

153 FERC ¶ 61,385
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Cheryl A. LaFleur, and Tony Clark.

Public Citizen, Inc. v. Midcontinent Independent System Operator, Inc.	Docket Nos. EL15-70-000
The People of the State of Illinois By Illinois Attorney General Lisa Madigan v. Midcontinent Independent System Operator, Inc.	EL15-71-000
Southwestern Electric Cooperative, Inc. v. Midcontinent Independent System Operator, Inc., Dynegy, Inc., and Sellers of Capacity into Zone 4 of the 2015-2016 MISO Planning Resource Auction	EL15-72-000
Illinois Industrial Energy Consumers v. Midcontinent Independent System Operator, Inc.	EL15-82-000

ORDER GRANTING IN PART AND DENYING IN PART COMPLAINTS

(Issued December 31, 2015)

I. Background	5.
A. MISO’s Resource Adequacy Requirements.....	5.
B. MISO’s Planning Resource Auction	6.
C. Dynegy’s Acquisition of Generation Resources in Zone 4.....	9.
II. Summary of the Complaints	10.
III. Actions Taken by the Commission.....	14.
A. Non-Public Formal Investigation	14.
B. Technical Conference.....	15.

IV. Notice of Filings and Responsive Pleadings	16.
V. Discussion	20.
A. Procedural Matters	20.
B. Substantive Matters	24.
1. Whether the Mitigation Provisions in the Tariff are Adequate	24.
2. Whether Local Requirements are Calculated Correctly	102.
3. Whether the Zonal Configuration was Properly Derived	152.
4. Stakeholder Process and MISO Capacity Construct	167.
5. Refund Effective Date	177.

1. Four complaints (Complaints) have been filed with the Commission in response to the results of the Midcontinent Independent System Operator, Inc.'s (MISO) 2015/16 Planning Resource Auction (Auction) for Local Resource Zone 4 (Zone 4). These Complaints allege that the 2015/16 Auction results for Zone 4 are unjust and unreasonable, that the results were the product of market manipulation, and that certain provisions of MISO's Open Access Transmission, Energy and Operating Reserve Markets Tariff (Tariff) governing such auctions are no longer just and reasonable.
2. On May 28, 2015, Public Citizen, Inc. (Public Citizen) filed a complaint against MISO pursuant to section 206 of the Federal Power Act (FPA)¹ and Rule 206 of the Commission's Rules of Practice and Procedure.² On May 28, 2015, the People of the State of Illinois By Illinois Attorney General Lisa Madigan (Illinois Attorney General) filed a complaint against MISO pursuant to FPA sections 205,³ 206, and 222⁴ and Rule 206 of the Commission's Rules of Practice and Procedure. On May 29, 2015, Southwestern Electric Cooperative, Inc. (Southwestern) filed a complaint against MISO, Dynegy, Inc. (Dynegy), and all sellers of capacity into Zone 4 of MISO's 2015/16 Auction pursuant to FPA sections 206, 222, and 306⁵ and Rule 206 of the Commission's Rules of Practice and Procedure. On June 30, 2015, Illinois Industrial Energy Consumers (Industrial Consumers)⁶ filed a

¹ 16 U.S.C. § 824e (2012).

² 18 C.F.R § 385.206 (2015).

³ 16 U.S.C. § 824d (2012).

⁴ 16 U.S.C. § 824v (2012).

⁵ 16 U.S.C. § 825e (2012).

⁶ Together, Public Citizen, Illinois Attorney General, Southwestern, and Industrial

complaint against MISO pursuant to sections 206, 222, and 306 of the FPA and Rule 206 of the Commission's Rules of Practice and Procedure.

3. As discussed in more detail below, given the limited amount of actionable time prior to the 2016/2017 Auction, we act now to address in this order only those portions of the Complaints that challenge, prospectively, Tariff provisions governing the Auction. Specifically, we grant the Complaints in part and find that current provisions in the Tariff associated with calculating Initial Reference Levels and Local Clearing Requirements are no longer just and reasonable for prospective application, and we prescribe just and reasonable provisions to be applied in future Auctions, including the upcoming 2016/17 Auction. We deny the Complaints in part and find that Complainants have not shown that the Tariff provisions regarding changes to zonal boundaries, Tariff provisions regarding MISO's capacity construct, and the stakeholder process are unjust and unreasonable or unduly discriminatory or preferential.
4. With respect to other arguments raised in the Complaints regarding the 2015/16 Auction, they remain under consideration by the Commission, and will be addressed in a future Commission order. Further, we do not decide here whether an evidentiary hearing as requested by Complainants is warranted to resolve issues relating to the 2015/16 Auction, nor do we act at this time on the motions to dismiss. With respect to allegations of market manipulation, as discussed below, the Commission's Office of Enforcement is conducting a formal, non-public investigation into whether market manipulation occurred before or during the 2015/16 Auction. The Commission will determine in a subsequent order whether and what further action may be appropriate pending the outcome of the formal investigation, and the findings in this order do not prejudice the findings of this investigation. Further, the findings in this order do not prejudice the findings that might be made in any future Commission order in these dockets.

I. Background

A. MISO's Resource Adequacy Requirements

5. The Commission conditionally accepted Module E-1 of the Tariff, which sets forth MISO's currently effective annual resource adequacy construct, to become effective October 1, 2012.⁷ Module E-1 requires Load Serving Entities in a Local

Consumers will be referred to as Complainants.

⁷ *Midwest Indep. Transmission Sys. Operator, Inc.*, 139 FERC ¶ 61,199 (2012), *order on reh'g*, 153 FERC ¶ 61,229 (2015).

Resource Zone (Zone) to procure sufficient Capacity Resources to meet their respective annual Planning Reserve Margin Requirements, so that in aggregate, the Zone meets the zonal Planning Reserve Margin Requirement.⁸ A Load Serving Entity can satisfy its Planning Reserve Margin Requirement in any of four ways: (1) submit a Fixed Resource Adequacy Plan which demonstrates that it has designated capacity to meet all or a portion of its Planning Reserve Margin Requirement; (2) self-schedule capacity and bid it into the Auction at a price of zero; (3) purchase required capacity in MISO's voluntary Auction; and/or (4) pay the Capacity Deficiency Charge.⁹

B. MISO's Planning Resource Auction

6. The Auction is conducted annually in the first 10 business days of April and the results are posted approximately six weeks prior to the Planning Year, which begins on June 1 and ends on May 31 of the following year.¹⁰ The Auction selects the least-cost set of Capacity Resources needed to meet each Zone's Planning Reserve Margin Requirement, while respecting local and sub-regional constraints, and establishes the Auction Clearing Price for each Zone for the upcoming Planning Year.¹¹
7. Prior to this year, the Auction has experienced little or no price separation between the Zones: the 2013/14 Auction cleared at \$1.05/MW-day for each Zone, and the 2014/15 Auction cleared at \$3.29/MW-day for Zone 1, \$16.75/MW-day for Zones 2 through 7, and \$16.44/MW-day for Zones 8 and 9.¹² However, in the 2015/16 Auction held in April 2015, the Auction experienced substantial price separation between Zone 4 and the rest of the Zones: Zones 1 through 3 and 5 through 7 cleared at \$3.48/ MW-day, Zones 8 and 9 cleared at \$3.29/MW-day, and Zone 4 cleared at \$150.00/MW-day.

⁸ MISO, FERC Electric Tariff, Module E-1, § 68A.7 (31.0.0). Capitalized terms not otherwise defined herein have the meanings ascribed to them in the MISO Tariff.

⁹ MISO, FERC Electric Tariff, Module E-1, § 69A (30.0.0).

¹⁰ MISO, FERC Electric Tariff, Module A, § 1.P (36.0.0).

¹¹ MISO, FERC Electric Tariff, Module E-1, § 69A.7.1 (34.0.0).

¹² While there are currently 10 Zones, there were nine Zones during the 2015/16 Auction. *See Midcontinent Indep. Sys. Operator, Inc.*, 152 FERC ¶ 61,061 (2015) (accepting revisions to MISO's zonal boundaries creating a new Zone for Mississippi).

8. The MISO system-wide Planning Reserve Margin Requirement for the 2015/16 Planning Year was 136,359 MW. Fixed Resource Adequacy Plans totaled 48,229 MW, and, of the 97,632 MW of capacity offered, 88,130 MW cleared in the 2015/16 Auction. With respect to Zone 4, the Planning Reserve Margin Requirement was 10,420 MW, Fixed Resource Adequacy Plans totaled 838 MW, and, of the 11,156 MW of capacity offered, 8,014 MW cleared in the 2015/16 Auction, with 1,568 MW of imported capacity.¹³

C. Dynegy's Acquisition of Generation Resources in Zone 4

9. On April 14, 2013, Ameren Companies¹⁴ and Dynegy filed a joint application under FPA section 203¹⁵ seeking Commission approval of Dynegy's acquisition from Ameren Companies of five coal-fired generation resources with a total installed capacity of 4,393 MW: Duck Creek (410 MW), Coffeen (895 MW), E.D. Edwards (650 MW), Newton (1,197 MW), and Joppa (1,241 MW).¹⁶ With the exception of Joppa, these resources were located in Zone 4. However, if cleared, Joppa's capacity counts toward satisfying the Zone 4 Local Clearing Requirement.¹⁷ In the Section 203 Application, Ameren Companies and Dynegy represented that the transaction would increase Dynegy's capacity ownership in

¹³ MISO, *2015/2016 Planning Resource Auction Results (Extended)* (May 2015) (2015/16 Auction Summary), [https://www.misoenergy.org/Library/Repository/Report/Resource%20Adequacy/Auction Results/2015-16%20PRA%20Summary%20Extended.pdf](https://www.misoenergy.org/Library/Repository/Report/Resource%20Adequacy/Auction%20Results/2015-16%20PRA%20Summary%20Extended.pdf).

¹⁴ Ameren Companies are: Ameren Energy Generating Company; AmerenEnergy Resources Generating Company; Ameren Energy Marketing Company; Electric Energy, Inc. (Electric Energy); Midwest Electric Power, Inc.; and AmerenEnergy Medina Valley Cogen, L.L.C.

¹⁵ 16 U.S.C. § 824b (2012).

¹⁶ Ameren Companies, Joint Application, Docket No. EC13-93-000, at 1, 20 n.53 (filed Apr. 16, 2013) (Section 203 Application).

¹⁷ Dynegy July 6 Answer, Ex. A (Henry Jones Aff.) at 9 (“In addition to its capacity located in Zone 4, Dynegy had the unique ability, but not the obligation, to offer capacity from its Joppa generating plant into Zone 4. Although Joppa is not located in MISO, if Joppa capacity that is offered into Zone 4 clears and receives an award, it is treated by MISO as if it is located in Zone 4 and counts towards satisfying the Zone 4 Local Clearing Requirement.”). The Local Clearing Requirement is equal to the Local Reliability Requirement minus the Capacity Import Limit. *See infra* P 103.

MISO by 3,152 MW, from 2,954 MW to 6,106 MW.¹⁸ Ameren Companies and Dynegy stated in the Section 203 Application that they analyzed Dynegy's market share in MISO's capacity market on a system-wide basis because the 2013/14 Auction cleared at a single (i.e., system-wide) Auction Clearing Price. Ameren Companies and Dynegy concluded that Dynegy's approximate one percent share of the MISO capacity market would increase to less than a four percent share as a result of the acquisition, while the market concentration in the MISO capacity market as a whole would decrease.¹⁹ On October 11, 2013, the Commission authorized Dynegy's acquisition of the five generation resources, concluding that Ameren Companies and Dynegy correctly analyzed the transaction's effect on the MISO balancing authority area as a whole, as opposed to analyzing the effect on submarkets (i.e., Zones), as some intervenors argued was necessary. The Commission also found that Ameren Companies and Dynegy had demonstrated that the transaction will not have an adverse effect on competition.²⁰

II. Summary of the Complaints

10. Public Citizen²¹ seeks emergency action by the Commission against MISO for contravention and violations of the FPA and the Commission's rules thereunder in the 2015/16 Auction. Public Citizen alleges that the "highly excessive, unjust, unreasonable and unduly discriminatory rate increases" for Zone 4 may be the result of illegal manipulation and gaming of the auction bidding process, specifically capacity withholding.²² Public Citizen requests that the Commission investigate whether the 2015/16 Auction was subject to manipulation and

¹⁸ Section 203 Application at 21. Ameren Companies and Dynegy did not include Joppa in this calculation because it is located in Electric Energy's balancing authority area. However, according to Ameren Companies and Dynegy, there are long-term transmission reservations into MISO and therefore Joppa is treated as part of the MISO market. *Id.* at 20-22 nn.53, 55.

¹⁹ *Id.* at 30.

²⁰ *Ameren Energy Generating Co.*, 145 FERC ¶ 61,034, at PP 1, 54-58 (2013) (*Ameren Energy*).

²¹ Public Citizen is a nonprofit, nonpartisan consumer research and advocacy organization with members in Zone 4 and other MISO Zones.

²² Public Citizen Complaint at 1.

determine whether the resulting rates are unjust and unreasonable or unduly discriminatory.

11. Illinois Attorney General represents the People of the State of Illinois on public utility issues in proceedings before state and federal regulatory agencies and in state and federal courts. Illinois Attorney General alleges that the 2015/16 Auction produced an unjust and unreasonable rate in Zone 4, which is highly concentrated because Dynegy became a pivotal supplier after its acquisition of the generating plants from Ameren Companies.²³ Illinois Attorney General requests that the Commission suspend the Auction Clearing Price for Zone 4 for the 2015/16 Planning Year, open a proceeding to determine whether it is just and reasonable, establish a new rate that is just and reasonable, and order refunds.
12. Southwestern is an electric distribution cooperative that serves rural consumers in Illinois and is a MISO transmission customer located within Zone 4. Southwestern states that because its load exceeds its generation capacity in Zone 4, it relied on the 2015/16 Auction to meet its capacity obligations. Southwestern seeks an order that finds the results of the 2015/16 Auction for Zone 4 to be unjust, unreasonable, and unduly discriminatory; sets a just, reasonable, and non-discriminatory price for the procurement of capacity in Zone 4; establishes the earliest possible refund effective date; directs MISO to submit for Commission approval tariff revisions that will prevent a single market participant from exercising market power in future Auctions; and initiates an investigation into whether Dynegy's actions leading up to the 2015/16 Planning Resource Auction resulted in market manipulation. Southwestern identifies all capacity sellers in Zone 4 as respondents in addition to MISO because they will be unjustly enriched by the results of the 2015/16 Auction Clearing Price in Zone 4 at the expense of Southwestern and other customers.²⁴ If the Commission does not find the 2015/16 Auction Clearing Price in Zone 4 to be unjust and unreasonable, Southwestern requests, in the alternative, that the Commission grant a waiver of the application

²³ Illinois Attorney General Complaint at 12-14.

²⁴ Southwestern states it is unable to identify entities, other than Dynegy, as sellers in Zone 4 during the 2015/16 Auction because the post-auction data that MISO posted to its website conceals the identity of bidders. Southwestern states that it contacted MISO and requested that it forward Southwestern's complaint to sellers of capacity into the Auction in Zone 4, but that MISO declined to do so. Southwestern requests waiver of the service requirements pursuant to Rule 206(c), to the extent necessary, as to other potential respondents based on its best efforts at compliance with the service requirements of Rule 206(c). Southwestern Complaint at 3 & n.4.

of the 2015/16 Auction Clearing Prices to Load Serving Entities within Zone 4, effective June 1, 2015.

13. Industrial Consumers is an association of large industrial customers in Illinois. They allege that certain terms and conditions of the Tariff relating to the Auction are no longer just and reasonable in light of the 2015/16 Auction. Industrial Consumers state that they neither seek a refund of 2015/16 Auction Clearing Price in Zone 4 nor a finding on whether one or more market participants exercised market power in the 2015/16 Auction, but instead seek specific prospective Tariff modifications as relief.²⁵

III. Actions Taken by the Commission

A. Non-Public Formal Investigation

14. Shortly after the conclusion of the 2015/16 Auction, the Commission's Office of Enforcement began a non-public, informal investigation under Part 1b of the Commission's regulations²⁶ into whether market manipulation or other potential violations of Commission orders, rules and regulations occurred before or during the 2015/16 Auction. On October 1, 2015, pursuant to the Federal Power Act sections 201, 307, and 309 (as amended by the Energy Policy Act of 2005),²⁷ and Part 1b of the Commission's regulations, the Commission authorized the Office of Enforcement to conduct a non-public, formal investigation, with subpoena authority, regarding violations of the Commission's regulations, including section 1c. (Prohibition of electric energy market manipulation)²⁸ that may have occurred in connection with, or related to, the 2015/16 Auction.²⁹ That investigation is ongoing.

²⁵ Industrial Consumers Complaint at 1-2. Industrial Consumers also request that the Commission establish hearing and settlement judge procedures if this requested relief is not granted. *Id.* at 20.

²⁶ 18 C.F.R. pt. 1b (2015).

²⁷ 16 U.S.C. §§ 824, 825f, 825h (2012).

²⁸ 18 C.F.R. § 1c.2 (2015).

²⁹ *Investigation into MISO Zone 4 Planning Resource Auction Market Participant Offers*, 153 FERC ¶ 61,005 (2015) (Order Initiating Formal Investigation). An order converting an informal, non-public investigation to a formal, non-public investigation does not indicate that the Commission has determined that any entity has engaged in

B. Technical Conference

15. On October 20, 2015, Commission staff held a Technical Conference to obtain additional factual information about the following issues: (1) implementation of the current mitigation procedures and reference level calculations; (2) alternatives to the current mitigation procedures and reference level calculations; (3) the determination of Local Clearing Requirements and Capacity Import Limits; and (4) the basis for zonal boundaries.³⁰ Relevant details of these issues will be discussed below.

IV. Notice of Filings and Responsive Pleadings

16. Notice of Public Citizen's complaint was published in the *Federal Register*, 80 Fed. Reg. 32,109 (2015), with protests and interventions due on or before June 17, 2015. Notice of Illinois Attorney General's complaint was published in the *Federal Register*, 80 Fed. Reg. 32,108 (2015), with protests and interventions due on or before June 18, 2015. Notice of Southwestern's complaint was published in the *Federal Register*, 80 Fed. Reg. 32,371 (2015), with protests and interventions due on or before June 18, 2015. On June 3, 2015, MISO filed a motion to consolidate the Public Citizen, Illinois Attorney General, and Southwestern complaints into one proceeding. MISO also moved for an extension of time in these proceedings for filing answers, interventions and protests up to and including July 2, 2015. The period for answers, interventions and protests was subsequently extended to July 2, 2015.
17. Notice of Industrial Consumers' complaint was published in the *Federal Register*, 80 Fed. Reg. 40,051 (2015), with protests and interventions due on or before July 20, 2015.
18. The Notice of Technical Conference established the opportunity for comments on or before November 4, 2015.
19. The entities that filed notices of intervention, motions to intervene, protests, comments, and answers are listed in the Appendix to this order. The entity abbreviations listed in the Appendix will be used throughout this order.

market manipulation or otherwise violated any Commission order, rule, or regulation.

³⁰ Notice of Technical Conference, Docket No. EL15-70-000, *et al.*, at 2-3 (Oct. 1, 2015).

V. Discussion**A. Procedural Matters**

20. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2015), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to these proceedings. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2015), the Commission will grant the late-filed motions to intervene given the interest in the proceedings, the early stage of the proceedings, and the absence of undue prejudice or delay.³¹
21. Rule 213(a)(2) of the Commission's Rule of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2015), prohibits an answer to a protest or answer 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.
22. On June 3, 2015, MISO requested that the Commission consolidate the Public Citizen, Illinois Attorney General, and Southwestern complaints.³² In general, the Commission consolidates proceedings only if a trial-type evidentiary hearing is required to resolve common issues of law and fact, and consolidation would ultimately result in greater administrative efficiency.³³ We conclude that consolidating the four complaints is not appropriate at this time because we are not setting any issues for hearing in this order.
23. With respect to comments filed by parties after the Technical Conference, we accept Post-Technical Conference comments filed, but reject additional responses

³¹ Entities that filed comments and/or protests but did not file a notice of intervention or motion to intervene are not parties to these proceedings. 18 C.F.R. § 385.211(a)(2) (2015) ("The filing of a protest does not make the protestant a party to the proceeding. The protestant must intervene under Rule 214 to become a party").

³² MISO, Motion to Consolidate Proceedings, to Extend Answer and Comment Period to July 2, 2015, to Shorten the Comment Period on this Motion, and for Expedited Consideration of this Motion, Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000 (filed June 3, 2015).

³³ See, e.g., *PacifiCorp*, 147 FERC ¶ 61,227, at P 81 (2014); *Duke Energy Corp.*, 136 FERC ¶ 61,245, at P 33 (2011); *Startrans IO, L.L.C.*, 122 FERC ¶ 61,253, at P 25 (2008); *Terra-Gen Dixie Valley, LLC*, 132 FERC ¶ 61,215, at P 44, n.74 (2010).

as the Notice of Technical Conference was clear that only one round of comments would be considered.

B. Substantive Matters

1. Whether the Mitigation Provisions in the Tariff are Adequate

a. Background

24. The market mitigation provisions that govern the Auction in the Tariff are found in Module D, §§ 62-64. Section 62 states:

These market power Mitigation Measures are intended to provide the means for the Transmission Provider to mitigate the market effects of any conduct that would substantially distort competitive outcomes in the Markets and Services administered by the Transmission Provider, while avoiding unnecessary interference with competitive price signals.

* * *

To that end, the Mitigation Measures authorize the mitigation of specific conduct only when the conduct exceeds well-defined conduct thresholds and when the effect on market outcomes of the conduct exceeds well-defined market impact thresholds.³⁴

25. With respect to the Conduct Test for offers in the Auction, the Tariff provides that:

[T]he IMM will identify potential economic withholding that may warrant the mitigation of a[n] . . . Offer within the MISO Region by determining if the Offer exceeds the sum of 10 percent of the . . . [Cost of New Entry] value for the [applicable] Local Resource Zone . . . and the applicable Reference Level³⁵

³⁴ MISO, FERC Electric Tariff, Module D, § 62 (30.0.0).

³⁵ MISO, FERC Electric Tariff, Module D, § 64.1.2.d (32.0.0). For the purposes of this order, we will use the term Conduct Threshold to mean 10 percent of Cost of New Entry. Conduct Test will mean the sum of the Conduct Threshold and the applicable reference level.

26. The Tariff provides that “Initial Reference Levels for . . . Offers will be based on the estimated opportunity cost of exporting capacity to a neighboring region.”³⁶ The Tariff provides that when an offer in the Auction exceeds, and thus fails, the Conduct Test and the Impact Test,³⁷ MISO will mitigate that offer down to the applicable reference level.³⁸
27. The Initial Reference Level is the default reference level that is applicable to all capacity supply offers in the Auction. Capacity sellers may also elect to use a facility-specific reference level based on their going-forward costs, instead of the Initial Reference Level. Pursuant to the Tariff, a facility-specific reference level may be established if a market participant provides documentation of going-forward costs of keeping a generation resource in operation. For the purposes of determining a facility-specific reference level, going-forward costs means either:
- . . . the annual costs, including but not limited to mandatory capital expenditures necessary to comply with federal or state environmental, safety or reliability requirements that must be met in order to supply Planning Resources, . . . or [] the net opportunity costs of forgone sales outside of MISO, net of costs that would have been incurred as a result of the forgone sale if it had taken place.³⁹

At least 45 days prior to the deadline for offers to sell Planning Resources in the Auction, a market participant requesting a facility-specific reference level must submit information showing: (1) the nature, amount and determination of any claimed going-forward cost;

³⁶ MISO, FERC Electric Tariff, Module D, § 64.1.4 (30.0.0).

³⁷ The Impact Test determines whether an offer in the Auction increases the Auction Clearing Price by 10 percent of Cost of New Entry. The Impact Threshold, like the Conduct Threshold, equals 10 percent of Cost of New Entry. MISO, FERC Electric Tariff, Module D, § 64.2.1 (34.0.0).

³⁸ *See* MISO, FERC Electric Tariff, Module D, § 65.2.2 (30.0.0) (“If the criteria contained in Section 64 are met, the Transmission Provider shall prospectively substitute a Default Offer for an Offer submitted for a Generation Resource. The Default Offer shall establish a mitigated value for one or more components of the Offer for a Generation, Stored Energy, or Planning Resource equal to the Reference Level for that component of the Generation, Stored Energy, or Planning Resource’s Offer determined as specified in Section 64.1.4.”).

³⁹ MISO, FERC Electric Tariff, Module D, § 64.1.4.f.i (30.0.0).

and (2) that the cost would be avoided if the capacity supplier is taken out of service or retired.⁴⁰

28. The MISO Market Monitor has historically based the Initial Reference Level on the PJM Daily Capacity Deficiency Rate,⁴¹ which is derived from prices in PJM's Reliability Pricing Model auctions for the same Planning Year.⁴² To determine the Initial Reference Level, the MISO Market Monitor first calculates the weighted average clearing price in PJM's unconstrained locational delivery area across all the Reliability Pricing Model auctions for the relevant Planning Year. Next, the MISO Market Monitor adds to the weighted average clearing price the higher of 20 percent of that weighted average clearing price or \$20/MW-day. Finally, the MISO Market Monitor subtracts applicable transmission costs. In the 2015/16 Planning Year, the PJM weighted average clearing price was \$136.18/MW-day and the PJM Daily Capacity Deficiency Rate was \$163.41/MW-day. After subtracting \$7.92/MW-day for transmission costs, the Initial Reference Level in the 2015/16 Auction was \$155.79/MW-day.⁴³ The associated Conduct Test for capacity resources in Zone 4 was the sum of the Initial Reference Level and the Conduct Threshold of 10 percent of the Zone 4 Cost of New Entry, which summed to \$180.53/MW-day.⁴⁴

⁴⁰ MISO, FERC Electric Tariff, Module D, § 64.1.4.f.ii (30.0.0).

⁴¹ *See* PJM, Intra-PJM Tariffs, OATT, Attachment DD, § 7.1(b) (1.0.0), describing the Daily Deficiency Rate for capacity. For purposes of this order, we refer to this as the PJM Daily Capacity Deficiency Rate.

⁴² PJM's Reliability Pricing Model auctions include a Base Residual Auction, which is held three years prior to each Planning Year, and Incremental Auctions held between the Base Residual Auction and the start of the Planning Year. *See* PJM, Intra-PJM Tariffs, OATT, Attachment DD. While PJM uses the term "Delivery Year," for purposes of this order, we will use the term "Planning Year" which is used by MISO.

⁴³ Transmission costs are based on the sum of Schedule 1 and Schedule 2 transmission service fees. Potomac Economics, *Initial Reference Level for Zonal Reserve Offers: 2015/2016 Delivery Year*, <https://www.misoenergy.org/Library/Repository/Report/IMM/2015-2016%20Initial%20Reference%20Level%20for%20Zonal%20Resources.pdf>.

⁴⁴ MISO Market Monitor Comments at 6; MISO, *2015/2016 Planning Resource Auction Results (Extended)* (May 2015), [https://www.misoenergy.org/Library/Repository/Report/Resource%20Adequacy/Auction Results/2015-16%20PRA%20Summary%20Extended.pdf](https://www.misoenergy.org/Library/Repository/Report/Resource%20Adequacy/Auction%20Results/2015-16%20PRA%20Summary%20Extended.pdf).

b. Complaints

29. Industrial Consumers assert that the Initial Reference Level used to mitigate market power in MISO's Auction does not appropriately reflect the opportunity cost of MISO capacity resources because it overstates the opportunity to sell capacity to PJM.⁴⁵ Complainants further object to the Initial Reference Level because it is based on clearing prices in previous PJM Reliability Pricing Model auctions. Industrial Consumers explain that the PJM Reliability Pricing Model auctions are conducted prior to the start of MISO's Auction and maintain that there are significant barriers for MISO capacity resources to participate in the PJM capacity auction.⁴⁶ Industrial Consumers argue that a generator's potential participation in PJM's auction may not be a valid basis for establishing opportunity costs.⁴⁷
30. Illinois Attorney General states that MISO capacity has been sold into PJM at substantially less than the Initial Reference Level, which indicates to Illinois Attorney General that the Initial Reference Level is not an accurate measure of opportunity cost. For example, Illinois Attorney General notes that a Dynegy subsidiary has offered capacity into PJM for \$25.51/MW-day and \$5.54/MW-day.⁴⁸ Industrial Consumers assert that Dynegy's offers in the 2015/16 Auction would not have cleared in the PJM Base Residual Auction for the same Planning Year.⁴⁹
31. Industrial Consumers argue that the Initial Reference Level fails to consider the limited amount of replacement capacity needed by PJM auction participants and the total amount of short-term firm transmission service that would be available to transmit replacement capacity from MISO to PJM.⁵⁰
32. Industrial Consumers argue that only a small portion of the 3,425 MW Dynegy offered into MISO's 2015/16 Auction could have obtained short-term firm

⁴⁵ Industrial Consumers Complaint at 2.

⁴⁶ *Id.* at 13 (citing Ex. IIEC-5 at ¶ 33).

⁴⁷ *Id.*

⁴⁸ Illinois Attorney General Complaint at 18 (citing McCullough Aff. ¶ 31).

⁴⁹ Industrial Consumers Complaint at 13 (citing Dauphinais Aff. ¶¶ 33, 40-41).

⁵⁰ *Id.* at 14 (citing Dauphinais Aff. ¶ 43).

transmission service into PJM for the entire Planning Year.⁵¹ Industrial Consumers argue that, unless it can be reasonably demonstrated that PJM auction participants need at least 3,425 MW of replacement capacity for the entire 2015/16 Planning Year, and that there is at least 3,425 MW of short-term firm transmission service available from MISO to PJM throughout the 2015/16 Planning Year to deliver it, the PJM Daily Capacity Deficiency Rate is not a valid opportunity cost for resources in MISO that participate in the Auction, and that using the PJM Daily Capacity Deficiency Rate in the calculation of the MISO Initial Reference Level is inappropriate.⁵²

33. Industrial Consumers state that the MISO Market Monitor previously indicated that it was not aware of suitable bilateral capacity contract information to use as a basis for calculating the opportunity costs of MISO capacity resources. Industrial Consumers assert that, regardless of the availability of such information, the only bilateral trades that represent legitimate opportunity costs for market participants that clear capacity in the Auction are bilateral trades for replacement capacity to PJM during the Planning Year of that Auction.⁵³
34. Illinois Attorney General, Southwestern, and Industrial Consumers contend that the Initial Reference Level does not accurately measure the opportunity cost of MISO capacity resources at the time of the Auction.⁵⁴ Illinois Attorney General asserts that the cost of capacity in PJM is based on the resources and demand located in PJM, and not on the resources and demand in MISO or Zone 4.⁵⁵ Southwestern argues that the Initial Reference Level should reflect the “marginal

⁵¹ *Id.* at 14-15 (citing Dauphinais Aff. ¶¶ 47-48). Industrial Customers state that, to date, only 30 MW of short-term firm point-to-point transmission service from Ameren Illinois to PJM has been granted by MISO and confirmed by a transmission customer, and it is only for the limited delivery period of February 2016.

⁵² *Id.* (citing Dauphinais Aff. ¶ 44).

⁵³ *Id.* at 13-14 (citing Dauphinais Aff. ¶ 33).

⁵⁴ Illinois Attorney General Complaint at 17-18 (citing McCullough Aff. ¶ 31); Southwestern Complaint at 24 (quoting MISO, FERC Electric Tariff, Module D, § 64.1.4 (30.0.0)); Industrial Consumers Complaint at 13 (citing Dauphinais Aff. ¶ 43).

⁵⁵ Illinois Attorney General Complaint at 18.

costs, including legitimate risk and opportunity costs or justifiable technical characteristics” of a generator.⁵⁶

35. Industrial Consumers request that the Commission require MISO to revise its Tariff to set the Initial Reference Level to \$0/MW-day and exclude opportunity costs from the determination of facility-specific reference levels. Industrial Consumers argue that, under their requested Tariff modification, generation resources that do not request facility-specific reference levels would have a Conduct Threshold Level of 10 percent of Cost of New Entry, and generation resources that elect to use facility-specific reference levels would have a Conduct Threshold equal 10 percent of Cost of New Entry plus their annual going-forward costs, but without any allowance for opportunity costs.⁵⁷
36. Illinois Attorney General argues that the public announcement of the Initial Reference Level, as specified in the Tariff, inappropriately creates an upper limit for bids at which they will not receive additional scrutiny by the MISO Market Monitor.⁵⁸ Southwestern argues that the MISO Market Monitor is authorized to monitor bidding behavior even when the bids are below the Initial Reference Level and asserts that the MISO Market Monitor has a narrow interpretation of its responsibility to identify the opportunity for market power.⁵⁹ Southwestern asserts that, as a result, the MISO Market Monitor has left customers in Zone 4 without the protection and oversight the Commission intended through its approval of the market monitoring provisions in the Tariff.⁶⁰ Southwestern requests that the Commission direct MISO to develop Tariff provisions to address the possibility that a future supplier with market power can set capacity prices unilaterally.⁶¹

⁵⁶ Southwestern Complaint at 24 (quoting MISO, FERC Electric Tariff, Module D, § 64.1.4 (30.0.0)).

⁵⁷ Industrial Consumers Complaint at 16.

⁵⁸ Illinois Attorney General Complaint at 18-19.

⁵⁹ Southwestern Complaint at 38-40 (citing MISO, FERC Electric Tariff, Module D, §§ 53.1 (30.0.0), 62 (30.0.0), 64.2.3 (30.0.0)).

⁶⁰ *Id.* at 39-40.

⁶¹ *Id.* at 45.

c. Comments and Answers

37. WPPI argues that MISO's current mitigation rules need to be modified because they fail to ensure just and reasonable results in Zones where a pivotal supplier can be confident that its offer will be accepted.⁶²
38. Sierra Club and Joint Consumer Advocates assert that it is unclear whether the MISO Market Monitor investigated the Auction and whether any conduct occurred that distorted the competitive market, or if the MISO Market Monitor assumed that the Auction complied with the rules because the supply bids did not exceed the Initial Reference Levels.⁶³ Joint Consumer Advocates argue that, even if the Auction Clearing Price is below the Initial Reference Level, the MISO Market Monitor is obligated to monitor market participants' actions.⁶⁴
39. Joint Consumer Advocates agree with Complainants' concerns that the \$155.79/MW-day Initial Reference Level may not represent the true opportunity cost of selling capacity into a neighboring market.⁶⁵
40. The MISO Market Monitor asserts that MISO's market power mitigation measures are intended to ensure that market outcomes remain competitive despite the presence of suppliers with market power.⁶⁶ The MISO Market Monitor and Dynegy note that the market power mitigation measures for the Auction employ a Conduct and Impact framework that is common in many electricity markets (e.g., New York Independent System Operator, Inc. (NYISO) and ISO New England) and determines whether a participant's conduct is competitive by measuring its offer price against a competitive reference level and, if it is not, whether the offer actually caused a material change in the Auction Clearing Price.⁶⁷ The MISO

⁶² WPPI Comments at 6, 8.

⁶³ Sierra Club Comments at 27-28; Joint Consumer Advocates Comments at 8 (citing MISO, FERC Electric Tariff, Module D, § 62 (30.0.0)).

⁶⁴ Joint Consumer Advocates Comments at 8 (citing MISO, FERC Electric Tariff, Module D, § 62 (30.0.0)).

⁶⁵ *Id.* (citing Illinois Attorney General Complaint at 47-50).

⁶⁶ MISO Market Monitor Comments at 3-4.

⁶⁷ *Id.* at 4; Dynegy July 6 Answer at 15 (citing MISO, FERC Electric Tariff, Module D, § 64.2.1(e)).

Market Monitor asserts that, because no capacity offer failed the Conduct Test in the 2015/16 Auction, it was unnecessary to administer the Impact Test.⁶⁸

41. The MISO Market Monitor maintains that the results of PJM's third Incremental Auction held on March 6, 2015 validate that the Initial Reference Level in the 2015/16 Auction was a reasonable reflection of the opportunity cost of exporting capacity to PJM. The MISO Market Monitor states that PJM's third Incremental Auction for the 2015/16 Planning Year cleared at \$163.20/MW-day, a figure close to the PJM Daily Capacity Deficiency Rate.⁶⁹ The MISO Market Monitor states that it continues to believe that the market power mitigation measures are based on sound economic theory and are effective in ensuring workably competitive market outcomes.⁷⁰ Further, Dynegy contends that there is no indication that any party objected to or criticized the calculation of the \$155.79/MW-day opportunity-cost-based Initial Reference Level before the 2015/16 Auction.⁷¹
42. The MISO Market Monitor avers that, provided the Initial Reference Level is a reasonable benchmark for a competitive offer, one cannot find that economic withholding occurred if the offers were not submitted at prices materially higher than the Initial Reference Level. Dynegy argues that the fact that all of the Auction Clearing Prices were below the Initial Reference Level means that the mitigation provisions in the Tariff worked as intended.
43. Dynegy argues that Illinois Attorney General's allegations against the MISO Market Monitor's calculation of the Initial Reference Level are premised on an outdated PJM report that says nothing about the likely cost of replacement capacity in the 2015/16 Planning Year.⁷² According to Dynegy, the prices resulting from PJM's Incremental Auctions for the 2015/16 Planning Year demonstrate that prices are trending

⁶⁸ MISO Market Monitor Comments at 4.

⁶⁹ *Id.* at 5-7.

⁷⁰ *Id.* at 8-9.

⁷¹ Dynegy July 6 Answer at 16-17.

⁷² *Id.* at 37-38 (citing Illinois Attorney General Complaint at P 47 (citing PJM Replacement Capacity in the Incremental Auctions, at 11 (Aug. 26, 2013))).

above \$136/MW-day.⁷³ Further, Dynegy maintains that there are sound public policy grounds for allowing capacity prices in MISO to reach the level of the opportunity cost of selling MISO capacity in other markets. Dynegy argues that, if the Commission were to require lower reference levels in MISO that are decoupled from the capacity prices and penalties in PJM, it could encourage both excessive retirements and additional exports from MISO to PJM, and thereby increase the risk of capacity shortfalls in MISO.⁷⁴ Dynegy also argues that imposing market features that lead to inadequate capacity prices may create incentives for generation owners in MISO to forgo the investments necessary to improve or sustain the performance of their units.⁷⁵

44. Dynegy argues that the Commission should reject Industrial Consumers' request that the Commission require MISO to revise its Tariff to set the Initial Reference Level to \$0/MW-day and exclude opportunity costs from the determination of facility-specific reference levels. Dynegy asserts that Industrial Consumer's proposed revised definitions of the Initial Reference Level and facility-specific reference levels would not reflect the opportunity cost of generation capacity being offered into the Auction.⁷⁶ Dynegy also disputes Industrial Consumers' assertion that there are limited opportunities for MISO capacity owners to sell capacity into PJM.⁷⁷ Further, Dynegy argues that Industrial Consumers' complaint attempts, without support, to impose standards for the opportunity cost calculation that the Commission has never before relied on.⁷⁸

⁷³ *Id.* at 38 (citing Pope Aff. ¶ 40; PJM, Resource Clearing Prices Auctions Summary 2007/08 – 2017/18 (May 12, 2015), <http://www.pjm.com/markets-and-operations/rpm.aspx>).

⁷⁴ *Id.* at 39 (citing *PJM Interconnection, L.L.C.*, 147 FERC ¶ 61,060, at P 3 (2014); 2014 OMS MISO Survey Results, at 6 (Nov. 19, 2014); 2015 OMS MISO Survey Results, at 4 (June 2015)); Dynegy Protest at 16-18.

⁷⁵ Dynegy July 6 Answer at 48 (citing *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at P 48 (2015) (Capacity Performance Order); *ISO New England Inc.*, 147 FERC ¶ 61,172, at P 26 (2014)); Dynegy Protest at 15-16.

⁷⁶ Dynegy Protest at 4-6.

⁷⁷ *Id.* at 8-9 (citing Capacity Performance Order, 151 FERC ¶ 61,208 at PP 92, 158-186).

⁷⁸ *Id.* at 7-8.

45. Dynegey argues that implementing Industrial Consumers' proposed revisions to the Tariff would result in a significant additional administrative burden on the MISO Market Monitor which would be tasked with evaluating going-forward cost data for a significant number of capacity resources, and that Industrial Consumers' revisions would effectively impose a cost-based regime on the Auction.⁷⁹
46. EPSA argues that the Commission has previously found that using the PJM Base Residual Auction prices is an appropriate basis for the opportunity cost of selling capacity.⁸⁰
47. MISO states that it does not address allegations that are specific to the conduct of the MISO Market Monitor.⁸¹ MISO disagrees with the Industrial Consumers' position that opportunity costs should not be used in the determination of the Initial Reference Level.⁸² MISO contends that opportunity costs reflect the economic choices that competitive suppliers make when deciding when and where to sell capacity. MISO further asserts that the marginal supplier in MISO will consider the value of the opportunities it will lose when it commits its capacity to MISO. It asserts that by offering in the MISO Auction at the price the marginal supplier could obtain in PJM, the resource ensures that it will receive the highest competitive price for its capacity. According to MISO, if opportunity costs cannot be taken into account when setting the Initial Reference Level, then suppliers' offers in the Auction will not reflect those costs, and suppliers in MISO will not be able to structure their offers such that they can participate in both the MISO and PJM markets. MISO maintains that opportunity costs have been used repeatedly by the Commission to help set wholesale rates in the power industry.⁸³

⁷⁹ *Id.* at 9-11 (citing *Blumenthal v. ISO New England Inc.*, 117 FERC ¶ 61,038, at P 85 (2006)).

⁸⁰ EPSA Protest at 8-9 (citing *Hudson Transmission Partners, LLC v. N.Y. Indep. Sys. Operator, Inc.*, 145 FERC ¶ 61,156, at PP 100-105 (2013)).

⁸¹ MISO July 2 Answer at 2.

⁸² MISO July 20 Answer at 10-11.

⁸³ *Id.* (citing *Ameren Energy Marketing Co.*, 117 FERC ¶ 61,334, at P 15 (2006); *Cal. Indep. Sys. Operator*, 114 FERC ¶ 61,026 (2006); *PJM Interconnection, L.L.C.*, 133 FERC ¶ 61,081, at P 6 (2010)).

d. Answers to Comments/Answers

48. Industrial Consumers argue that the opportunity costs used by MISO and the MISO Market Monitor as an Initial Reference Level are not legitimate because they are inconsistent with sound economic principles. They argue that the marginal capacity resource's opportunity costs should not be used in calculating the Initial Reference Level for all MISO generation resources because those opportunity costs are not available to all generation resources in the market due to transmission constraints or other factors.⁸⁴
49. Industrial Consumers argue that MISO's approach to determining opportunity costs is unreasonable because it requires customers to pay higher prices than those that would result from unrestricted settlement of the PJM and MISO electricity markets.⁸⁵ Industrial Consumers argue that the simultaneous short-term available transfer capability value for incremental firm service from Ameren Illinois to PJM is at most 637 MW, and that there are 1,654 MW of existing, unused confirmed long-term firm point-to-point transmission service requests from Ameren Illinois to PJM that might be able to support replacement capacity sales to PJM market participants.⁸⁶ Industrial Consumers argue that PJM will likely see sizeable decreases in its system's reliability requirement in the future as a result of its new Capacity Performance requirements.⁸⁷
50. Industrial Consumers refute Dynegy's assertions that Industrial Consumers' proposed Tariff revisions are inconsistent with public policy. Industrial Consumers argue that the Commission has adopted locational pricing and that, because supply is abundant in Zone 4, the prices in Zone 4 should have been relatively low.⁸⁸

⁸⁴ Industrial Consumers August 7 Answer at 7-8.

⁸⁵ *Id.* at 8.

⁸⁶ *Id.* at 8-10.

⁸⁷ *Id.* at 11 (citing Joint Consumer Advocates, Complaint, Docket No. EL15-83-000 (filed June 30, 2015); PJM, Limited Supplemental Answer, Docket No. EL15-83-000 (filed July 27, 2015)).

⁸⁸ *Id.* at 14-15.

51. MISO argues that Industrial Consumers' theory that a market-wide opportunity cost is only just and reasonable if it is available to each supplier in a given market is

contrary to Commission precedent.⁸⁹ MISO asserts that the MISO and PJM joint deliverability analysis indicated that “more than 96 percent of MISO and PJM units are jointly deliverable . . . and the total transmission capability between the two systems is quite significant.”⁹⁰ Moreover, MISO states that between 5.8 and 7.7 GW can flow from MISO to PJM, of which between 5.0 and 5.4 GW could be located in MISO North/Central.⁹¹ Industrial Consumers argue that the Commission should deny MISO’s August 24 Answer because the Commission’s Rules of Practice and Procedure prohibit the filing of answers to answers, and it fails to provide any additional information regarding MISO’s position.⁹²

52. Southwestern disagrees with the MISO Market Monitor’s determination that the 2015/16 Planning Resource Auction and the Initial Reference Level produced competitive market outcomes. Southwestern asserts that there is no evidence that the PJM market for replacement capacity could absorb an additional large supply of capacity. Further, Southwestern asserts that only 3,700 MW of capacity was offered into PJM’s third Incremental Auction for the 2015/16 Planning Year, meaning Dynegy’s capacity would have had to compete with the capacity bid into that auction and would likely have had resulted in depressed prices or no additional revenues for market participants such as Dynegy. Southwestern argues that, once a market participant has acquired enough capacity to control the Auction Clearing Price, it becomes more infeasible to move that capacity elsewhere without securing firm transmission.⁹³ Accordingly, Southwestern

⁸⁹ MISO August 24 Answer at 4-5 (citing *Frequency Regulation Compensation in the Organized Wholesale Power Markets*, Order No. 755, FERC Stats. & Regs. ¶ 31,324, at PP 3, 99, 103 (2011), *order on reh’g*, Order No. 755-A, 138 FERC ¶ 61,123 (2012)).

⁹⁰ *Id.* at 6 (citing *Coordination Across the Midcontinent Independent System Operator, Inc. /PJM Interconnection, L.L.C. Seam*, 150 FERC ¶ 61,132, at P 14 (2015)).

⁹¹ *Id.* (citing MISO, *Report on Fact Finding #1*, (Apr. 2014), <https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/Workshops%20and%20Special%20Meetings/2014/MISO%20PJM%20JCM%20Initiative/20140414/20140414%20MISO-PJM%20Capacity%20Deliverability%20Conference%20Call%20MISO%20reports.pdf>).

⁹² Industrial Consumers September 9 Answer at 3-6.

⁹³ Southwestern July 17 Answer at 17-19.

argues that the calculation of the Initial Reference Level fails “when applied to such a significant pivotal supply as that controlled by Dynegy in Zone 4.”⁹⁴

53. Southwestern also argues that the MISO Market Monitor relied exclusively on the Initial Reference Level as the sole means of identifying and mitigating market power, thereby failing to place its responsibilities into the larger context of the market mitigation provisions of the Tariff. Southwestern argues that the Commission approved the Initial Reference Level process within a broader grant of authority to the MISO Market Monitor.⁹⁵
54. WPPI emphasizes that the complaints filed by Southwestern and Illinois Attorney General specifically requested that MISO make prospective changes to prevent the future exercise of market power in the Auction.⁹⁶

e. Technical Conference

55. At the Technical Conference, Commission staff explored the MISO Market Monitor’s implementation of the mitigation provisions in the Tariff and potential alternative mitigation approaches, with substantial discussion relating to the reasonableness of basing the Initial Reference Level on the opportunity cost of potential exports of capacity to PJM. Parties provided information about the size in MW of the opportunity to sell replacement capacity into PJM. Panelists disagreed about the appropriateness of calculating the Initial Reference Level based on the opportunity cost of selling capacity into PJM. For example, Dr. Patton, representing the MISO Market Monitor, contended that the market for PJM replacement capacity was sufficiently robust as to constitute a reasonable opportunity, while others asserted that capacity sales from MISO to PJM after the Auction is held in April have historically been made at prices below the Initial Reference Level, and that such sales have been of short duration (i.e., less than the full 12-month Planning Year). Panelists also discussed the appropriateness of alternative mitigation methodologies, such as setting the Initial Reference Level to \$0/MW-day.

⁹⁴ *Id.* at 19.

⁹⁵ *Id.* at 19-21.

⁹⁶ WPPI Answer at 3-4.

f. Post-Technical Conference Comments

56. Sierra Club states that the Initial Reference Level is unrealistic, does not reflect market participants' true opportunity costs, and should be revised. Sierra Club states that basing the Initial Reference Level on PJM's markets and its RTO-wide clearing prices is not a reasonable indicator of MISO market participants' opportunity costs because PJM's markets and historical capacity prices are very different than MISO's.⁹⁷ Sierra Club references the presentation of Mr. Bresler of PJM at the Technical Conference, which shows the MISO to PJM transfer capability for each month of delivery year 2015/16. Sierra Club asserts that the only MISO to PJM transfer path relevant to this proceeding is the path from Ameren Illinois into PJM, that there was no available transfer capability between Zone 4 and PJM for 11 of the 12 months of the 2015/16 Planning Year, and that only 844 MW was available for the one remaining month of the 2015/16 Planning Year.⁹⁸ Furthermore, Sierra Club states that for every month in the 2016/17 Planning Year, there is no available transfer capability from Zone 4 into PJM at any time. Therefore, Sierra Club concludes that capacity that does not clear in the Auction cannot realistically be sold as replacement capacity into PJM, and thus PJM capacity prices should not be used as the basis for opportunity costs in MISO's Initial Reference Level.⁹⁹
57. Sierra Club agrees with the Industrial Consumers' request to set the Initial Reference Level to \$0/MW-day for the next Auction in all Zones, without preventing MISO from making new recommendations to the Commission regarding opportunity costs going forward. As an alternative, Sierra Club suggests using "a measure of going-forward costs for existing resources in MISO Zones to set reference levels for each Zone."¹⁰⁰ Sierra Club notes that this approach can be

⁹⁷ Sierra Club Post-Technical Conference Comments at 5-6.

⁹⁸ *Id.* at 7 (citing Ex. A, PJM, FERC Technical Conference Presentation, at 5). This presentation was also filed by PJM in the Complaint proceedings. *See* PJM, Speaker Materials of Stu Bresler, PJM, at the Technical Conference on MISO Planning Resource Auction, Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000 (filed Nov. 10, 2015) (PJM Technical Conference Presentation)).

⁹⁹ Sierra Club Post-Technical Conference Comments at 7-8.

¹⁰⁰ *Id.* at 10.

implemented before the next Auction and that it would not be burdensome for the MISO Market Monitor to develop such reference levels.¹⁰¹

58. Industrial Consumers state that the Technical Conference provided information to confirm that the MISO Tariff provisions regarding the calculation of Reference Levels are no longer just and reasonable.¹⁰²
59. Industrial Consumers state that the opportunity cost used to calculate the Reference Levels must be “legitimate and verifiable.”¹⁰³ Industrial Consumers explain that neither the PJM Reliability Pricing Model auctions nor the market for bilateral sales of replacement capacity can form the basis of legitimate and verifiable opportunity costs for resources participating in the Auction.¹⁰⁴ Industrial Consumers cite to the presentation by Mr. Bresler of PJM at the Technical Conference, which shows that PJM replacement capacity transactions averaged 5,821 MW per day across the 2014/15 Planning Year, with only two MISO resources selling replacement capacity for short durations. Similarly, for the 2015/16 Planning Year, total PJM replacement capacity transactions averaged 3,867 MW per day.¹⁰⁵ Industrial Consumers also argue that there is limited available transmission capability from Zone 4 to PJM. Industrial Consumers state that the amount of simultaneous short-term firm available transmission capability and unused long-term firm point-to-point transmission service requests from Zone 4 to PJM is less than the MW of capacity offered into the 2015/16 Auction from Zone 4 resources offered at a price above the Initial Reference Level. Based on this information, Industrial Consumers conclude that the calculation of opportunity costs for Zone 4 is unfounded.¹⁰⁶
60. Industrial Consumers claim that their recommendation to establish a \$0/MW-day Initial Reference Level would not artificially suppress MISO capacity prices because a resource that clears the Auction at its facility-specific reference level will set the Auction Clearing Price for all cleared capacity in the Zone. Industrial

¹⁰¹ *Id.* at 9-10.

¹⁰² Industrial Consumers Post-Technical Conference Comments at 3.

¹⁰³ *Id.* at 5

¹⁰⁴ *Id.* at 7-8.

¹⁰⁵ *Id.* at 8 (citing PJM Technical Conference Presentation at 2-3).

¹⁰⁶ *Id.* at 8-9.

Consumers state that based on the offers bid into the 2015/16 Auction, there were 1,605 total offers across MISO, and 145 of those offers were at or above the 10 percent of Cost of New Entry level with 42 of those offers located in Zone 4.¹⁰⁷

61. Industrial Consumers state that when determining a resource's facility-specific reference level it is appropriate to include a reasonable rate of return of and on legitimate and verifiable incremental capital expenses for the installation of emissions equipment to comply with regulations or other legitimate facility improvements. They state that such costs should be subject to the scrutiny of the MISO Market Monitor to ensure that the costs are legitimate and that the depreciation rates and rates of return are reflective of prevailing market returns and best business practices.¹⁰⁸
62. The PJM Market Monitor states that market power mitigation provisions for the PJM Reliability Pricing Model include an opportunity cost option for capacity sellers to calculate market seller offer caps. However, the PJM Market Monitor reviews such opportunity costs and considers several factors when evaluating an opportunity cost-based offer in the PJM Reliability Pricing Model. According to the PJM Market Monitor, the seller must identify an actual opportunity to sell its capacity into an external market for the same time period as the relevant PJM Planning Year and demonstrate the ability to obtain the required transmission service to export its capacity for the duration of the sale.¹⁰⁹
63. The PJM Market Monitor explains that when an offer cap based on opportunity cost is submitted, the PJM Market Monitor evaluates the details of the external market and the prices in those markets and the supporting documentation submitted by the market participant. The PJM Market Monitor states that the market participant must document any import limits in the external market and the availability and price of firm transmission if required by the external market.¹¹⁰
64. The PJM Market Monitor also states that if PJM cannot export capacity or the external market cannot import capacity, then there is no opportunity to sell capacity outside the PJM market and therefore there is no opportunity cost for PJM sellers. The PJM Market Monitor clarifies that if there is a limit on PJM's

¹⁰⁷ *Id.* at 11-12, 14.

¹⁰⁸ *Id.* at 12.

¹⁰⁹ PJM Market Monitor Post-Technical Conference Comments at 2.

¹¹⁰ *Id.* at 3.

ability to export capacity or on the ability of an external market to import capacity, offers based on opportunity cost can be accepted only for those capacity resources that fit within those limits.¹¹¹

65. Mr. Hamal states that the rules in MISO define a process that effectively produces an administrative price, albeit one that involves participant action and an auction process. He argues that the reliance on opportunity costs to set prices in Illinois or any other region does not result in prices based on the marginal cost of meeting marginal demand; instead, it becomes an additional complication which masks the price-formation process under another layer of ambiguity.¹¹²
66. Illinois Attorney General requests that the Commission direct MISO to correct the Initial Reference Level by basing opportunity costs on the actual prices received by suppliers for capacity sales both within and outside of MISO, taking into consideration whether the opportunities are available to all suppliers or just a few. Illinois Attorney General states that verifiable transactions should provide the foundation for the opportunity cost determination.¹¹³
67. Illinois Attorney General states that the answers provided by Dr. Patton, representing the MISO Market Monitor, and MISO at the Technical Conference indicate that the MISO Market Monitor is not basing the Initial Reference Level on firm data or actual market conditions. Illinois Attorney General also argues that the information provided by Mr. Bresler of PJM demonstrated that MISO resources provide a very limited amount of replacement capacity to PJM, and the available transmission capacity into PJM also does not support basing the Initial Reference Level on PJM replacement capacity.¹¹⁴ Illinois Attorney General argues that the 4,000 MW of firm transmission service that Dr. Patton represented

¹¹¹ *Id.*

¹¹² Hamal Post-Technical Conference Comments at 3.

¹¹³ Illinois Attorney General Post-Technical Conference Comments at 2.

¹¹⁴ On behalf of PJM, Mr. Bresler presented three contracts for replacement capacity from MISO into PJM for the 2015/16 Planning Year; one for 5.1 MW for 366 days, one for 26.3 MW for 92 days, and one for 7.1 MW for 30 days. *Id.* at 4-5 (citing PJM Technical Conference Presentation at 2-3).

would be available¹¹⁵ is overstated and that it was unclear whether that estimated 4,000 MW was for Zone 4 or for all of MISO.¹¹⁶

68. Additionally, Illinois Attorney General asserts that the Electronic Quarterly Report data compiled by Mr. McCullough prior to and after the Technical Conference indicates that identifiable transactions are at prices and quantities far below those assumed by the MISO Market Monitor in calculating the Initial Reference Level and that the analysis done by Mr. Dauphinais, representing Industrial Consumers, confirms limited use of transmission between MISO and PJM for the 2014/15 Planning Year and limited requests for the 2015/16 Planning Year.¹¹⁷ Moreover, Illinois Attorney General states that, by the date of the MISO Auction, only those generators who planned ahead to access transmission into PJM would have the opportunity and ability to sell replacement capacity into PJM.¹¹⁸
69. Illinois Attorney General agrees with Mr. Al-Jabir, representing Industrial Consumers, that the Initial Reference Level should be based on a legitimate and verifiable opportunity cost. Illinois Attorney General argues that the MISO Market Monitor's speculation about the 5,821 MW of replacement capacity sales that could have taken place is irrelevant because there is more excess capacity than can take advantage of this purported opportunity. While the MISO Market Monitor asserted that the marginal cost of capacity for many generators in MISO, which have their operating costs largely covered by energy and ancillary service revenues, is the opportunity of exporting that capacity, Illinois Attorney General maintains that the reference level should be based on actual data and reflect only the opportunity available to suppliers, and that a repeated diligent search of MISO

¹¹⁵ *Id.* at 6 (citing Technical Conference, Dr. Patton, Tr. 20:19-21),

¹¹⁶ *Id.* at 7.

¹¹⁷ *Id.* at 8-10. Mr. McCullough's data showed that Illinois Power Marketing, a Dynegy subsidiary, had two transactions into PJM for the 2014/15 Planning Year: one for 73.9 MW-month at \$5.54/MW-day and one for 3 MW-month at \$25.51/MW-day. *Id.* at 9-10. Mr. Dauphinais testified that "there were only 45 total short-term firm point-to-point transmission service requests made in the 2014-2015 planning year. ... Only six of those were granted and confirmed, and all six were for just daily service on isolated days and the largest of those was 200 MW." *Id.* at 10 (citing Technical Conference, Mr. Dauphinais, Tr. 29:4-17). For the 2015/16 Planning Year, Mr. Dauphinais found only 28 requests for transmission into PJM and only one, for 30 MW in February, 2016, was granted. *Id.* (citing Technical Conference, Mr. Dauphinais, Tr. 29:18-20).

¹¹⁸ *Id.* at 12.

participants' filings in Electronic Quarterly Reports has not revealed evidence that a vibrant market exists at \$155.79/MW-day.¹¹⁹

70. In situations where excess capacity exceeds the demand of the available export market, Illinois Attorney General supports a process that (1) reviews all bids by a pivotal supplier for justification by incremental cost or opportunity cost; (2) uses the same methodology that sets the import and export limits by Zone, and determines the potential size of the export market to higher priced regions; (3) if the potential export quantity is larger than the surplus in the Zone, sets the reference level at the price of the accessible higher priced region; and (4) if the potential export market in the higher priced region is less than the surplus in the Zone, sets the reference level to a predetermined level, such as one-tenth of Cost of New Entry. Illinois Attorney General argues that this approach easily identifies bids that require review, appropriately takes the size of the export opportunity and the excess supply into account, and is consistent with Dr. Patton's statement that "[t]here has to be some degree of confidence that that opportunity can be taken advantage of by a substantial share of the uncommitted capacity."¹²⁰
71. Joint Consumer Advocates argue that there must be a regulatory response when a pivotal supplier has been recognized, and assert that the market power mitigation provisions in the Auction should be revised, going forward, to make price formation and market power mitigation more efficient and less subject to market manipulation.¹²¹
72. In light of ongoing stakeholder efforts, EPSA argues that it would be premature for the Commission to modify market power mitigation or capacity import/export calculations.¹²² EPSA states that MISO's stakeholder process and the Commission should address broader capacity market design issues prior to, or in conjunction with, any changes considered for the market power mitigation provisions. Dynegey argues that the Commission should not take a piecemeal approach to revising market power mitigation in the Auction because, among other things, capping offers at a low level would risk reducing Auction Clearing Prices to unreasonably low levels that do not reflect the value of capacity because there is

¹¹⁹ *Id.* at 13-15.

¹²⁰ *Id.* at 16 (citing Technical Conference, Dr. Patton, Tr. 36:21-24).

¹²¹ Joint Consumer Advocates Post-Technical Conference Comments at 3-4.

¹²² EPSA Post-Technical Conference Comments at 10.

evidence that the value of capacity in Zone 4 is increasing as available capacity is falling in MISO.¹²³

73. Some parties argue that the Commission should continue to base the Initial Reference Level on opportunity cost. Exelon argues that the Initial Reference Level should not be changed before the 2016/17 Auction because there is no evidence to support the assertion that the Initial Reference Level is unreasonable, adding that exporting capacity to PJM represents a legitimate opportunity.¹²⁴ Exelon states that it agrees with panelists at the Technical Conference that the following alternative ways to calculate reference levels are not supported by economic theory: (1) the use of facility-specific opportunity cost based on going-forward costs; (2) net Cost of New Entry; and (3) a \$0/MW-day Initial Reference Level.¹²⁵
74. According to EPSA, an opportunity cost based on the marginal resource's opportunity cost for export is the appropriate metric upon which MISO capacity resource offers should be compensated. EPSA argues that the value of such an opportunity cost is higher than the going-forward cost to maintain capacity resources in MISO, and that a rational compensation mechanism designed to incent participation in the Auctions must continue to offer MISO resources the value of that opportunity. This, according to EPSA, is the only transparent and verifiable means to assess the value of MISO capacity at the margin.¹²⁶
75. According to Gibson City-Grand Tower, the large quantity of resources exiting MISO and entering PJM's capacity market indicates that capacity suppliers are seeking alternative economic opportunities. Gibson City-Grand Tower states that pseudo-ties¹²⁷ into PJM by the beginning of the 2016/17 Planning Year increased to 2,232 MW from just 156 MW the prior Planning Year, whereas pseudo-tie

¹²³ Dynegy Post-Technical Conference Comments at 10-13.

¹²⁴ Exelon Post-Technical Conference Comments at 17-18 (citing Technical Conference, Dr. Patton, Tr. 95:25; Mr. Bladen, Tr. 90:14-16).

¹²⁵ *Id.* at 18 (citing Technical Conference, Dr. Patton, Tr. 57:2-6, 97:18-21; Dr. Shanker, Tr. 100:12-101:19; Mr. Bladen, Tr. 116:13-23).

¹²⁶ EPSA Post-Technical Conference Comments at 17.

¹²⁷ Pseudo-ties are generation resources that are physically located in one balancing authority but are treated electrically as being in another balancing authority. See *PJM Interconnection, L.L.C.*, 147 FERC ¶ 61,060 at P 50.

requests into other adjacent markets were flat year-over-year, leading MISO to conclude that PJM's pseudo-tie requirement was the primary cause of the increase.¹²⁸ Gibson City-Grand Tower further states that external resources that commit to sell capacity in PJM's capacity market are also subject to a must-offer obligation, which requires the resource to participate in all future auctions. Therefore, given this long-term commitment, Gibson City-Grand Tower concludes that the Initial Reference Level derived from the PJM-based opportunity cost is reasonable. Gibson City-Grand Tower requests that when considering changes to the Initial Reference Level, the Commission should consider the long-term commitment to PJM that MISO capacity resources have made.¹²⁹

76. EPSA argues that an Initial Reference Level based on going-forward costs, whether facility-specific or based on resource type, would be an impractical and inaccurate representation of foregone opportunity costs. According to EPSA, the Commission should reject this alternative because all MISO capacity resources face the same marginal opportunities outside of the Auction to take advantage of bilateral sales, exports to PJM, or exports to another region.¹³⁰
77. Dynegy argues that implementing a \$0/MW-day Initial Reference Level would distort price signals and risk reducing Auction prices to unreasonably low levels that would cause capacity owners to leave the MISO markets.
78. Dynegy cites to the outcome of an auction recently conducted for the 2016/17 Planning Year by the Illinois Power Authority as evidence that capacity values in Zone 4 are increasing as capacity is tightening in MISO. Dynegy explains that this auction is intended to procure capacity outside of the MISO Auction to serve retail customers in Illinois who do not purchase their electricity from a competitive supplier. Dynegy observes that the Illinois Power Authority auction results indicated that the average price paid for capacity in this auction was \$138.12/MW-day. According to Dynegy, the fact that this price is near the \$150/MW-day Auction Clearing Price for Zone 4 in the 2015/16 Auction demonstrates that the

¹²⁸ Gibson City-Grand Tower Post-Technical Conference Comments at 3.

¹²⁹ *Id.* at 3-4.

¹³⁰ EPSA Post-Technical Conference Comments at 17-18 (citing Technical Conference, Mr. Bladen, Tr. 85:20-25-86:1-8; Dr. Patton, Tr. 87:21-25-88:1-2; Dr. Shanker, Tr. 100:12-25-101:1-19, 72:24-25-74:1-3).

value of capacity in Zone 4 is much higher than the \$0/MW-day Initial Reference Level that the Complainants advocate.¹³¹

79. Lastly, Dynegy states that if the Initial Reference Level is set at \$0/MW-day, then a number of generation owners will opt to have the MISO Market Monitor conduct facility-specific reference level calculations. Dynegy notes, however, that at the Technical Conference, Dr. Shanker, representing EPSA, and Dr. Patton indicated that such a process would involve a substantial amount of work and result in a contentious process.¹³² Dynegy argues that if the Commission were to adopt a process along the lines of what Mr. McCullough, representing Illinois Attorney General, recommends, it could result in on-going, cost-based rate cases that would not yield answers in time for the Auction.¹³³
80. The MISO Market Monitor argues that it would be unreasonable to remove opportunity costs from the Initial Reference Level because doing so would be inconsistent with fundamental economic principles and would result in a low Initial Reference Level. The MISO Market Monitor asserts that removing opportunity costs from the Initial Reference Level would therefore create substantial risk that market power mitigation would be imposed when it is not warranted, which would distort the Auction Clearing Prices. Furthermore, the MISO Market Monitor asserts that eliminating opportunity costs from the Initial Reference Level would cause virtually all suppliers with uncommitted capacity to seek facility-specific reference levels, which would require the submission of detailed engineering and cost data and create substantial costs and an administrative burden.¹³⁴
81. The MISO Market Monitor asserts that it would not be reasonable to reduce the estimated opportunity costs to account for transmission limitations because they represent the opportunity at the margin to export capacity and, as long as the opportunity exists, it should be reflected in the Initial Reference Level. The MISO Market Monitor states that suppliers can purchase firm transmission service from either MISO or other market participants, adding that some transmission rights are

¹³¹ Dynegy Post-Technical Conference Comments at 11-12; Exhibit B.

¹³² *Id.* at 12 (citing Technical Conference, Dr. Patton, Tr. 113:7-114:3; Dr. Shanker, Tr. 115:8-11).

¹³³ *Id.* at 12-13.

¹³⁴ MISO Market Monitor Post-Technical Conference Comments at 6.

- held by suppliers with uncommitted capacity and a large quantity of the remaining firm service is held by participants that are not engaged in capacity exports.¹³⁵
82. The MISO Market Monitor also asserts that it would be unreasonable and discriminatory to apply different Initial Reference Levels to resources based solely on whether the supplier is pivotal. However, the MISO Market Monitor does not oppose more restrictive Conduct and Impact Thresholds for pivotal suppliers. The MISO Market Monitor explains that tighter market power mitigation thresholds are applied in MISO electricity markets in local areas that are more vulnerable to market power abuse, and that such an approach could be applied to MISO's capacity Zones. The MISO Market Monitor believes that the current Conduct Threshold, which is 10 percent of Cost of New Entry, is reasonable for pivotal suppliers; therefore, the MISO Market Monitor proposes that the Commission could discriminate between pivotal and non-pivotal suppliers by increasing the Conduct and Impact Thresholds for non-pivotal suppliers.¹³⁶
83. Illinois Attorney General argues that the Initial Reference Level should not be shared with generators bidding in the Auction because it gives them notice of how high they can offer without being mitigated. Illinois Attorney General further states that making the Initial Reference Level confidential will prevent suppliers from using it as a bidding strategy and further protect the public from non-competitive bidding.¹³⁷
84. Illinois Attorney General argues that the Commission should direct MISO to make its suggested changes and not defer these issues to a lengthy and burdensome stakeholder process. Illinois Attorney General argues that MISO's stakeholder process is slow-moving and involves many parties, many of whom have significant financial interests depending on how the Auction rules are set. Illinois Attorney General argues that while stakeholders have relied on certain MISO structures, if those structures or rules result in unreasonable rates, the Commission cannot be excluded from requiring specific Tariff changes.¹³⁸

¹³⁵ *Id.* at 6-7.

¹³⁶ *Id.* at 7-8.

¹³⁷ Illinois Attorney General Post-Technical Conference Comments at 18-20.

¹³⁸ *Id.* at 33-34.

g. Commission Determination

85. We find that the record shows that certain of the Tariff provisions governing market mitigation measures are no longer just and reasonable, as explained below. Accordingly, we direct MISO to revise certain mitigation provisions in the Tariff. These revisions must be filed in compliance filings due within 30 days and 90 days of the date of this order, as discussed below.
86. As discussed above, the MISO Market Monitor calculates the Initial Reference Level by subtracting transmission costs from the PJM Daily Capacity Deficiency Rate. We find that, going forward, this calculation does not represent an appropriate default opportunity cost for all MISO capacity resources. Recent changes to PJM's capacity construct make basing MISO's Initial Reference Level on the opportunity to sell capacity to PJM problematic going forward because MISO capacity resources must satisfy additional requirements to sell capacity into PJM. In addition, based on the record before us, we find that the amount of MISO capacity that can be sold into PJM is significantly limited due to the availability of transmission service. Therefore, we find that under these circumstances, it is not appropriate to continue to base the Initial Reference Level, applicable to all MISO resources, on the opportunity cost of selling capacity to PJM. We also find that the record in this proceeding does not provide a more suitable alternative basis for estimating an opportunity cost that could be used in the Initial Reference Level.
87. We note that circumstances in the PJM capacity market are changing in a way that makes use of the PJM-based opportunity cost for MISO resources less indicative of a legitimate opportunity. The Commission has approved changes to PJM's capacity construct that make basing MISO's Initial Reference Level on the opportunity to sell capacity to PJM problematic going forward because MISO capacity resources must satisfy additional requirements to sell capacity into PJM. We find that these changes will further limit the opportunity for capacity sales into PJM and make PJM capacity prices non-comparable to MISO capacity prices, and thus make that opportunity a less appropriate basis for MISO's market power mitigation provisions.¹³⁹
88. First, the Commission has approved PJM's Capacity Performance construct, under which capacity resources will be compensated through an initial capacity payment based on the PJM Reliability Pricing Model auctions plus additional payments or penalties based on their performance during peak hours.¹⁴⁰ Once PJM fully

¹³⁹ See Capacity Performance Order, 151 FERC ¶ 61,208.

¹⁴⁰ *Id.*

transitions to the Capacity Performance construct for the 2020/21 Planning Year, PJM and MISO will be procuring different capacity products, thereby making the opportunity to sell capacity to PJM a less appropriate basis for the MISO Initial Reference Level because PJM capacity revenues will reflect both a capacity payment and an expectation of penalties and performance payments, which could vary widely by resource.¹⁴¹ As such, simply using prices from PJM's Reliability Pricing Model auctions, adjusted for transmission costs, with no adjustment for an individual MISO resource's expected performance payments and/or penalties, as MISO does today, will inaccurately estimate the opportunity cost of selling capacity into PJM in future Planning Years. Second, as a result of PJM's full transition to Capacity Performance, all external capacity resources selling into the PJM capacity market must be pseudo-tied into PJM beginning with the 2020/21 Planning Year.¹⁴² This means that resources that are not pseudo-tied into PJM will not be able to sell capacity into PJM, and thus PJM sales will not be a valid opportunity cost for them.

89. In order for MISO to base its Initial Reference Level on the opportunity cost of exporting to PJM, there should be available transmission service or other arrangements in place adequate to ensure meaningful level of capacity sales possible to PJM. With regard to available transmission service, Mr. Dauphinais, representing Industrial Consumers, states that based on his analysis of the monthly firm point-to-point transmission service requests from Zone 4 to PJM, only 200 MW of the 3,650 MW of monthly firm point-to-point transmission service requests were granted in the 2014/15 Planning Year.¹⁴³ Furthermore, as shown in Mr. Bresler's presentation, for the 2017/18 Planning Year, only 8,103 MW of Total Transfer Capability exists between MISO and PJM.¹⁴⁴
90. While the above illustrates some physical opportunity to deliver capacity from MISO to PJM, the use of the PJM Daily Capacity Deficiency Rate in the MISO Market Monitor's opportunity cost determination is consistent only with the

¹⁴¹ PJM's Base Residual Auction for the 2020/21 Planning Year will be held in 2017, three years prior to the start of the Planning Year. *See* PJM, Intra-PJM Tariffs, OATT, Attachment DD, § 2.5 (22.0.0).

¹⁴² *See* Capacity Performance Order, 151 FERC ¶ 61,208 at P 96 (citing PJM, Intra-PJM Tariffs, OATT, Attachment DD, § 5.5A (0.0.0)).

¹⁴³ Industrial Consumers Complaint, Ex. IIEC-5, at 23-24 (citing Attachment 13 at 1).

¹⁴⁴ PJM Technical Conference Presentation at 7.

opportunity to sell replacement capacity, an even smaller opportunity. With regard to the total size of the market for replacement capacity in PJM, Mr. Bresler's presentation indicates that replacement capacity transactions after PJM's third Incremental Auction averaged 5,821 MW per day for the 2014/15 Planning Year and 3,867 MW per day for the 2015/16 Planning Year. However, the average size of replacement capacity sales per day from MISO resources was approximately 64.3 MW and 12.3 MW, in the 2014/15 and 2015/16 Planning Years, respectively.¹⁴⁵ Therefore, it is apparent that in recent years, MISO capacity resources made limited sales into the PJM replacement capacity market after PJM's third Incremental Auction, which is held approximately one month prior to the MISO Auction for the same Planning Year.¹⁴⁶ Given the similar timing of these two auctions, we find the level of replacement capacity sales after PJM's third Incremental Auction is a reasonable basis upon which to estimate the size of PJM's replacement capacity market after the MISO Auction.

91. The evidence from after PJM's third Incremental Auction for the 2015/16 Planning Year indicates that 38.5 MW of PJM replacement capacity has been procured from MISO in just three sales, with only one of those sales lasting the entire year.¹⁴⁷ This evidence about the volume of MISO replacement capacity sales into PJM after the final PJM Incremental Auction indicates that the opportunity to make such sales is limited due to both the limited demand for replacement capacity in PJM and the limited ability to attain transmission service from MISO to PJM.
92. For these reasons, we find that the current method used to estimate the opportunity cost in the Initial Reference Level for purposes of market mitigation is no longer just and reasonable. Opportunity costs are real costs that should be considered in capacity supply offers. However, when that opportunity is applied on a default basis to all of a market's capacity sellers, the opportunity must be legitimately

¹⁴⁵ These figures were derived by calculating and then summing the daily average of the MISO to PJM replacement capacity transactions provided by Mr. Bresler. *Id.* at 2-3.

¹⁴⁶ PJM's third Incremental Auction is held three months prior to the Planning Year to which it relates. PJM, Intra-PJM Tariffs, OATT, Attachment DD, § 2.66 (22.0.0).

¹⁴⁷ PJM Technical Conference Presentation at 3. Given that the 2015/16 Planning Year ends on May 31, 2016, the information provided at the October 20, 2015 Technical Conference does not capture sales of replacement capacity that may be made later in the Planning Year.

available to a substantial share of the market. As described above, we find that the evidence in the record does not support the continued use of a PJM-based opportunity cost for all or even a substantial portion of MISO resources. We also find that there appears to be no potential alternative opportunity cost estimates that have been identified as suitable for this purpose at this time. For example, the MISO Market Monitor states that using bilateral contract prices, both within MISO and between MISO and PJM, to estimate the opportunity cost of MISO resources is problematic because such data are generally not available for public release.¹⁴⁸

93. Accordingly, we find that Tariff section 64.1.4.e, which provides that Initial Reference Levels for capacity supply offers will be based on the estimated opportunity cost of exporting capacity to a neighboring region, is no longer just and reasonable, and in its compliance filing, we require MISO to replace “based on the estimated opportunity cost of exporting capacity to a neighboring region” in section 64.1.4.e with language that sets the Initial Reference Level for capacity at \$0/MW-day. We also require MISO to remove from its Tariff sections 64.1.4.e.i, and 64.1.4.e.ii, which address the implementation of that provision. These changes will require all resources that wish to submit bids that exceed the Conduct Threshold of 10 percent of Cost of New Entry to request facility-specific reference levels, as supported by evidence of their going-forward costs, as defined in the Tariff.¹⁴⁹ These revisions must be filed in the compliance filing due within 30 days of the date of this order.
94. Regarding arguments about the impracticality of using facility-specific going-forward costs, we note that the vast majority of offers in MISO in the 2015/16 Auction were below \$25/MW-day, which is approximately equal to the Conduct Threshold we are requiring MISO to use. Because only offers that exceed this Conduct Threshold would need to provide going-forward cost information to the MISO Market Monitor, we find that such considerations do not render use of an Initial Reference Level of \$0/MW-day unreasonable. Nonetheless, if MISO demonstrates a need for additional time to develop and evaluate facility-specific going-forward costs for resources that wish to offer capacity at prices above the Conduct Threshold, MISO may seek waiver to delay the 2016/17 Auction.

¹⁴⁸ Potomac Economics, *Initial Reference Level for Zonal Reserve Offers: 2015/2016 Delivery Year*, <https://www.misoenergy.org/Library/Repository/Report/IMM/2015-2016%20Initial%20Reference%20Level%20for%20Zonal%20Resources.pdf>.

¹⁴⁹ See MISO Tariff, Module D, § 64.1.4.f.i (30.0.0).

95. We recognize that, as a result of our directive requiring MISO to establish a \$0/MW-day Initial Reference Level, there may be an increase in the number of capacity sellers that seek to demonstrate facility-specific reference levels. Therefore, to reduce the burden of demonstrating and verifying facility-specific reference levels on a unit-by-unit basis, we also direct MISO to propose Tariff revisions allowing facility-specific reference levels to include default technology-specific avoidable costs.¹⁵⁰ Default technology-specific avoidable costs would be an estimate of the non-fuel costs of operating a generation resource. These costs would be a component of facility-specific going-forward costs, which would also include facility-specific capital expenditures and be reduced by estimated MISO energy and ancillary services revenues. Suppliers seeking to demonstrate facility-specific reference levels will have the option to rely on the default technology-specific avoidable costs rather than facility-specific avoidable costs. The default technology-specific avoidable costs must be set for each type of generating resource technology, i.e., various types of gas-fired, coal-fired, nuclear, and any other type of generating resource. These default technology-specific avoidable costs must be representative of the avoidable costs associated with each type of generating resource technology in the MISO footprint. MISO must determine these technology-specific default avoidable costs, which will be based on a formula MISO must develop and add to the Tariff. These technology-specific default avoidable costs will be used along with facility-specific estimated net energy and ancillary service revenues to calculate going-forward costs for the purpose of establishing facility-specific reference levels. Furthermore, we will require MISO to file the default technology-specific avoidable costs for each type of generating resource technology with the Commission in its compliance filing, discussed below.
96. We find that providing the option to capacity suppliers to base facility-specific reference levels in part on the default technology-specific avoidable costs of the different generation resource technologies will provide reasonable benchmarks for facility-specific reference levels and an appropriate basis for mitigation. The establishment of default technology-specific avoidable costs will not foreclose a capacity supplier to opt to rely on its own facility-specific avoidable costs. It will also provide more transparency and less administrative burden than requiring all requests for facility-specific reference levels to provide information on their facility-specific avoidable costs. We note that the Commission has approved a similar approach to develop market power mitigation parameters in the PJM

¹⁵⁰ For example, *see* PJM, Intra-PJM Tariffs, OATT, Attachment DD, §§ 6.7 and 6.8 (11.0.0).

capacity market.¹⁵¹ The Commission has found that the role of default avoidable costs in PJM was to “eliminate the burden and cost of developing unit specific bid data.”¹⁵²

97. Recognizing that it may be difficult for MISO to develop default technology-specific avoidable costs in time for the 2016/2017 Auction, we direct MISO to propose such Tariff revisions within 90 days of the date of this order to be implemented prior to the 2017/18 Auction. Such a filing must also include (1) a proposed schedule for MISO and the MISO Market Monitor to publish annual default technology-specific avoidable costs; (2) a proposed schedule for MISO and the MISO Market Monitor to periodically work with stakeholders to review and update the avoidable costs formula and inputs; and (3) the methodology, supporting documentation, and the resulting default technology-specific avoidable costs for the 2017/18 Auction.
98. We also direct MISO, in the compliance filing due within 30 days of the date of this order, to revise section 64.2.1.e of the Tariff to set the Impact Threshold for mitigation of capacity offers to \$0/MW-day in Zones where the import constraint binds. Elimination of the Impact Threshold for capacity supply offers for such constrained Zones is consistent with the elimination of the Impact Threshold for resources receiving Revenue Sufficiency Guarantee credits in Narrow Constrained Areas and Broad Constrained Areas.¹⁵³ Offers in Broad Constrained Areas and Narrow Constrained Areas and offers for resources receiving Revenue Sufficiency Guarantee Payments, like capacity offers in constrained Zones, feature potential existence of market power and the resulting need for stricter mitigation standards.
99. We also direct MISO to revise section 64.1.2.d of its Tariff to set the Conduct Threshold for resources that use facility-specific reference levels to \$0/MW-day. Facility-specific reference levels developed through actual going-forward cost or opportunity cost substantiation do not need a Conduct Threshold above \$0/MW-day because capacity resources that clear the Auction are able to recover, at a minimum, their going-forward costs. Additionally, the Auction employs a uniform clearing price mechanism, so a capacity resource that clears in the Auction will be compensated through an Auction Clearing Price that may exceed its facility-specific going-forward costs. These revisions must be filed in the compliance filing due within 30 days of the date of this order.

¹⁵¹ *PJM Interconnection, L.L.C.*, 122 FERC ¶ 61,264 at P 52-53 (2008).

¹⁵² *PJM Interconnection, L.L.C.* 124 FERC ¶ 61,065, at P 18 (2008).

¹⁵³ *See Midcontinent Indep. Sys. Operator, Inc.*, 151 FERC ¶ 61,277 (2015).

100. We will not, as requested by the Industrial Consumers, direct MISO to revise section 64.1.4.f.i(b) of the Tariff to eliminate the use of the opportunity costs of foregone sales outside of MISO in establishing facility-specific reference levels. However, for opportunity costs to be included in a facility-specific reference level, the opportunities must be legitimate and verifiable for the individual resource, as in other markets such as PJM.¹⁵⁴ Therefore, we also direct MISO to revise the section 64.1.4.f.i(b) of the Tariff to require that market participants provide documentation demonstrating the availability of the specific external opportunity including any counter-party as well as a demonstration of adequate transmission capacity that is available. We also direct MISO to revise the Tariff to specify that the MISO Market Monitor must respect the limits of that opportunity, such as the amount of available transmission service. Otherwise, the amount of MISO resources, measured by MW, basing their facility-specific reference levels on a given opportunity could exceed the total size of that opportunity available to those resources. For example, Mr. Bresler's presentation shows that for the 2017/18 Planning Year, 6,488 MW of the 8,103 MW of Total Transfer Capability from MISO to PJM was already subscribed as confirmed Network External Designated Service as of September 10, 2015.¹⁵⁵ This leaves just 1,615 MW of available transmission service for subsequent capacity sales from MISO to PJM for the 2017/18 Planning Year. These revisions must be filed in the compliance filing due within 30 days of the date of this order.
101. With respect to EPSA's argument that opportunity cost should continue to serve as the basis for the Initial Reference Level because foregone opportunities outside of MISO are higher than those within MISO, we note that resources can still request a facility-specific reference level based on their facility-specific opportunity costs. We disagree with Dynegy's contention that implementing a \$0/MW-day Initial Reference Level would distort prices because resources with costs above the Conduct Threshold can be offered at their facility-specific going-forward costs and potentially set the market price. We also disagree with Dynegy's assertion that the single auction conducted by the Illinois Power Authority sufficiently supports using the opportunity cost of selling replacement capacity into PJM as the basis for the opportunity cost of all MISO capacity resources. As stated previously, we find this opportunity sufficiently limited that the vast majority MISO resources could not utilize it simultaneously and receive that high price. We also disagree with Gibson City-Grand Tower's argument that large amounts of capacity from MISO resources pseudo-tied into PJM justify continued use of a PJM-based

¹⁵⁴ See PJM Market Monitor Post-Technical Conference Comments at 2-3.

¹⁵⁵ PJM Technical Conference Presentation at 7.

opportunity cost. Gibson City-Grand Tower provides no evidence that the size of the opportunity is substantial enough to be used as the default opportunity cost estimate for all MISO capacity resources.

2. Whether Local Requirements are Calculated Correctly

a. Background

102. The Tariff requires MISO to establish a Local Reliability Requirement for each Zone to ensure that enough capacity will be available within that Zone during the relevant Planning Year. MISO must establish zonal Local Reliability Requirements by November 1 of the year prior to the relevant Planning Year.¹⁵⁶ The Tariff provides that:

[MISO] will establish a Local Reliability Requirement . . . metric for each [Local Resource Zone] to determine the amount of Unforced Capacity needed such that the [Local Resource Zone] would achieve an [Loss of Load Expectation] of 0.1 day per year, without consideration of the [Local Resource Zone's Capacity Import Limit].¹⁵⁷

103. The Tariff also requires MISO to establish Capacity Import Limits and Capacity Export Limits for each Zone by November 1 of the year prior to the relevant Planning Year, as part of the determination of what capacity is available from and to other Zones in the system. The Tariff provides that:

[MISO] will determine the [Capacity Import Limit] and [Capacity Export Limit] for each of the [Local Resource Zones] . . . by considering factors including, but not limited to, the following elements: (1) existing and planned Transmission System and Planning Resource additions; (2) transmission import and export capability; and (3) applicable NERC contingencies.¹⁵⁸

104. The Tariff further requires MISO to establish a Local Clearing Requirement for each Zone by subtracting the Zone's Capacity Import Limit from the Zone's Local Reliability Requirement.¹⁵⁹ The Local Clearing Requirement is defined as "the

¹⁵⁶ MISO, FERC Electric Tariff, Module E-1, § 68A.5 (31.0.0)

¹⁵⁷ *Id.*

¹⁵⁸ MISO, FERC Electric Tariff, Module E-1, § 68A.4 (32.0.0).

¹⁵⁹ MISO, FERC Electric Tariff, Module E-1, § 68A.6 (30.0.0).

minimum amount of Unforced Capacity that is physically located within [a Zone] that is required to meet the [Loss of Load Expectation] while fully using the Capacity Import Limit for such [Zone].”¹⁶⁰

105. MISO’s Resource Adequacy Business Practice Manual provides that the Capacity Import Limit equals the Total Transfer Capability of the limiting constraint for the Zone,¹⁶¹ which is “the total amount of power able to be transferred before a constraint is identified.”¹⁶² The Capacity Import Limit is calculated by summing First Contingency Incremental Transfer Capability¹⁶³ and Base Power Transfer for that Zone.¹⁶⁴
106. MISO’s Resource Adequacy Business Practice Manual further provides that the First Contingency Incremental Transfer Capability analysis is used to determine the incremental amount of power that can be transferred.¹⁶⁵ MISO explains that it already accounts for counter-flows into PJM from Zone 4 through its transfer analysis,¹⁶⁶ which utilizes input files from the MISO Transmission Expansion Plan studies that set the Net Scheduled Interchange¹⁶⁷ equal to the net firm transmission

¹⁶⁰ MISO, FERC Electric Tariff, Module A, § 1.L (34.0.0).

¹⁶¹ MISO, Resource Adequacy Business Practice Manual, § 5.2.2.1 (011-r15); MISO July 20 Answer, Furnish Aff. ¶ 9; Industrial Consumers August 7 Answer at 12, Dauphinais Aff. ¶ 23.

¹⁶² MISO, Resource Adequacy Business Practice Manual, § 5.2.2.1 (011-r15).

¹⁶³ The constraint with the smallest First Contingency Incremental Transfer Capability will be used to determine the Capacity Import Limit. *Id.* First Contingency Incremental Transfer Capability and Incremental Transfer Capability are used interchangeably throughout these proceedings. While neither term is defined in the Tariff, we will use First Contingency Incremental Transfer Capability because it is used in MISO’s Resource Adequacy Business Practice Manual.

¹⁶⁴ *Id.*; MISO July 20 Answer, Furnish Aff. ¶ 9; Industrial Consumers August 7 Answer at 12, Dauphinais Aff. ¶ 23.

¹⁶⁵ MISO, Resource Adequacy Business Practice Manual, § 5.2.2.1 (011-r15).

¹⁶⁶ MISO July 20 Answer, Furnish Aff. ¶ 13.

¹⁶⁷ Net Scheduled Interchange is the algebraic sum of all Interchange Schedules across a given path or between Balancing Authorities for a given period or instant in time. MISO, FERC Electric Tariff, Module A, § 1.N (33.0.0).

service reservation level.¹⁶⁸ The MISO Market Monitor states that First Contingency Incremental Transfer Capability is calculated by running cases to determine how much additional energy can be brought into each Zone from all directions before a transmission limit binds.¹⁶⁹

107. MISO explains that Base Power Transfer¹⁷⁰ is synonymous with Net Scheduled Interchange, which MISO states is equal to the net amount of firm long-term transmission service imports and exports for the MISO region.¹⁷¹ MISO states that the Net Scheduled Interchange (or Base Power Transfer) of a Zone is calculated by summing the net area interchanges for all of the Local Balancing Areas that comprise that Zone.¹⁷² The MISO Market Monitor defines Base Power Transfer as the initial loadings in the load flow case from network resources serving load, plus schedules to external areas based on net firm transmission service rights.¹⁷³

b. Complaints

108. Complainants argue that MISO applied the Local Clearing Requirement and Capacity Import Limit parameters in a manner that contributed to the high Auction Clearing Price observed in Zone 4.¹⁷⁴ In particular, Industrial Consumers assert that MISO does not count capacity resources that are exported to neighboring capacity markets toward the Local Clearing Requirement of the Zone where they

¹⁶⁸ MISO July 20 Answer at 17-18 (citing Exhibit 1 at 19), Furnish Aff. ¶ 8; MISO, Resource Adequacy Business Practice Manual, § 5.2.2.1 (011-r15).

¹⁶⁹ MISO Market Monitor Post-Technical Conference Comments at 9.

¹⁷⁰ Base Power Transfer, Base Power Flow, and Net Base Interchange are all used interchangeably throughout these proceedings. While none of these terms are defined in the Tariff, we will use Base Power Transfer because it is used in MISO's Resource Adequacy Business Practice Manual.

¹⁷¹ MISO Post-Technical Conference Comments at 3.

¹⁷² *Id.*

¹⁷³ MISO Market Monitor Post-Technical Conference Comments at 9.

¹⁷⁴ See Public Citizen Complaint at 9; Southwestern Complaint at 26-28; Industrial Consumers Complaint at 20.

are physically located.¹⁷⁵ Industrial Consumers argue that it is unjust, unreasonable and unduly discriminatory for MISO to fail to count resources in the Zone where they are physically located toward that Zone's Local Clearing Requirement. Industrial Consumers aver that, if the 1,200 MW of capacity resources that are physically located in Zone 4 but sold their capacity into PJM for the 2015/16 Planning Year were counted toward the Zone 4 Local Clearing Requirement, then Zone 4 would have had an Auction Clearing Price of \$8/MW-day in the 2015/16 Auction.¹⁷⁶ Industrial Consumers request that the Commission require Tariff revisions such that resources in MISO that are sold to a neighboring capacity market are counted toward the Local Clearing Requirement in the Zone where they are located.¹⁷⁷ To make this revision, Industrial Consumers request that the Commission direct MISO to modify Module E-1 of its Tariff, effective for the 2016/17 Auction, to revise the formula used to calculate the Local Clearing Requirement of a Zone by subtracting both the amount of firm capacity sales from resources in that Zone to neighboring capacity markets and the Zone's Capacity Import Limit from the Local Reliability Requirement.¹⁷⁸

109. Southwestern maintains that, prior to the 2014/15 Auction, MISO made methodological changes in the calculation of Zonal Capacity Import Limits that increased the number of potentially binding transmission constraints and thus decreased Zone 4's Capacity Import Limit.¹⁷⁹ Southwestern states that these changes reduced the amount of capacity that Zone 4 could import by 3,589 MW, from 6,614 MW in the 2013/14 Auction to 3,025 MW in the 2014/15 Auction. Southwestern notes that the Capacity Import Limits are used to determine Local Clearing Requirements, which required 85 percent of the capacity acquired for Zone 4 in the 2015/16 Auction be physically located within Zone 4. According to Southwestern, these changes boosted Dynegy's ability to exercise market power in Zone 4 by exacerbating an already flawed market structure.¹⁸⁰

¹⁷⁵ Industrial Consumers Complaint at 17-18 (citing Dauphinais Aff. ¶ 52).

¹⁷⁶ *Id.* at 3-4.

¹⁷⁷ *Id.* at 18-19 (citing Dauphinais Aff. ¶ 53).

¹⁷⁸ *Id.* at 20 (citing Ex. IIEC-3).

¹⁷⁹ Southwestern Complaint at 27.

¹⁸⁰ *Id.* at 16, 26-28 (citing Chiles Aff. ¶¶ 4-5).

110. Public Citizen asserts that MISO attributed the price increase in Zone 4 to the higher priced resources needed to meet the Local Clearing Requirement within Zone 4.¹⁸¹ However, Public Citizen states that, after Dynegy's acquisition of the generating plants from Ameren Companies, neither MISO nor the MISO Market Monitor made any adjustments to the Local Clearing Requirement for Zone 4, and this lack of action may have facilitated Dynegy's ability to execute a capacity withholding scheme to drive up prices in Zone 4.¹⁸²

c. Comments and Answers

111. Sierra Club and Joint Consumer Advocates also represent that MISO changed its method for calculating the Capacity Import Limit, from considering only those transmission facilities over 200 kV as potentially limiting imports to considering all transmission facilities under MISO's control as potentially limiting imports.¹⁸³
112. Citizens Utility Board and Illinois Commerce Commission note that, while the Capacity Import Limit for Zone 4 was 3,130 MW, the actual amount of imports into Zone 4 during the Planning Resource Auction was limited to 1,568 MW, therefore, nearly 50 percent of the Capacity Import Limit was not utilized to allow lower cost capacity to meet Zone 4's Local Reliability Requirement.¹⁸⁴ Citizens Utility Board and Illinois Commerce Commission argue that allowing higher-

¹⁸¹ Public Citizen Complaint at 9 (citing MISO, *Results of MISO's Third Annual Planning Resource Auction* (Apr. 2015), <http://www.rtoinsider.com/wp-content/uploads/MISO-response-to-IL-OAG-4-24-15.pdf>).

¹⁸² *Id.* at 4, 9.

¹⁸³ Sierra Club Comments at 19 (citing MISO, Planning Year 2013 LOLE Study Report, at 18 (Nov. 1, 2012), <https://www.misoenergy.org/Library/Repository/Study/LOLE/2013%20LOLE%20Study%20Report.pdf>) (2013 LOLE Study Report); Joint Consumer Advocates Comments at 8 (citing Southwestern Complaint at PP 39-40). Sierra Club also argues that MISO had originally decided to ignore the limits on facilities under 200 kV because many of those constraints would be manageable in MISO's real-time dispatch. Sierra Club Comments at n.8.

¹⁸⁴ Citizens Utility Board Comments at 7; Illinois Commerce Commission Comments at 8.

- priced local capacity to clear the Auction ahead of lower-priced imported capacity may have led directly to the abnormally high Zone 4 Auction Clearing Price.¹⁸⁵
113. Sierra Club argues that MISO improperly ignored 1,200 MW of capacity exports from Zone 4 to PJM when establishing the Local Clearing Requirement, even though these exports create counter-flows over the Zonal interfaces that permit the replacement from other areas. Illinois Attorney General agrees with Industrial Consumers that MISO should revise its treatment of counter-flows when calculating the Local Clearing Requirement. Illinois Attorney General asserts that Industrial Consumers' proposed Tariff language, which would reduce the Local Clearing Requirement by the amount of capacity exported to a neighboring market, is necessary to match the operation of the Auction with the resources actually available to serve consumers in the MISO region.¹⁸⁶
114. According to Illinois Commerce Commission, the 2015/16 Auction raises questions about how MISO determines the order in which resources internal or external to a Zone are accepted. Illinois Commerce Commission argues that if the intent of the Local Reliability Requirement is to ensure reliability in the Zone, then it should not make any difference if the capacity used to achieve that standard is located internally or externally to the Zone, unless there is a physical constraint limiting the opportunity to import capacity. Illinois Commerce Commission requests that the Commission reexamine how MISO develops and implements these Auction parameters, and how they impact the Auction Clearing Prices for each Zone.¹⁸⁷
115. MISO acknowledges that the Capacity Import Limit for Zone 4 decreased from 6,614 MW in the 2013/14 Auction to 3,310 MW in the 2015/16 Auction, but asserts that the change in methodology to determine that limit, which now considers all transmission lines under MISO's functional control, improved the accuracy of the Zonal Capacity Import Limit calculations. MISO also argues that Southwestern's assertions that the methodological changes to the calculation of the Capacity Import Limit for Zone 4 exacerbated an already flawed market structure

¹⁸⁵ Citizens Utility Board Comments at 7; Illinois Commerce Commission Comments at 8-9 (citing MISO, 2015/2016 Planning Resource Auction Results (Extended), at 6 (May 14, 2015), [https://www.misoenergy.org/Library/Repository/Report/Resource%20Adequacy/Auction Results/2015-16%20PRA%20Summary%20Extended.pdf](https://www.misoenergy.org/Library/Repository/Report/Resource%20Adequacy/Auction%20Results/2015-16%20PRA%20Summary%20Extended.pdf)).

¹⁸⁶ Illinois Attorney General Comments at 5-6.

¹⁸⁷ Illinois Commerce Commission Comments at 8-9.

should be dismissed because the changes were made in compliance with the Tariff, enhanced the Loss of Load Expectation analysis, and were discussed with and reported to stakeholders. MISO argues that the new methodology correctly reflects the capacity required within Zone 4, whereas the model suggested by Southwestern would have: (1) cleared capacity resources outside of Zone 4 that may not have been deliverable due to transmission constraints; and (2) failed to provide accurate price signals in Zone 4 because actual import constraints recognized by the new methodology would be ignored.¹⁸⁸ Finally, MISO asserts that it followed its Tariff and its Resource Adequacy Business Practice Manual when it calculated the Capacity Import Limit and the Local Clearing Requirement for the 2015/16 Auction and argues that the allegations by Public Citizen and Southwestern that these calculations were done improperly are without merit.¹⁸⁹

116. MISO urges the Commission to dismiss Public Citizen's claim that MISO should have adjusted the Local Clearing Requirement for Zone 4 to account for Dynegy's acquisition of the generating plants from Ameren Companies as unsupported.¹⁹⁰ MISO states that it calculated the Local Clearing Requirement for Zone 4 for the 2015/16 Planning Year consistent with the Tariff, and asserts that MISO was not permitted to alter that result.¹⁹¹ MISO also states that the Tariff requires MISO to consider factors including, but not limited to, the following elements in its determination of the Capacity Import Limit for each Zone: (1) existing and planned transmission system and planning resource additions; (2) transmission import and export capability; and (3) applicable NERC contingencies.¹⁹² MISO argues that a change in generation ownership within a Zone, such as Dynegy's acquisition of the Ameren Companies generating plants, does not impact any of the three elements and, therefore, the Tariff does not contemplate a corresponding adjustment to the Capacity Import Limit or the resulting Local Clearing Requirement.¹⁹³

¹⁸⁸ MISO July 2 Answer at 18-21.

¹⁸⁹ *Id.* at 21-22 (citing MISO, Resource Adequacy Business Practice Manual, § 5.2.1.2 (011-r14)).

¹⁹⁰ *Id.* at 17.

¹⁹¹ *Id.* at 18-19 (citing MISO, FERC Electric Tariff, Module E-1, § 68A.6 (30.0.0)).

¹⁹² *Id.* at 19 (citing MISO, FERC Electric Tariff, Module E-1, § 68A.4 (32.0.0)).

¹⁹³ *Id.* at 19-20.

117. Dynegy argues that Industrial Consumers' arguments incorrectly count potential, instead of actual, imports from PJM towards satisfying the Local Clearing Requirement.¹⁹⁴ Further, Dynegy argues that it is unlikely that imports into MISO from PJM would equal the full amount of exports out of MISO into PJM given the price disparity between the regions.
118. EPSA states that Industrial Consumers' arguments to revise the Local Clearing Requirement would double-count capacity that has been committed and sold to customers outside of MISO. EPSA argues that it is incorrect to count the capacity within a Zone that has already been economically and physically committed to an RTO or region external to that Zone. EPSA postulates that such double-counting could result in reliability issues if a PJM-dedicated resource located in MISO was simultaneously needed in both PJM and MISO. Furthermore, EPSA states that use of the counter-flow benefits concept is outside of accepted industry practice and is presented in Industrial Consumers' complaint without any factual or technical substantiation or study-based data to support it.¹⁹⁵
119. EPSA asserts that the hasty adoption of Industrial Consumers' proposal could result in severe consequences, such as the artificial suppression of zonal prices. EPSA states that any proposal to modify the Local Clearing Requirement should be discussed and vetted through the MISO stakeholder process.¹⁹⁶

d. Answers to Comments/Answers

120. Illinois Attorney General states that MISO should explain the dramatic increase in the Zone 4 Local Clearing Requirement between the 2013/14 and 2015/16 Auctions through discovery and at hearing to ensure the increase in the Local Clearing Requirement did not cause or contribute to unjust and unreasonable rates and exacerbate the opportunity of for a pivotal supplier to exercise market power. Illinois Attorney General also argues that MISO should be required to explain, through discovery and at hearing, why 1,562 MW of Zone 4's 3,130 MW Capacity Import Limit was not used in the 2015/16 Auction.¹⁹⁷

¹⁹⁴ Dynegy Protest at 12-13.

¹⁹⁵ EPSA July 20 Protest at 14.

¹⁹⁶ *Id.* at 15.

¹⁹⁷ Illinois Attorney General July 20 Answer at 19-20.

121. Illinois Attorney General agrees with comments that by not permitting the 1,200 MW of Zone 4 exports to PJM to satisfy a portion of the Local Clearing Requirement, MISO did not properly account for counter-flows, and therefore did not reduce Dynegy's ability to use its pivotal supplier position.¹⁹⁸
122. MISO asserts that it properly accounted for counter-flows associated with capacity exports with firm transmission service when it calculated the Capacity Import Limit for Zone 4, consistent with its Tariff, Business Practice Manual, and stakeholder-vetted calculations.¹⁹⁹ MISO explains that the Tariff describes the processes by which the Capacity Import Limits, Capacity Export Limits, and Local Clearing Requirements are determined.²⁰⁰ MISO states that the MISO Transmission Expansion Planning model is used to calculate each Zone's Capacity Import Limit. MISO explains that its model includes a defined Net Schedule Interchange, which is set to equal the net amount of firm long-term transmission system imports and exports into the MISO region, and therefore counter-flows are accurately accounted for in the calculation of each Zone's Capacity Import Limit and the associated Local Clearing Requirement.²⁰¹ MISO further explains that section 5.2.2.1 of its Resource Adequacy Business Practice Manual provides that MISO will perform a transfer analysis study, which uses files from MISO Transmission Expansion Planning studies to determine the Capacity Import and Export Limits for each Zone. MISO states that in a presentation to the Loss of Load Expectation Working Group that addressed the calculation of the Capacity Import Limit, MISO noted that its power flow modeling incorporated the Net Schedule Interchange set to the non-firm reservation level.²⁰² Nevertheless, MISO

¹⁹⁸ *Id.* at 20-21 (citing MISO Market Monitor, 2014 State of the Market Report, at 100-101, <https://www.misoenergy.org/Library/Repository/Report/IMM/2014%20State%20of%20the%20Market%20Report.pdf> (2014 State of the Market Report)).

¹⁹⁹ MISO July 17 Answer at 3; MISO July 20 Answer at 13-14 (citing Furnish Aff. ¶ 8).

²⁰⁰ MISO July 17 Answer at 4-5; MISO July 20 Answer at 14-15 (citing MISO, FERC Electric Tariff, Module E-1, §§ 68A.4 (32.0.0), 69A.7 (31.0.0), 69A.7.1 (34.0.0)).

²⁰¹ MISO July 17 Answer at 5-6; MISO July 20 Answer at 16.

²⁰² MISO July 17 Answer at 7; MISO July 20 Answer at 17-18 (citing MISO, LOLE Workshop Powerflow Model Development (Mar. 2014), <https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/Workshops%20and%20Special%20Meetings/2014/20140313%20LOLE%20Workshop/20140313%20LOLE%20Workshop%20Item%2006%20Powerflow%20Modeling.pdf>); MISO,

explains that it is currently engaged in stakeholder discussions regarding a range of issues, including how to account for counter-flows when calculating a Zone's Capacity Import Limit.²⁰³

123. MISO disputes arguments that the Local Clearing Requirement should be reduced by approximately 1,200 MW to reflect capacity exported from Zone 4 to PJM and claims that doing so would double-count relevant counter-flows and thus inaccurately calculate the Local Clearing Requirement.²⁰⁴ MISO also asserts that there is not a one-to-one relationship between the amount of capacity exported from a Zone and the amount of capacity that can be imported into that Zone. MISO explains that its facility-specific transfer analyses, as required by the Tariff, good utility practice, and engineering realities, provides a more accurate assessment of shifting transmission capacity by correctly reflecting the specific circumstances and constraints on the relevant facilities.²⁰⁵
124. In its response to MISO, Sierra Club states that, while MISO explains that the starting point for the calculation is the MISO Transmission Expansion Planning model that has a Net Schedule Interchange, the Tariff does not include counter-flow in the definition of Net Schedule Interchange or in the inputs used to calculate Net Schedule Interchange.²⁰⁶ Sierra Club argues that terms used in MISO's Answer, including Net Area Interchange and Base Interchange, are not mentioned or defined in the Tariff and therefore the meaning of these terms and how they should be or were calculated is unclear.²⁰⁷
125. MISO argues that the Commission should reject Sierra Club's Answer because it fails to provide information that will assist the decision-making process and inappropriately raises factual disputes outside the scope of these complaint

Resource Adequacy Business Practice Manual, § 5.2.2.1 (011-r14).

²⁰³ MISO August 24 Answer at 7.

²⁰⁴ MISO July 17 Answer at 3-4; MISO July 20 Answer at 14 (citing Furnish Aff. ¶ 13).

²⁰⁵ MISO July 17 Answer at 8-9; MISO July 20 Answer at 18-20 (citing Furnish Aff. ¶¶ 9-13).

²⁰⁶ Sierra Club Answer at 8-9.

²⁰⁷ *Id.* at 11.

proceedings.²⁰⁸ Moreover, MISO reiterates that it properly followed its Tariff and Business Practice Manuals when it accounted for counter-flows when calculating Zone 4's Capacity Import Limit and associated Local Clearing Requirement for the 2015/16 Auction.²⁰⁹

126. Industrial Consumers refute MISO's assertion that it properly accounted for counter-flows associated with capacity exports. Industrial Consumers argue that counter-flow from Net Scheduled Interchange is not reflected in Capacity Import Limits and therefore reducing Local Clearing Requirements by capacity exports will not double count counter-flow.²¹⁰ Industrial Consumers argue that capacity sold in the Auction or used in a Fixed Resource Adequacy Plan counts towards the Local Clearing Requirement of the Zone where the capacity is located, even if that capacity is being used to meet the Planning Reserve Margin Requirement of another Zone. Industrial Consumers argue that capacity exports to neighboring regions should be treated comparably and therefore the Local Clearing Requirement should be reduced by the capacity exports to neighboring regions.²¹¹
127. Illinois Commerce Commission agrees with the MISO Market Monitor that MISO should file Tariff revisions to treat local capacity exports as creating counter-flows over the interfaces into the Zone, which would cause the capacity to be replaced by the lowest-

cost capacity from any area in MISO, rather than requiring that additional capacity be procured from within the Zone.²¹²

e. Technical Conference

128. At the Technical Conference, MISO's panelists acknowledged that MISO's current methodology for reflecting counter-flows in Capacity Import Limits could be improved, and they discussed MISO staff's proposal to introduce a revised methodology that is based on a new concept, the Import Adjustment, which would equal the greater of granted firm transmission service or the Capacity Import

²⁰⁸ MISO August 11 Answer at 2-4 (citing Sierra Club Answer at 2-3, 6-14).

²⁰⁹ *Id.* at 5 (citing MISO July 17 Answer at 2-9).

²¹⁰ Industrial Consumers August 7 Answer at 11-13.

²¹¹ *Id.*, Ex. IIEC-7 ¶ 31.

²¹² Illinois Commerce Commission July 28 Answer at 9-10 (citing 2014 State of the Market Report, at 100-101).

Limit. Under MISO staff's proposal, a Zone's Local Clearing Requirement would be impacted when the Zone's granted firm transmission service exceeds the Zone's Capacity Import Limit. MISO clarified that its proposal is in the early development stage, requires further analysis by MISO, and is currently being reviewed in the stakeholder process. MISO also noted that the proposal could not be implemented in time for the 2016/17 Auction.

129. Dr. Patton, representing the MISO Market Monitor, discussed his recommendation to modify the calculation of Capacity Import Limits in the Tariff to reflect the counter-flows created by capacity exports to neighboring regions. Under this proposal, MISO would treat capacity exports as if they are going to facilitate the ability to import more capacity.
130. Mr. Dauphinais, representing Industrial Customers, argued that a change to the method of calculating counter-flows must be made prior to the upcoming 2016/17 Auction. The MISO panelists asserted that any change to the calculation of Capacity Import Limits or Local Clearing Requirements could not be made in time for the 2016/17 Auction because the Tariff requires MISO to publish these parameters by November 1, 2015. However, the MISO Market Monitor asserted that his proposal could be implemented for the 2016/17 Auction because it is a simple arithmetic change.

f. Post-Technical Conference Comments

131. MISO states that net base interchange is synonymous with Net Scheduled Interchange, which equals the net amount of firm long-term transmission service imports and exports for the MISO region. MISO states that it sums the area interchange of each local balancing area within a Zone when calculating that Zone's Capacity import Limit. MISO states that the net area interchange for Zone 4 was calculated by summing the net area interchanges for Ameren Illinois, City Water, Light and Power, and Southern Illinois Cooperative.²¹³
132. MISO states that it measures the import capability of Zone 4 by taking the aggregate import capability from all of the balancing authorities to which it connects: Duke Indiana, Northern Indiana Public Service Company, Ameren Missouri, ITC Midwest, Big Rivers Electric Corporation, Mid America, and PJM. MISO notes that it has not calculated the impact that exports from Zone 4 to PJM

²¹³ MISO Post-Technical Conference Comments at 3.

had on the Capacity Import Limit for Zone 4 in the 2015/16 Auction because MISO estimates it would take 30 days to make that calculation.²¹⁴

133. MISO explains that different generation stations have differing impacts on each transmission facility to which they are connected. MISO states that one generator may impact a Capacity Import Limit more than another generator because of the generators' location or constraints on a transmission line relative to another.²¹⁵
134. The MISO Market Monitor states that its primary concern with MISO's current calculation of Capacity Import Limits is that the Capacity Import Limits do not reflect the counter-flow that is created when resources located in the Zone are exported to a neighboring area outside of MISO. The MISO Market Monitor explains that the current approach effectively assumes that exported resources are unavailable to serve the needs of the Zone, which the MISO Market Monitor asserts is inaccurate because an exported resource: (1) will be under MISO's dispatch control and can be committed in instances of capacity constraints; (2) will have a capacity obligation to a neighboring area and therefore should generally remain available; and (3) is subject to Attachment Y provisions and may be designated as a System Support Resource if it attempts to retire. According to the MISO Market Monitor's demonstrations, even if the First Contingency Incremental Transfer Capability for a Zone is increased as a result of a capacity export to a neighboring region, that increase is offset in the Capacity Import Limit calculation when Base Power Transfer is added to First Contingency Incremental Transfer Capability.²¹⁶ The MISO Market Monitor states that exported resources physically located in a Zone provide local reliability benefits in the Zone; therefore, the MISO Market Monitor recommends a Tariff change that would treat capacity exports as counter-flow over the Capacity Import Limit by no longer deducting the capacity exports included in Base Power Transfer when calculating the Capacity Import Limit.²¹⁷

²¹⁴ *Id.* at 3-4.

²¹⁵ *Id.* at 4.

²¹⁶ MISO Market Monitor Post-Technical Conference Comments at 8-11. The MISO Market Monitor's demonstrations assume a one-to-one offset between Base Power Transfer and First Contingency Incremental Transfer Capability. The Market Monitor explains that this relationship will depend on the relative shift factors on the limiting constraints. *Id.* at 11.

²¹⁷ *Id.* at 10-11; *see also* Technical Conference, Dr. Patton, Tr. 146:1-25.

135. Industrial Consumers state that the Technical Conference provided information to confirm that Tariff provisions regarding the calculation of Local Clearing Requirements are no longer just and reasonable.²¹⁸ Illinois Attorney General argues that no panelist at the Technical Conference provided convincing justification for MISO's Local Clearing Requirement framework and that it needs to better account for counter-flows when there is an export of capacity from a Zone.²¹⁹
136. Industrial Consumers reiterate their request for the Commission to direct MISO to modify section 68A.6 of the MISO Tariff to recognize the counter-flow benefit of capacity exports by subtracting capacity sales from resources in a Zone to neighboring capacity markets from the Local Reliability Requirement of that Zone. Industrial Consumers reiterate that MISO's current approach fails to account for base interchanges based on long-term firm reservations and, therefore, unduly restricts import opportunities.²²⁰
137. Illinois Attorney General agrees with Mr. Dauphinais that MISO's current approach shows "a real unreasonableness in the way we determine Capacity Import Limits" and supports Dr. Patton's recommendation to account for the counter-flow phenomenon in which capacity exports facilitate imports, much sooner than the 2017/2018 Auction.²²¹
138. Sierra Club restates that the Local Clearing Requirement and Capacity Import Limit calculations do not count capacity exports from a Zone as local capacity, even though these exports create counter flows over the zonal interfaces that permit the replacement of this generation from other areas.²²²
139. Sierra Club attributes this oversight to MISO adjusting the First Contingency Incremental Transfer Capability number by the base interchange, thus removing the counter-flow numbers, to produce the Capacity Import Limits.²²³ Sierra Club

²¹⁸ Industrial Consumers Post-Technical Conference Comments at 3.

²¹⁹ Illinois Attorney General Post-Technical Conference Comments at 23.

²²⁰ Industrial Consumers Post-Technical Conference Comments at 15.

²²¹ Illinois Attorney General Post-Technical Conference Comments at 23-24 (citing Technical Conference, Mr. Dauphinais, Tr. 149:11-14).

²²² Sierra Club Post-Technical Conference Comments at 11.

²²³ *Id.* at 12 (citing Technical Conference, Mr. Dauphinais, Tr. 141-142).

recommends that MISO treat counter-flow on a one-to-one basis for now and possibly adjust this number later based on future analyses.²²⁴

140. With regard to MISO's Simultaneous Feasibility Test,²²⁵ Industrial Consumers assert that nothing in section 69A.7.1c.(i) of the Tariff precludes implementation of Industrial Consumers' proposed relief of counting capacity exports to neighboring markets toward the Local Clearing Requirement of the Zone where the capacity is physically located. Industrial Consumers also interpret section 5.5.8 of MISO's Resource Adequacy Business Practice Manual as indicating that capacity exports are already reflected in the Simultaneous Feasibility Test as resources committed externally or in the starting interchange level of the powerflow models. Furthermore, Industrial Consumers assert that any necessary changes to MISO's Resource Adequacy Business Practice Manual be made in advance of the 2016-17 Auction because such changes would not require a filing with the Commission.²²⁶
141. Southwestern Electric requests that MISO's enhanced modeling of counter-flow exports that is in current stakeholder discussions be implemented immediately and the Commission should grant waiver of the requirement that MISO Loss of Load Expectation study be performed by November 1, 2015.²²⁷ Illinois Attorney General argues that the Commission should not wait for the MISO stakeholder process to correct the flaws in MISO's Local Clearing Requirement calculation methodology, because improvements would lead to a smaller Local Clearing Requirement, thereby reducing the influence of the pivotal supplier in Zone 4.²²⁸

²²⁴ *Id.* at 14.

²²⁵ According to MISO's Resource Adequacy Business Practice Manual, "The test identifies transmission constraints resulting from power transfers between Local Resource Zones. To the extent transmission constraints cannot otherwise be mitigated via redispatch using Planning Resources, new import or export limits (as applicable) are established. Resulting limits will be simultaneously reliable and feasible." MISO, Resource Adequacy Business Practice Manual, § 5.5.8 (011-r15).

²²⁶ Industrial Consumers Post-Technical Conference Comments at 17-18.

²²⁷ Southwestern Post-Technical Conference Comments at 13-14.

²²⁸ Illinois Attorney General Post-Technical Conference Comments at 23.

142. Exelon and EPSA state that the Commission should allow MISO to continue to work with stakeholders to resolve this matter.²²⁹
143. Illinois Attorney General also argues that the Commission should make MISO justify why it should not return to its original practice of disregarding limits on facilities under 200 kV in its Capacity Import Limit methodology. Illinois Attorney General represents that without a consistent representation of voltage levels in the calculation of Capacity Import Limits, that value will remain highly volatile and it will be unclear whether transmission constraints are appropriately accounted for in the Auction.²³⁰
144. Sierra Club characterizes MISO's decision to revise the universe of potentially binding transmission constraints in its Capacity Import Limit study to include facilities below 200kV as problematic.²³¹ Sierra Club asserts that these changes directly contradict MISO's previous analysis, which concluded that "[t]he decision to neglect limits on facilities below 200 kV recognizes that many of these constraints would be manageable in MISO's real time dispatch, and thus that it would be unreasonable to include these lower-voltage constraints in the transfer-limit analysis."²³² Sierra Club argues that MISO should exclude limits on facilities below 200 kV when it calculates Capacity Import Limits because "many of these constraints would be manageable in MISO's real-time dispatch" and a "real-time dispatch would also optimize transfers much more effectively"²³³ Sierra Club asks the Commission to require MISO to correct its Capacity Import Limit methodology to reflect redispatch options available in operations.²³⁴

g. Commission Determination

145. We find that the Tariff provisions relied upon to calculate Capacity Import Limits understate the impact that counter-flows from capacity exports have on a Zone's Capacity Import Limit, and therefore are unjust and unreasonable. We agree with assertions that MISO's current approach for calculating Capacity Import Limits

²²⁹ Exelon Post-Technical Conference Comments at 18-19.

²³⁰ Illinois Attorney General Post-Technical Conference Comments at 25-26.

²³¹ Sierra Club Post-Technical Conference Comments at 16.

²³² *Id.* (citing 2013 LOLE Study Report at 18).

²³³ *Id.* at 19 (citing 2013 LOLE Study Report at 18).

²³⁴ *Id.* at 20.

fails to accurately reflect the counter-flows created by capacity exports committed to neighboring regions, such as PJM. Accordingly, we direct MISO to file Tariff revisions on compliance to ensure that MISO's calculation of Capacity Import Limits accurately reflects counter-flows resulting from capacity exports to neighboring regions.

146. With respect to Local Clearing Requirements, the primary issue raised in Industrial Consumers' complaint is whether the Capacity Import Limits appropriately reflect the impact that capacity exports to neighboring regions have on transfer capability. Industrial Consumers claim that the Capacity Import Limit calculation, which adds Base Power Transfer to First Contingency Incremental Transfer Capability, inappropriately counteracts the impact that the counter-flow from Net Scheduled Interchange has on the First Contingency Incremental Transfer Capability. The MISO Market Monitor agrees and asserts that the current methodology for calculating Capacity Import Limits does "not reflect the counter-flow that is created when resources located in the Zone are exported to a neighboring region outside of MISO."²³⁵
147. The MISO Market Monitor demonstrates that, under MISO's current methodology, even if the First Contingency Incremental Transfer Capability for a Zone is increased as a result of a capacity export to a neighboring region, that increase is offset in the Capacity Import Limit calculation when Base Power Transfer is added to First Contingency Incremental Transfer Capability.²³⁶ As explained by Mr. Dauphinais, representing Industrial Consumers, the Base Power Flow is negative when it reflects a net export from the Zone.²³⁷ Under the MISO Market Monitor's examples, which assume a one-to-one relationship between First Contingency Incremental Transfer Capability and Base Power Transfer, these capacity exports have effectively no impact on the Capacity Import Limit. However, Ms. Furnish explains that the incremental impact that capacity exports have on First Contingency Incremental Transfer Capability does not necessarily equal, and may not exceed, the change in Base Power Flow.²³⁸ As such, and given the various additional considerations Ms. Furnish cites, there appears to be a very high likelihood that the incremental impact capacity exports have on First Contingency Incremental Transfer Capability is in fact less than the one-to-one

²³⁵ MISO Market Monitor Post-Technical Conference Comments at 8.

²³⁶ *Id.* at 8-11.

²³⁷ See Industrial Consumers August 7 Answer, Dauphinais Supp. Aff. ¶ 28.

²³⁸ MISO July 20 Answer, Furnish Aff. ¶¶ 9-10.

impact that those same capacity exports have on Base Power Flow. Therefore, capacity exports would reduce a Zone's Capacity Import Limit even though the First Contingency Incremental Transfer Capability modeling dictates that the counter-flow from such capacity exports should increase the Capacity Import Limit.²³⁹ Consequently, we find the current methodology used by MISO is unjust and unreasonable because it could underestimate the impact that counter-flows from capacity exports have on the Capacity Import Limit.

148. We find that the MISO Market Monitor's recommendation would be a just and reasonable alternative because it directly resolves the deficiency in MISO's current approach without affecting any of the modeling used by MISO. The MISO Market Monitor's recommendation adds back the amount of capacity exports included in Base Power Transfer, thereby eliminating the negative impact that those capacity exports have on the calculation of the Capacity Import Limits. As a result, the impact of counter-flows, which are correctly reflected in the First Contingency Incremental Transfer Capability, remain in the calculation of Capacity Import Limits. The MISO Market Monitor explained that this recommendation "would be moving towards having the [Capacity Import Limit] reflect where you would not be deducting the export, you would be treating the export as if it's going to facilitate the ability to import more, so in that case you have a bigger [Capacity Import Limit] because the capacity export is scheduled."²⁴⁰ We agree with this approach, which will not change the First Contingency Incremental Transfer Capability or the analysis therein that relies on relative shift factors on limiting constraints. We find that this approach will produce Capacity Import Limits that better reflect the counter-flows that capacity exports provide. As such, we find the MISO Market Monitor's recommendation to be a just and reasonable alternative and direct MISO to work with the MISO Market Monitor to file necessary Tariff revisions to implement this recommendation on compliance within 30 days of the date of this order, to be implemented in time for the 2016/17 Auction. If MISO has concerns that this directive may result in adverse impacts on reliability, MISO may submit in its compliance filing a demonstration of these concerns and its recommended alternative proposal to be implemented in time for the 2016/17 Auction.

²³⁹ The MISO Market Monitor notes the possibility of this result by explaining that, under the current approach, the Base Power Transfer may cause the Capacity Import Limit to be higher or *lower*, depending on which constraints it affects. MISO Market Monitor Post-Technical Conference Comments at 9.

²⁴⁰ Technical Conference, Dr. Patton, Tr. 146:9-14.

149. We recognize that MISO has already determined Capacity Import Limits for the 2016/17 Planning Year.²⁴¹ However, we require MISO to determine revised Capacity Import Limits consistent with our findings herein, no less than 30 days prior to the 2016/17 Auction.
150. We will not, as advocated by Illinois Attorney General and Sierra Club, require MISO to revert to its previous methodology for calculating the Capacity Import Limit and consider only transmission facilities over 200 kV. As MISO explains, constraints on lower-voltage facilities can affect overall import capability and ignoring such constraints could overstate import capability, adversely affecting reliability. Sierra Club and Illinois Attorney General have not demonstrated that addressing constraints on lower-voltage facilities through real-time dispatch would fully alleviate such constraints, and therefore, we will not require MISO to limit the facilities it considers in its Capacity Import Limit calculation.
151. We decline to require MISO to make any additional changes to its methodology for calculating Capacity Import Limits and Local Clearing Requirements. While various changes were proposed in these proceedings, we find that MISO's current methodology has only been proven to be unjust and unreasonable because the impact of counter-flows from capacity exports is not properly reflected in the resulting Capacity Import Limits. As the Commission is addressing this deficiency by requiring MISO to implement the MISO Market Monitor's proposal, there is no basis at this time to direct MISO to make further changes to the methodology it uses to calculate Capacity Import Limits and Local Clearing Requirements. Nevertheless, we encourage MISO and its stakeholders to continue to examine the methodologies it uses to calculate these and other parameters and to make a subsequent filing, if appropriate, to implement any future changes.

3. Whether the Zonal Configuration was Properly Derived

a. Background

152. MISO currently has ten Zones, each with associated Planning Reserve Margin Requirements and Local Clearing Requirements. According to the Tariff, MISO must develop new Zones, as necessary, by September 1 of the year prior to a Planning Year. The Tariff provides that:

²⁴¹ MISO, *Planning Year 2016-2017 Loss of Load Expectation Study Report*, at 5 (2015), <https://www.misoenergy.org/Library/Repository/Study/LOLE/2016%20LOLE%20Study%20Report.pdf>.

The geographic boundaries of each of the [Zones] will be based upon analysis that considers: (1) the electrical boundaries of Local Balancing Authorities; (2) state boundaries; (3) the relative strength of transmission interconnections between Local Balancing Authorities; (4) the results of [Loss of Load Expectation] studies; (5) the relative size of [Zones]; and (6) natural geographic boundaries such as lakes and rivers. [MISO] may re-evaluate the boundaries of [Zones] if there are significant changes in the [MISO] Region based upon preceding factors, including but not limited to, significant changes in membership, the Transmission System, and/or Resources.²⁴²

b. Complaints

153. Public Citizen asserts that MISO proposed to address Dynegey's Zone 4 market power by combining Zone 4 and Zone 5 into a single Zone.²⁴³ Public Citizen and Southwestern allege that MISO's proposal to combine Zones 4 and 5 failed because of Dynegey's opposition in the Supply Adequacy Working Group.²⁴⁴ Southwestern asserts that the combination of Zones 4 and 5 for the 2015/16 Planning Year would have diluted the concentration of capacity market power in both Zones.²⁴⁵

c. Comments and Answers

154. Illinois Commerce Commission and Citizens Utility Board state that MISO's Zone configuration is intended to reflect the need for adequate planning resources in the appropriate physical locations to reliably meet demand and Loss of Load Expectation requirements.²⁴⁶ Illinois Commerce Commission notes that MISO conducts a transfer analysis of each Zone that directly impacts the Auction clearing process, and that the Local Clearing Requirement, Capacity Export Limit,

²⁴² MISO, FERC Electric Tariff, Module E-1, § 68A.3 (30.0.0).

²⁴³ Zone 5, which is located in Missouri, is adjacent to Zone 4.

²⁴⁴ Public Citizen Complaint at 2-3; Southwestern Complaint at 31-34 (citing Chiles Aff. at Attachments 6-10).

²⁴⁵ Southwestern Complaint at 33-34.

²⁴⁶ Illinois Commerce Commission Comments at 9 (citing MISO, Resource Adequacy Business Practice Manual, § 5.2 (011-r14), Subsection 5.2); Citizens Utility Board Comments at 7-8.

and Capacity Import Limit impact the Auction Clearing Price in each Zone. Illinois Commerce Commission and Citizens Utility Board argue that Zones that are too small can augment the ability of pivotal suppliers to exercise market power. Illinois Commerce Commission and Citizens Utility Board argue that, in light of the outcome of the 2015/16 Auction, the Commission should direct MISO to consolidate Zones 4 and 5 to dilute the ability of a pivotal supplier within those Zones to exercise its market power.²⁴⁷

155. MISO explains that it held stakeholder meetings in May and June of 2014 to discuss the proposal to combine Zones 4 and 5 for the 2015/16 Auction, but several stakeholders (including but not limited to Dynegy) expressed concerns. MISO asserts that, as an independent entity, it considers the views of all stakeholders and adjusts its positions based on discussion in the stakeholder process and consideration of its Tariff provisions.²⁴⁸ MISO states that, on June 24, 2014, it announced its decision to delay its plans to make a Tariff filing to combine Zones 4 and 5. MISO clarifies that it did not base its decision to keep Zones 4 and 5 separate on the level of competition within each Zone, but instead asserts that it evaluated the proposal according to the criteria in the Tariff. MISO therefore states that the Commission should disregard Complainants' assertions that MISO's decision was driven by pressure from Dynegy.²⁴⁹
156. Dynegy argues that it opposed the consolidation of Zones 4 and 5 because it did not believe that any of the criteria in the Tariff for changing the zonal boundaries, such as changes to the Transmission System, topology, configuration, MISO membership, or the number of retirements of generation capacity, had been satisfied.²⁵⁰ Dynegy asserts that, after a review of the merits, MISO "[did] not

²⁴⁷ Illinois Commerce Commission Comments at 9; Citizens Utility Board Comments at 7-8.

²⁴⁸ MISO July 2 Answer at 23 (stating that geographical boundaries are developed pursuant to the six considerations listed in the Tariff: "(1) the electrical boundaries of Local Balancing Authorities; (2) state boundaries; (3) the relative strength of transmission interconnections between Local Balancing Authorities; (4) the results of [Loss of Load Expectation] studies; (5) the relative size of [Local Resource Zones]; and (6) natural geographic boundaries such as lakes and rivers." *See* MISO, FERC Electric Tariff, Module E-1, § 68A.3 (30.0.0)).

²⁴⁹ MISO July 2 Answer at 22-26.

²⁵⁰ Dynegy July 6 Answer at 11-12, 52-55 (citing Jones Aff. ¶¶ 37-40; Ex. A.10; MISO, FERC Electric Tariff, Module E-1, § 68A.3 (30.0.0)).

currently see a trigger to justify reevaluating the boundaries of [Zones 4 and 5].”²⁵¹

d. Answers to Comments/Answers

157. Illinois Attorney General argues that the Commission should review MISO’s proposed combination of Zones 4 and 5 as a method to mitigate Dynegy’s market power.²⁵²
158. Southwestern clarifies in its answer that it raised the combination of Zones 4 and 5 in its complaint to demonstrate that MISO knew of Dynegy’s market power ahead of the 2015/16 Auction, but MISO still failed to protect the integrity of its markets.²⁵³

e. Technical Conference

159. At the Technical Conference, panelists discussed, among other things, the current zonal configuration, MISO’s stakeholder process regarding its resource adequacy straw proposal, and what factors should be considered when determining zonal boundaries, such as state lines, physical characteristics of the grid, local requirements, and market power. Parties disagreed about whether market power should be considered in determining zonal boundaries, whether cross-subsidization would result from combining Zones 4 and 5, and whether changing zonal boundaries too often would result in uncertainty and risk.

f. Post-Technical Conference Comments

160. Arkansas Commission, Exelon, and EPSA oppose revising the Zonal boundaries in the Auction.²⁵⁴ Arkansas Commission opposes any future increase in the size of Zones in MISO. Arkansas Commission emphasizes that state boundaries should be a large factor in the determination of zonal boundaries, consistent with the status quo given that the Arkansas portion of MISO is contained within Zone 8. Arkansas Commission notes that when Entergy Arkansas, Inc. (Entergy

²⁵¹ *Id.* at 53-55 (citing Ex. A.12 at 12).

²⁵² Illinois Attorney General July 20 Answer at 18-19.

²⁵³ Southwestern July 17 Answer at 9.

²⁵⁴ Arkansas Commission Post-Technical Conference Comments at 2-3; Exelon Post-Technical Conference Comments at 15-17; EPSA Post-Technical Conference Comments at 3.

Arkansas) joined MISO, that Entergy Arkansas and MISO consented to the condition that Entergy Arkansas be assigned its own Zone.²⁵⁵ Exelon asserts that Zone 4 should not be redefined because combining Zone 4 with a neighboring, vertically-integrated zone, would merely dilute the price signals in Zone 4 and fail to support economically competitive entry and exit.²⁵⁶ Similarly, EPSA argues that the Commission should not require combining Zone 4 and Zone 5 because doing so would result in market distortions for independent power producers, lead to a decline in long-term investment in MISO's restructured retail electricity markets, and could result in a cross-subsidization within one large Zone.²⁵⁷ EPSA maintains that any changes should be reviewed through MISO's resource adequacy process, and such changes should be based on a goal of alleviating transmission limitations or improving deliverability across seams and interties, and should not be based on diluting price signals or masking larger market design problems.²⁵⁸

161. Illinois Attorney General and Southwestern support combining Zones 4 and 5. Illinois Attorney General supports the combination of Zones 4 and 5 in light of the concentration of market power in Zone 4 and the lack of transmission constraints between the Zones, and also requests that the Commission direct MISO to amend its Tariff to expressly allow consideration of market conditions as a factor relevant to zonal boundaries.²⁵⁹ Illinois Attorney General suggests that whichever straw proposal alternative MISO adopts for its zonal configuration criteria, the proposal should expressly consider market conditions in the Auction and the risks associated with market power in MISO as a whole. Illinois Attorney General states that MISO considered combining Zones 4 and 5 in 2014 after Dynegy acquired the Ameren power plants, in part due to "the significant amount of resources in [Zone] 4 that changed ownership or retired during the past two years."²⁶⁰ However, Illinois Attorney General states that MISO ultimately declined to combine Zones 4 and 5, and therefore questions whether the current

²⁵⁵ Arkansas Commission Post-Technical Conference Comments at 2-3.

²⁵⁶ Exelon Post-Technical Conference Comments at 15-17.

²⁵⁷ EPSA Post-Technical Conference Comments at 20-21 (citing Technical Conference, Ms. Elliott, Tr. 177:16-19).

²⁵⁸ *Id.* at 22.

²⁵⁹ Illinois Attorney General Post-Technical Conference Comments at 29, 32-33.

²⁶⁰ *Id.* at 29 (citing MISO July 2 Answer, Ex. 7 at 2).

Tariff rules governing zonal boundaries should be modified given that they fail to consider market power. Moreover, Illinois Attorney General asserts that reliance on an ill-defined Initial Reference Level has been inadequate to address the undue concentration of market power in Zone 4 and resulted in unreasonably high prices, and that zonal boundaries should not aggravate market power.²⁶¹ Southwestern requests that the Commission direct MISO to combine Zones 4 and 5 beginning in the 2017/18 Auction and direct MISO to consider zonal market power as one of the factors on which zonal boundaries are based.²⁶²

162. Gibson City-Grand Tower suggests that MISO's zonal boundaries should also consider the different effects that capacity prices have on rates in states that have and have not been restructured at the retail level. According to Gibson City-Grand Tower, combining retail choice states with vertically-integrated states may produce capacity prices that drive merchant generation to prematurely exit the MISO market. Resources financed by the captive ratepayers in vertically-integrated states would be required to support reliability in neighboring retail choice states without the appropriate compensation. Gibson City-Grand Tower asserts that MISO's capacity market should ensure that vertically integrated ratepayers are not subsidizing reliability in neighboring retail choice markets.²⁶³
163. Sierra Club states that, instead of ordering MISO to combine Zones 4 and 5 before the next Auction, the Commission should order MISO to adopt its revisions with respect to opportunity costs, Initial Reference Levels, and Capacity Import Limits. Sierra Club asserts that if its proposed revisions are implemented, the factors that led to the unjust and unreasonable rates in the most recent Auction will be addressed and the next Auction would produce a more reasonable result. However, should the recommended changes be insufficient to ensure just and reasonable rates, Sierra Club suggests that MISO continue to discuss the possible combination of Zones 4 and 5 in the future.²⁶⁴
164. The MISO Market Monitor recommends that, to more accurately reflect MISO's reliability needs, MISO determine zones based primarily on network characteristics and congestion patterns. The MISO Market Monitor also suggests

²⁶¹ *Id.* at 30.

²⁶² Southwestern Post-Technical Conference Comments at 15.

²⁶³ Gibson City-Grand Tower Post-Technical Conference Comments at 6.

²⁶⁴ Sierra Club Post-Technical Conference Comments at 19-20.

that a Zone should be smaller than a Local Balancing Area if capacity is needed in certain load pockets within a Local Balancing Authority area.²⁶⁵

165. Mr. Hamal disagrees with the general premise that Zones should not affect prices unless there is a constraint between them, and argues that the mere existence of a Zone can have a striking effect on prices, because a separate Zone requires another demand curve and separate market clearing rules, structured to achieve further pricing goals, all while interacting with the rest of the region. Mr. Hamal therefore states that the presence of a Zone will change how suppliers in that Zone choose to bid, which is what caused the problems in Illinois in the first place.²⁶⁶

g. Commission Determination

166. We find that Complainants have not provided sufficient evidence that the current Zones are unjust and unreasonable to support a requirement that they be modified at this time. Accordingly, we deny the Complaints with respect to zonal boundaries and will not direct MISO to combine Zones 4 and 5. Nevertheless, we encourage MISO to continue to work with its stakeholders to ensure its zonal boundaries reflect the physical realities of the transmission system.

4. Stakeholder Process and MISO Capacity Construct

a. Complaints

167. Public Citizen argues that the roles of powerful utility and financial stakeholders within the Supply Adequacy Working Group do not lend credibility to the Auction process. Further, Public Citizen suggests that, because PJM's capacity prices have historically been higher than the Auction Clearing Price in Zone 4, Dynegy threatened to leave MISO for PJM unless MISO changed its capacity market rules to align more closely with PJM's. Public Citizen therefore alleges that MISO, acting out of self-preservation, has incentive to acquiesce to such threats and prioritize the demands of its large owners of generation.²⁶⁷

b. Comments and Answers

168. Joint Consumer Advocates have overarching concerns about the ability of public consumer advocates to effectively participate in MISO's and other RTOs'

²⁶⁵ MISO Market Monitor Post-Technical Conference Comments at 11, 12, 27.

²⁶⁶ Hamal Post-Technical Conference Comments at 3-4.

²⁶⁷ Public Citizen Complaint at 2-8.

stakeholder processes. Joint Consumer Advocates state that these processes are essential to provide meaningful input to the overall direction of the RTOs and the particular market design matters at issue in these proceedings, but that their ability to participate effectively is limited compared to those organizations that have a narrower economic interest in the process.²⁶⁸

169. MISO requests that any prospective changes to the Tariff be proposed and considered through MISO's stakeholder process, and that the Commission dismiss the Complaints in this case with prejudice. MISO represents that its stakeholder process will ensure that all of its stakeholders have the opportunity to fully participate in discussions, that appropriate analysis of alternatives can be performed and presented, and that any resulting Tariff changes will be vetted by the broadest possible stakeholder community, including state regulatory authorities.²⁶⁹
170. Dynegy disputes Complainants' allegations that it threatened to leave MISO or that it improperly influenced the MISO stakeholder process. Dynegy asserts that its representative is one of over 80 attendees at stakeholder meetings and there is no reason to believe that Dynegy could force any outcome.²⁷⁰

c. Answers to Comments/Answers

171. Southwestern argues that, based on MISO's responses and its position on the arguments raised in these proceedings, MISO is not sufficiently motivated to resolve the issues raised in these Complaints prior to the 2016/17 Auction or through the stakeholder process. Accordingly, Southwestern reiterates its assertion that the Commission should compel MISO to submit a compliance filing that protects the integrity of the Auction.²⁷¹
172. Illinois Commerce Commission agrees with MISO that, generally, broad stakeholder and state regulator involvement should be encouraged in the stakeholder process. However, Illinois Commerce Commission argues that in this

²⁶⁸ Joint Consumer Advocates Comments at 9.

²⁶⁹ MISO July 2 Answer at 34-35.

²⁷⁰ Dynegy July 6 Answer at 55-57.

²⁷¹ Southwestern July 17 Answer at 11-14.

case, timeliness is critical and various parties have already identified specific solutions to concerns regarding the Auction construct.²⁷²

d. Technical Conference and Post-Technical Conference Comments

173. Mr. Slocum, on behalf of Public Citizen, asserted that it is essential for the Commission, as part of any capacity market reform, to consider stakeholder process reform.²⁷³
174. Certain parties argue that, in addition to matters raised in the Complaints, the Commission should evaluate other elements of MISO's capacity construct and make any changes holistically, rather than piecemeal. The MISO Market Monitor, Dynegy, Exelon, and EPSA support use of sloped demand curve in the Auction.²⁷⁴ They also argue that the Auction should have a longer forward period and a Minimum Offer Price Rule to address buyer-side market power.²⁷⁵

e. Commission Determination

175. We find no basis for Public Citizen's assertion that stakeholders within the Supply Adequacy Working Group undermined the integrity of the Auction. Public Citizen has provided no evidence that MISO or any stakeholder acted inappropriately within the stakeholder process.
176. We will not address potential revisions to MISO's capacity construct, including a sloped demand curve, longer forward period, and a Minimum Offer Price Rule, here because they are beyond the scope of these proceedings. However, we recognize that MISO is working with stakeholders to explore potential revisions to the capacity construct, including concerns specific to Zone 4, and we encourage them to continue doing so.²⁷⁶

²⁷² Illinois Commerce Commission July 28 Answer at 11-12.

²⁷³ Technical Conference, Mr. Slocum, Tr. 215:5-7.

²⁷⁴ *See, e.g.*, MISO Market Monitor Post-Technical Conference Comments at 16-19; Dynegy Post-Technical Conference Comments at 6; Exelon Post-Technical Conference Comments at 14; EPSA Post-Technical Conference Comments at 6;

²⁷⁵ *See, e.g.*, Exelon Post-Technical Conference Comments at 14; EPSA Post-Technical Conference Comments at 6, 11.

²⁷⁶ MISO Post-Technical Conference Comments at 6 (citing MISO, Draft Issues

5. Refund Effective Date

177. In cases where, as here, the Commission institutes an investigation on complaint under section 206 of the FPA, section 206(b) requires that the Commission establish a refund effective date that is no earlier than the date a complaint was filed, but no later than five months after the filing date. Consistent with our general policy of providing maximum protection to customers,²⁷⁷ we will set the refund effective date at the earliest date possible, i.e., May 28, 2015, the date of the first Complaint.

The Commission orders:

(A) The Complaints are hereby granted in part and denied in part, 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 a compliance filing within 90 days of the date of this order, as discussed in the body of this order.

Statement on Resource Adequacy in Restructured Competitive Retail Markets
(Oct. 2015)

https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/SAWG/2015/20151029/20151029%20SAWG%20Item%2007%20Draft%20Issues%20Statement_RA%20in%20Restructured%20Markets.pdf (MISO Draft Issues Statement).

²⁷⁷ See, e.g., *Seminole Elec. Coop., Inc. v. Florida Power & Light Co.*, 65 FERC ¶ 61,413, at 63,139 (1993); *Canal Elec. Co.*, 46 FERC ¶ 61,153, at 61,539, *reh'g denied*, 47 FERC ¶ 61,275 (1989).

(D) The refund effective date established in Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000, established pursuant to section 206(b) of the Federal Power Act is May 28, 2015, as discussed in the body of this order.

By the Commission. Commissioner Honorable is not participating.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix

Motions to Intervene

Alliant Energy Corporate Services (Docket No. EL15-82-000)

Ameren Services Company, a wholly-owned subsidiary of Ameren Corporation, is filing on behalf of its affiliated public utility operating company Union Electric Company (Docket No. EL15-82-000)

American Electric Power Service Corporation, on behalf of its affiliates Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

American Public Power Association (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

American Municipal Power, Inc. (AMP) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

American Transmission Company LLC (Docket No. EL15-82-000)

Coalition of MISO Transmission Customers (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Consumers Energy Company (Docket No. EL15-82-000)

DTE Electric Company (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Duke Energy Corporation, on behalf of its franchised utility affiliates Duke Energy Indiana, Inc., Duke Energy Ohio, Inc., Duke Energy Kentucky, Inc., Duke Energy Carolinas, LLC, and Duke Energy Progress, Inc. (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Electric Power Supply Association (EPSA) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Exelon Corporation (Exelon) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Gibson City Energy Center, LLC and Grand Tower Energy Center, LLC (Gibson City and Grand Tower) (Docket Nos. EL15-70-000, EL15-71-000, EL15-82-000)

Great River Energy (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Hoosier Energy Rural Electric Cooperative, Inc. and Southern Illinois Power Cooperative (Hoosier and Southern Illinois) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Illinois Citizens Utility Board (Citizens Utility Board) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Illinois Industrial Energy Consumers (Industrial Consumers) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Illinois Municipal Electric Agency (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Illinois Power Agency (Docket No. EL15-71-000)

Illinois Power Marketing Company and Dynegy Marketing and Trade, LLC (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Indianapolis Power & Light Company (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Louisiana Public Service Commission (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Madison Gas & Electric Company (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Midcontinent MCN, LLC (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Minnesota Large Industrial Group (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Northern Illinois Municipal Power Agency (Docket No. EL15-72-000)

NRG Companies (NRG Power Marketing LLC and GenOn Energy Management) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

People of the State of Illinois (Illinois Attorney General) (Docket Nos. EL15-70-000, EL15-72-000, EL15-82-000)

Prairie Power, Inc. (Prairie Power) (Docket Nos. EL15-70-000, EL15-71-000)

Public Citizen, Inc. (Public Citizen) (Docket Nos. EL15-71-000, EL15-72-000, EL15-82-000)

Public Service Electric and Gas Company, PSEG Power LL, and PSEG Energy Resources & Trade LLC (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Southern Minnesota Municipal Power Agency (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Southwestern Electric Cooperative, Inc. (Southwestern) (Docket Nos. EL15-70-000, EL15-71-000)

The Sustainable FERC Project and Natural Resources Defense Council (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Union Electric Company (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Wabash Valley Power Association, Inc. (Wabash Valley) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Wisconsin Public Service Corporation (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Xcel Energy Services Inc., on behalf of its utility operating company affiliates Northern States Power Company, a Minnesota corporation, and Northern States Power Company, a Wisconsin corporation (Xcel) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Notices of Intervention

Arkansas Public Service Commission (Arkansas Commission) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Council of the City of New Orleans, Louisiana (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Illinois Commerce Commission (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Michigan Public Service Commission (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Mississippi Public Service Commission (Docket Nos. EL15-70-000, EL15-71-000, EL15-82-000)

Missouri Public Service Commission (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Organization of MISO States (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Motions to Intervene and Comments and/or Protests

Ameren Illinois Company (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Illinois Power Marketing Company and Dynegy Marketing and Trade, LLC (Docket No. EL15-82-000)

Indiana Office of Utility Consumer Counselor, the Iowa Office of Consumer Advocate, the Michigan Citizens Against Rate Excess, the Minnesota Department of Commerce, the Minnesota Attorney General's Office – Residential Utilities and Antitrust Division, and the Citizens Utility Board of Wisconsin (Joint Consumer Advocates) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Potomac Economics, Ltd. (MISO Market Monitor) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Prairie Power (Docket No. EL15-72-000)

Sierra Club (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

WPPI Energy (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Comments and/or Protests

Citizens Utility Board (Docket Nos. EL15-70-000, EL15-71-000)

Coalition of MISO Transmission Customers and the Illinois Industrial Energy Consumers (Joint MISO Industrial Customers) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Illinois Attorney General (comments and separate attachment) (Docket No. EL15-82-000)

Illinois Commerce Commission (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Individuals (Comment of Mike Grimes and Comment of Nancy Eileen Harris (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000); Comments of Cliff Hamal (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000); the following comments were filed in Docket No. EL15-71-000: Comments of Barbara Beam and 62 Individuals; Comments of Lawrence Beaudin and 197 Individuals; Comment of Kathleen SE Booth; Comment of Pat Cline; Comments of Jon Cole and 208 Individuals; Comment of D.L. Depper; Comment of Helen Fern Dexter; Comments of Martin Dolan and 91 Individuals; Comment of Tom Emswiler; Comments of Vincent Formanek and 261 Individuals; Comment of Paul S. Gabriel; Comment of Manuel Garcia; Comments of M. Hallock and 92 Individuals; Comment of Robert Henderson; Comment of Susan J. Hoff; Comments of Edwin Janssen and 56 Individuals; Comment of Elaine Kassak; Comment of Joe W. Knickmeyer; Comments of Robert and Diane Maes; Comments of Harold McKee and 92 Individuals; Comments of Barbara Mullins and 81 Individuals; Comments of William Myers and 164 Individuals; Comments of Shari Parker and 297 Individuals; Comments of Caroline Pienta and 172 Individuals; Comment of Charlotte Projansky; Comments of Donna Rabus and 235 Individuals; Comments of Robert Revels and 211 Individuals; Comments of Scott Rhoton and 187 Individuals; Comment of Thomas Sargent; Comment of Kathy Uher; Comments of Samantha Vercellino and 105 Individuals; Comment of Louise Wilt)

Answers/Replies/Responses

AMP and Kentucky Municipal Power Agency (Kentucky Municipal) (Motion for Leave to File Limited Response and Response by AMP and Kentucky Municipal) (July 24, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Dynergy Inc., Dynergy Marketing and Trade, LLC, and Illinois Power Marketing Company (Dynergy) (Answer of Dynergy) (July 6, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Dynergy (Response of Dynergy to Illinois Attorney General and Southwestern) (July 30, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Exelon (Limited Answer) (July 2, 2015) (Docket No. EL15-72-000)

Gibson City and Grand Tower (Answer of Gibson City and Grand Tower to Complaint of Southwestern) (July 2, 2015) (Docket No. EL15-72-000)

Hoosier and Southern Illinois (Motion to Dismiss and, in the Alternative, Answer of Hoosier and Southern Illinois) (July 2, 2015) (Docket No. EL15-72-000)

Illinois Attorney General (Response to Motions to Dismiss and Motion for Leave to File Answer and Answer of Illinois Attorney General) (July 20, 2015) (answer and public and non-public affidavit of Robert McCullough) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Illinois Attorney General (Motion for Leave to File an Answer and Answer of Illinois Attorney General to the Response of Dynege Filed July 30, 2015) (August 14, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Illinois Commerce Commission (Motion for Leave to Respond and Reply Comments of Illinois Commerce Commission) (July 28, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Industrial Consumers (Motion for Leave to Answer and Answer of Industrial Consumers) (August 7, 2015) (Docket No. EL15-82-000)

Industrial Consumers (Answer to MISO Response to Answer of Industrial Consumers) (September 9, 2015) (Docket No. EL15-82-000)

Midcontinent Independent System Operator, Inc. (MISO) (Answer of MISO) (July 2, 2015)

MISO (Answer of MISO) (July 17, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

MISO (Answer of MISO) (July 20, 2015) (Docket No. EL15-82-000)

MISO (Answer of MISO) (August 11, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

MISO (Motion for Leave to Respond to Answer of Industrial Consumers) (August 24, 2015) (EL15-82-000)

Northern Illinois Municipal Power Agency (Northern Illinois Municipal) (Answer and Limited Motion to Dismiss of Northern Illinois Municipal) (July 2, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Public Citizen (Response of Public Citizen to Dynege Response of July 30, 2015) (August 3, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Sierra Club (Motion for Leave to Answer and Answer of Sierra Club) (July 24, 2015)
(Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Southwestern (Motion for Leave to Answer and Answer of Southwestern) (July 17, 2015)
(Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Southwestern (Motion for Leave to Answer and Answer of Southwestern) (August 14,
2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

WPPI (Motion for Leave to Reply and Reply of WPPI) (July 21, 2015) (Docket
Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Other Motions and Pleadings

AMP and Kentucky Municipal (Petition for a Commission Declaration Regarding
Entities Subject to the Proceeding, Alternative Motion to Dismiss Indicated Non-
jurisdictional Entities as Respondents, and Reservation of Rights) (July 2, 6, 2015)
(Docket No. EL15-72-000)

AMP and Kentucky Municipal (Motion for Leave to File the Non-Public Version of a
Pleading One Business Day Out-of-Time) (July 7, 2015) (Docket No. EL15-72-000)

Arkansas Commission (Motion to file Comments One Day Out of Time) (November 5,
2015) (Docket Nos. EL15-71-000, EL15-82-000)

Dynegy (Motion to File Answer One Business Day Out of Time) (July 6, 2015) (Docket
Nos. EL15-70-000, EL15-71-000, EL15-72-000)

EPSA (Comments in Support of Motion for Extension of Time to File Comments)
(June 5, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Illinois Attorney General (Response to MISO's Motion to Consolidate Proceedings, to
Extend Answer and Comment Period to July 2, 2015, to Shorten the Comment Period on
This Motion, and for Expedited Consideration of This Motion) (June 5, 2015) (Docket
No. EL15-71-000)

Illinois Commerce Commission (Out-of-Time Motion to Intervene) (December 3, 2015)
(Docket Nos. EL15-70-000, EL15-72-000, EL15-82-000)

Independent Market Monitor for PJM (PJM Market Monitor) (Out-of-Time Motion to
Intervene) (November 3, 2015) (Docket Nos. EL15-70-000) (November 4, 2015) (Docket
Nos. EL15-71-000, EL15-72-000, EL15-82-000)

Indiana Municipal Power Agency (Out-of-Time Motion to Intervene) (July 6, 2015)
(Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Industrial Consumers (Errata to June 30, 2015 Formal Complaint and Request for Fast-Track Processing) (July 6, 2015) (Docket No. EL15-82-000)

Industrial Consumers (Motion for Leave to Reply and Post-Technical Conference Reply Comments) (November 17, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Kentucky Municipal (Out-of-Time Motion to Intervene) (July 6, 2015) (Docket No. EL15-72-000)

MISO (Motion to Consolidate Proceedings, to Extend Answer and Comment Period to July 2, 2015, to Shorten the Comment Period on This Motion, and for Expedited Consideration of This Motion) (June 3, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

MISO (Revised and Unopposed Motion to Consolidate Proceedings, to Extend Answer and Comment Period to July 2, 2015, to Shorten the Comment Period on This Motion, and for Expedited Consideration of This Motion) (June 5, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Missouri Joint Municipal Electric Utility Commission (Out-of-Time Motion to Intervene) (July 6, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Public Citizen (Comments One Day Out of Time) (November 5, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000, EL15-82-000)

Sierra Club (Motion for Leave to File Response and Response/Correction) (November 18, 2015) (Docket Nos. EL15-70-000, EL15-71-000, EL15-72-000)

Southwestern (Out-of-Time Motion to Intervene) (July 21, 2015) (Docket No. EL15-82-000)

Wabash Valley (Motion for Leave to File One Day Out-of-Time Limited Motion to Dismiss and Answer and Limited Motion to Dismiss and Answer of Wabash Valley) (July 6, 2015) (Docket No. EL15-72-000)