserts that the FRAP procedures will allow a regulatory authority to decide how an LSE can meet its resource adequacy obligation. MISO also expresses confidence that the Market Monitor will address any problems that may arise with respect to the FRAP provisions.

32. Capacity Suppliers contend that MISO's current market is not working sufficiently in areas with retail choice and that irrespective of the corporate and regulatory structure in most of MISO, a centralized capacity market would be more efficient than use of numerous state approaches. Capacity Suppliers also dispute the argument that some protesters give that there is no capacity problem now, has not been one in the past, and will not be one in the foreseeable future. They argue that the Commission has already found the current market inadequate and that a more robust market is needed to ensure reliability.⁵²

33. Capacity Suppliers also dispute parties' assertions that there is no "missing money" problem in MISO. Additionally, they disagree with assertions that a centralized capacity market is inappropriate or unnecessary because it was not mandated by the Commission.⁵³ Capacity Suppliers argue that centralized capacity markets do work, pointing out the large amount of new resources, including demand response resources that resulted from Eastern RTO capacity markets. They contend that capacity markets can be more efficient in the long-run than the development of generators based on state resource plans.⁵⁴

34. Duke disagrees with Capacity Suppliers' contention that centralized capacity markets are more cost effective than state resource planning. It argues that (1) Capacity Suppliers have erred in their analysis by comparing the cost profiles of peaking and base load units and (2) that, as recognized by the Commission, state regulators consider factors other than cost when approving new resources.⁵⁵

⁵² Capacity Suppliers September 30 Answer at 3-5.

⁵³ *Id.* at 5-6.

⁵⁴ *Id.* at 5-7.

⁵⁵ Duke Answer at 1-3 (citing *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 76 Fed. Reg. ¶ 49,842, at PP 203-224 (Aug. 11, 2011), FERC Stats. & Regs. ¶ 31,323, at PP 203-224 (2011), *order on reh'g and clarification*, Order No. 1000-A, 139 FERC ¶ 61,132 (2012)).

35. Capacity Suppliers argue that there is no evidence that traditional cost-of-service regulation is cheaper than market-based approaches. Capacity Suppliers also highlight the improved transparency from centralized capacity markets and lack of hidden costs or rate cases. Further, they argue that there is no evidence that a centralized capacity market would disrupt existing business models, including the use of bilateral contracts, except when LSEs attempt to uneconomically enter the market.⁵⁶

36. Capacity Suppliers argue that the proposed opt-out should be rejected because it is unnecessary based on self-supply and hedging options. Further, argues Capacity Suppliers, the proposed opt-out allows gaming opportunities by only bidding inexpensive resources into the market.⁵⁷

d. Commission Determination

37. Before addressing the substantive concerns of parties, we address the procedural issues raised by parties that the July 20 Filing goes beyond the requirements of the Locational Requirements Order. Contrary to parties' assertions, MISO's filing was made pursuant to section 205 of the FPA, and MISO bears the burden of supporting its proposal as just and reasonable and not unduly discriminatory or prejudicial. MISO retains its section 205 filing rights, which it has exercised in this filing.⁵⁸

38. Turning to the substantive issues, the Commission has consistently rejected a one-size-fits-all approach to resource adequacy in the various RTOs due, in large part, to significant differences between each region. With regard to MISO, the Commission has recognized that "MISO does not face the same degree of transmission and generation constraints" that are faced in other RTOs.⁵⁹ As noted by several parties, MISO differs from other RTOs because of the extensive use of bilateral contracts and cost-of-service regulation in MISO as compared to the prevalence of retail-choice in other RTOs. It is for these reasons, as well as others, that the Commission accepted Module E and approved MISO's use of voluntary capacity auction in the March 2008 Order and the Financial Settlements Order.

⁵⁶ Capacity Suppliers September 30 Answer at 11-14.

⁵⁷ *Id.* at 17-18.

⁵⁸ MISO's filings in Docket Nos. ER08-394-028 and ER08-394-029, submitted in compliance with the Locational Compliance Order, 131 FERC ¶ 61,228, and *Midwest Indep. Transmission Sys. Operator, Inc.*, 131 FERC ¶ 61,057, respectively, are currently pending before the Commission.

⁵⁹ Financial Settlement Rehearing Order, 127 FERC ¶ 61,054 at P 30.

39. MISO's proposal, though introducing certain new features, largely maintains the existing resource adequacy construct. Under MISO's proposal, LSEs can continue fulfilling their capacity obligations through, self-supply, bilateral contracting, or through the auction. Based on MISO's proposal and our determination, discussed below, that deficient LSEs do not have to procure capacity through the market, Module E-1 retains the voluntary nature of the auction since LSEs can develop plans to meet all their resource requirements outside the auction. This feature of the MISO's proposal allows LSEs and their regulators to maintain significant flexibility when developing resource plans based on their specific region.

40. MISO's proposal requires that LSEs must obtain their resources in the auction – and pay the auction price – if they are resource deficient. Based on MISO's depiction of resource planning in its footprint to be based largely on bilateral arrangements,⁶⁰ as well as its intent to only supplement the current resource adequacy plan, rather than transform it into a mandatory forward capacity process,⁶¹ MISO has not justified the need for a mandatory auction. For this reason, we reject MISO's proposal for a mandatory auction for deficiencies. We direct MISO to address resource deficiencies without requiring a mandatory auction, and include these revisions in the compliance filing due within 30 days after the date of this order. In order to encourage LSEs to procure sufficient resources, one option would be a deficiency charge designed to be similar to the currently effective Financial Settlement Charge in section 69.9 of Module E, which is based on the Cost of New Entry, with modifications to make the proposed charge appropriate for the annual term of the proposed auction that differs from the currently effective monthly term of the auction.

41. We find MISO's proposed opt-out to be reasonable because it enables LSEs to manage how they will fulfill their capacity requirement. We note that this option ensures that the resource adequacy plan going forward maintains the voluntary framework of the currently effective resource adequacy plan, and therefore we do not expect it will impinge on state resource planning. However, the withholding of supplies in excess of FRAP can represent an exercise of market power, as the Commission has found in previous orders.⁶² Therefore market participants with FRAP supplies must comply with the withholding

⁶⁰ July 20 Filing, Affidavit of Todd P. Hillman ¶ 35 (Hillman Affidavit).

⁶¹ July 20 Filing at 6.

⁶² Financial Settlement Rehearing Order, 127 FERC ¶ 61,054 at P 122; Financial Settlement Second Rehearing Order, 137 FERC ¶ 61,213 at PP 67-69.

thresholds being established by the Market Monitor in compliance with the requirements of the Financial Settlement Second Rehearing Order.⁶³

42. We will not, as certain parties suggest, restrict the ability of parties to fulfill a portion of their capacity obligation through the opt-out and fulfill the remainder through the market. Similarly, we will not prohibit parties from opting out some years and participating in the auction in others. Parties favor such prohibitions largely because they are concerned that such activities could enable gaming strategies that use buyer-market power but evade mitigation. However, as discussed below, we do not believe – and MISO has not demonstrated otherwise – that such gaming is likely since utilities own the vast majority of capacity within MISO and therefore they would not benefit from lower prices in the voluntary capacity auction. Accordingly, we find MISO’s proposal to allow parties to opt out of the auction in one year and to meet part of their obligations through the auction to be just and reasonable.

43. Nor do we agree with Capacity Suppliers that the current capacity market – i.e., one that is based on a voluntary capacity auction – is insufficient to ensure reliability over the long term. We addressed that particular issue in the Financial Settlement Order. Specifically, the Commission held, “[w]e reject arguments that a mandatory auction or a mandatory centralized capacity market is necessary to ensure resource adequacy.”⁶⁴ We will not re-litigate that issue in this section 205 proceeding.

2. Minimum Offer Price Rule Mitigation

a. MISO Proposal

44. MISO proposes in its MOPR to address concerns that a market participant may improperly attempt to artificially depress the auction clearing price by constructing a new resource and submitting anticompetitive zonal resource credit offers from such a resource.⁶⁵ According to MISO, its proposal will “strike[] an appropriate balance

⁶³ Financial Settlement Second Rehearing Order, 137 FERC ¶ 61,213 at PP 67-69.

⁶⁴ Financial Settlement Order, 125 FERC ¶ 61,060 at P 39.

⁶⁵ In section 1.712a of proposed Module E-1, MISO defines a Zonal Resource Credit as a “MW unit of [a] Planning Resource which has been converted from a MW of Unforced Capacity to a credit in the [Module E Capacity Tracking Tool], which is eligible to be offered by a Market Participant into the [auction], to be sold bilaterally, and/or to be submitted through a [FRAP].” Section 1.712b, in turn, defines a Zonal Resource Credit Offer as “an offer into the [auction] of [zonal resource credits] by a Market Participant.” Midwest Independent Transmission System Operator, Inc., FERC

(continued...)

between the need for a minimum offer price and the ability of the [Market Monitor] (working with the Commission) to prevent potentially destructive market behaviors that could artificially depress capacity prices.”⁶⁶

45. According to MISO, its MOPR will apply when the following conditions are met: (1) there is a capacity market surplus of more than 500 MW or more than five percent of the total local clearing requirements for the zone; (2) the Market Monitor’s forecast of capacity prices in the zone is less than the minimum offer price level, with the inclusion of the subject resource; and (3) the market participant making the zonal resource credit offer is attempting to depress the auction clearing price.

46. Not all resources, however, would be subject to the MOPR. In particular, MISO proposes to exempt several types of resources from the MOPR including: (i) planning resources included in a FRAP; (ii) bids from a planning resource that are needed to meet an LSE’s planning reserve margin requirement; (iii) capacity from a resource sold bilaterally to another LSE to satisfy the acquiring LSE’s planning reserve margin requirement; (iv) resources that are self-certified as qualifying facilities of 20 MW or less, pursuant to the Public Utilities Holding Company Act of 2005; (v) planning resources that are not from a combustion turbine or combined cycle generation unit that is powered by natural gas; (vi) planning resources that were in service or approved for construction prior to July 15, 2011; (vii) planning resources for which the owner of such resource is unable to recover capacity costs for the resource through a regulated rate; and (viii) planning resources that have previously submitted zonal resource credit offers that have cleared in any prior auction.

47. If the Market Monitor determines that the three conditions are met and the resource is not otherwise exempted from the MOPR, MISO’s proposal allows the Market Monitor to seek an order from the Commission directing that the zonal resource credit offers from the subject resource be mitigated. If the Commission agrees, then MISO would substitute a minimum offer price for the new resource in the auction. The minimum offer price would be set at 75 percent of Net Cost of New Entry (CONE) for a default combined cycle or combustion turbine generation resource located in the relevant zones.

48. MISO proposes to prohibit the export of resources that are subject to MOPR mitigation.

Electric Tariff, Module E-1, [1.712a, Zonal Resource Credit \(ZRC\), 0.0.0](#); Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [1.712b, Zonal Resource Credit Offer \(ZRC Offer\), 0.0.0](#).

⁶⁶ July 20 Filing at 17.

b. Comments and Protests

49. Various parties argue that MISO has not demonstrated that the MOPR is necessary in the region since LSEs are predominantly vertically integrated and are meeting the requirements of state resource planning mandates.⁶⁷ These parties argue that public utilities in the Midwest are typically subject to state-run integrated resource planning regimes that determine when additional resources are developed. These parties argue that these processes contemplate long-term resource adequacy needs.⁶⁸ These parties also argue that, due to “lumpiness” of generation investment, utilities often possess more capacity than their current demand warrants and sell that excess in order to reduce the cost to ratepayers.⁶⁹ Various parties contend that the Market Monitor should not be allowed to unilaterally second-guess the decisions of state regulators and cooperatives.⁷⁰ In this respect, parties such as Alliant and Consumers Energy argue that the MOPR should be revised to avoid discriminating against state-regulated utilities.⁷¹

50. Some parties support the proposed exemptions from the MOPR.⁷² For instance, Xcel argues that the exemptions have been tailored to fit the needs of the MISO region. Northern Indiana Public Service Company similarly argues that the exemptions are appropriate for the region because the exemptions recognize that zonal resource credit offers may be supported by a variety of legitimate considerations that would be otherwise discouraged if the MOPR were applied more broadly.⁷³ Specifically, parties such as Xcel support the exemption of resources included in LSEs’ FRAPs because such an exemption protects LSEs subject to state regulatory requirements from being exposed to the negative financial consequences of the auction.⁷⁴ Further, parties such as Illinois Commission

⁶⁷ See, e.g., Midwest TDUs Protest at 47-52; Organization of MISO States Protest at 16; American Public Power Association Protest at 7; Indiana Commission Protest at 7-8; Industrial Customers Protest at 12; *but see* NRG Protest at 13-17.

⁶⁸ Indianapolis Power & Light Protest at 9-10; Midwest TDUs Protest at 47-48.

⁶⁹ Indianapolis Power & Light Protest at 9; Midwest TDUs Protest at 49.

⁷⁰ Detroit Edison Protest at 3-4; Indianapolis Power & Light Protest at 40-41; Cooperatives Protest at 4.

⁷¹ Alliant Protest at 9-10; Consumers Energy Protest at 11.

⁷² Industrial Customers Protest at 19; Organization of MISO States Protest at 21.

⁷³ Northern Indiana Public Service Company Protest at 6.

⁷⁴ Xcel Protest at 11; *see also* Midwest TDUs Protest at 53.

assert that the MOPR should exempt all zonal resource credit offers from resources located in unconstrained zones.⁷⁵ Indianapolis Power & Light and Industrial Customers argue that the exemption for qualifying facilities should not be limited to resources of 20 MW or less.⁷⁶

51. Some parties, however, argue that the proposed exemptions will render the MOPR ineffective. For instance, Capacity Suppliers argue that exempting all resources included in an LSE's FRAP would allow "artificial anti-competitive price suppression to go unabated."⁷⁷ EPSA raises a similar concern, noting that LSEs can opt out their resources and proceed to sell their capacity back into the market uneconomically without being subject to mitigation.⁷⁸ Capacity Suppliers also point out that the net short LSEs have incentive to suppress the auction clearing price and should thus not be exempt. Further, Capacity Suppliers take issue with the exemption of all resources other than combined cycles and combustion turbines because the exemption unduly discriminates against these types of resources and other resources are capable of exercising buyer market power.⁷⁹ The Market Monitor contends that specific resources should be exempted, rather than limiting the application of the MOPR to these two types of resources.⁸⁰ EPSA argues

⁷⁵ Illinois Commission Protest at 35; Organization of MISO States Protest at 21; Indianapolis Power & Light Protest at 38-39.

⁷⁶ Indianapolis Power & Light Protest at 39-40; Industrial Customers Protest at 13. Indianapolis Power & Light points out that some utilities who have not filed an application terminate the federal must-take requirement, *see* 16 U.S.C. § 824a-3 (2006), will be placed in the "untenable scenario where a utility is under a federal must-take obligation for which its customers must pay a state-determined avoided cost and yet the MOPR may keep the same customers from receiving the capacity benefits from the QF they have already paid for." Indianapolis Power & Light Protest at 39-40.

⁷⁷ Capacity Suppliers Protest at 35; *see also* Market Monitor Comments at 13-14; GenOn Protest at 9. Moreover, Capacity Suppliers points out that the Commission has recently rejected other self-supply exemptions. Capacity Suppliers Protest at 35.

⁷⁸ EPSA Protest at 12-13.

⁷⁹ Capacity Suppliers Protest at 53; *see also* Indianapolis Power & Light Protest at 40-41.

⁸⁰ Market Monitor Comments at 14-15.

that, as a result of the various proposed exceptions, a small subset of offers will be subject to mitigation.⁸¹

52. Certain parties, such as Cooperatives, argue that the Market Monitor should be required to demonstrate intent to suppress the auction clearing price because market participants should not be mitigated unless they have engaged in destructive behavior that could artificially depress prices.⁸² However, others argue that the intent requirement should be removed from the MOPR.⁸³ Capacity Suppliers and the Market Monitor argue that the proposed intent requirement is not supported by Commission precedent.⁸⁴ Further, these parties argue that intent will be difficult for the Market Monitor to demonstrate, thereby limiting the possibility of any party being mitigated.

53. Some parties oppose MISO's proposal to prohibit all resources subject to mitigation from exporting zonal resource credits. MidAmerican argues this restriction is unnecessary to protect market integrity.⁸⁵ Midwest TDUs argue that MISO has failed to demonstrate the export restriction is necessary to prevent low prices in the auction.⁸⁶ AMP also argues that the proposed prohibition is inconsistent with the Commission's efforts to remove artificial trade between the MISO and PJM regions.⁸⁷

54. Capacity Suppliers and GenOn argue that the Commission should reject MISO's proposal to reset mitigated bids to the minimum offer price set at 75 percent of Net CONE. Rather, these parties argue that mitigated bids should be set at 100 percent of CONE.⁸⁸

⁸¹ EPSA Protest at 13.

⁸² Cooperatives Protest at 4.

⁸³ MidAmerican Protest at 15; Capacity Suppliers Protest at 38-39; Market Monitor Comments at 12-13.

⁸⁴ Capacity Suppliers also argue that MISO wrongfully disregarded the Market Monitor's previous proposal.

⁸⁵ MidAmerican Protest at 15-17.

⁸⁶ Midwest TDUs Protest at 57; *see also* AMP Protest at 9-10.

⁸⁷ AMP Protest at 9-10.

⁸⁸ Capacity Suppliers Protest at 44-45; GenOn Protest at 10.

55. Several parties assert that the MOPR provisions require clarification.⁸⁹ For instance, several parties observe that the timetable and process for obtaining exemptions from the MOPR requires modification.⁹⁰ Some parties contend that the method the Market Monitor proposes to determine whether surplus capacity is present in the market is unclear.⁹¹

56. Consumers Energy argues that mothballed facilities should not be deemed to qualify as “new resources” subject to the MOPR.⁹² MidAmerican also requests clarification on what constitutes “new resources” and proposes that the definition apply to mothballed facilities.⁹³ Duke seeks clarification on when a resource ceases to be considered “new” for purposes of the MOPR.⁹⁴

c. Answers

57. In their September 30 Answer, Capacity Suppliers argue that MISO’s proposed MOPR would not mitigate market power and would therefore not be just and reasonable.⁹⁵ In addition, Capacity Suppliers state that there is nothing unique about the MISO region permitting market power to go unmitigated.⁹⁶ Specifically, Capacity Suppliers point out that the Commission has previously recognized that states have strong incentives to exercise buyer market power. Further, Capacity Suppliers suggests the MOPR should be strengthened by rejecting the intent requirement and the proposed resource exemptions.⁹⁷

⁸⁹ See, e.g., Illinois Commission Protest at 37-40; Capacity Suppliers Protest at 42-48; Duke Protest at 19-23; AMP Protest at 12.

⁹⁰ See Illinois Commission Protest at 36; Midwest TDUs Protest at 53-56; MidAmerican Protest at 12-15; Market Monitor Comments at 15.

⁹¹ Midwest TDUs Protest at 67; Duke Protest at 22-23.

⁹² Consumers Energy Protest at 11-12.

⁹³ MidAmerican Protest at 11-12.

⁹⁴ Duke Protest at 19.

⁹⁵ Capacity Suppliers September 30 Answer at 23-25.

⁹⁶ *Id.* at 25-27.

⁹⁷ *Id.* at 28-30.

58. In its answer, Cooperatives argue that the Commission should reject arguments suggesting expansion of the MOPR.⁹⁸ Cooperatives point out that there is no missing money problem in the MISO region, there is less congestion than in other markets, there is less retail competition and a surplus of supply. Further, Cooperatives argue that the intent requirement is appropriate because it is rational for vertically integrated utilities to offer excess capacity into the market in order to recover their fixed costs. Cooperatives also argue that the Market Monitor should not be allowed to second guess the decisions of state regulatory agencies and cooperatives because LSEs may be forced to acquire capacity twice if their resources are mitigated. Finally, Cooperatives argue that the Commission should retain the proposed exemptions. Cooperatives point out that no one has shown that the exemption for new resources is not just and reasonable. In addition, argues Cooperatives, the proposed resource exemptions are consistent with that which has been implemented in PJM.

59. AMP argues that the Market Monitor has not supported its objection to the proposed intent requirement.⁹⁹ AMP asserts that the intent requirement is a positive attribute of the MOPR that is necessary to protect against over-mitigation. Further, AMP argues that the intent requirement would not burden the Market Monitor because the Market Monitor need only arrive at a reasonable conclusion regarding intent. Additionally, AMP argues that the Commission takes the intent of market actors into account concerning a number of matters, including penalties, and thus, the intent requirement is not unprecedented. AMP requests that, if the Commission rejects the intent requirement MISO be directed to work with stakeholders to formulate an alternative process.

60. In their October 4 answer, Midwest TDUs rebut opponents of the intent requirement, arguing that there are legitimate business reasons for offering capacity at low prices.¹⁰⁰ Specifically Midwest TDUs argue that LSEs make decisions to invest in generation before they know what the market price will be and several events can occur that would render the first year costs lower than the CONE-based minimum offer price. Further, Midwest TDUs assert that building capacity in order to have excess to sell bilaterally at anticompetitive prices is not a sustainable business strategy and therefore does not require mitigation.

⁹⁸ Cooperatives Answer at 4-9.

⁹⁹ AMP Answer at 2.

¹⁰⁰ Midwest TDUs October 4 Answer at 20-25.

61. In its answer, Duke clarifies that its prior comments were intended to point out that capacity exports from MISO should not be subject to mitigation.¹⁰¹

62. In its answer, MISO addresses several arguments raised against the MOPR provisions.¹⁰² First, MISO argues that the MOPR will not allow the Market Monitor to second guess state resource adequacy decisions because the MOPR requires demonstration of improper intent. Second, MISO clarifies that the MOPR only restricts exports when the Market Monitor and the Commission have found intent. Thus, normal trading would be allowed. Third, MISO maintains that the exemption of Qualifying Facilities up to 20 MW is just and reasonable because the federal must-purchase requirement does not apply to resources above 20 MW. Fourth, MISO argues that an exemption for resources in unconstrained zones should not be added to the MOPR because it would be impossible for the Market Monitor to know if a zone is constrained until after the auction is conducted. Further, MISO argues that the intent requirement is essential to prevent over-mitigation. MISO finally argues that the process and timing for obtaining a MOPR exemption is reasonably clear.¹⁰³

63. The Organization of MISO States asserts that the MOPR should be applied, if at all, in a very measured fashion in order to allow capacity to clear and prices to remain low. Furthermore, the exemptions proposed are necessary in light of the “singular industry structure of regulated retail entities.”¹⁰⁴

64. Michigan Agencies argue that self-scheduled resources and resources included in a FRAP are properly exempt from the MOPR.¹⁰⁵ Subjecting resources in a FRAP would undermine the benefits of those provisions. Further, Michigan Agencies argue that the proposed exemptions would not create opportunities for buyer side price manipulation. Michigan Agencies argue that utilities typically compete by offering lower prices and a

¹⁰¹ Duke Answer at 1.

¹⁰² MISO October 14 Answer at 38-44.

¹⁰³ MISO explains that market participants can request exemption at their discretion and proposes to include a description of the process for obtaining exemptions in its Business Practices Manual.

¹⁰⁴ Organization of MISO States Answer at 4-8.

¹⁰⁵ Michigan Agencies Answer at 13-14.

MOPR interferes with proper price discovery.¹⁰⁶ In addition, Michigan Agencies assert that the MOPR is not necessary to ensure that costs meet CONE in the region.

65. In their October 31 answer, Capacity Suppliers argue that mitigation should not be limited to circumstances where the Market Monitor can show intent.¹⁰⁷ Furthermore, Capacity Suppliers assert that the intent requirement is not necessary to prevent over-mitigation because LSEs would only be mitigated if they cannot demonstrate the bid in question reflects costs.¹⁰⁸ Moreover, the MOPR would not be exceedingly burdensome because parties should have the appropriate records on hand. In addition, Capacity Suppliers point out that the Market Monitor agrees that the intent requirement is onerous, costly and impossible to prove with certainty. Capacity Suppliers also state that the Commission has previously rejected similar intent provisions. Capacity Suppliers reassert their position that the minimum offer price should be set at the full value of CONE and that uneconomic bids suppress capacity prices, thereby requiring mitigation.

d. Commission Determination

66. We conclude that MISO has not demonstrated that its proposed MOPR provisions are just and reasonable. Buyers within MISO are generally unlikely to benefit from exercising market power by subsidizing uneconomic entry and the resulting reduction in capacity prices in MISO's voluntary capacity market. That is because, as American Public Power Association and the Organization of MISO States note,¹⁰⁹ utilities own the vast majority of capacity within MISO. These utilities would not significantly benefit from lower prices in MISO's voluntary capacity market because the utilities do not need to procure a significant amount of capacity from MISO's capacity market. Inasmuch as we are eliminating the mandatory auction feature of the MISO proposal, as discussed above, the potential for utilities to benefit from lower prices in the auction is even less likely.

67. In attempting to justify the need for buyer mitigation in MISO, Capacity Suppliers argue that states, as agents for loads, have possibly the strongest incentives and greatest

¹⁰⁶ Michigan Agencies urge the Commission not to allow any MOPR where the minimum offer price is set so high that it produces unreasonable wealth transfers from load and LSEs to capacity suppliers or interferes with price discovery.

¹⁰⁷ Capacity Suppliers October 31 Answer at 13-15.

¹⁰⁸ *Id.* at 13-17.

¹⁰⁹ See American Public Power Association Protest at 5; Organization of MISO States Protest at 3-4.

ability to exercise buyer market power.¹¹⁰ But whether or not states have an ability to exercise buyer market power, Capacity Suppliers do not explain why states in MISO would have an incentive to exercise buyer market power in MISO's capacity market, since most LSEs in MISO have little need to purchase capacity from MISO's capacity auction.

68. Moreover, even if utilities had a significant incentive to exercise buyer market power – which they do not in MISO, as discussed above – MISO's proposed MOPR provisions would not likely be effective in deterring suppression of prices through the exercise of buyer market power. That is because much capacity could avoid being subject to the MOPR. In order to be effective in deterring buyer market power, capacity must be obligated to offer into the auction at or above a specified minimum price. Under MISO's proposal, much capacity would not be obligated to offer into the capacity auction. For example, under MISO's proposal, an LSE would not be required to acquire the entirety of its capacity requirement through the auction. Rather, an LSE could meet part of its requirement through the auction and the remainder through a FRAP. If an LSE wanted to suppress the price in the capacity auction through uneconomic entry, it could do so by way of the FRAP opt-out provisions. That is, the LSE could procure new resources bilaterally, outside of the auction, during periods when lower-cost existing capacity was available in the auction, and use the new capacity to meet part of its capacity requirement. Such new capacity would not be subject to the MOPR under MISO's proposal, in part because it would not be offered into the capacity auction. The procurement of this additional capacity outside of the auction would reduce the remaining demand in the auction relative to the supply available to be offered into the auction, thereby likely lowering the capacity auction price. Further, since the MOPR applies to “a resource that has not produced electricity in the prior twelve months,”¹¹¹ rather than a resource new to the auction, a new resource could bypass the MOPR (and suppress prices) by participating in the FRAP in its first year of operation. After operating as a FRAP resource in its first year, the resource could offer into the auction at a zero price the following year since the “seasoned” resource would be exempt from the MOPR.¹¹²

¹¹⁰ See Capacity Suppliers September 30 Answer at 26.

¹¹¹ Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [65.7, Minimum Offer Price, 0.0.0](#).

¹¹² PJM has both a MOPR and a provision – the Fixed Resource Requirement (FRR) – that allows LSEs to opt out of the auction. Capacity supplying an FRR LSE is not subject to the PJM MOPR. However, it would be much more difficult for an LSE to benefit from uneconomic entry under PJM's FRR than under MISO's proposed FRAP. Under the FRAP, an LSE could benefit immediately from the lower auction prices resulting from uneconomic entry. That is because the LSE could partially opt out while

(continued...)

Accordingly, MISO's proposed MOPR provisions would have limited effectiveness in deterring the exercise of buyer market power.

69. In addition, MISO proposes to impose an offer floor only if the Market Monitor determines that the seller intends for its offer to depress the auction clearing price. The Commission has previously found that it is not reasonable for buyer-side mitigation to depend on the intent of the seller because an artificially low offer price can unreasonably suppress market prices regardless of the seller's intent.¹¹³

70. Because MISO has not demonstrated that its MOPR proposal is reasonable, our acceptance of its filing is conditioned upon MISO modifying its resource adequacy proposal to remove the MOPR provisions. We direct MISO to include these revisions in the compliance filing to be submitted within 30 days of the date of this order. Given that we are imposing this condition, we do not address parties' arguments regarding the proper level of the offer floor and other aspects of MOPR implementation.

3. Locational Market Mechanism

71. In order to establish locational market mechanisms in compliance with the Locational Requirements Order and the Locational Requirements Compliance Order, MISO proposes a variety of tariff provisions to reflect the value and deliverability of capacity in different locations. Each of these provisions is discussed in further detail below.

72. First, MISO proposes to establish local resource zones and to conduct auctions in each zone that can result in Zonal Deliverability Charges assessed to LSEs with load in import-limited zones that rely on resources located outside such zones. We find that MISO's proposal is generally in compliance with the Commission's prior directives to incorporate locational market mechanisms that address deliverability, thereby ensuring that sufficient capacity is available in import-restricted zones. While MISO has previously argued that its transmission planning processes have been sufficient to date in addressing constraints that may limit deliverability, and that its studies have revealed no local reliability problems for many years out,¹¹⁴ the Commission's concern has been that

purchasing some of its capacity obligation in the auction immediately. By contrast, a PJM LSE participating in the FRR would need to wait at least five years before benefitting from lower auction prices; FRR participants are not permitted to purchase any of their capacity through the auction while they are in the FRR option, and they must remain in the FRR option for at least five years.

¹¹³ *ISO New England, Inc.*, 135 FERC ¶ 61,029, at P 170 (2011).

¹¹⁴ *See* Locational Requirements Compliance Order, 131 FERC ¶ 61,228 at P 8-9.

MISO's existing processes may be inadequate to ensure continued deliverability. This concern may become particularly acute in coming years as a new generation mix creates different transmission flows and new transmission constraints that may limit deliverability.

73. Second, MISO proposes a Zonal Deliverability Charge to reflect the value of capacity in different zones. Several protestors argue that their firm transmission service already ensures deliverability of resources to loads, and that any additional layer of costs created through MISO's proposed zonal auctions and the Zonal Deliverability Charge are unnecessary. We disagree. Zonal Deliverability Charges are necessary in order to send a price signal regarding the relative values of resources in different locations. Binding transmission constraints exist when system demand exceeds available transmission capability, which can occur irrespective of the amount of firm transmission service rights issued by the transmission provider. As noted by MISO's witness, Todd P. Hillman, granting firm transmission service is not a guarantee against price separation between zones.¹¹⁵ In the Locational Requirements Order, the Commission recognized that transmission constraints could limit aggregate deliverability.¹¹⁶ This finding is true despite the presence of firm transmission service. As a result, the Commission instructed MISO to develop locational capacity requirements to ensure aggregate deliverability.

74. Third, MISO proposes that an LSE can avoid the Zonal Deliverability Charge if it is covered by a "Grandmother Agreement." The Commission, however, cannot accept MISO's proposed Grandmother Agreement provisions that would exempt LSEs from Zonal Deliverability Charges to the extent the LSEs possess firm transmission service from their resources to their load. We find that MISO's proposed Grandmother Agreements would mute the locational price signal created by the Zonal Deliverability Charge. Consequently, these provisions are inconsistent with the "robust and permanent approach to addressing congestion that limits aggregate deliverability," as previously required by the Commission.¹¹⁷ However, the Commission recognizes that LSEs that have historically relied on remote generation may need a period of time to adjust resource portfolios and plan for additional resources. Therefore, we will allow Grandmother Agreements to be in effect during a transition period. Thus, we direct MISO to modify its Tariff to phase out the Grandmother Agreement provisions after two years, concluding at the end of the 2014/2015 planning year. During this transition, LSEs with Grandmother Agreements will be able to observe the zonal auctions and the resulting Zonal

¹¹⁵ See Hillman Affidavit at ¶ 54.

¹¹⁶ Locational Requirements Order, 126 FERC ¶ 61,144 at P 47.

¹¹⁷ *Id.*

Deliverability Charges, as well as have the opportunity to adjust their portfolios to account for the anticipated effect of the Zonal Deliverability Charge.

75. Fourth, MISO proposes to establish a zonal deliverability charge hedge, which would allow LSEs that invest in new or upgraded transmission facilities between load and resources in different zones to receive a hedge against the Zonal Deliverability Charge. As discussed below, we find that allowing LSEs to mitigate the financial consequences of acquiring capacity from resources located in different zones will help to ensure the deliverability of capacity throughout the MISO region.

76. Fifth, MISO further proposes that market participants are eligible to receive a zonal deliverability benefit based on their *pro rata* share of demand within a zone. MISO proposes to refund debits collected from LSEs within a local resource zone in excess of credits paid to owners of resources that clear in the auction through a zonal deliverability benefit. We conditionally accept MISO's tariff provisions establishing the zonal deliverability benefit, as discussed below.

77. Finally, MISO proposes a multi-zone optimization methodology, which minimizes as-offered overall costs of capacity procurement over the time horizon, subject to network constraints. This optimization results in zonal Capacity Import Limits and Capacity Export Limits, which identify transmission constraints that limit aggregate deliverability. As discussed below, although we conditionally accept this aspect of MISO's proposal, we find that the use of non-simultaneous transfers would provide an inaccurate estimate of the import and export capabilities among multiple areas, thereby leading to inaccurate price signals. Consequently, this component of MISO's proposal fails to establish locational market mechanisms that ensure sufficient capacity is available in import-restricted planning zones.

a. Creation of Local Resource Zones

i. MISO Proposal

78. MISO states that it anticipates developing seven local resource zones to ensure that sufficient qualified planning resources can be relied upon to meet load within each portion of the MISO region.¹¹⁸ The geographic boundaries of each zone will be developed by MISO after consultation and discussion with the relevant stakeholder committee(s) beginning in 2012. MISO plans to develop local resource zone boundaries based on: (1) the electrical boundaries of local balancing authorities; (2) state

¹¹⁸ July 20 Filing at 7-8; Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [68A.3, Establishment of Local Resource Zones, 0.0.0.](#)

boundaries; (3) the relative strength of transmission interconnections between local balancing authorities; (4) the result of loss of load expectation studies;¹¹⁹ (5) the relative size of the local resource zones; and (6) natural geographic boundaries such as lakes and rivers.¹²⁰ MISO states that it may reevaluate local resource zone boundaries in the case of significant changes of the MISO membership, transmission system, and/or resources.¹²¹ MISO states that the zones will be created to encourage parties to develop or retain sufficient planning resources in the right locations to ensure reliability.¹²²

ii. Comments and Protests

79. Numerous parties express concern with the lack of specificity that MISO has provided regarding the method that it will use to determine and adjust the local resource zones.¹²³ For example, Wisconsin PSC asserts that the seven local resource zones have to be created before MISO's proposal can be pragmatically analyzed or accepted by the Commission.¹²⁴ Several parties note that the actual boundaries of the zones will be critical to regional planning, and the establishment of reliable and efficient capacity markets. They also emphasize that the process must be as open and transparent as possible.¹²⁵

¹¹⁹ MISO determines the amount of Planning Resources required in a given Local Resource Zone to meet reliability criteria using a loss of load expectation study where no load in the system experiences a probability of loss of load greater than one day in 10 years. MISO states that by setting the local requirements based on the system-wide reliability criteria, MISO can set the requirement so that all Local Resource Zones of the MISO region, including those that may be constrained, have the same level of reliability. Moeller Affidavit at ¶ 24.

¹²⁰ *Id.*

¹²¹ July 20 Filing at 7-8; Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [68A.3, Establishment of Local Resource Zones, 0.0.0.](#)

¹²² July 20 Filing at 8.

¹²³ *See, e.g.,* Wisconsin PSC Protest at 3, 26-27; Illinois Commission Protest at 10.

¹²⁴ Wisconsin PSC Protest at 26; Indianapolis Power and Light Protest at 24.

¹²⁵ Ameren Protest at 14-15; Illinois Municipal Protest at 9.

80. Illinois Commission, Ameren, and MICH-CARE argue that the local resource zones should be filed for the Commission's approval because they affect rates.¹²⁶ Illinois Commission contends that MISO's proposal fails to identify, among other things, the weight that will be given to each of the six factors used to establish the zones and the formula or the guidelines MISO will use to determine the geographic boundaries of the local resource zones.¹²⁷

81. Illinois Municipal notes that MISO's proposal creates uncertainty for LSEs since their financial liabilities are dependent on the final zonal determinations.¹²⁸ Other parties, including Indianapolis Power and Light and Wisconsin PSC, contend that without specific zonal definitions, recognition of both firm and network transmission rights, and recognition of resource deliverability, LSEs cannot determine whether or not they will be able to access existing or planned resources without exposure to a MISO-imposed Zonal Deliverability Charge.¹²⁹

82. MICH-CARE contends that the local resource zones have not been established based on estimates of price separation and notes that improper delineation of the zones will result in improper price separation and unjust and unreasonable incentives to invest in transmission.¹³⁰

iii. Answers

83. In its response, MISO states that section 68A.3 of the Tariff contains objective and reasonable criteria for MISO to follow when it defines the local resource zones.¹³¹ MISO argues that this tariff language appropriately delegates to MISO the authority for creating local resource zones, at the same time that the Tariff appropriately limits MISO's ability to exercise discretion in creating local resource zones.¹³² MISO also emphasizes that the

¹²⁶ Illinois Commission Protest at 10-14; Ameren Protest at 16.

¹²⁷ Illinois Commission Protest at 13.

¹²⁸ Illinois Municipal Protest at 9.

¹²⁹ Indianapolis Power and Light Protest at 24; Wisconsin PSC Protest at 26-27.

¹³⁰ MICH-CARE Protest at 14.

¹³¹ MISO October 14 Answer at 17.

¹³² *Id.*

Tariff only allows MISO to re-evaluate the zones if there are significant changes in the MISO Region.¹³³

iv. Commission Determination

84. With the modification ordered below, we accept MISO's proposal to establish zones based on the best available deliverability analysis and evaluation of: (1) the electrical boundaries of local balancing authorities; (2) state boundaries; (3) the relative strength of transmission interconnections between local balancing authorities; (4) the result of loss of load expectation studies; (5) the relative size of the local resource zones; and (6) natural geographic boundaries such as lakes and rivers.¹³⁴ While we understand the concern of parties for greater specificity and certainty in the designation of zonal boundaries, we do not find it reasonable to require that each and every factor of the zonal analysis, including the relative weighting of each of the factors, to be incorporated into the Tariff.

85. We find the Tariff language as proposed by MISO to be a sufficiently-detailed description of the factors that will be evaluated, and for this reason we accept the proposed Tariff provisions, subject to the modification ordered below.

86. Our acceptance is conditioned on MISO incorporating a map of the zonal boundaries into its Tariff. We agree with parties that the specification of the zonal boundaries will significantly impact jurisdictional rates and the costs LSEs will incur in order to achieve resource adequacy. Therefore, we direct MISO to file with the Commission Tariff revisions to include a map depicting the proposed zonal boundaries prior to the effective date for those boundaries. As part of that filing, MISO must provide a justification for the proposed zonal boundaries and explain any analysis it relied upon as a basis for its proposal. We will address, at that time, the basis used by MISO for determining a specific zonal designation and the role played by each of the factors. Tariff revisions will be required for any subsequent changes to the zonal boundaries.

87. We agree with MISO and parties that the zonal designation process should be as transparent as possible and that market participants need to fully understand the basis for MISO's zonal proposal. We recognize MISO's commitment that the zonal boundaries

¹³³ *Id.* at 16.

¹³⁴ July 20 Filing at 7-8; Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [68A.3, Establishment of Local Resource Zones, 0.0.0.](#)

will be developed after consultation and discussion with the relevant stakeholder committee(s) beginning in 2012.¹³⁵

88. We clarify for MICH-CARE that it is not possible to base the zonal boundaries on price separation since the zonal auction prices will be determined after the zonal boundaries have been designated. We find that an analysis of local transmission congestion and reliability, as proposed by MISO, will be an appropriate basis for determining zonal boundaries.

b. Zonal Deliverability Charge

i. MISO Proposal

89. In response to the Commission's requirement to evaluate locational market mechanisms, MISO proposes to conduct auctions in each local resource zone to ensure that LSEs purchase their resources at prices that reflect the locational price differences embodied in the auction clearing price¹³⁶ of the zone in which the load is located. Under MISO's proposal, all planning resources that clear in the auction will receive the auction clearing price for the local resource zone during the applicable forward Planning Year on a daily basis.¹³⁷ MISO explains that LSEs with load in higher cost zones will pay a higher price than they are receiving for their resources in the lower cost zones.¹³⁸ MISO refers to this difference as a Zonal Deliverability Charge since it reflects locational price differences.

90. MISO witness Todd P. Hillman explains that the proposed locational resource adequacy requirements do not change how MISO evaluates or grants transmission service under Module B.¹³⁹ He asserts that the granting of firm transmission service is not a

¹³⁵ July 20 Filing at 7-8.

¹³⁶ Auction Clearing Price is defined as “[t]he price, expressed in \$/MW day, associated with the MW quantity that clears in the Planning Resource Auction for a given [local resource zone] for the applicable Planning Year.” Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1; [1.29, Auction Clearing Price \(ACP\), 1.0.0](#).

¹³⁷ July 20 Filing at 13; Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [68A.7, Establishing Planning Reserve Margin Requirements, 0.0.0](#).

¹³⁸ July 20 Filing at 13-14.

¹³⁹ Hillman Affidavit at ¶ 54.

guarantee against price separation within a capacity or energy market. Instead, Hillman states that firm transmission service allows the network customer to integrate, economically dispatch and regulate its current and planned network resources to serve its network load.¹⁴⁰

91. Hillman further explains that market participants whose load is being served with firm transmission service within real-time operations are subject to congestion charges in MISO's Energy and Operating Reserves Markets and have no guarantee that their load and designated network resources used to receive transmission service will clear and be scheduled; transmission constraints may require dispatch to serve that customer's load. Finally, Hillman notes that while customers who have firm transmission service are eligible for financial transmission rights to hedge themselves against energy market congestion, they are not guaranteed that protection based solely on the granting of firm transmission service.¹⁴¹

ii. Comments and Protests

92. A number of parties argue that the Zonal Deliverability Charge should be rejected because it is unnecessary and creates mandatory participation in the auction.¹⁴² Specifically, Midwest TDUs contend that LSEs with boundary-crossing resources cannot opt out of the planning resource auction in substantive economic terms.¹⁴³ A number of parties also express concern that because the local resource zone boundaries can change in response to identified material conditions, LSEs are exposed to a high level of uncertainty for their long-term resource commitments.¹⁴⁴

93. Illinois Commission asserts that MISO incorrectly describes the calculation of the Zonal Deliverability Charge in relationship to "where the LSE's [zonal resource credits] are located."¹⁴⁵ Illinois Commission argues that the only instances in which a Zonal Deliverability Charge needs to be provided for are: (1) if the LSE owns or controls resources in a local resource zone other than the local resource zone in which its load is

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² Organization of MISO States Protest at 13; American Public Power Association Protest at 6; Midwest TDUs Protest at 8-9.

¹⁴³ Midwest TDUs Protest at 9-10.

¹⁴⁴ *Id.* at 9.

¹⁴⁵ Illinois Commission Protest at 42.

located and which are not part of a FRAP and the LSE does not possess one of the MISO-granted financial hedges; or (2) the LSE owns or controls resources in a local resource zone other than the local resource zone in which its load is located and which are part of a FRAP and the LSE does not possess one of the MISO granted financial hedges.¹⁴⁶

94. Xcel states that the proposed tariff language is ambiguous as it relates to the application of the Zonal Deliverability Charge.¹⁴⁷ Xcel contends that a Zonal Deliverability Charge is not needed for any load or resource that is part of the auction because the load already paid or will pay the differential through the auction clearing and settlement process.¹⁴⁸ Xcel proposes the following additions to section 69A.7.6.b:

- b. An LSE that submits a FRAP with [zonal resource credit]s and PRMR in different [local resource zone]s may be subject to a [Zonal Deliverability Charge], as described below:
 - (i) The [Zonal Deliverability Charge] will be the maximum of: (a) the difference between the [auction clearing price] for the LSE's [planning reserve margin requirement] within [a local resource zone] where an LSE has demand that is not met by [zonal resource credits] from Planning Resources that are physically located in such [local resource zone] and the [auction clearing price] in the [local resource zone] where the LSE's [zonal resource credits] are located; or (b) zero. The Transmission Provider will multiply the [Zonal Deliverability Charge] by the [zonal resource credits] to obtain the deliverability charge that the Transmission Provider will assess the LSE. The [Zonal Deliverability Charge] will only be assessed to load and resources that are part of a FRAP.

95. Xcel also proposes to redefine the Zonal Deliverability Charge so that it only applies to load and generation submitted in a FRAP (i.e., for load and generation that "clears" outside of the auction clearing process).¹⁴⁹ Therefore, Xcel proposes the following revision:

¹⁴⁶ *Id.*

¹⁴⁷ Xcel Protest at 13.

¹⁴⁸ *Id.* at 14.

¹⁴⁹ *Id.*

1.70a Zonal Deliverability Charge (ZDC):

A positive charge per [zonal resource credit] associated with [zonal resource credits] in a FRAP that may be assessed to an LSE based upon the congestion contribution to the constraints between [zones] of any [zonal resource credits that are located outside of the [zone] where the LSE has Load.

96. Several parties also challenge whether Zonal Deliverability Charges violate section 217(b)(4) of the FPA.¹⁵⁰ They assert that section 217(b)(4) requires the Commission to assure that LSEs can secure firm transmission (or their equivalent) on a long-term basis for long-term power supply arrangements made, or planned to meet such needs.¹⁵¹ Indianapolis Power and Light also argues that such charges violate Module C of the MISO Tariff and Order No. 681,¹⁵² which holds that LSEs can secure long-term transmission rights, which are financial hedges against increased delivery costs due to congestion.¹⁵³ Finally, Indianapolis Power and Light contends that, by failing to recognize the need to provide long-term price certainty for firm deliveries, MISO's proposal will "have a potentially devastating effect on long-term contracting for remote resources (especially renewable resources) which will lead to poor utilization of the transmission grid."¹⁵⁴

iii. Answer

97. In response to Illinois Commission, MISO notes that section 69A.7.6.b properly defines the Zonal Deliverability Charge and section 69A.7.7 of the Tariff provides alternative methods for parties to avoid the financial implications of the charge.¹⁵⁵

¹⁵⁰ 16 U.S.C. § 824q(b)(4) (2006).

¹⁵¹ Indianapolis Power and Light Protest at 7, 27-30; Midwest TDUs Protest at 15-19; Wisconsin PSC Protest at 18-22; American Public Power Association Protest at 7.

¹⁵² Indianapolis Power and Light Protest at 7, 27-30 (citing *Long-Term Firm Transmission Rights in Organized Electricity Markets*, Order No. 681, FERC Stats. & Regs. ¶ 31,226, *reh'g denied*, Order No. 681-A, 117 FERC ¶ 61,201 (2006) (Order No. 681)).

¹⁵³ Indianapolis Power and Light Protest at 7, 27.

¹⁵⁴ *Id.* at 8.

¹⁵⁵ MISO October 14 Answer at 47.

98. With regard to parties challenging whether zonal delivery charges violate section 217(b), MISO states that its proposal will not preclude load LSEs from securing firm transmission rights (or equivalent tradable or financial rights) on a long-term basis.¹⁵⁶ Rather, MISO argues, the proposal appropriately recognizes congestion through price differentials, which is a key goal of establishing market mechanisms.¹⁵⁷ MISO argues that the proposal recognizes firm transmission rights by giving the holder the right to use capacity from generation with firm transmission to meet its Planning Reserve Margin Requirement. MISO notes that the proposal does not exempting holders of firm transmission rights from the obligation to pay for congestion caused by these resources, which is analogous to the operation of the MISO energy market.¹⁵⁸

99. Wisconsin PSC argues that, contrary to MISO's claim, there is no dispute regarding an LSE's ability to obtain firm transmission. Instead, Wisconsin PSC maintains that the dispute is that LSEs must pay Zonal Deliverability Charges in addition to firm transmission service charges and Financial Transmission Rights that are supposed to ensure the deliverability of their network resources and mitigate congestion costs.¹⁵⁹ Wisconsin PSC ultimately argues that they should be entitled to obtain delivery of their network resources without paying for a third layer of costs through MISO's proposed Zonal Deliverability Charge.¹⁶⁰

iv. Commission Determination

100. We accept MISO's proposal for a Zonal Deliverability Charge as compliant with the Commission's directive to implement a locational market mechanism that accounts for transmission constraints. As noted in MISO's filing, the charge is based on the price difference between the auction clearing price in the zone where load is located and the auction clearing price in the zone where the resources are located. As such, the Zonal Deliverability Charge recognizes transmission constraints in resource planning and will help to ensure reliability.

101. We find no basis for the claim that the Zonal Deliverability Charge requires mandatory participation in the auction; this charge changes none of the resource planning options, including the opt-out option. Moreover, LSEs electing to opt out will not be

¹⁵⁶ *Id.* at 49.

¹⁵⁷ *Id.*

¹⁵⁸ *Id.*

¹⁵⁹ Wisconsin PSC Answer at 9.

¹⁶⁰ *Id.*

required to participate in the auction, as discussed in this order. The fact that LSEs electing to opt out will pay a locational charge to reflect the impact of congestion on resource planning does not make the Zonal Deliverability Charge a requirement to participate in the auction, nor does it require that an LSE purchase or sell capacity through the auction. Rather, the charge simply reflects constraints on the MISO's system that should be accounted for in resource adequacy planning, as the Commission has emphasized in its previous orders.¹⁶¹

102. However, we agree with Illinois Commission and Xcel that resources and loads participating in the auction, including as self-scheduled transactions, are implicitly paying the Zonal Deliverability Charge when they pay or are credited the auction clearing price for the respective zones of their load and resources, as described in section 69A.7.6.a. For LSEs using the FRAP option, the Zonal Deliverability Charge must be calculated explicitly, as specified in section 69A.7.6.b, based on the location of the loads and resources that are part of the FRAP. Accordingly, we direct MISO to revise section 69A.7.6.b of its Tariff to clarify the applicability of this provision only to the FRAP option. Specifically, we direct MISO to incorporate the revisions proposed by Xcel to sections 1.70a and 69A.7.6.b. We direct MISO to submit these revisions in the compliance filing due within 30 days after the date of this order.

103. We disagree with the Illinois Commission's claim that the Zonal Deliverability Charge must be made explicit for auction (or self-scheduling) MWs for LSEs with hedges and with the resources and load in different zones. An LSE receiving a zonal deliverability charge hedge for transmission system upgrades will receive a refund that is calculated on the same basis as their zonal credits are calculated, i.e., on the difference between the auction clearing price in the zone where the sink is located and the auction clearing price for the resource zone. The refund is based on this difference and does not apply to a separate Zonal Deliverability Charge.

104. We reject protesters' contention that FPA section 217 bars the implementation of Zonal Deliverability Charges. The Commission agrees with MISO that the proposal does not implicate the operation of transmission service under Module B or preclude LSEs from obtaining long-term firm transmission rights under FPA section 217. As MISO correctly explains, the resource adequacy enhancements do not impact the current tariff provisions that allow market participants the opportunity to receive Auction Revenue Rights Entitlements associated with long-term transmission service reservations.¹⁶²

¹⁶¹ Locational Requirements Order, 126 FERC ¶ 61,144 at P 47; Locational Requirements Compliance Order, 131 FERC ¶ 61,228 at P 23.

¹⁶² Hillman Affidavit at ¶ 55.

105. In response to arguments raised by Wisconsin PSC in its answer, payment of the Zonal Deliverability Charge is not a payment for firm service. Rather, the Zonal Deliverability Charge is a payment made by LSEs based on the differences in the cost of resources in the zones. The purpose of the charge is to indicate the relative valuation of resources in the zones, and thereby provide a price signal to LSEs on the locational value of resources.

106. As for Order No. 681, we find no basis for concluding that this rule is germane to MISO's proposal in general or to the Zonal Deliverability Charge. Order No. 681 applies to congestion management in organized energy and ancillary services markets and their impacts on long-term firm transmission rights.¹⁶³ No aspect of the MISO proposal implicates the congestion management system based on locational marginal prices encompassed by Order No. 681.¹⁶⁴

c. Grandmother Agreements

i. MISO Proposal

107. Under MISO's proposal, an LSE can avoid the Zonal Deliverability Charge if it is covered by a Grandmother Agreement. MISO proposes that a contract between an LSE and planning resource will qualify for Grandmother Agreement status for a planning year if: (1) the LSE's planning resource and the LSE's load are in different local resource zones, and the clearing price paid by the LSE is higher than the price it receives for such planning resources; (2) the contract is executed prior to July 20, 2011 and covers the entire Planning Year; and (3) there is annual firm transmission service from such planning resource to demand in the higher priced local resource zone covered by the contract for the entire planning year.¹⁶⁵

108. MISO states that a market participant with a valid Grandmother Agreement will be financially made whole for any difference between the auction clearing price in the local resource zone where the load is located, and the auction clearing price in the local resource zone where the capacity specified in the Grandmother Agreement is located, by

¹⁶³ Order No. 681, FERC Stats. & Regs. ¶ 31,226 at P 24.

¹⁶⁴ *Id.* P 5 (“Congestion is defined as the inability to inject and withdraw additional energy at particular locations in the network due to the fact that the injections and withdrawals would cause power flows over a specific transmission facility to violate the reliability limits for that facility.”).

¹⁶⁵ July 20 Filing at 14-15; Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.7.7\(a\), Grandmother Agreements, 0.0.0.](#)

using excess planning resource auction payments collected by the Transmission Provider.¹⁶⁶ MISO witness Todd P. Hillman asserts that MISO's proposal does "not, in any way, single out a certain subset of Market Participants and saddle them with extra costs" because "all historical ownership or contractual capacity arrangements that also have associated firm transmission service will be respected through the Grandmother Agreement provisions and Market Participants will be granted a hedge against any zonal price separation for those arrangements."¹⁶⁷

ii. Comments and Protests

109. Many parties support some form of the Grandmother Agreement provisions.¹⁶⁸ MidAmerican contends that the Grandmother Agreement provisions will mitigate the impacts of the auction on LSEs and their counter parties who have previously secured capacity resources and firm transmission service.¹⁶⁹ However, both MidAmerican and Ameren state that the definition of Grandmother Agreements should be clarified because the proposed definition could be interpreted to mean that Grandmother Agreement status would be lost if the related planning resource were in the same local resource zone as the LSE's load.¹⁷⁰ They, therefore, argue that market participants should not lose their Grandmother Agreement status if MISO redefines the boundaries of local resource zones.¹⁷¹

110. RESA also agrees with other commenters that MISO appropriately included the Grandmother Agreements in its proposal; however, it contends that MISO defined the Grandmother Agreement provisions too narrowly and ignored the existing contractual realities. RESA asserts that LSEs may enter into multiple contracts between the same two local resource zones, which together aggregate capacity rights that are sufficient to satisfy the LSEs' planning reserve margins for the entire planning year.¹⁷² RESA therefore argues that the Commission should require MISO to modify section

¹⁶⁶ July 20 Filing at 15.

¹⁶⁷ Hillman Affidavit at ¶ 56.

¹⁶⁸ Michigan Agencies Protest at 5; Northern Indiana Public Service Company Protest at 5; MidAmerican Protest at 8; RESA Protest at 6.

¹⁶⁹ MidAmerican Protest at 8.

¹⁷⁰ *Id.* at 21-22; Ameren Protest at 17.

¹⁷¹ MidAmerican Protest at 21.

¹⁷² RESA Protest at 6.

69A.7.7(a)(iii) to permit such an arrangement to obtain Grandmother Agreement treatment.¹⁷³ Further, Wisconsin PSC argues that Grandmother Agreements should not be limited to existing capacity transactions.¹⁷⁴ Additionally, some parties argue that MISO should clarify that ownership of or contractual rights to capacity produced by generating resources under construction prior to July 20, 2011, but not yet operating by that date, qualify for a Grandmother Agreement.¹⁷⁵

111. Illinois Commission contends that the Grandmother Agreement provisions are discriminatory, and MISO failed to justify them in its proposal. Illinois Commission specifically argues that these favor some LSEs over others in constrained local resource zones and will skew competition for customers within a local resource zone, particularly in retail competition states.¹⁷⁶ Illinois Commission further contends that the Grandmother Agreement provisions unduly and unfairly transfer the benefits from one set of transmission customers to another and therefore, should be eliminated entirely.¹⁷⁷ In the event that the Commission accepts the Grandmother Agreements, Illinois Commission suggests that LSEs wishing to obtain Grandmother Agreements be required to pay for such a hedge. Alternatively, Illinois Commission recommends a 2-3 year transition period for phasing out Grandmother Agreements.

iii. Answer

112. In its answer, MISO emphasizes its collaboration with stakeholders in developing the elements of the Grandmother Agreement provisions and states that the provisions are intended to cover those parties that have reasonably relied on being able to avoid the financial consequences of locating planning resources in a different local resource zone from the associated load.¹⁷⁸ In response to protesters' concerns, MISO also states that it would be willing to modify the language in section 1.279a to clarify that facilities under

¹⁷³ *Id.* at 6-7.

¹⁷⁴ Wisconsin PSC Protest at 15.

¹⁷⁵ *See, e.g.*, Indiana Municipal Power Agency Protest at 3; Michigan Agencies Protest at 6-7.

¹⁷⁶ Illinois Commission Protest at 31.

¹⁷⁷ *Id.* at 31-32.

¹⁷⁸ MISO October 14 Answer at 52 (citing Hillman Affidavit at ¶¶ 40-41).

construction before July 20, 2011 that subsequently become planning resources can qualify as Grandmother Agreements.¹⁷⁹

iv. Commission Determination

113. As noted above, the Commission required MISO to implement a permanent approach to address congestion that limits aggregate deliverability.¹⁸⁰ The Commission further directed MISO to utilize market mechanisms such as locational pricing and locational market rules that provide incentives for market participants to obtain sufficient local resources to ensure reliability.¹⁸¹ We find that MISO's Grandmother Agreement proposal to exempt LSEs with long-term firm transmission agreements, either as Network Integration Transmission Service or Point-to-Point Transmission Service, from locational pricing has the result of exempting most resources from the Zonal Deliverability Charge. The Grandmother Agreement proposal allows LSEs to avoid using deliverability as part of their resource planning analysis, which negates the purpose and reliability benefits of the proposed locational market mechanisms. Therefore, by exempting most LSEs from the Zonal Deliverability Charge, this provision makes the rest of the locational mechanism proposal meaningless, and thereby is not in compliance with the requirements set forth in the Locational Requirements Order and Locational Requirements Compliance Order. Accordingly, we will not require MISO to expand the application of the Grandmother Agreement provisions, as requested by Wisconsin PSC. Nevertheless, we recognize that LSEs that have historically relied on remote generation may benefit from a period of time to adjust their resource portfolios and to plan for additional resources in light of the projected effect of the Zonal Deliverability Charge. Therefore, consistent with the suggestion of Illinois Commission, we will allow the Grandmother Agreement provisions of section 69A.7.7(a), as conditioned below, to be in effect during a two-year transition period, concluding at the end of the 2014/2015 planning year. During this transition, LSEs with Grandmother Agreements will be able to observe the effect of the zonal auctions and the resulting Zonal Deliverability Charges, as well as have the opportunity to adjust their portfolios to account for the anticipated effect of the Zonal Deliverability Charge. Thus, we direct MISO, in its compliance filing, to propose Tariff provisions that terminate the Grandmother Agreement provisions of section 69A.7.7(a) at the end of the two-year transition period.

114. Several parties request that MISO further refine the circumstances under which LSEs qualify for Grandmother Agreements. For instance, Ameren and MidAmerican ask

¹⁷⁹ *Id.*

¹⁸⁰ Locational Requirements Compliance Order, 131 FERC ¶ 61,228 at P 23.

¹⁸¹ *Id.* P 24.

the Commission to require MISO to clarify that intrazonal capacity transactions that become interzonal transactions as a result of MISO's modifying the zonal boundaries would qualify as Grandmother Agreements. We agree that intrazonal capacity transactions that become interzonal transactions as a result of MISO's modifying the zonal boundaries should qualify for Grandmother Agreements. Section 69A.7.7(a) does not address the effect of subsequent modification of the zonal boundaries on agreements' eligibility for Grandmother Agreement status. Consequently, we direct MISO to clarify in the Tariff that intrazonal capacity transactions that become interzonal capacity transactions as a result of future revision to the zonal boundaries during the two-year transition period will be eligible for the Grandmother Agreement hedge. We also direct MISO to modify the language in section 1.279a to clarify that facilities under construction before July 20, 2011 that subsequently become planning resources can qualify as Grandmother Agreements, consistent with its October 14 Answer.

115. As proposed by MISO, section 69A.7.7(a)(iii) limits eligibility for Grandmother Agreement status to arrangements in which "the capacity contract duration covers the entire [p]lanning [y]ear."¹⁸² RESA requests that the Commission require MISO to revise section 69A.7.7(a)(iii) to allow LSEs that have, through a combination of agreements between the same two zones, aggregated rights to capacity that are sufficient to satisfy the LSEs' planning reserve margins for the entire planning year. We agree with RESA that a combination of contracts that together provide for the delivery of capacity throughout the planning year meets the same purpose as a single contract that remains effective for the planning year. MISO has not explained why LSEs that use two or more agreements, which when considered in the aggregate would otherwise qualify as Grandmother Agreements, have not "entered into those arrangements under a different paradigm," such that they should not "be protected during the transition to a location specific construct."¹⁸³ Consequently, we direct MISO to revise section 69A.7.7(a) to allow LSEs' combination of capacity agreements that require the delivery of capacity throughout the planning year to qualify for treatment as Grandmother Agreements, provided the agreements otherwise satisfy the criteria in the Tariff.

d. Zonal Deliverability Charge Hedge

i. MISO Proposal

116. MISO's proposal provides an opportunity for market participants to avoid the financial consequences of the Zonal Deliverability Charge by investing in new or

¹⁸² Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.7.7, Financial Hedges, 0.0.0](#).

¹⁸³ Hillman Affidavit at ¶ 51.

upgraded transmission system facilities (Network Upgrades) that results in an increase in the Capacity Import Limit¹⁸⁴ in the local resource zone where the sink is located.¹⁸⁵ MISO witness Todd P. Hillman explains that an LSE will only qualify for the zonal deliverability charge hedge if the LSE invests in Network Upgrades for Network Integrated Transmission Service that is associated with a transmission service reservation for annual network service, or for annual Firm Point-to-Point transmission service between the local resource zone where planning resources associated with the zonal resource credits are located and the different local resource zone where the LSE's load is located.¹⁸⁶ The proposal states that the market participant that funds the transmission upgrade will receive the hedge.

117. Hillman states that MISO will calculate the MW quantity of the zonal deliverability charge hedge based on its measure of the increase in Capacity Import Limit caused by the Network Upgrade, as follows: (1) determine the Capacity Import Limits for the sink zone identified in the Transmission Service Request without the new Network Upgrades; (2) determine Capacity Import Limits for the sink zone identified in the Transmission Service Request with the new Network Upgrades; and (3) the difference between the two cases will determine the volume of the zonal hedge in MW. MISO further states that the zonal hedge will be effective for thirty years, or the service life of the facility or upgrade, whichever is less.¹⁸⁷

ii. Comments and Protests

118. While some parties support the hedging provisions,¹⁸⁸ a number of parties disagree with MISO's approach to granting the zonal deliverability charge hedge.¹⁸⁹

¹⁸⁴ Capacity Import Limit is defined in the MISO Tariff as “[t]he amount of Planning Resources in MWs for [a local resource zone] determined by the Transmission Provider that can be reliably imported into that [local resource zone] Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [1.66b, Capacity Import Limit \(CIL\), 0.0.0.](#)”

¹⁸⁵ July 20 Filing at 14-15; Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.7.7\(b\), ZDC Hedges, 0.0.0.](#)

¹⁸⁶ Hillman Affidavit at ¶ 48.

¹⁸⁷ *Id.* ¶ 49.

¹⁸⁸ Cooperatives Protest at 7; Michigan Agencies Protest at 5-6.

¹⁸⁹ Alliant Protest at 8; Manitoba Hydro Protest at 3-4; Midwest TDUs Protest at 26-28.

119. Midwest TDUs argue that the form of the zonal deliverability charge hedge is unreasonable because hedges should relate to the timely designation of a long-term firm resource, and should not be tied to either the triggering of an upgrade, the size of that upgrade or the cost allocation of that upgrade.¹⁹⁰ Midwest TDUs argue that tying the hedge to the triggering of upgrades, creates a perverse incentive to use constrained interfaces since LSEs are only guaranteed that the capacity value of a contemplated new resource will be delivered if they use an already tight interface.¹⁹¹ Next, Midwest TDUs argue that by tying the size of the hedge to the upgrade MW rather than the resource MW, MISO is conferring either an unwarranted windfall (where the upgrade is larger than the resource) or an undeserved exposure to unhedged Zonal Deliverability Charges (where resource is larger than the upgrade).¹⁹²

120. Midwest TDUs argue that the zonal deliverability charge hedge is illusory.¹⁹³ Midwest TDUs state that MISO studies new network resources only for “aggregate deliverability” and therefore, generally qualifies network resources without studying their source-to-sink deliverability. Consequently, Midwest TDUs contend that because an LSE’s transmission service requests do not trigger studies of whether to add import capacity, there is no reason to expect that a network resource designation request will ever lead to an identified widening of a Capacity Import Limit into the load zone of the designating LSE and therefore such a hedge is illusory.¹⁹⁴

121. MidAmerican contends that the zonal deliverability charge hedge provisions should be modified to eliminate the requirement that a planning resource and associated demand be in a different local resource zone.¹⁹⁵ MidAmerican explains that the requirement that a planning resource and demand be in separate local resource zones should be eliminated so that a zonal deliverability charge hedge is not terminated if local resource zone boundaries change.¹⁹⁶ MidAmerican further contends that the first sentence of section 69A.7.7.b should not state that LSEs that qualify for a zonal deliverability charge hedge “will also be able to avoid payment of the [Zonal

¹⁹⁰ Midwest TDUs Protest at 28-29.

¹⁹¹ *Id.* at 29.

¹⁹² *Id.*

¹⁹³ *Id.* at 26-28.

¹⁹⁴ *Id.* at 28.

¹⁹⁵ MidAmerican Protest at 23.

¹⁹⁶ *Id.* at 24.

Deliverability Charge] assessment” because there is no guarantee that zonal deliverability charge hedges will be fully funded given the revenue distribution procedures of proposed section 69A.7.7.c.¹⁹⁷

122. Midwest TDUs also contend that network customers who designate network resources that do not trigger Network Upgrades should not have to pay a Zonal Deliverability Charge in order to assure the deliverability of their designated network resources’ capacity.¹⁹⁸ Midwest TDUs explain that network customers are already paying for such deliverability through the Schedule 9 zonal rate, whether or not they pay a Zonal Deliverability Charge, and whether or not they advance a Network Upgrade charge. Midwest TDUs argue that the ultimate problem is that there is no valid basis for providing a hedge to LSEs who fund Network Upgrades while all MISO-area network customers fund their allocated share of the entire MISO Transmission System and therefore, should receive the capacity value of the capacity resource that MISO accepts as designated network resources.

123. A number of other parties also contend that MISO should offer a complete hedge against the Zonal Deliverability Charge for certain resources. For example, Alliant notes that an entity will only be granted a zonal deliverability charge hedge based on the incremental import capability into the sink local resource zone that resulted from the non-interconnection related transmission system upgrades the entity paid for (excluding any costs that were socialized across a portion or the entire MISO footprint).¹⁹⁹ Alliant argues that this approach should be rejected because it conflicts with the longstanding industry practice of providing capacity credits when firm transmission service is procured from the source generator to the load sink. Alliant argues that unless MISO’s approach is corrected, MISO’s proposal would effectively result in a double allocation of such transmission capacity – first when the transmission service right is granted and then again when MISO allocated the Capacity Import Limit for an LSE across the local resource zone.²⁰⁰ Alliant further argues that an LSE should be granted a hedge for any type of firm transmission service that it requests and which MISO approves (or another transmission provider), regardless of how such service is being paid for and whether or

¹⁹⁷ *Id.* at 25.

¹⁹⁸ Midwest TDUs Protest at 30.

¹⁹⁹ Alliant Protest at 8.

²⁰⁰ *Id.*

not the firm transmission service results in a system upgrade for either a portion or the entire amount of firm service requested.²⁰¹

124. Manitoba Hydro contends that MISO should offer a complete hedge against the Zonal Deliverability Charge for new purchases of planning resources from zones that are external to the LSE's local resource zone.²⁰² Manitoba Hydro contends that failure to do so is contrary to the Commission's objectives as stated in Order No. 1000.²⁰³ Manitoba Hydro asserts that the inability to hedge the Zonal Deliverability Charge will severely limit an LSE's options for fulfilling both the resource adequacy requirements and Renewable Portfolio Standards by rewarding only locational solutions, and penalizing regional solutions.²⁰⁴ Manitoba Hydro ultimately contends that if the Zonal Deliverability Charge is retained, MISO should provide market participants the opportunity to obtain a complete hedge against the Zonal Deliverability Charge so that the cost alternatives between local and non-local resource procurement is at least capable of comparison.²⁰⁵

125. Industrial Customers assert that providing hedges to only market participants that will invest in incrementally increasing import limits will result in "first mover" issues due to the lumpy nature of transmission upgrades.²⁰⁶ They also contend that, while the expensive and large-scale Multi-Value Projects (MVPs) may result in increasing import limits, LSEs will likely be deterred from utilizing them because of an inability to obtain a hedge, which is an unintended, yet highly inefficient and expensive outcome of MISO's proposed method. Further, Industrial Customers argue that MISO's proposal is unduly discriminatory to inter-local resource zone planning resource transactions. Specifically, Industrial Customers argue that if an LSE contracts with a planning resource located in a different local resource zone from that in which the LSE's load is located, the LSE will be at risk of paying the Zonal Deliverability Charge costs which cannot be reasonably hedged or forecasted, especially if the beginning of the contract term there is sufficient

²⁰¹ *Id.*

²⁰² Manitoba Hydro Protest at 3-4.

²⁰³ *Id.* at 6 (citing Order No. 1000, FERC Stats. & Regs. ¶ 31,323).

²⁰⁴ *Id.*

²⁰⁵ *Id.* at 6-7.

²⁰⁶ Industrial Customers Protest at 15.

transmission capability in the MISO transmission system to deliver the planning resource to LSE's load without causing Zonal Deliverability Charges to be incurred.²⁰⁷

126. Industrial Customers also argue that MISO's proposal is inconsistent with MISO's approach to addressing congestion risk in its energy market.²⁰⁸ Industrial Customers explain that, in its energy market, MISO grants auction revenue rights based on the existing transmission capacity of the MISO transmission system, not just the incremental increase in transmission capability created by Network Upgrades funded by the LSEs. Further, Industrial Customers state that the allocation of auction revenue rights does not constrain the availability of Financial Transmission Rights in MISO Financial Transmission Rights auctions except to the extent a market participant chooses to self-schedule its auction revenue rights into the Financial Transmission Rights at the cost of forgoing the receipt of auction rents for those auction revenue rights.²⁰⁹ Consequently, Industrial Customers contend that market participants are able to obtain Financial Transmission Rights from the existing capability of the MISO transmission system in MISO's Financial Transmission Rights auctions, not just the incremental capability created through Network Upgrades to the MISO transmission system.

127. Midwest TDUs similarly argue that MISO cannot justify its Zonal Deliverability Charge proposal by pointing to energy congestion charges because the capacity market involves a longer time scale on which congestion can be avoided through transmission development.²¹⁰ Midwest TDUs also state that MISO's capacity proposal omits any parallel provision for the issuance of hedges applicable to new long-term resources and consequently the Commission's past approval of MISO's energy market congestion hedged pricing does not validate MISO's present proposal to charge unhedged Zonal Deliverability Charges to deliver network resources' capacity.²¹¹

128. Industrial Customers contend that the proposed zonal deliverability charge hedge method is unjust and unreasonable,²¹² but state that if the Commission accepts the zonal deliverability charge hedge, it should require MISO to submit a hedge method that allows LSEs to reasonably obtain zonal deliverability charge hedges on a long-term basis, based

²⁰⁷ *Id.* at 15-16.

²⁰⁸ *Id.* at 16.

²⁰⁹ *Id.*

²¹⁰ Midwest TDUs Protest at 37.

²¹¹ *Id.* at 38.

²¹² Industrial Customers Protest at 16.

on the existing capability of the MISO transmission system, while ensuring the market value of that capability is reasonably assigned to LSE's based on the contributions of the customers of those LSEs to the payment for embedded cost of the MISO transmission system.²¹³

129. Midwest TDUs argue that when committing to a long-term resource, market participants do not have any assurance that a zonal boundary will not later separate that resource from their load.²¹⁴ Therefore, Midwest TDUs request that MISO make clear that if zonal boundaries are re-drawn, then at least those resource commitments that have been made to that point will receive hedges or a grandmothers status relative to the new boundary, such that they will not bear unhedged Zonal Deliverability Charges due to crossing the new boundary.²¹⁵ Midwest TDUs argue that prices signals sent after the fact will arbitrarily punish LSEs for failing to do MISO's job of predicting and accommodating the future deliverability of proposed new network resources.²¹⁶

130. Midwest TDUs argue that MISO's contention that zonal deliverability charge hedges should be provided only to those who, because they pay incrementally for Network Upgrades, pay more than their load-ratio share of average embedded costs is both arithmetically botched and fundamentally wrong.²¹⁷ First, Midwest TDUs state that arithmetically, hedging and transmission payments would not be proportional under MISO's proposal because: (1) the cost per MW of participant-funded Network Upgrades varies from the average embedded cost per MW of existing transmission capacity; and (2) MISO's proposal confers hedging revenues on customers (including TOs) who have no imported resource projects to hedge. Second, Midwest TDUs assert that it is wrong to single out hedges as an aspect of service to be kept generally proportionate to payments for transmission service, without considering that zonal boundaries are not drawn such that all customers likewise have proportionate deliveries across zonal boundaries, and that Midwest TDUs therefore face disproportionate Zonal Deliverability Charges.²¹⁸

131. Duke requests clarification regarding the proposed tariff language stating that the market participant that funds the transmission upgrade will receive the hedge. Duke

²¹³ *Id.* at 16-17.

²¹⁴ Midwest TDUs Protest at 32.

²¹⁵ *Id.* at 33.

²¹⁶ *Id.*

²¹⁷ *Id.* at 40.

²¹⁸ *Id.* at 40-41.

notes that this language could be interpreted to mean that it only applies to merchant transmission projects. For this reason, Duke requests clarification as to whether the various funding options for upgrades will be eligible for the hedge and how allocation of the hedge will be determined.²¹⁹ Duke contends that MISO should address whether this hedge will be available when a transmission owner constructs upgrades and allocates costs to transmission customers through rates and, if so, who will receive the zonal deliverability charge hedges. Finally, Duke contends that MISO should clarify whether only transmission owners are eligible for funding or if MISO intends for some other form of participant funding, such as payment of directly assigned costs.²²⁰

iii. Answers

132. In response to protesters' contention that the financial hedging provisions are unjust and unreasonable, MISO states that transmission constraints are an inevitable feature of the MISO Region and must be respected by MISO to ensure system reliability.²²¹ MISO further states that its proposed hedging provisions reflect the need to view energy (Module C) and capacity (Module E) as separate products, which should not necessarily be treated equally in all respects.²²² Specifically, with regard to the zonal deliverability charge hedge, MISO argues that if it were to accept the complaints of protesters, it would be ignoring the Commission's mandate to establish a locational capacity market mechanism.²²³ MISO argues that parties should not be permitted to "circumvent" the locational capacity requirements by ignoring the physical locations of Planning Resources that are designed to serve load in a different geographic zone.²²⁴

133. In response to Midwest TDUs, MISO states that the zonal deliverability charge hedge cannot be illusory because specific tariff provisions address the planning concerns. Further, MISO contends that allowing protesters to obtain hedges based solely on reserving transmission service would result in a reduction of the zonal deliverability benefit for the rest of the load in the local resource zone and would not align with cost allocation methodologies for Network Integration Transmission Service because network

²¹⁹ Duke Protest at 16-17.

²²⁰ *Id.* at 17.

²²¹ MISO October 14 Answer at 48.

²²² *Id.*

²²³ *Id.* at 53-54.

²²⁴ *Id.* at 54.

transmission customers pay for Network Integration Transmission Service based on their peak load.²²⁵

iv. Commission Determination

134. We accept MISO's proposed zonal deliverability charge hedge and find that it appropriately recognizes the economic value of new capacity that mitigates constraints, thereby improving the deliverability of resources used to serve peak demand in constrained zones. We disagree with Midwest TDUs' argument that this hedge provides a perverse incentive; we find that the hedge recognizes that market participants who fund Network Upgrades that increase the import capability into a zone should have priority in receiving the financial benefit stemming from their investments.

135. We further reject Midwest TDUs' claims that the zonal deliverability charge hedge is vague and illusory given that MISO has proposed specific Tariff provisions that specify how this hedge will operate and has justified this hedge on the grounds that it is part of its response to the Commission's directive to implement a locational market mechanism.²²⁶ As MISO explains, the zonal deliverability charge hedge will only be granted for new or upgraded transmission facilities that result in an increase in the capability import limit where the sink is located. Contrary to the Midwest TDUs' claim that MISO only studies new network resources for aggregate deliverability upon interconnection, the proposed Tariff provisions specifically provide that MISO will determine the incremental increase in the Capacity Import Limit that results from a specific network upgrade in which an LSE invests.

136. We will not require MISO to eliminate the requirement that the planning resource and associated demand be in different local resource zones in order to qualify for the hedge. The sole purpose of the zonal deliverability charge hedge is to mitigate the zonal price difference in the Zonal Deliverability Charges. We see no purpose in providing a hedge or payment when there is no zonal price difference, as MidAmerican recommends. We agree with MidAmerican, however, that the zonal deliverability charge hedge is based on a calculated benefit in the Capacity Import Limit and therefore may not result in total avoidance of the Zonal Deliverability Charge. Accordingly, we require MISO to change the word "avoid" to "reduce" in the first sentence of section 69A.7.7(b) in the compliance filing that is to be submitted within 30 days of the date of this order.

²²⁵ *Id.*

²²⁶ See Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.7.7\(b\)](#), [ZDC Hedges, 0.0.0](#).

137. We interpret the recommendations of Midwest TDUs, Alliant, Manitoba Hydro and Industrial Customers as requests for a complete and long-term hedge for all firm transmission capacity and resources. These arguments challenge the Commission's prior directive for a locational mechanism that recognizes the impact of transmission constraints in resource planning. Similarly, Midwest TDUs' request for a hedge when zonal boundaries change is a challenge to the Commission's prior directive for a locational mechanism that recognizes the impact of transmission constraints in resource planning. We find these arguments to be a collateral attack on the Commission's findings in the Locational Requirements Order and the Locational Requirements Compliance Order.²²⁷

138. We find Midwest TDUs' concerns with regard to MISO's statement regarding whether hedges should be kept proportionate to payments for transmission service to be misplaced.²²⁸ MISO's statement was in reference to the zonal deliverability benefit and its *pro rata* allocation – not the zonal deliverability charge hedge. This is clear from the language in Hillman's affidavit following that cited by Midwest TDUs, i.e., “under this proposed construct, market participants are eligible to receive a zonal deliverability benefit.”²²⁹

139. Consistent with our discussion in the Zonal Deliverability Charge section,²³⁰ we require that this provision be revised to be clear that the hedge refund will be based on the difference between the auction clearing prices of load and resource zones for auction (including self-schedule) MWs, and the Zonal Deliverability Charge for FRAP MWs.

140. We also direct MISO to clarify how the hedge is calculated for all funding options, including participant funding, and to propose revisions to its tariff that specify these calculations. We require that the clarification and proposed tariff revisions be provided in the compliance filing to be submitted within 30 days of the date of this order.

²²⁷ Locational Requirements Order, 126 FERC ¶ 61,144 at P 47; Locational Requirements Compliance Order, 131 FERC ¶ 61,228 at P 23.

²²⁸ Hillman Affidavit at ¶ 52.

²²⁹ *Id.* ¶ 53.

²³⁰ *See supra* PP 100-106.

e. **Zonal Deliverability Benefit**

i. **MISO Proposal**

141. Under MISO's proposal, market participants are also eligible to receive a zonal deliverability benefit based on their *pro rata* share of demand within a zone.²³¹ MISO proposes that whenever price separation occurs between local resource zones, zonal resource credits²³² will receive the auction clearing price based on the local resource zone where the planning resource underlying the zonal resource credit is physically located.²³³

142. MISO's proposal provides that, if it collects more debits from LSEs within a local resource zone than it credits the owners of the zonal resource credits that cleared in a planning resource auction for any local resource zone, then the Transmission Provider will distribute the excess amount: (1) first to fund all Grandmother Agreements in such local resource zone pursuant to section 69A.7.7(a); (2) second to fund any zonal deliverability charge hedges in such local resource zone pursuant to section 69A.9.7(b); and (3) then any remaining amounts shall be distributed on a *pro rata* basis in such local resource zone based on an LSE's planning resource margin requirement in comparison with all the LSE's load that is not covered by Grandmother Agreements or zonal deliverability charge hedges.²³⁴

143. Hillman asserts that the Commission has found approaches similar to MISO's proposal to be just and reasonable and contends that MISO's proposed zonal

²³¹ July 20 Filing at 53; Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.7.7\(c\), Zonal Deliverability Benefit, 0.0.0](#).

²³² Zonal resource credits are "MW units of Planning Resources which have been converted from MWs of Unforced Capacity to credits in the [Module E Capacity Tracking Tool], which are eligible to be offered by [m]arket [p]articipants into the Planning Resource Auction, to be sold bilaterally, and/or to be submitted through a [FRAP]." Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [1.712a, Zonal Resource Credit \(ZRC\), 0.0.0](#).

²³³ July 20 Filing; Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.7.7\(c\), Zonal Deliverability Benefit, 0.0.0](#).

²³⁴ Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.7.7\(c\), Zonal Deliverability Benefit, 0.0.0](#).

deliverability hedge is similar to the Commission-approved “Capacity Transfer Rights” used in PJM and ISO-NE.²³⁵

ii. Comments and Protests

144. Wisconsin PSC argues that the zonal deliverability benefit shortchanges LSEs who engage in inter-zonal capacity transactions and utilize firm network integration transmission service.²³⁶ It explains that whereas the Zonal Deliverability Charge applies to all inter-zonal capacity transactions, the zonal deliverability benefit is available only on a *pro rata* basis to load within a local resource zone regardless of whether other zonal loads have network resources external to the local resource zone.

145. Wisconsin PSC takes exception to MISO statements that the *pro rata* allocation of the zonal deliverability benefit is justified since the several loads within a zone pay for the transmission within a zone on a *pro rata* basis.²³⁷ Wisconsin PSC notes that it is likely that the local resource zones will not match the transmission pricing zones and therefore there is no basis to claim that all load has a *pro rata* right to the import capability of the local resource zone. Wisconsin PSC also asserts that it is illogical for MISO to claim that the inter-zonal customer cannot derive a zonal deliverability benefit from any of the spare capacity in the transmission system not being used by customers who disproportionately restrict their resource portfolios to loads within their own zone.²³⁸

146. MidAmerican contends that MISO has failed to provide justification for distributing all auction revenue within the same local resource zone and therefore, MidAmerican believes the proposed distribution is unjust and unreasonable.²³⁹ MidAmerican notes that it is possible that planning resource auction revenues in one zone will be distributed on a *pro rata* basis to load in that zone while zonal deliverability charge hedges in another zone go unfunded. MidAmerican raises similar issues with

²³⁵ Hillman Affidavit at ¶ 57 (citing PJM OATT § 1.49A.03; *Devon Power, LLC*, 115 FERC ¶ 61,340 (2006), *order on reh’g*, 117 FERC ¶ 61,133 (2006), *remanded in part sub nom. Me. Pub. Utils. Comm’n v. FERC*, 520 F.3d 464 (D.C. Cir. 2008), *order on remand*, 126 FERC ¶ 61,027 (2009)).

²³⁶ Wisconsin PSC Protest at 10-11.

²³⁷ *Id.* at 12 (citing Hillman Affidavit at ¶ 53; July 20 Filing, Affidavit of Kevin Larson ¶ 53 (Larson Affidavit)).

²³⁸ *Id.* at 13.

²³⁹ *Id.* at 26.

respect to the interplay between the Grandmother Agreement provisions and the zonal deliverability benefit.

147. Wisconsin PSC claims that the *pro rata* allocation is inconsistent with Module B, which is premised on first-come, first-served principles. Wisconsin PSC contends that if firm transmission service cannot provide a congestion hedge, then the MISO market has little or no value. Likewise, Indianapolis Power and Light argues that MISO's "*pro rata* rationale" is contrary to how network transmission service has been implemented since Order No. 888 was adopted, leads to inefficient allocation of transfer capacity, and devalues the Long-Term Transmission Rights provided under Order No. 681 and section 217.²⁴⁰

148. MidAmerican argues that the first sentence of the provision that addresses the zonal deliverability benefit should be deleted because it duplicates language found in other sections of the Tariff.²⁴¹ According to Illinois Municipal, the terms of the proposed tariff provisions provide that Zonal Deliverability Charges will be assessed against the LSE that must import capacity to the zone where it has load and where there is a difference in auction prices.²⁴² Illinois Municipal contends that there is a possibility that the funds generated in any given zone may not be adequate to fully fund the charges that would otherwise have been incurred by the holders of Grandmother Agreements. Therefore, Illinois Municipal contends that, in such instances, the Tariff should make clear that any underage would not be made up through an uplift charge much less assessed to other LSEs.²⁴³

iii. Answer

149. In its answer, MISO states that there will never be a situation resulting in an under-collection of debits from LSEs within a local resource zone, because proposed section 69A.7.6.b(i) provides that Zonal Deliverability Charge will be the positive difference between two local resource zones.²⁴⁴ In response to protesters' concerns regarding the potential under-collection of debits from LSEs, MISO claims that there is

²⁴⁰ Indianapolis Power and Light Protest at 32.

²⁴¹ MidAmerican Protest at 25-26.

²⁴² Illinois Municipal Protest at 10 (citing Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.7.6, PRA Settlement, 0.0.0](#)).

²⁴³ *Id.*

²⁴⁴ MISO October 14 Answer at 55.

no evidence that this hypothetical scenario will occur and maintains that the proposed Tariff has just and reasonable provisions for the allocation of credits.²⁴⁵

iv. Commission Determination

150. We conditionally accept MISO's proposal to offer market participants a zonal deliverability benefit based on their *pro rata* share of demand within a zone subject to further compliance. We find it reasonable to allocate any excess debits, after Grandmother Agreements and the zonal deliverability charge hedge are funded, based on the relative share of each LSE's planning reserve margin in the zone. Such an allocation ensures that the benefit is commensurate with the costs incurred for LSEs importing resources into the zone as well as providing a deliverability benefit to those LSEs that have managed their resource planning to recognize locational constraints. Since the Grandmother Agreements will only be effective for a two-year transition period, concluding at the end of the 2014/2015 planning year, we require MISO to submit revised Tariff provisions that revise the calculation of the zonal deliverability benefit after the expiration of the transition period in the compliance filing due within 30 days of the date of this order.

151. We do not find MidAmerican's proposed scenario – in which one zone would receive a zonal deliverability benefit while another zone would not fund the zonal deliverability charge hedge – to be a likely possibility. The only circumstance in which a zonal deliverability charge hedge would not receive funding would be if there were no excess debits, i.e. there were no locational constraints into the zone. In that case, no funding for the hedge is necessary. For the same reason, we see no basis for Illinois Municipal's concern for inadequate funding for Grandmother Agreements.

152. Responding to Wisconsin PSC's and Indianapolis Power and Light's arguments with respect to Module B firm transmission rights, MISO's zonal deliverability benefit proposal does not implicate the operation of transmission service under Module B or preclude LSEs from obtaining long-term firm transmission rights under section 217. As MISO explains, the resource adequacy enhancements do not impact the current tariff provisions that allow market participants the opportunity to receive auction revenue rights entitlements associated with long-term transmission service reservations.²⁴⁶ Therefore, we find that protests to MISO's proposal on these grounds are without merit.

153. As for Order No. 681, we find no basis for concluding that this Rule is germane to MISO's proposal in general or to the zonal deliverability benefit. Order No. 681 applies

²⁴⁵ *Id.* at 54-55.

²⁴⁶ Hillman Affidavit at ¶ 55.

to congestion management in organized energy and ancillary services markets and their impacts on long-term firm transmission rights.²⁴⁷ No aspect of the MISO proposal implicates the congestion management system based on Locational Marginal Prices encompassed by Order No. 681.²⁴⁸

154. We will not require MISO to delete the first sentence of the zonal deliverability benefit as MidAmerican requests. This sentence states: “[w]henver price separation occurs between [local resource zones], [zonal resource credits] will receive the [auction clearing price] based upon the [local resource zone] where the planning resource underlying the [zonal resource credit] is physically located.” This establishes that the zonal deliverability benefit is calculated based on the local resource zone where the planning resource underlying the zonal resource credit is physically located, thereby providing a reference for “such local resource zone” statements later in the provision.

155. We are concerned that the *pro rata* calculation in subsection (iii) of section 69A.7.7.c (that distributes the benefit based on an LSE’s planning reserve margin in comparison with all LSEs’ load) will not result in a 100 percent allocation because all the LSEs planning reserve margins in the zone will be greater than all LSEs’ load.²⁴⁹ Accordingly, we direct MISO to revise its allocation so that the numerator and denominator of the calculation are consistent, thereby resulting in a 100 percent allocation of excess debits. We require MISO to propose these revisions in the compliance filing to be submitted within 30 days of the date of this order.

f. Multi-Zone Optimization Methodology

i. MISO Proposal

156. MISO proposes to use a multi-zone optimization methodology. MISO states that the objective of its proposed multi-zone optimization methodology is to minimize the as-offered overall costs of capacity procurement over the time horizon, subject to network

²⁴⁷ See Order No. 681, FERC Stats. & Regs. ¶ 31,226, at P 24.

²⁴⁸ See *supra* note 167 and accompanying text.

²⁴⁹ An LSE’s planning reserve margin requirement is the product of the LSE’s forecasted coincident peak demand times a multiplier that is the greater of one plus the planning reserve margin (expressed as a percentage) or the local clearing requirement divided by forecasted coincident peak demand. See Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [68A.7, Establishing Planning Reserve Margin Requirements, 0.0.0](#).

constraints.²⁵⁰ The overall costs will include the zonal resource credit offers of all planning resources that are cleared for zonal resource credits, while network constraints will be represented by Capacity Import Limits and Capacity Export Limits.²⁵¹ MISO states that its proposal will enhance regional reliability by introducing locational requirements that appropriately reflect the limitations of MISO's transmission system, such as capacity import and export limits.

157. MISO's proposal further provides that its multi-zone optimization methodology will enforce network constraints represented by Capacity Import Limits, Capacity Export Limits and local clearing requirements²⁵² that are obtained by using a model of the transmission system including planning resources and demand which will be updated annually to reflect existing and planned transmission and generation projects.²⁵³ MISO's proposed tariff provisions state that the multi-zone optimization methodology shall enforce constraints on transmission lines, transformers, and groups of transmission branches that compose transmission interfaces represented by local clearing requirements, Capacity Import Limits, and Capacity Export Limits.²⁵⁴

158. MISO witness Clair J. Moeller states that MISO will study the Capacity Import Limit for each local resource zone to determine the amount of planning resources that are required to be physically located in each local resource zone to meet its resource adequacy requirements.²⁵⁵ Moeller explains that the Capacity Import Limit calculation

²⁵⁰ Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.7.1, PRA Procedures, 0.0.0](#).

²⁵¹ *Id.* Capacity Export Limit is defined as “[t]he amount of Planning Resources in MWs for [a local resource zone] determined by the Transmission Provider that can be reliability exported from that [local resource zone].” Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [1.66a, Capacity Export Limit \(CEL\), 0.0.0](#).

²⁵² MISO defines “Local Clearing Requirements” as “the minimum amount of Unforced Capacity that is physically located within [local resource zone] that is required to meet the LOLE while fully using the Capacity Import Limit for such [local resource zone].” Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [1.365a, Local Clearing Requirement \(LCR\), 1.0.0](#).

²⁵³ Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.7.1, PRA Procedures, 0.0.0](#).

²⁵⁴ *Id.*

²⁵⁵ Moeller Affidavit at ¶ 25.

will use the same transmission model used in other MISO Transmission Expansion Plan (MTEP) analyses and will incorporate planned transmission and generation additions or retirements.²⁵⁶

159. In addition to calculating the Capacity Import Limit, Moeller explains that a Capacity Export Limit will also be calculated for each local resource zone.²⁵⁷ Moeller states that the Capacity Export Limit is calculated to maximize the export capability from a local resource zone to the aggregate of MISO load and the focus is on maximizing the amount of planning resources that can be utilized to meet the MISO system planning reserve margin. Moeller further notes that the MISO proposal uses non-simultaneous transfers that seek an aggregate Capacity Export Limit from each local resource zone to all other internal local resource zones concurrently.

ii. Comments and Protests

160. Wisconsin PSC argues that MISO's multi-zone optimization methodology, which uses non-simultaneous capacity import and export limits, is erroneous and does not account for the interdependency of import capability among multiple zones or areas.²⁵⁸ It further argues that limitations on the use of non-simultaneous available transfer capability have led to the development of methods to capture the inter-dependency of transactions (imports) by multiple zones.²⁵⁹

161. Wisconsin PSC further argues the Capacity Import Limit and Capacity Export Limit for each local resource zone represents a snapshot of system conditions and has no bearing on the actual simultaneous transfer capability between resource zones that result from the capacity cleared in the planning resource auction.²⁶⁰ Wisconsin PSC also contends that MISO's determination of capacity import and export limits fails to identify the source and sinks that stress the system. Wisconsin PSC contends that MISO's proposal also fails to identify the shift factors when considering capacity import and export limit determinations.²⁶¹

²⁵⁶ *Id.*

²⁵⁷ *Id.* ¶¶ 31-32.

²⁵⁸ Wisconsin PSC Protest at 22-23.

²⁵⁹ *Id.* at 23.

²⁶⁰ *Id.* at 24.

²⁶¹ *Id.*

162. Indianapolis Power and Light also argues for the inclusion of the following language at the end of section 69A:

Subsequent to the Planning Resource Auction, the Transmission Provider will conduct a single scenario simulation of a simultaneous dispatch test to demonstrate that the results of the construct are simultaneously deliverable to the Coincident Peak Demand in the Transmission Provider's footprint. Should the results of this simulation fail to be simultaneously deliverable, the Transmission Provider, together with the [Loss of Load Expectation] Working Group, will analyze the root cause of the problem and recommend appropriate modifications to the resource adequacy construct design through the stakeholder process and to the impacted LSE's.

Indianapolis Power and Light contends that the addition of the above language is necessary in order to align the locational reliability analysis in Module E that was required by the Commission with the locational reliability analysis that is performed by the Loss of Load Expectation Workgroup.²⁶²

163. Illinois Commission notes that MISO proposes to tie its identification of constraints within the Capacity Import Limit and Capacity Export Limit calculation process to the MTEP by requiring that those identified constraints be taken into account in the transmission planning process.²⁶³ Illinois Commission is concerned about including such a provision in the Tariff because MISO has not explained how constraints that are identified in setting the parameters for the resource adequacy auctions will actually be used in the transmission planning process.²⁶⁴

164. Illinois Commission contends that MISO provided two different definitions of Capacity Export Limit and failed to explain how the capacity export value will be used in

²⁶² Indianapolis Power and Light Protest at 59-60.

²⁶³ Illinois Commission Protest at 6 (citing Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [68A.4, Establishment of Capacity Import Limits and Capacity Export, 0.0.0](#) (“[c]onstraints that are identified as a result of determining the [Capacity Import Limit] and/or the [Capacity Export Limit] for [local resource zone] will be considered in the development of the Midwest ISO Transmission Expansion Plan (MTEP) per Attachment FF.”)).

²⁶⁴ *Id.*

its proposed multi-zone optimization methodology.²⁶⁵ Illinois Commission further notes that MISO witness Kevin Larson described Capacity Export Limit as, “[c]apacity export limits for each local resource zone represents the maximum amount of [z]onal [r]esource [c]redits from Planning Resources located in a local resource zone that can be exported from that Local Resource Zone.”²⁶⁶ Illinois Commission contrasts this to MISO witness Claire J. Moeller’s description of the term as, “[t]he Capacity Export Limit is calculated to maximize the export capability from a Local Resource Zone to the aggregate of MISO Load.”²⁶⁷

165. Illinois Commission states that, for local resource zones on the border of the MISO region, calculating the Capacity Export Limit based on measuring the export capability from the local resource zone to the “aggregate of MISO Load” may produce a different number from that which results from measuring the export capability from the local resource zone to all other sinks.²⁶⁸ Therefore, Illinois Commission requests that the Commission direct MISO to reconcile and clarify which definition it intends to use for the Capacity Export Limit. Illinois Commission requests that MISO explain how its proposed multi-zone constrained optimization auction program will make use of the capacity export value.²⁶⁹

166. Illinois Commission contends that MISO’s description of how the local reliability requirement will be established is not clear.²⁷⁰ Section 68A.5 states that: “[b]y November 1st prior to a Planning Year, the Transmission Provider will establish a [local reliability requirement] metric for each [local resource zone] to determine the quantity of [unforced capacity] needed such that the [local resource zone] would achieve an LOLE of 0.1 day per year, without consideration of the benefit of the [local resource zone]’s [Capacity Import Limit].” Illinois Commission believes that MISO intended to use the word “value” instead of “metric” and requests that MISO identify the standard of measurement that it intends to use in calculating the [local reliability requirement].²⁷¹

²⁶⁵ *Id.* at 43.

²⁶⁶ *Id.* (citing Larson Affidavit at ¶ 29).

²⁶⁷ *Id.* (citing Moeller Affidavit at ¶ 32).

²⁶⁸ Illinois Commission Protest at 43.

²⁶⁹ *Id.* at 43-44.

²⁷⁰ *Id.* at 41.

²⁷¹ *Id.* at 41-42.

iii. Answers

167. MISO agrees with Wisconsin PSC that the calculation of capacity import and export limits are a fixed value that represents a snapshot in time and contends that this is a prudent and necessary approach to calculating and enforcing transfer limits within its proposal.²⁷² MISO contends that the Capacity Import Limit value must be known before the planning period and cannot be changed so that LSEs can plan and develop their FRAP. MISO further rejects the shift factor approach because the Capacity Import Limit would become a dynamic value that would change depending on which resources cleared the planning resource auction, which would introduce uncertainty and negatively effect each LSE's ability to plan for the planning period.²⁷³

168. In response to Illinois Commission's concerns regarding section 68A.4, MISO states that this tariff provision properly delegates authority to MISO to evaluate and establish capacity import and export limits for each of the local resource zones and permits MISO to appropriately consider such constraints in the Attachment FF process. MISO explains that the constraints identified through the capacity import and export calculations will be considered in the MTEP process similar to the how energy congestion is considered in the MTEP process.²⁷⁴ MISO further notes that the limiting elements identified in the capacity import and export calculations will be considered as an input into congestion and reliability studies on a going forward basis to be evaluated for potential solutions to address reliability or economic transmission issues.

169. In response to Illinois Commission's concern about the definition of Capacity Export Limit, MISO states that this alleged difference between the Tariff and Moeller's affidavit is a distinction without a difference and maintains that the Tariff correctly states that the Capacity Export Limit focuses on planning resources that can be reliably exported from that local resource zone.²⁷⁵ In further response to Illinois Commission's request to explain how the multi-zone constrained optimization auction program will use the capacity export value, MISO clarifies that it will use the Capacity Export Limit as part of the multi-zone constrained auction program that reflect the physical constraints that influence the determination of local resource zone boundaries, including, but not limited to, the physical constraints if new transmission owners join MISO.²⁷⁶ MISO

²⁷² MISO October 14 Answer at 19.

²⁷³ *Id.*

²⁷⁴ *Id.*

²⁷⁵ *Id.* at 17.

²⁷⁶ *Id.* at 18.

further emphasizes that its proposed planning resource auction recognizes capacity limitations into and out of various local resource zones in order to encourage parties to develop or retain the proper amount of planning resources in the correct locations.²⁷⁷

170. In its answer, Wisconsin PSC contends that MISO failed to justify calculating capacity import and export limits as a non-simultaneous, snapshot in time basis.²⁷⁸ It further argues that the use of fictional capacity import and export limit values means that MISO does not know whether it is overestimating the capacity which may be imported into a zone in which case the deliverability objective is not achieved or underestimating that capacity in which case it has needlessly precluded LSEs from using the full import capability of the transmission system.²⁷⁹ Wisconsin PSC ultimately argues that MISO should conform its calculations to recognize the interdependent behavior of Capacity Import Limits and Capacity Export Limits of multiple local resource zones and make such other adjustments to its proposal that would be consistent with the use of simultaneous transfer capability.²⁸⁰

iv. Commission Determination

171. We conditionally accept MISO's proposed multi-zone optimization methodology, which includes constraints as measured by capacity import and export limits. We find that MISO's proposal, as modified below, is a reasonable approach to recognize constraints on the system and to ensure that zonal capacity prices provide the correct locational price signals. MISO states that it will determine the local reliability requirement for each local resource zone based on the system-wide reliability criteria. MISO will use the Capacity Import Limit to determine the amount of planning resources required to be physically located in each local resource zone. Using this methodology, MISO will be able to identify any system constraints that limit delivery of Planning Resources into a local resource zone.

172. However, MISO acknowledges that under its proposal, it would use non-simultaneous transfers in measuring capacity import and export limits. We agree with Wisconsin PSC that this practice would not provide an accurate estimate of the actual import and export capabilities among multiple areas, because it would not account for the interdependencies among the areas. However, an accurate determination of the transfer

²⁷⁷ *Id.*

²⁷⁸ Wisconsin PSC Answer at 10-11.

²⁷⁹ *Id.* at 10.

²⁸⁰ *Id.* at 10-11.

capability between any two areas requires knowledge of the transfers that occur simultaneously. This information is not known until all transfers are determined, which would occur at the conclusion of the auction. We understand the value to LSEs, especially those that have selected the FRAP, of obtaining a transfer limit between its load area and its resource areas in advance of the auction. Therefore, we will accept MISO's proposed process for determining the initial capacity import and export limits (i.e., prior to the designation of resources by LSEs and prior to the auction), as long as the capacity import and export limits were sufficiently conservative so that they would not be exceeded under any likely set of capacity resources that would ultimately be used by LSEs to meet their capacity obligations.

173. We agree with Wisconsin PSC that once LSEs have designated their resources and the auction is about to begin, the use of non-simultaneous transfers would not provide an accurate estimate of the import and export capabilities among multiple areas, because non-simultaneous transfers would not account for the interdependencies among the areas. Accordingly, they would not provide an accurate price signal. As a result, this aspect of MISO's proposal fails to comply with the Commission's prior directive for MISO to develop locational market mechanisms that ensure that sufficient capacity is available in import-restricted planning zones to satisfy the planning reserve margin.²⁸¹ Accurate estimates of import and export limits require consideration of simultaneous transfers. Therefore, we direct MISO to revise its multi-zone optimization methodology so that it measures capacity import and export limits that apply during the auction based on an analysis of simultaneous transfers. The import and export limits that would apply during the auction may differ from the initial limits that would apply prior to the auction, because the former consider simultaneous flows while the latter does not. We direct MISO to submit revised Tariff sheets in the compliance filing due within 30 days after the date of this order.

174. We consider the Local Reliability Requirement to be a metric or measure that is based on a calculation of Unforced Capacity and the loss of load expectation, and therefore we will not require that the term "metric" be revised to "value" as requested by Illinois Commission.

4. Annual Planning Resource Auction and Forward Period

a. MISO Proposal

175. MISO proposes to conduct an auction that will begin three business days before the last business day in March and will end on the last business day in March. During

²⁸¹ Locational Requirements Order, 126 FERC ¶ 61,144 at P 47; Locational Requirements Compliance Order, 131 FERC ¶ 61,228 at P 23.

this period, market participants will submit their resource offers into the auction for the Planning Year that commences on June 1. MISO will rank the offers on a least-cost basis and award the offers to LSE auction bids. MISO witness Todd P. Hillman explains that the proposal will improve resource adequacy because it will require LSEs to take steps on a more forward basis to meet their anticipated coincident peak demand requirements.²⁸² MISO characterizes its proposed forward period, i.e., the period of time between the auction and the planning year, and annual time-frame for offers, as a compromise between different stakeholders that favored continuation of the current monthly auction, on the one hand, and stakeholders that favored a longer forward period and offer time-frame, on the other hand.²⁸³

b. Comments and Protests

176. Certain parties support MISO's proposed one year auction time-frame with a two month forward period. Southern Indiana Gas and Electric Company and Otter Tail contend that the proposed timeframes are appropriate and that a longer forward period would reduce flexibility and potentially harm retail customers.²⁸⁴ Additionally, Consumer Advocates and Cooperatives note that MISO received broad MISO stakeholder support in going from a month-to-month to an annual auction.²⁸⁵

177. Illinois Commission argues that moving from a monthly planning period with a thirty-day forward period in the currently effective resource adequacy plan to an annual planning period with a sixty-day forward period reduces flexibility that LSEs enjoyed when they could satisfy their requirements with a series of monthly contracts. Illinois Commission concludes that MISO's proposal will not improve reliability because the forward period is too short for potential developers to respond to its price signals, it does not put any competitive pressure on incumbents, and the longer planning period will reduce flexibility, thereby increasing LSE costs.²⁸⁶ AEP, though supporting the one year auction term, agrees that the two month forward period would not provide sufficient time to ensure resource adequacy, harming reliability, and would not produce market signals with sufficient time to encourage resource development and could unfairly advantage incumbent utilities. AEP supports an annual auction period with a three year forward

²⁸² Hillman Affidavit at ¶ 14.

²⁸³ July 20 Filing at 21.

²⁸⁴ Southern Indiana Gas and Electric Protest at 4; Otter Tail Protest at 6.

²⁸⁵ Consumer Advocates Protest at 23; Cooperatives Protest at 4.

²⁸⁶ Illinois Commission Protest at 46.

period to align with the development timetable for most generators.²⁸⁷ Ameren adds that the price signals provided by a three to five year forward period would facilitate planning were MISO to need to retire certain generators due to age or environmental regulations.²⁸⁸ EPSA and Capacity Suppliers also contend that a longer forward period would reduce volatility, encouraging new resource bids.²⁸⁹

178. NRG faults MISO's proposed one year auction because the price signal from this short-term commitment may not be sufficient for generation developers to engage in the planning, financing and construction of needed generation, thereby harming long-term reliability. NRG favors a longer term auction structure in order to match the generation development period, which varies from two to five years, in order to facilitate competitive merchant entry. Capacity Suppliers make these same points and also assert that the two month forward period will result in a highly volatile capacity market. NRG also notes that markets with shorter term resource adequacy constructs – California and New York – differ from MISO. NRG also argues that a longer term approach would assist in integrating Entergy into MISO by enabling it to develop more competitive resources than it currently owns.²⁹⁰

179. NRG and other parties also contend that the MISO proposal discriminates against generation solutions compared to transmission ones, which enjoy a five-year planning period in MISO. NRG argues that such a lack of parity violates Order No. 1000, which requires that RTOs/ISOs establish systems to consider transmission, generation, and demand-response solutions on a non-discriminatory basis.²⁹¹

180. Capacity Suppliers do not agree with the contention of certain parties that the use of a longer forward period would harm their business models. Capacity Suppliers contend that any such adjustments are minor and outweighed by the benefits of a longer, more efficient, forward period. Capacity Suppliers contend that such concerns are unfounded as evidence by other RTOs that have employed or are considering employing longer forward periods.²⁹²

²⁸⁷ AEP Protest at 6-9.

²⁸⁸ Ameren Protest at 7-10.

²⁸⁹ EPSA Protest at 7; Capacity Suppliers Protest at 19-21.

²⁹⁰ NRG Protest at 7-10.

²⁹¹ *Id.* at 11-12 (citing Order No. 1000, FERC Stats. & Regs. ¶ 31,323).

²⁹² Capacity Suppliers September 30 Answer at 19-20.

181. The Organization of MISO States argues against extending the forward period to five years, as Capacity Suppliers suggest. It asserts that a planning resource requirement beyond one year would add costs and uncertainty with no corresponding benefits. The Organization of MISO States contends that future changes in forecasts and reduced accuracy of forecasting beyond one year causes higher costs for utilities and their ratepayers.²⁹³

c. Answers

182. In its answer, MISO contends that its planning period represents an incremental improvement and was the outcome of stakeholder debate. Further, according to MISO, based on stakeholder comments, Commission orders, and recommendations by the Brattle Group, a one year planning period is appropriate.²⁹⁴

183. Michigan Agencies argue against lengthening the forward period to five years, as advocated by Capacity Suppliers.²⁹⁵ Michigan Agencies contend that even the longest forward periods would prove insufficient to finance new projects. Michigan Agencies contend that even a five-year forward period would only satisfy short and medium term debt purchases and not long-term debt and that only long-term bilateral capacity agreements will provide the needed assured revenue stream required for debt financing.²⁹⁶

184. Capacity Suppliers contend that a longer forward period enhances market efficiency by permitting potential new resources to be compared with existing generation through a transparent process. Additionally, they assert that a longer forward period facilitates easier financing for new projects. Further, according to Capacity Suppliers, a longer forward period better enables MISO to accommodate changes in supply or load conditions such as new environmental regulations.²⁹⁷

185. Capacity Suppliers disagree with parties who contend that a longer forward period would undercut bilateral contracts or upset LSEs' long-term planning decisions. Capacity Suppliers argue that a five-year forward period would enhance bilateral contracting and long-term planning by enhancing market transparency. Capacity

²⁹³ Organization of MISO States Answer at 6.

²⁹⁴ MISO October 14 Answer at 35-36.

²⁹⁵ Michigan Agencies Answer at 10 (citing Capacity Suppliers Protest at 22-25).

²⁹⁶ *Id.* at 10-11.

²⁹⁷ Capacity Suppliers October 31 Answer at 8-9.

Suppliers argue that the attacks on long forward periods are really attacks on centralized capacity markets.²⁹⁸

186. Capacity Suppliers disagree with Michigan Agencies' contention that because five years is not a long enough forward period to be used to finance a plant, a long forward period is inappropriate. Capacity Suppliers contend that, if this were the case then the solution would be a longer, rather than shorter, forward period.²⁹⁹

d. Commission Determination

187. We find that MISO's proposed one-year auction term and two-month forward period are reasonable. While Illinois Commission argues that the MISO proposal is not an improvement on the current monthly auction framework and other commenters favor longer term frameworks because of their efficiency benefits, our task here is not to choose amongst a series of reasonable options.³⁰⁰ MISO's auction framework reasonably ties the auction period to its Planning Year and provides a reasonable requirement that resources needed in the auction be committed two months before the Planning Year and for these reasons we accept the proposal. We also note that the annual auction term addresses the concern that short-term, e.g., monthly, capacity products may not provide the certainty to attract competitive participants to the auction as would a longer-term contract such as the one year that MISO proposes. This in turn could attract increased competitive participation in the energy and ancillary services market, which can check attempts to exercise market power. We disagree with NRG that the proposed annual auction term will harm long-term reliability. Under MISO's resource plan framework, most LSEs will continue to obtain most – if not all – of their supplies outside the auction. This framework has not resulted in a resource deficit nor has it reduced the availability of resources in the MISO region and therefore we have no basis for assuming that a longer auction term is needed to ensure resource sufficiency.

²⁹⁸ *Id.* at 9-10 (citing Cooperatives Answer at 11).

²⁹⁹ *Id.* at 10 (citing Michigan Agencies Answer at 11).

³⁰⁰ See *ISO New England, Inc.*, 138 FERC ¶ 61,042, at P 84 n.97 (2012) (“Faced with competing proposals, the Commission may approve a proposal as just and reasonable; it need not be the only reasonable proposal or even the most accurate.”); *ISO New England, Inc.*, 138 FERC ¶ 61,027, at P 75 n.109 (2012); *Oxy USA, Inc. v. FERC*, 64 F.3d 679, 692 (D.C. Cir. 1995) (finding that under the FPA, as long as the Commission finds a methodology to be just and reasonable, that methodology “need not be the only reasonable methodology, or even the most accurate one.”).

188. With respect to the Order No. 1000 issues raised by parties, we note that Order No. 1000 compliance is not at issue in this proceeding and we make no finding as to Order No. 1000 compliance here.

5. Load Forecasting

189. In order to determine each LSE's planning reserve requirement, MISO proposes that each LSE provide (either directly, or, in some cases, through Electric Distribution Companies in retail choice states) annual peak demand forecasts coincident with the MISO region peak. To assist in the development of coincident peak forecasts, MISO will make available to LSEs, the historical monthly peak hours for each of the four months of June through September, since 2005, for the MISO region. In addition, MISO will review demand forecasts submitted, assessing methodologies and inputs for reasonability and consistency prior to the planning year.

a. Coincident Peak Demand Forecast Methodology

i. MISO Proposal

190. According to MISO, the use of a coincident peak demand forecast will account for load diversity in the individual demand forecasts provided by LSEs. MISO asserts that this Tariff improvement will create a greater incentive for market participants to develop new demand response resources and encourage a shift in load to off-peak periods.

191. In the event of load switching, the planning reserve margins for the affected LSEs shall be decreased or increased, as appropriate, by equal *pro rata* amounts over the days of the planning year.

ii. Comments and Protests

192. Parties generally support MISO's use of a coincident demand forecast methodology to forecast load. However, Consumers Energy states that MISO has not explained how requiring LSEs to forecast when MISO will experience its coincident peak will improve the accuracy of its forecast. It further requests that MISO be required to identify the date and hour of each individual LSE's non-coincident peak forecast to create a MISO coincident peak prior to the LSE supplying the LSE-specific MISO coincident peak forecast.³⁰¹

193. MidAmerican questions the need for coincident peak information dating back to 2005. MidAmerican argues that such data will be of limited use because MISO's footprint has changed dramatically since 2005. Similarly, Consumers Energy notes that

³⁰¹ Consumers Energy Protest at 15.

MISO has not identified whether the data it will provide will be normalized for changes in MISO membership or weather. MidAmerican also points out that the anticipated addition of Entergy into MISO could also impact the relationship between MISO's coincident peak demand and that of individual LSEs. MidAmerican suggests that MISO instead provide projected future regional peak demands.³⁰²

iii. Answer

194. MISO responds that coincident peak demand forecasting is a more accurate method of forecasting compared to the accumulation of non-coincident peak forecasts, and therefore will ultimately result in lower planning reserve margins. MISO contends that this methodology will be better able to benefit from demand response, enhancing system reliability, because LSEs will be able to economically benefit from the coincident peak.³⁰³

195. Responding to MidAmerican's suggestion that MISO should post expected future coincident peak demands, MISO contends that doing so would be difficult and would provide little value. To do so, according to MISO, would require MISO to forecast the peak for every LSE within the MISO region, which would result in disagreement and dispute. MISO contends that providing LSEs with actual historical peaks in conjunction with continual assistance to member LSEs will provide a reasonable basis upon which the LSEs can make rational projections of their contributions to future peaks.³⁰⁴

iv. Commission Determination

196. We accept MISO's proposal to base planning reserve requirements on coincident peak demand forecasts. Such forecasts, as noted by MISO, provide an accurate and reasonable basis for establishing peak demand requirements in the MISO regions. While parties like Consumers Energy would prefer a different methodology, that preference does not make MISO's proposal unjust and unreasonable.³⁰⁵ Nor has Consumers Energy shown or otherwise argued that MISO's proposal will fail to provide accurate and reliable forecasts. On the contrary, MISO's proposed forecasting methodology has been used in

³⁰² MidAmerican Protest at 18.

³⁰³ MISO October 14 Answer at 22-23.

³⁰⁴ *Id.* at 25.

³⁰⁵ *See supra* note 307.

other regions throughout the United States and is a well-accepted forecasting methodology.³⁰⁶ We find no basis for reaching a different conclusion in this order.

197. We also agree with MISO that LSEs and electric distribution companies are in the best position to provide the coincident peak demand forecasts. While certain parties assert that the MISO should simply provide projected future peak demands, LSEs and electric distribution companies have a much better ability to understand the needs of their systems for reliability purposes. That better understanding should provide a more reliable forecast.

198. With regard to MidAmerican's concern about the historical data being provided by MISO, we agree that MISO must further explain, in the compliance filing that is to be submitted within 30 days of the date of this order, what data will be provided. However, we will not require MISO to provide projected future regional peak demands. We agree with MISO that it would take substantial resources to provide that data and that data would not provide a significant benefit in determining planning reserve requirements.

b. MISO Review of Forecasts

i. MISO Proposal

199. MISO proposes that no later than March 1 of each planning year, it will review a sampling of submitted demand forecast methodologies and inputs to ensure accuracy, validity, reasonableness, and consistency. If it determines that the forecast methodologies are inaccurate or inconsistent, MISO proposes that it work with the applicable LSE to reconcile such issues and, if unsuccessful in such reconciliation, provide the required forecast values itself.

ii. Comments and Protests

200. Consumers Energy argues that MISO should not, as it has proposed, be able to challenge an LSE's forecast and approve or change it. Consumers Energy states that such forecasts are subject to regulatory review and approval and that MISO should not be able to impose its judgment over that of a state regulatory body in determining if a forecasting technique is just and reasonable. Further, according to Consumers Energy,

³⁰⁶ PJM, NYISO, and ISO-NE also employ coincident peak methodologies to determine capacity requirements. See Section 3.2 of PJM Manual 19, Section 1.2 of the NYISO Manual 6, and Section C-1, of the ISO-NE Manual for Installed Capacity.

MISO has not provided a basis for its own forecast or any reason why its forecasts, which are not subject to regulatory review, should substitute for that of an LSE.³⁰⁷

201. Similarly, Illinois Commission raises questions about MISO's review of the forecast data and the procedures for changing a forecast. For example, Illinois Commission asserts that MISO provides no explanation regarding how it will select forecasts for review. Nor does it explain how it will review those forecasts for "accuracy," "consistency," or "validity."³⁰⁸ Finally, according to Illinois Commission, MISO does not explain how it will adjust a forecast if it finds the forecast to be inaccurate.³⁰⁹ Cooperatives assert that MISO should have to specify the review criteria it will use in the Tariff.³¹⁰

iii. Answers

202. MISO responds that its proposal does not replace state regulatory review. Rather, its proposal allows forecasters to use their long accepted processes while providing MISO with the opportunity to ensure that forecasts are consistent and have been developed with sound forecasting processes. MISO further notes that it will focus on the coincident peak forecast, which is not prepared or reviewed by state regulatory agencies. Finally, MISO notes that it will conduct such a review in accordance with good utility practices. MISO also agrees to provide additional details regarding its review as part of its Business Practice Manuals.³¹¹

iv. Commission Determination

203. As noted by MISO, the currently effective Module E allows MISO to review forecasts for accuracy and reliability and to use good utility practice when conducting that review. The Commission previously accepted this review process as part of the March 2008 Order.³¹² We continue to find that such a review is just and reasonable.

³⁰⁷ Consumers Energy Protest at 15-16.

³⁰⁸ Illinois Commission Protest at 20-21 (citing Hillman Affidavit at ¶ 25).

³⁰⁹ *Id.* at 22.

³¹⁰ Cooperatives Protest at 8.

³¹¹ MISO October 14 Answer at 25-26.

³¹² March 2008 Order, 122 FERC ¶ 61,283 at P 137.

204. However, we agree with parties that the review process needs to be transparent and clear. We recognize MISO's commitment to set forth the guidelines and criteria for which it will review and adjust forecasts in its Business Practice Manuals. We consider MISO's commitment to provide additional details in its Business Practice Manuals to be consistent with our transparency objective and responsive to the concerns of commenters.

c. Load Forecasting in Retail Choice Areas

i. MISO Proposal

205. For retail choice regions, LSEs will be required to work with electric distribution companies to provide coincident peak demand and energy forecasts that include load being served by the LSE. Moreover, LSEs will work with the electric distribution companies, Relevant Retail Regulatory Authorities and MISO to define procedures for assigning LSE obligations relating to meeting their planning reserve margin. MISO will use coincident peak demand and energy forecasts that are submitted by the electric distribution company in combination with allocation procedures that are agreed to by the applicable LSE. If the electric distribution company does not provide a coincident peak demand forecast, a forecast submitted by the LSE will be used.

206. If the electric distribution company does not provide a procedure for assigning LSE obligations that is approved by MISO or the electric distribution company and the LSE cannot agree on an alternative method, then a default method for coincident peak demand allocation shall be used. Under the default method, the daily capacity charges related to obligations arising from meeting the planning reserve requirement during the planning year shall be apportioned *pro rata* on a daily energy basis to load within the electric distribution company's service territory based on energy settlement data (billable meter volume).

ii. Comments and Protests

207. RESA argues that LSEs should not have to rely on the discretion of electric distribution companies to establish the capacity allocation scheme for LSEs in their distribution areas. Such discretion, RESA finds, is unduly discriminatory and unjust and unreasonable in spite of the default method. RESA contends that MISO's default methodology – which will be used when an electric distribution company does not provide the data to an LSE – creates a competitive disadvantage for LSEs vis-à-vis electric distribution companies. RESA urges the Commission to direct MISO to adopt a fixed, established, and predictably-determined load forecasting methodology to avoid relying on electric distribution companies.³¹³

³¹³ RESA Protest at 10.

208. Capacity Suppliers and Ameren also challenge MISO's default methodology for retail choice areas and would prefer a peak load contribution methodology for determining the forecast. The default methodology, according to Capacity Suppliers, will harm retail choice because under MISO's *pro rata* energy usage mechanism, LSEs will not know their share of the coincident peak demand until each operating day, forcing them to charge customers more to cover the risk of this uncertainty. Capacity Suppliers also argue that this method exposes LSEs to weather impacts.

209. Additionally, Capacity Suppliers state that MISO's proposed default methodology would assign customers with relatively flat loads with an exaggerated share of the coincident peak demand and underallocate responsibility to customers with relatively high peaks. Capacity Suppliers argue that electric distribution companies will have little incentive to agree to any alternative method since the default one gives them a competitive advantage. Additionally, Capacity Suppliers state that MISO is not clear regarding whether all LSEs within an electric distribution company's territory must agree on an alternative methodology or whether a single LSE or subset of LSEs could reach such an agreement. If the former is required, such an agreement becomes harder because customers with high peaks would prefer the default method.³¹⁴

210. Duke asserts that MISO should clarify whether proposed section 69A.1.1.a effectively shifts the Network Integration Transmission Service responsibility with respect to load forecasting to the electric distribution company.³¹⁵

211. According to Illinois Commission, assigning LSE obligations relating to meeting their planning reserve margin for retail choice areas is a settlement and rate design issue more than a forecasting one. Accordingly, Illinois Commission contends that MISO should consider factors other than load at the particular hour of system coincident peak when assigning capacity payment obligations. Illinois Commission argues that using an alternative allocation device will address the strong incentive that MISO's proposal creates to either under-forecast or over-forecast. According to Illinois Commission, MISO could, like PJM, employ the "5CP" method, which uses a customer's peak load on the five highest days to smooth over atypical events. Illinois Commission urges the Commission to direct MISO to consider such alternatives.³¹⁶

212. Illinois Commission also contends that MISO's proposal fails to recognize that the determination of load serving responsibility and the reassignment of load serving

³¹⁴ Capacity Suppliers Protest at 54-61.

³¹⁵ Duke Protest at 23.

³¹⁶ Illinois Commission Protest at 19.

responsibility in a retail access state is a function of the state regulatory agency. Illinois Commission finds that provisions in the proposed Tariff suggesting that LSEs “work with” the “applicable [Relevant Electric Retail Regulatory Authority] to . . . define procedures for assigning LSE obligations” related to MISO’s RAR are inadequate. It argues that MISO’s Tariff should require that if a retail choice state’s regulatory authority has established a process or rules for determining LSE obligations and re-assigning such obligations due to retail load switching, then the LSE should follow these rules and procedures.³¹⁷ Illinois Commission supports the Brattle Group’s suggestion that MISO adopt a PJM-like system where a portion of peak load contribution is assigned to each customer and LSE responsibilities change as customers switch suppliers.³¹⁸

213. The Organization of MISO States and Illinois Commission raise concerns about an LSE role in forecasting planning reserve margins in retail choice areas and its incentive to manipulate load forecasts. To address this problem, the Organization of MISO States recommends that MISO add a provision requiring LSE to provide written explanations for under and over-forecasts and that MISO be required to report statistically significant under and over-forecasts to state jurisdictional authorities. Illinois Commission notes that a similar requirement exists in the currently effective Module E.³¹⁹

214. Midwest TDUs express concern that the MISO proposal to decrease or increase the planning reserve margin by equal *pro rata* amounts for load switching LSEs may be inappropriate. Midwest TDUs explain that if load switches in the latter part of the year, after the summer peak season, it may not be appropriate to make the new supplier responsible for the remaining *pro rata* amount of the planning reserve margin. To address this issue, Midwest TDUs recommend a proration method that does not weight all days equally through the year.

iii. Answers

215. MISO responds that its default method appropriately assigns responsibility given the data available. MISO further disagrees with the use of a peak load contribution methodology as the default methodology. Such a methodology, according to MISO, is impractical because MISO cannot require electric distribution companies to follow a certain retail load tracking methodology. MISO also claims that it will be unable to obtain the necessary retail information to calculate forecasts using peak load contribution

³¹⁷ *Id.* at 19-20 (citing Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.1, Load Serving Entity Responsibilities, 0.0.0](#)).

³¹⁸ *Id.* at 18-19 (citing Brattle Report at 43).

³¹⁹ Organization of MISO States Protest at 20-21.

because MISO cannot force them to provide the data. MISO states that it is confident that Relevant Retail Electric Regulatory Authorities will use their authority to take appropriate actions in instances if unfair outcomes occur.³²⁰

216. Numerous parties, including Ameren and Capacity Suppliers, challenge MISO's claims regarding the use of the peak load contribution methodology or its assertion that it can rely on the Relevant Electric Retail Regulatory Authorities to address unfair behavior.³²¹

217. Capacity Suppliers challenge MISO's claim that it lacks the authority to acquire data from electric distribution companies to use the peak load contribution methodology. On the contrary, Capacity Suppliers note that all relevant electric distribution companies in retail choice states are either current MISO market participants or have affiliates that are market participants. Further, according to Capacity Suppliers, the Commission holds the authority to require any electric distribution company that is engaging in wholesale capacity sales to abide by the terms of the MISO Tariff, which may include a provision requiring them to provide peak load contribution data.³²²

218. Detroit Edison and Consumers Energy do not oppose Ameren's request for use of the peak load contribution methodology, at least as it is applied to Ameren, but do not want that methodology applied to all LSEs.³²³ Rather, Detroit Edison and Consumers Energy believe that a more appropriate default methodology would be a daily peak ratio methodology, which uses the daily peak values for each retail choice load provider in making the capacity cost allocation daily rather than the daily energy ratio proposed by MISO. Detroit Edison and Consumers Energy argue that the former is more representative of a true capacity charge, as opposed to an energy charge.³²⁴

219. Responding to the Organization of MISO States and Illinois Commission's concerns, MISO argues that its annual review of the forecast should address their concerns about incentives for LSEs to manipulate their demand forecasts. It argues that such an *ex ante* review is superior to an *ex post* review of forecast errors since an *ex post* review is too late to adjust resource plans. MISO also contends that there is no indication

³²⁰ MISO October 14 Answer at 29.

³²¹ Ameren Answer at 3-4.

³²² Capacity Suppliers October 31 Answer at 19-21.

³²³ Detroit Edison and Consumers Energy Answer at 8-9.

³²⁴ *Id.* at 9-10.

that a potential party choosing to violate the Tariff would need additional penalty provisions to address such behavior.³²⁵

220. MISO responds to Midwest TDUs' concern regarding the timing of how MISO increases or decreases planning reserve margins for load-switching LSEs by stating that that its proposal reasonably encourages LSEs and Electric Distribution Companies to work together to develop the best method for the region.

221. With regard to Duke's concerns, MISO answers that its proposal relates solely to capacity requirements in Module E and that it is not proposing any changes with regard to the transmission service provisions in Module B. MISO asserts that transmission customers maintain their responsibility to provide load forecasting information for Network Integration Transmission Service.³²⁶

iv. Commission Determination

222. Parties raise various concerns about MISO's forecasting proposal in retail choice regions and the difficult state jurisdictional questions associated with its proposal.

223. We find that MISO's proposed default methodology for coincident peak demand allocation is not reasonable because it relies on energy data – not capacity. Further, this method creates uncertainty for LSEs, who will not know their share of the coincident peak demand until the operating day. Accordingly, we direct MISO to use the peak load contribution methodology as its default methodology for assigning capacity obligations. As to entities who lack data necessary to use the peak load contribution methodology and for which MISO is not able to obtain such data, such as certain electric distribution companies, we recognize MISO's position that it is limited in what data is available to it. However, we find that MISO's proposed default methodology is insufficient even for these entities because, as noted above, MISO's proposed default uses energy and not capacity data. We will require MISO to use a daily peak load methodology for these entities, as proposed by Detroit Edison and Consumers. The electric distribution companies will provide MISO with the daily peak load data for each retail choice provider. Once MISO has acquired sufficient historical data to develop peak load contribution for each LSE, MISO will begin to utilize the peak load contribution methodology. Although the daily peak load methodology is not as accurate as the peak load contribution methodology (because the former does not reflect annual peaks), we find that a daily peak load methodology is more accurate than MISO's proposed default. Accordingly, we direct MISO to revise its Tariff to specify that the peak load

³²⁵ MISO October 14 Answer at 24-25.

³²⁶ *Id.* at 26.

contribution methodology is the default method and that daily peak method will be the default method for entities that lack data necessary to use the peak load contribution methodology and for which MISO is not able to obtain such data. We direct MISO to revise its Tariff accordingly in the compliance filing to be submitted within 30 days of the date of this order.

224. We agree with MISO that its *ex ante* review of forecasts in retail choice areas is the most effective method for ensuring under and over forecasts do not impact resource planning. *Ex ante* reviews will ensure that under and over forecasts can be identified and addressed before they skew the planning year analysis. In contrast, *ex post* reviews will not have any impact until after the Planning Year. Accordingly, we will not require *ex post* explanations and reviews, as requested by the Organization of MISO States and Illinois Commission.

225. With respect to Midwest TDUs' concern regarding the timing of how MISO increases or decreases planning reserve margins for load-switching LSEs, we find MISO's proposal to assign the planning reserve margin in equal *pro rata* amounts over the Planning Year to be a reasonable allocation of the planning reserve margin in the event of load switching that divides the responsibility for the planning reserve margin among LSEs based on objective and practical criteria. While there may be other reasonable allocations, our task here is to evaluate the reasonableness of the proposed allocation, not to design a more refined allocation.

226. Finally, with regard to Duke's concerns, we find that MISO's answer provides sufficient clarification. Specifically, MISO clarifies that its proposal relates solely to capacity requirements in Module E and that it is not proposing any changes with regard to the transmission service provisions in Module B, and that transmission customers maintain their responsibility to provide load forecasting information for Network Integration Transmission Service. We will not require MISO to provide further clarification.

6. Energy Efficiency Resources

a. MISO Proposal

227. MISO proposes to add energy efficiency resources as a type of planning resources that LSEs can use to meet their resource adequacy requirement. In section 1.90a of MISO's proposed Module E-1, MISO defines an energy efficiency resource as a planning resource consisting of installed measures on retail customer facilities that achieves a permanent reduction in electric energy usage while maintaining a comparable quality of service. MISO notes that the proposed energy efficiency resources include end-use customer projects (including the installation of more efficient devices or equipment or implementation of more efficient processes or systems) that were implemented after July 20, 2011, exceeding then-current building codes, appliance standards, or other relevant

standards, designed to achieve a continuous reduction in electric energy consumption during on peak daylight hours that are not reflected in the LSE's forecast coincident peak demand for the planning year when the energy efficiency resource is proposed.

228. An energy efficiency resource can qualify to receive zonal resource credits as planning resources for up to four planning years after initial qualification and implementation. Energy efficiency resources, because they are continually operating, will not require notice, dispatch, or operator intervention.³²⁷

b. Comments and Protests

229. Parties express concern regarding MISO's inclusion of energy efficiency resources as a type of planning resource and raise questions about the process for including these resources in an LSE planning reserve margin. For example, Ameren questions whether energy efficiency resources will be subject to the same metering and verification requirements as other load modifying resources. Consumers Energy raises a question regarding the definition of an energy efficiency resource and what it means to "maintain a comparable quality" of service. Duke requests that MISO explain its rationale for the provision of proposed Tariff section 69A.4.4 for unforced capacity for qualified energy efficiency resources.³²⁸ Detroit Edison questions whether a market participant should be able to take credit for load reduction over an entire four-year period when that load reduction may not be sustainable for the entire time period.³²⁹

230. Wisconsin Electric raises concerns about double counting of energy efficiency resources. Wisconsin Electric argues that providers of energy efficiency resources could be effectively compensated twice because, as explained by MISO, the load represented by these Resources would not be included in the demand forecast of the market participant providing the service. Consequently, according to Wisconsin Electric, end-use customers could receive the benefit of avoiding capacity purchases at retail rates and receiving compensation through the capacity market.³³⁰

231. Consumers Energy seeks additional clarification from MISO regarding procedures and standards for measuring and qualifying energy efficiency resources.³³¹ Additionally,

³²⁷ July 20 Filing at 11.

³²⁸ Duke Protest at 23.

³²⁹ Detroit Edison Protest at 5.

³³⁰ Wisconsin Electric Protest at 3-4.

³³¹ Consumers Energy Protest at 12-14.

Ameren requests that the Commission direct MISO to determine if there are instances when limiting the amount of energy efficiency resources in any one zone that can qualify as planning resources is necessary for reliability.³³²

c. Answer

232. MISO clarifies that it has adopted the same metering and verification requirements energy efficiency resource as has been previously approved by the Commission for load modifying resources. Further, MISO states that it will provide additional clarification regarding the use of energy efficiency resources as planning resources in its Business Practice Manuals. It argues that such implementation details are inappropriate for inclusion in the Tariff, in part, because these details relate to how MISO will conduct its responsibilities, not what the responsibilities are.³³³

d. Commission Determination

233. The Commission accepts MISO's proposed inclusion of energy efficiency resources as planning resources in its resource adequacy plan, subject to the conditions discussed below.

234. With regard to the double compensation issue raised by Wisconsin Electric and Detroit Edison, the proposed Tariff is clear that energy efficiency resources are treated as resources and are not calculated in the load forecast.³³⁴ Therefore, double compensation is not allowable under the proposed Tariff provisions.

235. We disagree with Detroit Edison's position that the amount of energy efficiency resources that qualify as zonal resource credits should not include load reductions that are not sustainable over the full four-year period. We do not consider it reasonable to restrict eligibility on the basis of multi-year sustainability. Any resource that can meet the qualification requirements for a Planning Year should be able to qualify as an energy efficiency resource for that year.

236. We agree with Ameren and Consumers Energy that the terms and conditions of service for energy efficiency resources must be included in the Tariff – as they are

³³² Ameren Protest at 22-23.

³³³ MISO October 14 Answer at 46.

³³⁴ Energy efficiency resources “are not reflected in the LSE's forecast coincident peak demand.” See Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.3.2, Energy Efficiency Resources \(EE Resource\), 0.0.0](#).

included in the Tariff for other Planning Resources – not the Business Practice Manuals. Accordingly, we direct MISO to revise its Tariff to include the following items:

- The planning resource requirements for energy efficiency resources in section 69A.3.2 must specify that they apply to energy efficiency resources in which the market participant possesses ownership or equivalent contractual rights;
- This section must also specify that energy efficiency resources are eligible to qualify as planning resources by a market participant that possesses ownership or equivalent contractual rights in the energy efficiency resources by registering such resources as planning resources with MISO as documented in the Business Practice Manual for market registration.
- This section must also specify the data and other information that must be submitted by the market participant prior to the planning year in order to qualify for energy efficiency resource status and the deadline for submitting this information. This section will also require that market participants submit a measurement and verification plan.
- If applicable, MISO must include a definition of unforced capacity for energy efficiency resources in its Tariff. If MISO believes that a definition of unforced capacity is inapplicable for energy efficiency resources, we require MISO to explain the basis for that determination on compliance.

237. We agree with MISO's answer that the validation, measurement and implementation issues of concern to Consumers Energy are issues for the Business Practices Manuals and do not need to be specified in the Tariff. We find no basis in the record of this proceeding for limiting the amount of energy efficiency resources in a zone, as Ameren proposes, and therefore we will not require MISO to make further revisions to its proposal.

7. Planning Resource Requirements

a. MISO Proposal

238. MISO's proposed tariff provisions include a process for determining the planning resource requirement for each LSE, based on an analysis of the planning reserve margin and loss of load expectation. The analysis establishes a planning resource requirement expressed as a single MW value. MISO characterizes this amount as a fixed reliability

target that differs from a varying resource requirement used in other RTOs (referred to as a downward sloping demand curve³³⁵) that is a function of prices.

b. Comments and Protests

239. Capacity Suppliers express concern that the proposed two-month forward period will result in volatile prices and for this reason they favor a downward sloping demand curve. The Market Monitor argues that in addition to reducing volatility, a downward sloping demand curve based on the marginal value of additional capacity would discourage withholding by sellers.³³⁶ NRG also favors a downward sloping demand curve, arguing that a downward sloping demand curve increases system reliability at a low overall cost.³³⁷

240. Otter Tail and Detroit Edison support the current MISO resource planning requirement, noting that a downward sloping demand curve would force LSEs to purchase capacity beyond that which is needed to satisfy their reliability requirements.³³⁸ The Organization of MISO States argues that a demand curve is administratively determined and does not necessarily represent willingness to pay. It also notes that with a downward sloping demand curve, the proposed procured capacity could be either more or less than that needed for reliability. Further, the Organization of MISO States argues that downward sloping demand curves could undermine a state's right to determine resource adequacy by potentially obligating LSEs to purchase capacity beyond the planning reserve margin and make payments to resources not under the states' regulatory control.³³⁹ Midwest TDUs also asserts that a downward sloping demand curve is incompatible with MISO's proposal to allow state regulators to override the MISO-

³³⁵ A downward sloping demand curve is a set of price-and-quantity combinations for capacity, with increasing prices (up to multiples of the Cost of New Entry) for amounts below the resource planning requirement and decreasing prices for amounts above the resource planning requirement. An example is provided at *PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079, at P 90, *order denying reh'g*, 117 FERC ¶ 61,331 (2006), *aff'd sub nom. Md. Pub. Serv. Comm'n v. FERC*, 632 F.3d 1283 (D.C. Cir. 2011) (PJM).

³³⁶ Market Monitor Comments at 6-9.

³³⁷ NRG Protest at 21 (citing *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,318, at P 25 (2007)).

³³⁸ Otter Tail Protest at 6-7; Detroit Edison Protest at 5.

³³⁹ Organization of MISO States Protest at 9, 15.

determined planning reserve margin. It contends that states would have to choose between their own state-determined and MISO planning reserve margins that would be unpredictable based on variability of annual auction submissions.³⁴⁰

c. Answers

241. MISO responds that the use of a fixed reliability target instead of a downward sloping demand curve is needed to meet an assumed level of reliability. It contends that a downward sloping reliability target implies that buyers are willing to settle for less reliability or pay for more reliability when it is unclear whether buyers are willing to do either. Although MISO agrees that such a curve would enhance price stability it finds that such price stability would be the result of an administrative fiat, potentially undermining the goal of efficient price signals.³⁴¹

242. The Organization of MISO States argues that the Market Monitor's objections to a vertical demand curve are based on the theoretical assumption that reliability is a well-defined product and that buyers can assess the marginal benefits of each additional unit of reliability. The Organization of MISO States states that it does not reflect LSEs' willingness to pay but rather a "willingness to administer" since the slope would be administratively determined and not based on empirical data regarding the behavior of market participants. It argues that the MISO resource plan provides a clear target compared to the variable requirement of a downward sloping demand curve, which would be unpredictable and more costly to ratepayers.³⁴² The Organization of MISO States contends that the Market Monitor bears the burden to present evidence that an administratively determined downward sloping demand curve ensures the desired reliability standard for resource adequacy for those LSEs that own their own resources and at a lower overall cost to all market participants.³⁴³

243. Midwest TDUs find that a downward sloping demand curve is incompatible with the FRAP because LSEs need to know their capacity obligations before determining whether their FRAP meets their obligations.³⁴⁴ Midwest TDUs argue that that it is speculative to presume that a vertical demand curve would necessarily lead to a volatile market.

³⁴⁰ Midwest TDUs Protest at 30-31.

³⁴¹ MISO October 14 Answer at 37-38.

³⁴² Organization of MISO States Answer at 4-5.

³⁴³ *Id.* at 6.

³⁴⁴ Midwest TDUs Answer at 30.

244. Michigan Agencies state that the Market Monitor's proposed use of a downward sloping demand curve could result in excess capacity clearing at a price above the market clearing price – more than is needed to meet LSEs' capacity obligations since, following each auction, LSEs must purchase all cleared capacity. Michigan Agencies request that the Commission clarify that LSEs with approved FRAPs will not be required to purchase any additional capacity from the auction for load covered by its FRAP, regardless of the shape of the demand curve.³⁴⁵

d. Commission Determination

245. As a general matter, the Commission has provided RTOs with substantial latitude in determining their reliability requirements and shaping their markets. As the Commission stated in its order on PJM's proposed capacity market mechanism, and repeated in an order for ISO-NE's capacity market, "there is not a single just and reasonable method for satisfying capacity obligations."³⁴⁶ As noted by certain parties, the Commission has approved use of downward sloping demand curves in NYISO³⁴⁷ and PJM.³⁴⁸ The Commission has also approved use of a vertical demand curve in ISO-NE.³⁴⁹ We note that MISO's resource planning requirement provisions identify the same fixed reliability target for resource planning, and the same methodology for determining the planning resource requirement based on an analysis of the planning reserve margin and loss of load expectation, that is part of the current resource adequacy plan.³⁵⁰ Consequently, we will accept this aspect of MISO's proposal because it is consistent with tariff provisions previously approved by the Commission.

³⁴⁵ Michigan Agencies Answer at 11-13.

³⁴⁶ *Devon Power, LLC*, 115 FERC ¶ 61,340 at P 151; *see also PJM*, 115 FERC ¶ 61,079 at P 103.

³⁴⁷ *N.Y. Indep. Sys. Operator, Inc.*, 103 FERC ¶ 61,201, *reh'g denied*, 105 FERC ¶ 61,108 (2003).

³⁴⁸ *PJM*, 115 FERC ¶ 61,079.

³⁴⁹ *Devon Power, LLC*, 115 FERC ¶ 61,340.

³⁵⁰ March 2008 Order, 122 FERC ¶ 61,283 at PP 90, 108-109.

8. Confidentiality Provisions

a. MISO Proposal

246. Certain provisions of MISO's proposed Module E-1 state that MISO will assist states in meeting any state resource adequacy standards by providing relevant resource adequacy information as available and as may be requested by states, subject to the data confidentiality provisions in section 38.9 of its Tariff. MISO also notes that nothing in Module E-1 shall prohibit any state from requesting data relating to state safety standards, planning reserve margins, or the enforcement thereof.

b. Comments and Protests

247. Illinois Commission and the Organization of MISO States point out that several sections of MISO's proposed Module E-1 do not identify the resource adequacy requirement information as confidential but require that states request such information under the confidentiality provisions of section 38.9 of the Tariff. Consequently, Illinois Commission and the Organization of MISO States contend these provisions are unreasonable and argue that the Commission should require MISO to provide non-confidential information to states, either as a matter of course or upon request.³⁵¹

248. Illinois Commission contends that the wording of the confidentiality provisions of section 38.0 of the Tariff prevents some states from obtaining confidential information from MISO. Illinois Commission argues that because section 38.9 is unworkable for some states, either references to section 38.9 should be deleted from all sections of Module E-1 or section 38.0 must be revised to be workable for all state Commissions.³⁵²

c. MISO Answer

249. MISO asserts that the Commission has approved the confidentiality provisions in section 38.9 of the Tariff and that it is not proposing any changes to these provisions. MISO explains that absent Commission approval, it is obligated to impose the requirements of section 38.9 on confidential resource adequacy data and information. MISO argues that any challenges to section 38.9 should be rejected as collateral attacks on a Tariff provision that has been approved by the Commission.³⁵³

³⁵¹ Illinois Commission Protest at 16; Organization of MISO States Protest at 19-20.

³⁵² Illinois Commission Protest at 17.

³⁵³ MISO October 14 Answer at 59-60.

d. Commission Determination

250. MISO's answer makes clear that it is applying the confidentiality provisions of its tariff to confidential data and information. We find this answer to be responsive to the concern of Illinois Commission and the Organization of MISO States that the provision would not apply to non-confidential information.

251. We find that Illinois Commission's request to eliminate Module E-1 references to section 38.9 confidentiality requirements or amend those requirements constitutes collateral attacks on previously accepted provisions of MISO's Tariff.³⁵⁴ Accordingly, we reject Illinois Commission's request.

9. Physical and Economic Withholding Thresholds

a. MISO Proposal

252. MISO proposes to reduce the threshold for identifying physical withholding from 500 MW to 50 MW. It also clarifies that this physical withholding threshold applies to market participants.³⁵⁵ MISO asserts that this change in threshold level is appropriate given the creation of multiple zones.³⁵⁶ Additionally, MISO proposes to revise the economic withholding threshold to indicate that it applies to zonal resource credit offers. The economic withholding threshold is equal to 10 percent times the CONE value.

b. Comments and Protests

253. Consumers Energy contends that MISO's proposal to reduce the physical withholding threshold from 500 MW to 50 MW is arbitrary and lacks reasoned support. Consumers Energy and MidAmerican find insufficient MISO's explanation that this reduction is appropriate given the creation of multiple zones.³⁵⁷ Consumers Energy argues that MISO has not explained why 50 MWs is more appropriate than the five

³⁵⁴ *Midwest Indep. Transmission Sys. Operator, Inc.*, 108 FERC ¶ 61,163, at P 561 (2004).

³⁵⁵ July 20 Filing at 12.

³⁵⁶ Hillman Affidavit at ¶ 25.

³⁵⁷ Consumers Energy Protest at 9-10; MidAmerican Protest at 10 (citing Hillman Affidavit at ¶ 68).

percent or 200 MW threshold for physical withholding threshold that is utilized for broad constrained areas.³⁵⁸

254. Consumers Energy also argues that by establishing a 50 MW threshold for identifying physical withholding, MISO is effectively requiring all potential resources in a zone to participate in the auction, regardless of the market participant's wish to maintain the resources for an increased level of reliability or any concerns over the ability of the resource to effectively perform in the future.

255. Illinois Commission faults the MISO proposal for not effectively addressing capacity seller market power issues. Illinois Commission notes that, other than the proposed reduction in the physical withholding limit from 500 MW to 50 MW, MISO has given little thought or attention to seller market power relative to PJM and other RTOs with centralized capacity markets. Illinois Commission believes that the ability of capacity holders to exercise market power must be addressed with comprehensive before-the-auction market assessment mechanisms and the imposition of effective market power mitigation measures. Accordingly, Illinois Commission requests that the Commission direct MISO to explain how its monitoring and mitigation measures will address structural market power issues for the capacity market and propose meaningful monitoring and mitigation measures to address them.³⁵⁹

256. Indianapolis Power and Light contends that the physical withholding threshold should be changed so that it applies to LSEs and not market participants. It argues that only those who have capacity to sell or are required to buy capacity are in the auction and market participants can be parties without assets.³⁶⁰

257. MidAmerican argues that the proposed 50 MW threshold for physical withholding would be a particular problem for market participants with significant variable energy resources. It contends that resources that clear the auction must be offered into the MISO energy markets at their installed capacity except when experiencing a forced outage. This process, MidAmerican argues, is particularly cumbersome for variable energy units whose available capacity is subject to change. A lower physical withholding threshold would only worsen these problems, according to MidAmerican, by increasing the range

³⁵⁸ Consumers Energy Protest at 10.

³⁵⁹ Illinois Commission Protest at 27.

³⁶⁰ Indianapolis Power and Light Protest at 55.

of resources that must be submitted into the auction and subject to reporting requirements.³⁶¹

258. With respect to the application of the 10 percent CONE economic withholding threshold to zonal resource credits, Consumers Energy expresses concerns that the threshold forces the offer of resources at below cost and therefore recommends that the economic withholding threshold should be the greater of cost or 10 percent times the CONE value.³⁶²

c. MISO Answer

259. MISO states that it is proposing to create multiple zones, such that each will be smaller than the existing MISO region, which currently has a 500 MW threshold for physical withholding. It asserts that the threshold has been reduced because of the resulting increased impact that a single market participant could have on the smaller geographic territory of a single zone.³⁶³ Additionally, according to MISO, the proposed threshold will apply per market participant and not per corporation.³⁶⁴

d. Commission Determination

260. We accept MISO's proposed 50 MW threshold for identifying physical withholding in each zone. We find that the proposed threshold is consistent with previous Commission rulings that require market participants to commit all available resources, subject to certain exceptions, into the resource adequacy plan.³⁶⁵ We find a 50 MW physical withholding threshold to be a reasonable point at which the Market Monitor should investigate if the market participant is withholding capacity and therefore we will not require further justification.

261. With regard to Consumers Energy's argument that the physical withholding threshold amounts to a mandatory auction, we note that MISO has already proposed, and the Commission already accepted, physical withholding thresholds,³⁶⁶ and that issue is

³⁶¹ MidAmerican Protest at 10-11.

³⁶² Consumers Energy Protest at 10-11.

³⁶³ MISO October 14 Answer at 45 (citing Hillman Affidavit at ¶ 68).

³⁶⁴ *Id.*

³⁶⁵ Financial Settlement Second Rehearing Order, 137 FERC ¶ 61,213.

³⁶⁶ *Id.* P 54.

the subject of further proceedings and compliance. Consumers Energy's mandatory auction concern is a concern with the physical withholding thresholds under review in that proceeding. The Commission is comprehensively addressing seller market power in the proceedings cited above, and therefore we do not address the concerns raised by the Illinois Commission here.

262. We disagree with Indianapolis Power and Light's contention that the threshold for identifying physical withholding should apply to LSEs and not market participants. This provision applies to resource offers, which can be made by LSEs or other parties in control of resources. Therefore, it is appropriate that the provision apply to all market participants.

263. We consider MidAmerican's concern with variable energy resources to be an issue with the offer and registration process for these resources. This issue is beyond the scope of this proceeding.

264. Finally, we note that the economic withholding threshold of concern to Consumers Energy was previously proposed by MISO and accepted by the Commission as part of MISO's previous resource adequacy construct.³⁶⁷ Because the economic withholding threshold proposed by MISO is identical to the provisions accepted by the Commission in Module E, we will accept the threshold here as well.

265. We direct MISO to revise its proposed tariff to indicate that the proposed physical withholding threshold will apply per market participant and not per corporation, as it clarifies in its answer, and include these revisions in the compliance filing due within 30 days after the date of this order.

10. Transition from Module E to Module E-1

a. MISO Proposal

266. MISO states that because of the extensive nature of the proposed changes to Module E and the fact that there will be overlap between the existing resource adequacy plan and its proposal, it is proposing to create a new Module E-1 to its Tariff. Upon the conclusion of its obligations under the existing resource adequacy plan, MISO will file to terminate the currently effective resource plan.³⁶⁸ MISO requests an effective date of October 1, 2012 for its proposal, noting that the revised Tariff sheets will become effective in the 2013/2014 planning year that commences in June 2013. MISO explains

³⁶⁷ *Id.* P 59.

³⁶⁸ July 20 Filing at 3.

that it is requesting a deferred effective date in order to provide it with the necessary time to develop the necessary systems, develop locational zones, qualify resources and train market participants.³⁶⁹

b. Comments and Protests

267. According to Duke, from the effective date of the proposed Tariff modifications until June 1, 2013 (or whenever MISO files to cancel the terminate Module E), both Module E and Module E-1 will be in effect, as will the revisions to other portions of the Tariff proposed by MISO in its filing. Duke states that MISO should clarify which of the provisions in existing Module E will remain effective after Module E-1 takes effect and how the interplay between these different modules will work.³⁷⁰

268. Similarly, Consumers Energy asserts that MISO has not stated when Module E obligations will end or how conflicts between Module E and Module E-1 will be resolved during the period during which both are in effect. Consumers Energy argues that MISO should have to file a termination date for Module E and a proposed process of how conflicts between the two will be resolved.³⁷¹

269. MidAmerican also observes that provisions of the existing construct will have to coexist for a period of time in parallel with the provisions of the proposed mechanism. It finds, however, that in some cases MISO's July 20, 2011 filing seems to prematurely delete Module E mechanisms that will be necessary until its termination. Additionally, in other cases MidAmerican argues that MISO's July 20, 2011 filing apparently fails to add provisions that will be required under the new mechanism.³⁷²

270. MidAmerican recommends maintaining existing definitions for the following terms until Module E is terminated: aggregate planning resource credit, aggregate planning resource credit bid, aggregate planning resource credit offer, external planning resource credit, local planning resource credit, planning reserve zone, and planning resource credit. MidAmerican contends that the following definitions should not be modified until Module E is retired and that the terms should have separate definitions related to Module E and Module E-1: auction clearing price, Module E Capacity Tracking Tool, planning resource margin, and planning reserve margin requirement. MidAmerican also recommends eliminating the definitions for resource adequacy

³⁶⁹ *Id.* at 23.

³⁷⁰ Duke Protest at 18-19.

³⁷¹ Consumers Energy Protest at 3-4.

³⁷² MidAmerican Protest at 28-29.

requirement and voluntary capacity auction when the existing voluntary capacity auction is eliminated. MidAmerican recommends revising the following definitions as they will be applied to Module E-1: market activities, physical withholding threshold quantity, and resource adequacy requirements.³⁷³

271. MidAmerican contends that MISO needs to change section 7.6.b of the Tariff, “Billing Proceeds for RAR Auction under Module E,” because changes to billing will be required when moving from a monthly to a manual auction. MidAmerican recommends, at minimum, changing current Module E references to ones referencing Module E-1. MidAmerican notes that it has not identified any creditworthiness provisions that apply to the proposed auction. It notes that most credit-related terms are related to the “RAR Auction,” which is by definition currently limited to the existing voluntary capacity auction and not necessary the proposed auction and its monthly provisions. Similarly, according to MidAmerican, the credit policies in Attachment L of the Tariff generally refer to Module E or reference the monthly voluntary capacity auction and not the auction.³⁷⁴

272. MidAmerican notes that MISO’s filing proposes to eliminate certain references to the existing market monitoring provision in Module D. MidAmerican contends that these elements should be retained until Module E’s termination. Further, MidAmerican argues that any market monitoring provisions associated with the auction should be inserted alongside the existing provisions associated with the monthly auction. MidAmerican contends that these provisions include the following Tariff sections: section 53.1.b (conditions, functions, and actions monitored in the capacity market), section 63.3.a.i (categories of conduct that may warrant mitigation), section 64.1.1.d (thresholds for physical withholding), section 64.1.2.f (thresholds for economic withholding), and section 64.1.4.e (reference levels).³⁷⁵

c. Answer

273. MISO explains that it is proposing a two-year transition period (July 20, 2011 to May 31, 2013) so that all stakeholders can take appropriate actions to protect their contracts. MISO expects this transition period will be sufficient for the majority of stakeholders. Further, it states that a longer transition period would not permit MISO to

³⁷³ *Id.* at 29-30.

³⁷⁴ *Id.* at 30-32.

³⁷⁵ *Id.* at 32.

implement the subject market mechanisms in sufficient time to address proposed capacity market changes resulting from environmental rules and regulations.³⁷⁶

d. Commission Determination

274. We agree with parties that MISO has not provided a sufficiently detailed description of the transition from Module E to Module E-1. Accordingly, we direct MISO to provide the following information in the compliance filing to be submitted within 30 days of the date of this order: (1) specification of provisions in the current Module E that will remain in effect after Module E-1 becomes effective; (2) an explanation of the transition timeline and transition steps for major provisions, such as the transition from a monthly to annual auction; (3) an explanation of the transition process for deleting currently effective tariff provisions in Module E from the tariff; and (4) specification of the billing process and creditworthiness process transition to Module E-1.

11. Transmission Losses

a. MISO Proposal

275. Under MISO's proposal, the multi-zone optimization methodology will clear zonal resource credits to cover transmission losses and the planning reserve margin requirement will include estimates of transmission losses in its calculation. Also, the proposed planning reserve margin requires the inclusion of a quantity of capacity sufficient to cover transmission losses and the proposed method for the coincident peak demand forecast process requires that MISO be responsible for the calculation of transmission losses for the forecasts.

b. Comments and Protests

276. MidAmerican argues that the proposed provisions relating to transmission losses should be clarified. Specifically, MidAmerican argues that proposed Module E-1, section 69A.7.1.c should be clarified so that it reflects peak and not average energy losses. Similarly, according to MidAmerican, MISO's proposal states that MISO "will be responsible for the calculation of transmission losses," but does not specify whether such losses refer to peak transmission losses. MidAmerican argues that both references should be modified to refer to peak transmission losses.³⁷⁷

³⁷⁶ MISO October 14 Answer at 36-37.

³⁷⁷ MidAmerican Protest at 37.

277. Consumers Energy argues that MISO has not adequately explained proposed changes regarding the planning reserve margin. Specifically, MISO has not defined “transmission losses” as applied to the definition of the planning reserve margin. Consumers Energy also contends that it is unclear whether these transmission losses are system losses as defined in the Tariff or some other kind of losses.³⁷⁸

278. Michigan Agencies contend that the application of the zonal loss adjustment to load that is served from behind the meter generation would be unreasonable, unfair, and discriminatory. Michigan Agencies contend that any application of transmission losses to behind the meter generation without recognition of the reduced transmission losses incurred by load served by such resources is unreasonable. Michigan Agencies point out that MISO’s proposal calls for MISO, as opposed to the LSEs, to adjust for transmission losses when calculating resource adequacy requirements.³⁷⁹

279. Michigan Agencies assert that MISO has not indicated that it will adjust for lower transmission losses resulting from load served by behind the meter generation and infers that MISO does not intend to do so. Michigan Agencies argue that MISO should exclude the portion of a LSE’s load that is served by behind the meter generation from the zonal transmission adjustment included in the planning reserve margin where the LSE claims behind the meter generation as a capacity resource as part of the FRAP or through the self-scheduling option.³⁸⁰

c. Commission Determination

280. While we find the MISO proposal to account for transmission losses in zonal resource credits and in the forecasting process – including the definition of planning reserve margin – to be reasonable, we agree with parties that MISO needs to explain its process for calculating transmission losses and the basis for its calculations. Also, since the calculation of transmission losses impact planning reserve margins, they are rates that must be specified in the tariff. We direct MISO to include an explanation of its process for calculating transmission losses and propose tariff revisions that specify transmission losses in the compliance filing due within 30 days after the date of this order. We also agree with Michigan Agencies that the additional specification of transmission losses should include an explanation of the treatment of behind-the-meter generation. We direct

³⁷⁸ Consumers Energy Protest at 17.

³⁷⁹ Michigan Agencies Protest at 9-10 (citing Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A, RAR Process, 0.0.0](#)).

³⁸⁰ *Id.* at 10-12.

MISO to include this explanation as well in the compliance filing due within 30 days after the date of this order.

12. Cost of New Entry

a. MISO Proposal

281. Under the MISO proposal, the price associated with zonal resource credit offers cannot exceed the CONE value for the zone and the auction clearing price in a zone is set at CONE when there is an insufficient volume of zonal resource credit offers to cover the local clearing requirement or planning reserve margin requirement for a zone. Net CONE, defined as CONE minus the expected value of infra marginal rents received from the energy and operating reserves market during the Planning Year, is proposed to be the basis for mitigating zonal resource credit offers in the event the Commission determines that a combined cycle or combustion turbine generator should be subject to the MOPR provisions.

b. Comments and Protests

282. IMEA asserts that MISO must provide a better evaluation of CONE than it has in its annual filings to date, given the importance of CONE in the proposal. IMEA faults the MISO estimates of CONE in previous proceedings, noting that MISO has failed to demonstrate the reasonableness of its assumptions.³⁸¹

283. Similarly, Duke contends that the increased importance of CONE and net CONE values in the MISO proposal makes it essential that MISO treat the determination of these values as it would any other rate, including filing them with the Commission as section 205 filings, providing supporting calculations, and undertaking a full stakeholder process related to the determinations. Duke asserts that information related to these determinations, including the methodology for the calculation of CONE and net CONE needs to be included in the Tariff since it describes a rate. Duke contends that references to CONE in the Tariff should state that the CONE is for a combustion turbine.³⁸²

284. Duke notes that the definition of CONE in MISO's current tariff references costs in the MISO region, rather than costs in each zone, and therefore this definition must be revised to be consistent with the MISO proposal. Duke also proposes that the reference

³⁸¹ IMEA Protest at 6-8.

³⁸² Duke Protest at 9-15.

to calculation of a CONE value each September 1 be revised to a filing of a CONE value on this date.³⁸³

285. MICH-CARE asserts that CONE will not discipline local markets. MICH-CARE contends that capacity payments should not exceed the difference between short-run average costs and average revenues obtained from energy, ancillary services and other markets in order to incentivize existing producers to remain in the market. MICH-CARE considers payments above this amount to be unjust and unreasonable.³⁸⁴

286. Illinois Commission and Duke propose revisions to the net CONE calculation.³⁸⁵

c. Answer

287. MISO responds that the proposed CONE calculation provision is nearly identical to the existing tariff provision that has been determined by the Commission to be just and reasonable. Accordingly, MISO considers parties' arguments on this provision to be improper collateral attacks. MISO also defends the net CONE calculation and its applicability to the MOPR mitigation provision.

d. Commission Determination

288. We find the process used for the current annual CONE determinations, as outlined in the currently effective tariff, to be sufficient for CONE determinations going forward. This process, which requires MISO to make a section 205 filing with its annual CONE determinations, appropriately details the assumptions and methodologies used to derive the CONE estimate, thereby providing a sufficient basis for determining the justness and reasonableness of the estimate.³⁸⁶ We agree with Duke that the CONE value should be in the Tariff – as it is under the currently effective Tariff. We direct MISO to clarify that the CONE value will continue to be specified in the Tariff (currently in section 69.10) after the transition to Module E-1 in the compliance filing to be submitted within 30 days of the date of this order. We will not require that the CONE value be specified as the CONE for a combustion turbine generator in the Tariff. MISO and the Market Monitor will make their determination as to which generator, either a combustion turbine or combined cycle unit, is the appropriate basis for determining CONE in the annual CONE filings and provide, as part of those filings, the justification for their determination.

³⁸³ *Id.* at 9.

³⁸⁴ MICH-CARE Protest at 16-18.

³⁸⁵ Illinois Commission Protest at 28-30; Duke Protest at 13-16.

³⁸⁶ Financial Settlement Second Rehearing Order, 137 FERC ¶ 61,213 at P 34.

289. We agree with Duke that the CONE definition in section 1.103 of the Tariff needs to be revised to indicate that it represents the costs within a zone, and thereby ensure the definition is consistent with MISO's proposal. We also agree with Duke that MISO's proposal needs to be revised to indicate that MISO will file its CONE estimate each September 1. Finally, we note that MISO's proposal states that the price associated with zonal resource credit offers cannot exceed the CONE value for the zone *where the zone is located* in section 69A.7.1.a. We assume that the intent of this provision is to ensure that the CONE value represents the CONE in the zone *where the planning resource is located* and therefore we require this provision be revised accordingly. We direct MISO to submit these revisions in the compliance filing that is due within 30 days after the date of this order.

290. We do not agree with MICH-CARE that a price cap of CONE is unreasonable, nor do we agree that capacity payments should never exceed the difference between short-run average costs and average revenues obtained from energy, ancillary services and other markets. MISO's Tariff establishes adequate mitigation of seller market power for its capacity market, and thus, capacity market prices would not exceed reasonable levels due to the exercise of market power.³⁸⁷ Specifically, the MISO Tariff³⁸⁸ establishes a seller's net marginal cost as the reference level that would be used in mitigating the capacity market seller with market power. A competitive offer by a capacity market seller would reflect the seller's net marginal costs of providing capacity. Under MISO's Tariff, a capacity seller's net marginal costs are calculated as its going forward costs minus its energy and ancillary service revenues. This calculation is consistent with the offer caps used to mitigate seller market power in other capacity markets,³⁸⁹ and we agree that it is a reasonable basis for mitigating capacity market sellers in MISO as well. As long as seller offers (including those that require seller mitigation) are consistent with competitive offers, the market price that results from such an auction would not exceed competitive levels. As we have found for other markets,³⁹⁰ it is reasonable for a seller to receive the applicable competitive price, even if the price exceeds the seller's net marginal costs.

³⁸⁷ The Commission addressed MISO's mitigation of seller market power in Financial Settlement Second Rehearing Order, 137 FERC ¶ 61,213 at PP 39-61.

³⁸⁸ See Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [64.1.2, Thresholds for Identifying Economic Withholding, 1.0.0](#).

³⁸⁹ E.g., PJM Tariff, Attachment DD, section 6.4.

³⁹⁰ E.g., *N.Y. Indep. Sys. Operator, Inc.*, 103 FERC ¶ 61,201 at P 7 (accepting a capacity auction market in NYISO); and *New England Power Pool*, 100 FERC ¶ 61,287, at P 71 (2002), *order on reh'g*, 101 FERC ¶ 61,344 (2002) (accepting locational marginal pricing in the energy market in ISO-NE).

291. Because we are rejecting the MOPR provisions, as discussed in section III.B.2 above, we do not address concerns regarding the net CONE calculation, including the net CONE calculation provision used to calculate the mitigation for MOPR violations.

13. FRAP Mechanics

a. MISO Proposal

292. MISO proposes that an LSE electing to opt out of the auction can continue to use existing resource planning processes to meet their capacity obligation by providing MISO with a FRAP. The LSE must submit its FRAP by the seventh business day of March prior to planning year to demonstrate that it possesses zonal resource credits to meet some or all of its capacity obligation. The FRAP must include the LSE's forecasted coincident peak demand for each zone for the planning year and identify the credits that the LSE owns or has contractual rights to in order to fulfill its capacity obligations in each zone. MISO will then evaluate an LSE's FRAP to determine if it meets the LSE's capacity obligation. MISO will then notify the LSE prior to March 15 before the planning year of the extent that the LSE's FRAP has met its capacity obligation.

293. MISO proposes that for the purpose of analyzing exemption from section 65.7 (the MOPR), new resources will be considered last in determining whether an LSE's FRAP meets its capacity obligations. The LSE will have until the auction window opens to remedy any deficiencies in its FRAP.

b. Comments and Protests

294. Consumers Energy contends that MISO's proposal to consider new resources last in determining whether zonal resource credits cover an LSE's capacity obligations for a FRAP constitutes an unjust and unreasonable intrusion into an LSE's ability to manage its portfolio to minimize its overall cost of energy. Consumers Energy states that this requirement could result in efficient new base load units not being included in LSEs' FRAPs or clearing in the auction in favor a less efficient peaking resources. Consumers Energy argues that LSEs should be allowed to designate units in the FRAP based on their projected utilization of the resource.³⁹¹

295. Midwest TDUs contend that, under MISO's proposal, LSEs would not have the information needed on October 1 to demonstrate that the zonal resource credits are included in its FRAP, and thus exempt under proposed section 65.7.1(a)(i). Midwest TDUs explain that section 69A.9(a) makes FRAP submissions due on March 7. Additionally, according to MISO's proposal "[f]or the purpose of analyzing exemption

³⁹¹ Consumers Energy Protest at 15-16.

from [s]ection 65.7, new resources (as defined in [s]ection 65.7.1(a)(ii)) will be considered last in determining whether credits cover an LSE's [planning reserve margin requirement] for a FRAP."³⁹² Midwest TDUs note that MISO has not explained how the sequencing would work, given the October 1 deadline for exemption applications and the January 15 deadline for the IMM to determine if credit offers may be subject to mitigation pursuant to section 65.7.2(c). Thus, Midwest TDUs state that that this ambiguity may operate to deny LSEs the intended exemption.³⁹³

296. Although Duke supports the need for and structure of MISO's proposed FRAP provision, it recommends certain changes related to the timing of the FRAP process. Duke is concerned that when an LSE submits a FRAP, it must identify the zonal resource credits that it "owns, or has contractual rights to, in order to provide Planning Resources" to meet its resource adequacy obligations.³⁹⁴ Duke states that the MISO's proposal does not afford LSEs with any certainty regarding whether they may include credits from their newly registered load modifying resources in their FRAP before the FRAP submission deadline. Duke explains that this is because the proposed approach requires entities to submit load modifying resource registrations to MISO by March 1, but imposes no corresponding deadline for MISO to validate those resources. LSEs would then be required, according to Duke, to submit their FRAPs by the seventh business day of March, leaving little time to respond to the proposed designation.

297. Consequently, according to Duke, LSEs could be required to submit their FRAP without knowing how much time they will have to adjust their FRAP if their load modifying resource registration is not validated. Duke contends that MISO should be required to meet a binding deadline for approval of load modifying resources, perhaps a week, that leaves sufficient time for LSEs to finalize their FRAPs in light of MISO's response to load modifying resource submissions. Alternatively, Duke states that LSEs should be permitted to submit their FRAP plans at a date that is seven days after the date that MISO makes a determination on all of the LSE's timely-submitted load modifying resource registrations.³⁹⁵

³⁹² Midwest TDUs Protest at 55 (citing Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.9, Opting Out of the Planning Resource Auction, 0.0.0](#)).

³⁹³ *Id.*

³⁹⁴ Duke Protest at 2 (citing Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [69A.9, Opting Out of the Planning Resource Auction, 0.0.0](#)).

³⁹⁵ *Id.* at 2-3.

298. Midwest TDUs note that section 68A.9.a provides that LSEs submitting a FRAP must “include the LSE’s forecasted Coincident Peak Demand for [a local resource zone] for a Planning Year and also identify the [zonal resource credits] that the LSE owns, or has contractual rights to, in order to provide Planning Resources to meet its total PRMR and also its load ratio share of the [local clearing requirement] for each [local resource zone].”³⁹⁶ Midwest TDUs contend that this lack of parallelism creates confusion. They argue that each LSE submitting a FRAP should specify its forecast peak for each zone in which it serves and identify the owned or contracted zonal resource credits that it will use to serve the load while specifying particular credits to particular zones to the extent required to demonstrate that it is meeting its load ratio share of each applicable local clearing requirement.³⁹⁷

299. Indianapolis Power and Light suggests modifying proposed section 69A.9(a) to specify that an LSE electing to opt out must submit a FRAP to MISO by February 1, instead of the 7th business day in March, as proposed by MISO. Additionally, Indianapolis Power and Light recommends specifying that MISO will notify the LSE 30 days prior to March 15 about the how much of the LSE’s capacity obligation is satisfied by their FRAP, where MISO has proposed no deadline on such notifications. Indianapolis Power and Light states that these changes will provide a “cure period.”³⁹⁸

c. Commission Determination

300. We accept MISO’s proposed FRAP mechanics subject to the modifications described below. We agree with Duke that MISO has not specified its process for including zonal resource credits from newly registered Load Modifying Resources in their FRAPs and therefore we direct MISO to revise its Tariff to include this process and include these revisions in its compliance filing due within 30 days after the date of this order. We also require MISO to revise proposed section 69.A.9.a to address Midwest TDUs’ concern by replacing “an [local resource zone]” with “each [local resource zone].”

301. We will not require MISO to set a February 1 deadline for submittal of FRAPs and provide other deadlines in the opt-out Tariff provisions, as requested by Indianapolis Power and Light. MISO has not indicated that longer time-frames are required to process requests, and Indianapolis Power and Light has not explained why additional time to process the requests is needed.

³⁹⁶ Midwest TDUs Protest at 63 (emphasis in original).

³⁹⁷ *Id.*

³⁹⁸ Indianapolis Power and Light Protest at 62-63.

302. Because we are rejecting the MOPR provisions, as discussed above, we do not address concerns Consumers Energy's concern regarding MISO's provision in section 69A.9 that new resources will be considered last when determining whether an LSE has met its capacity obligation for purposes of analyzing exemption from section 65.7 and Midwest TDUs' concern with FRAP zonal resource credits in section 65.7.

14. Miscellaneous Issues

a. Treatment of Jointly-Owned Facilities

303. Michigan Agencies state that MISO's proposal is silent as to the treatment of jointly-owned facilities for the capacity market. Michigan Agencies request that MISO clarify that the contractual holder of entitlements for jointly-owned resources will be permitted to treat the entitlements as if they are individual generating resources for the purpose of the FRAP, as self-scheduled resources, and for conversion to zonal resource credits to be bid into the auction.

304. We direct MISO to clarify in its Tariff that owners of jointly-owned facilities can individually bid their share of the resources into the auction, either as self-scheduled price takers or with specific bids, or use them to as part of their FRAPs. Provisions prohibiting the use of jointly-owned facilities would be unduly discriminatory against entities which have to this point satisfied their resource adequacy requirements via jointly-owned facilities. We also find that such projects provide a means for smaller LSEs to own and operate resources, and whose development should thus be facilitated through participation in the capacity market. We require MISO to submit these revisions in the compliance filing to be submitted within 30 days of the date of this order.

b. Business Practice Manuals Issues

305. Consumers Energy argues that MISO has inappropriately proposed that its Tariff comply with its Business Practice Manuals as opposed to the Business Practice Manuals complying with the Tariff for several provisions such as demand forecast methodologies, external resource qualifications and related provisions. Consumers Energy argues that, contrary to Commission policy, MISO has proposed that a number of significant rates, terms and conditions of the RAR be described and established in the Business Practice Manuals instead of the Tariff.³⁹⁹

306. We find it appropriate that the forecasting methodologies, resource operational and qualification requirements, must offer and unforced outage procedures of concern to Consumers Energy to be appropriately addressed in the Business Practices Manuals.

³⁹⁹ Consumers Energy Protest at 5-8.

Consistent with the Commission’s “rule of reason” policy, we find that these activities do not encompass rates, terms or conditions of service⁴⁰⁰ that would need to be included in the Tariff.

c. Zonal Resource Credits from Mothballed Facilities

307. Proposed section 69.A.3.1.h, states that market participants cannot mothball, decommission, or retire planning resources that have cleared in the auction unless they substitute other capacity from within the same zone. Indianapolis Power and Light recommends amending this provision such that the replacement resources could include resources from another zone that are deliverable to the zone of the mothballed, decommissioned, or retired planning resource.⁴⁰¹

308. We disagree with Indianapolis Power and Light. This modification would violate the Capacity Import Limit and Capacity Export Limit restrictions discussed in section III.B.3(f) of this order. We find market participants that mothball, decommission, or retire resources that have cleared in the auction must replace such resources with other resources from within the same zone.

d. Price Taker Language

309. MISO proposes to change the definition of “price taker” in section 1.517 of the Tariff to “[a] Market Participant with an Offer or [zonal resource credit] Offer not capable of setting [locational marginal prices], [auction clearing prices], or [marginal clearing prices].” Indianapolis Power and Light suggest modifying this definition by replacing “capable of setting” with “permitted to set.” Indianapolis Power and Light explains that the change is needed because a price taker’s offer of “0” is capable of setting the price but that market rules do not permit such a price taker from setting the market price.⁴⁰²

⁴⁰⁰ See *California Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,016, at P 656 (2007) (citing *ANP Funding I, LLC v. ISO-NE*, 110 FERC ¶ 61,040, at P 22 (2005); *Prior Notice and Filing Requirements under Part II of the FPA*, 64 FERC ¶ 61,139, at 61,986-89 (1993), *order on reh’g*, 65 FERC ¶ 61,081 (1993) (discussing Commission’s “rule of reason” policy, which dictates that provisions which significantly affect rates, terms, and conditions must be included in the tariff)).

⁴⁰¹ Indianapolis Power and Light Protest at 60-61.

⁴⁰² *Id.* at 54.

310. We will not require MISO to make this revision. The current definition accurately indicates that price taker offers are not capable of setting prices, reflecting the fact that the offer may or may not clear the market.

e. **Demand Response Issues**

i. **Comments and Protests**

311. Wal-Mart and the Demand Response Supporters argue that it is inappropriate for states to prohibit the participation of demand response resources and aggregators in MISO's markets. Wal-Mart contends that the "retail opt-out" provision of Order No. 719,⁴⁰³ which allows regulatory authorities to exercise an opt-out provision to deny local demand response resources the ability to participate directly in the capacity market, will limit the effectiveness of the MISO capacity market.⁴⁰⁴ Wal-Mart argues that denying demand response providers the ability and choice to participate directly in MISO's proposed wholesale capacity market is unduly discriminatory and conflicts with the Energy Policy Act of 2005, which mandates the elimination of unnecessary barriers to demand response participation in energy, capacity, and ancillary service markets.⁴⁰⁵ Wal-Mart recommends that the Commission "approve MISO's proposed tariff modifications, but conditioned on [demand response] providers throughout the MISO footprint having the choice of participating directly through the wholesale capacity market."⁴⁰⁶

312. Demand Response supporters also contend that the present inability of Aggregators of Retail Customers to offer demand response resources in the MISO capacity market is likely to deter investment and competitiveness in MISO.⁴⁰⁷ Demand Response Supporters argue that MISO's compliance filing on Order No. 719 should be modified to both require the development of rules for aggregators of retail customers (ARC) and incorporate Order No. 745 and the MISO Tariff should include specific

⁴⁰³ *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, FERC Stats. & Regs. ¶ 31,281 (2008), *order on reh'g*, Order No. 719-A, 74 Fed. Reg. 37,776 (Jul. 29, 2009), FERC Stats. & Regs. ¶ 31,292 (2009), *order on reh'g*, Order No. 719-B, 129 FERC ¶ 61,252 (2009).

⁴⁰⁴ Wal-Mart Protest at 9-10.

⁴⁰⁵ *Id.* at 13.

⁴⁰⁶ *Id.* at 16.

⁴⁰⁷ Demand Response Supporters Protest at 8-9.

measurement and verification procedures.⁴⁰⁸ Demand Response Supporters also contend that MISO's Tariff language unreasonably restricts the flexibility of demand response resources by requiring executed contracts, an unreasonable requirement for such resources.⁴⁰⁹

ii. Answer

313. MISO responds by noting that the topic of aggregator of retail customer participation is not part of MISO's proposed filing because the Commission's filing in MISO's ARC filing in Docket ER09-1049 is still pending. MISO also argues that the qualification requirement of ownership or contractual rights is being consistently applied to all planning resources, such that there is no discrimination between demand response resources and other resources. Additionally, MISO contends that the one month prior qualification is necessary for MISO to conduct an auction with all known planning resources and all known load, which is needed to ensure reliability.⁴¹⁰

iii. Commission Determination

314. MISO, in this proceeding, has not proposed to modify the ARC participation requirements in section 38.6 of the Tariff that have been previously accepted by the Commission.⁴¹¹ Accordingly, any changes to ARC participation requirements in the capacity markets would be beyond the scope of this proceeding.

315. MISO does not propose to modify the accreditation requirements of concern to Demand Response Supporters in section 69.3.5 of the MISO Tariff, which the Commission accepted in previous orders.⁴¹² Nonetheless, we direct MISO to explain in its compliance filing the accreditation criteria for demand resources being accredited for the 2013/2014 Planning Year, and, if necessary, to propose revised tariff provisions.

⁴⁰⁸ *Id.* at 5-6 (citing *Demand Response Compensation in Organized Wholesale Energy Markets*, Order No. 745, FERC Stats. & Regs. ¶ 31,322, at P 1 (2011)).

⁴⁰⁹ *Id.* at 12-14.

⁴¹⁰ MISO October 14 Answer at 33-34.

⁴¹¹ *See Midwest Indep. Transmission Sys. Operator, Inc.*, 137 FERC ¶ 61,214 (2011).

⁴¹² *See* March 2008 Order, 122 FERC ¶ 61,283 at PP 337-359.

f. Capacity Portability

i. MISO Filing

316. MISO states that it will continue to identify institutional barriers that limit capacity transfers across RTO and neighboring transmission owner seams, in part, by continuing to work with neighboring systems to remove barriers to capacity portability. MISO agrees with the Market Monitor's recommendation in the *2010 State of the Market Report for MISO* to remove inefficient barriers to capacity trading with adjacent areas by: (1) modifying deliverability requirements for external resources to establish a maximum amount of capacity imports by interface that can be used to satisfy LSE capacity requirements under Module E; and (2) working with PJM to identify deliverability and must-offer requirements that may create inefficient barriers to exporting capacity to PJM.⁴¹³

ii. Comments and Protests

317. Ameren contends that increased capacity portability is critical to the development of properly functioning and efficient markets and would eliminate incentives to switch RTOs based on the economics of its capacity markets.⁴¹⁴ Ameren urges the Commission to direct MISO to provide a compliance filing describing its efforts to address portability issues within three months of the Commission's order in this proceeding. Ameren asserts that this compliance filing should include a requirement that MISO define in detail the barriers to capacity portability. Further, Ameren contends that within 30 days of that filing, the Commission should issue an order establishing a timeline for resolution of portability barriers.⁴¹⁵

318. The Market Monitor states that barriers to capacity trading between MISO and PJM, specifically transmission service requirements and processes, threaten to undermine the performance of MISO's proposed capacity market. It states that PJM requires firm transmission to be procured from the resource to the border and also from the firm network service into PJM. It contends that unutilized transmission capability undermines the performance of the PJM and MISO markets and raise costs to consumers in the region.⁴¹⁶ It also discusses barriers, including PJM's deliverability requirement and the

⁴¹³ July 20 Filing at 18.

⁴¹⁴ Ameren Protest at 11-12.

⁴¹⁵ *Id.* at 2-3.

⁴¹⁶ Market Monitor Comments at 10.

obligation and the resource-specific offer and dispatch obligations. It recommends that the Commission require MISO and PJM to work together to propose a solution in a specific timeframe that would fully address the barriers to capacity trading between the markets.⁴¹⁷

319. The PJM Power Providers and First Energy argue that addressing capacity portability issues would implicate rules governing PJM's capacity market, which are outside the scope of the current proceeding. They claim that MISO's proposed Module E-1 does not by its terms implicate the provisions of PJM's tariff governing eligibility to participate in PJM's capacity market and revisions to the PJM tariff can only be addressed in filings by PJM.⁴¹⁸ FirstEnergy also argues that the design of MISO's proposed capacity market contains substantial differences from that of PJM, complicating efforts to develop rules to ensure a formal and equitable trading regime between the regions. For this to occur, First Energy asserts that that MISO must complete development of its capacity market prior to attempting to improve the portability of capacity to other regions.⁴¹⁹

320. In addition, Minnesota Commission, the South Dakota Commission, the Environmental Center, CUB Illinois, and CUB Wisconsin each request that the Commission convene a technical conference to address barriers to capacity portability between PJM and MISO.⁴²⁰ The Minnesota Commission, the South Dakota Commission, and CUB Wisconsin also express concern that PJM and MISO maintain administrative rules that prevent the free-flow of capacity between regions, resulting in less competitive electricity rates.⁴²¹

iii. Answers

321. MISO disagrees with the contention of parties that inter-regional capacity portability matters are beyond the scope of this proceeding and indicates that it would support a Commission determination in the subject proceeding ordering PJM and MISO

⁴¹⁷ *Id.* at 10-11.

⁴¹⁸ PJM Power Providers Protest at 4-6.

⁴¹⁹ First Energy Protest at 4.

⁴²⁰ Minnesota Commission Comment at 1; South Dakota Commission Comment at 1; Environmental Center Comment at 1; CUB Illinois Comment at 1; CUB Wisconsin Comment at 1.

⁴²¹ Minnesota Commission Comment at 1; South Dakota Commission Comment at 1; CUB Wisconsin Comment at 1.

to work together to amend their existing Joint Operating Agreement to expressly eliminate all administrative and artificial capacity deliverability barriers.⁴²²

322. PJM answers that the Commission should not order MISO and PJM to amend their Joint Operating Agreement to address portability barriers, as requested by MISO in its answer. PJM contends that: (1) such an order is unnecessary based on existing discussions; (2) such barriers are not, in fact, “artificial”; (3) the MISO proposal might not provide sufficient assurance that firm service will be available. PJM also asserts that amendments to the Joint Operating Agreement must be signed by each RTO and accepted by the Commission pursuant to section 205 of the Federal Power Act. Thus, without any agreement between the two RTOs, a Commission order requiring an amendment to the JOA could only be issued following a proceeding under section 206 of the Federal Power Act.⁴²³

323. In its January 5 Answer, PJM adds that there have already been a substantial number of resources from MISO offered into PJM’s capacity market auction. PJM also describes how barriers that MISO describes as “artificial” are legitimate. Additionally, PJM asserts that any technical conference on the matter should be framed within the context of the immediate problem indentified by MISO, the resources adequacy challenges faced by MISO as a result of neighboring rules and how neighboring regions could assist MISO should those conditions arise.⁴²⁴

324. The Market Monitor asserts that less long-term firm transmission capability is available to be reserved for imports from MISO into PJM than actual demonstrated capability to support such imports because of barriers within PJM.⁴²⁵ It also argues that holders of transmission service into PJM incur minimal costs and so often do not release it, even if they are not using the capacity.⁴²⁶ The Market Monitor, therefore, recommends that the Commission “mandate that [MISO and PJM] and their respective stakeholders collaborate to remove prevailing barriers to trading capacity.”⁴²⁷

⁴²² MISO October 14 Answer at 14-15.

⁴²³ PJM November 3 Answer at 3-4.

⁴²⁴ PJM January 5 Answer at 2-4.

⁴²⁵ Market Monitor Answer at 6-8.

⁴²⁶ *Id.* at 8-9.

⁴²⁷ *Id.* at 10-16.

325. The Market Monitor explains that the main barrier for MISO resources to participate in the PJM capacity market is the lack of firm transmission capability into PJM, which PJM requires to support capacity imports. Further, the minimal cost incurred by present holders of firm transmission service further diminishes transfer capacity availability, according to the Market Monitor.⁴²⁸

326. The Market Monitor states that unclear resource obligations serve as barriers to capacity portability, barriers which are evident in the RTO membership changes. Since PJM and its stakeholders have not supported the removal of barriers, the Market Monitor recommends that the Commission mandate that the RTOs and their respective stakeholders collaborate to remove barriers of trading capacity.⁴²⁹

327. In its February 6 Answer, MISO supports the prospect of a technical conference to discuss the deliverability of capacity between multiple regions. MISO concurs with PJM's comments regarding the importance of ensuring the deliverability of available capacity into MISO, but emphasizes that any discussion on capacity deliverability should not be limited to capacity imports from PJM to MISO. MISO, however, recognizes that the elimination of barriers to economic capacity transfers between MISO and PJM would result in prices that reflect the true value of capacity in the combined regions. While MISO disagrees with PJM's suggestion that a discussion of capacity deliverability required the examination of various capacity market constructs, MISO states that a technical conference would provide a forum for assessing the proposed capacity deliverability and ensuring that the full physical capability of the electric grid is realized.

328. In its March 22 Answer, Ameren requests that the Commission convene a technical conference to review and discuss issues relating to the deliverability of capacity between multiple regions, in particular, between MISO and PJM. Further, Ameren requests that the Commission direct PJM and MISO to work together to define and resolve specific issues that create a barrier to capacity portability between those regions.⁴³⁰

329. In its April 18 Answer, Detroit Edison requests that the Commission convene a technical conference to review issues related to the deliverability and portability of capacity between regions. Detroit Edison argues that removal of barriers to capacity

⁴²⁸ *Id.* at 5-9.

⁴²⁹ *Id.* at 9-16.

⁴³⁰ Ameren March 22 Answer at 1-2.

portability will contribute to reliability and promote economic efficiency. In addition, Detroit Edison requests that the Commission direct MISO and PJM to participate in such a technical conference.⁴³¹

iv. Commission Determination

330. We note that the issues raised by MISO are not part of its proposed resource adequacy requirement revisions to the Tariff. We also agree, as pointed out by certain parties, that any enhancements to capacity portability between regions would require changes to Joint Operating Agreements and revisions to the tariffs of other RTOs. For these reasons, we find that the issues raised by MISO regarding capacity portability are beyond the scope of this proceeding.

331. Nonetheless, we recognize that capacity portability and related issues are of concern to a wide range of parties including state regulators and other stakeholders. Further, several parties request that the Commission investigate whether existing administrative rules act as a barrier to capacity transfers across the MISO/PJM seam and identify potential solutions.⁴³²

332. To address their concerns, we direct Commission staff to solicit comment⁴³³ on the issue of capacity portability between MISO and PJM, including an examination of administrative rules that may act as barriers to capacity transfers across the MISO/PJM seam and potential solutions. We encourage parties to raise their concerns in that proceeding.

g. Additional Clarifications

333. Consumers Energy faults MISO for not providing any justification for expanding the Market Monitor's scope of review to include demand resources and behind the meter generation. Consumers Energy notes that behind the meter generation is a resource which is not in the market and is behind the commercial pricing node and demand

⁴³¹ Detroit Edison April 18 Answer at 1-2.

⁴³² See, e.g., Minnesota Commission Comment at 1; South Dakota Commission Comment at 1; Environmental Center Comment at 1; CUB Illinois Comment at 1; CUB Wisconsin Comment at 1; MISO February 6 Answer at 2; Detroit Edison April 18 Answer at 1-2.

⁴³³ See *Capacity Deliverability Across the Midwest Independent Transmission System Operator, Inc./PJM Interconnection, L.L.C. Seam*, 139 FERC ¶ 61,200 (2012).

resources are defined as resources that can reduce demand during emergencies.⁴³⁴ We find the proposed scope of monitoring by the Market Monitor to be reasonable. Behind the meter generation and demand resources are Load Modifying Resources (and are therefore Planning Resources) that can be used by LSEs to meet their planning requirements. Therefore, it is reasonable for the Market Monitor to ensure that these resources are not withheld.⁴³⁵

334. Xcel contends that MISO should clarify the mechanics of how the auction will work beyond what it has included in proposed section 69A.7.1.c. Specifically, it asks MISO to clarify that if only a portion of the marginal unit is needed, then only that portion of the marginal unit will clear. Xcel also contends that it should be clear that when more than one marginal unit is offered at the same price, then all units offered at the same price are cleared *pro rata* up to the amount required to meet the reliability requirement. Additionally, Xcel argues that MISO should clarify that the auction clearing price will equal the offer of the last needed credit, and not the next-needed credit. We agree with Xcel that these clarifications are required. We direct MISO to clarify the mechanics of its auction, as requested by Xcel and revise its tariff in the compliance filing to be submitted within 30 days of the date of this order.

335. MISO's proposed Tariff provisions state that market participants that own Planning Resources must meet the applicable performance standards specified in its tariff. Xcel proposes a clarification to explain that the performance requirements described in sections 69A.3.9 and 69A.5 apply to "Asset Owners" and not "Owners." Xcel contends that this clarification will cover situations where a market participant does not own a unit but, for instance, is the exclusive purchaser of the unit's output. Xcel points out that the use of "Asset Owner"⁴³⁶ will correspond to similar provisions regarding the participation in the MISO energy and ancillary service markets.⁴³⁷

336. We find it unreasonable to restrict the applicability of the performance requirements to market participants that have been designated in MISO's registration process for Asset Owners. Nor do we consider it reasonable to hold the exclusive

⁴³⁴ Consumers Energy Protest at 4.

⁴³⁵ March 2008 Order, 122 FERC ¶ 61,283 at P 390.

⁴³⁶ An asset owner is defined in the MISO Tariff to be an entity identified by a market participant through MISO's registration process that is eligible to be represented by the market participant in market activities. *See* Midwest Independent Transmission System Operator, Inc., FERC Electric Tariff, Module E-1, [1.28A, Asset Owner, 0.0.0](#).

⁴³⁷ Xcel Protest at 17.

purchaser of a unit's output responsible for performance of the resource. For these reasons, we will not require MISO to make Xcel's recommended revision.

337. Indianapolis Power and Light proposes to add language to proposed Tariff section 69A of proposed Module E-1, which describes the resource adequacy requirement process. In section 69A, MISO proposes that LSEs will meet their capacity obligations by: "(i) submitting a FRAP; (ii) self-scheduling [zonal resource credits]; and/or (iii) purchasing [zonal resource credits] through the planning resource auction process." Indianapolis Power and Light suggests amending the third such method to "bilaterally or through the Planning Resource Auction." We disagree with Indianapolis Power and Light's proposed modification. The addition of "bilaterally or" to the list of ways in which an LSE can satisfy its capacity requirement is incorrect. As discussed above, LSEs cannot satisfy their capacity requirement by purchasing zonal resource credits bilaterally unless such purchases are part of the LSE's FRAP, which is already listed as a separate option.

338. MISO proposes to penalize owners of capacity resources that fail to perform when called upon the costs otherwise incurred to replace energy from the deficient capacity resource for each day of non-performance. The costs will be the product of the amount of qualified credits not achieved and the real-time LMP at the capacity resource commercial pricing node plus any applicable related Revenue Sufficiency Guarantee charges. MISO proposes that penalty revenues be allocated to market participants representing LSEs in the local balancing authority area(s) that experienced the capacity Emergency. Duke requests clarification, noting that MISO has not described how the resources that would have received these revenues would not have their offer costs covered. We see no need for clarification. The proposal clearly specifies the allocation of penalty revenues and therefore no further clarification is required.

339. Cooperatives request MISO to clarify that the Tariff provisions regarding power purchase agreements include seasonal power purchase agreements. We note that the Commission accepted these provisions in the Compliance Order and Locational Requirements Order⁴³⁸ and MISO has not proposed here any changes to those provisions. Accordingly, we find Cooperatives' request to be a collateral attack on the Commission's findings in the Compliance Order and Locational Requirements Order.

340. MISO proposes, in section 69A.3.3 of proposed Module E-1, eligibility requirements and deployment procedures for Load Modifying Resources that are nearly identical to provisions in Module E with modifications to conform the provisions to Module E-1. For example, section 69A.3.3 refers to zonal resource credits in its

⁴³⁸ Compliance Order, 125 FERC ¶ 61,062; Locational Requirements Order, 126 FERC ¶ 61,144.

description of resources. We find the proposed tariff revisions regarding Load Modifying Resources, including the provisions requiring Load Modifying Resources to be counted either as resources or as load reductions, to be just and reasonable and accordingly we accept them.

341. MISO, in Attachment A of its October 14 Answer, proposes numerous edits to its proposed Module E-1. We find that the proposed modifications to sections 65.7.3.a and 69A.9.e are moot because they relate to the MOPR provisions, which we are rejecting as discussed above. We accept the proposed modifications to sections 64.1.1.d.iii, 65.7.3.a, 68A, 68A.1, 68A.4, 68A.7, 69A.6.4, 69A.7.1.a, and 69A.7.8. We conditionally accept MISO's proposed modification to section 69A.7.7(c) subject to MISO correcting the reference to section 69A.7.7(b) (not section 69A.7(b), as this Tariff section does not exist). We direct MISO to make these changes in the compliance filing due within 30 days after the date of this order.

342. We accept MISO's July 20 Filing with regard to all other matters that are not discussed above.

The Commission orders:

(A) MISO's resource adequacy proposal is hereby accepted, effective October 1, 2012, subject to a compliance filing, as discussed in the body of this order.

(B) MISO is hereby directed to submit a compliance filing, within 30 days of the date of this order, as discussed in the body of this order.

(C) MISO is hereby directed to submit compliance filings specifying the maps depicting the boundaries of proposed local resource zones prior to the effective date for those boundaries, as discussed in the body of this order.

(D) Commission staff is hereby directed to issue a notice soliciting comments on the issue of capacity portability, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.