

125 FERC ¶ 61,318
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Sudeen G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.

Midwest Independent Transmission System Operator, Inc.	Docket Nos. ER07-1372-002 ER07-1372-005 ER07-1372-011 ER07-1372-013
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Midwest Independent Transmission System Operator, Inc. Transmission Owners of the Midwest Independent Transmission System Operator, Inc.	Docket No. ER08-1254-000
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Midwest Independent Transmission System Operator, Inc.	Docket Nos. ER08-1257-000 ER08-1257-001
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Midwest Independent Transmission System Operator, Inc.	Docket No. ER09-24-000
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ORDER AUTHORIZING MIDWEST ISO
ANCILLARY SERVICES MARKET START-UP

(Issued December 18, 2008)

TABLE OF CONTENTS

	<u>Paragraph Numbers</u>
I. Background	<u>3.</u>
A. History of this Proceeding.....	<u>3.</u>
B. February 25 Order	<u>6.</u>
C. ASM Deferrals and Testing.....	<u>10.</u>
D. Description of Filings.....	<u>11.</u>
II. Notices and Responsive Pleadings	<u>19.</u>
III. Discussion.....	<u>27.</u>
A. Procedural Matters	<u>27.</u>

B. Substantive Matters	<u>30.</u>
1. Reversion Plan (Docket No. ER07-1372-002)	<u>31.</u>
2. Readiness Certification (Docket Nos. ER07-1372-011 and ER07-1372-013)...	<u>40.</u>
3. Ramp Sharing Proposal (Docket No. ER09-24-000)	<u>57.</u>
4. Proposed Revisions To Tolerance Band, Deployment Penalties and Dispatch Band Provisions (Docket No. ER09-24-000)	<u>76.</u>
5. Regulating Reserve Demand Curve (Docket No. ER09-24-000)	<u>96.</u>
6. Real-Time Offer Revenue Sufficiency Guarantee and Day-Ahead Margin Assurance Payments (Docket No. ER09-24-000)	<u>114.</u>
7. Market Design Issues (Docket No. ER09-24-000).....	<u>147.</u>
8. Tariff Issues (Docket No. ER09-24-000)	<u>159.</u>
9. Issues Related To ASM Market Start (Docket No. ER07-1372-011)	<u>166.</u>
10. Motion for Extension of Authority (Docket No. ER07-1372-005).....	<u>172.</u>
11. Midwest ISO TO Agreement Revisions (Docket No. ER08-1254-000).....	<u>174.</u>
12. Other Revisions to Ancillary Services Market Tariff Provisions (Docket Nos. ER08-1257-000 and ER08-1257-001).....	<u>176.</u>

1. In an order issued February 25, 2008, the Commission accepted the Midwest Independent Transmission System Operator, Inc.'s (Midwest ISO) proposed ancillary services market (ASM), as modified, and ordered compliance filings with respect to readiness issues.¹ On February 29, 2008, the Midwest ISO submitted in Docket No. ER07-1372-002 its Reversion Plan and a report that includes its readiness benchmarks.² On July 25, 2008, in compliance with the February 25 Order, the Midwest ISO submitted in Docket No. ER07-1372-011 its Readiness Certification, which includes an update of its readiness benchmarks.³ On July 11, 2008, the Midwest ISO and the Midwest ISO

¹ *Midwest Indep. Transmission Sys. Operator, Inc.*, 122 FERC ¶ 61,172 (2008) (February 25 Order).

² Midwest ISO February 29, 2008 Initial Readiness Advisor Report and Reversion Plan, Docket No. ER07-1372-002 (Reversion Plan). The readiness benchmarks are items that the Readiness Advisor believes are necessary to determine the overall readiness of the Midwest ISO for the ASM. The 11 benchmarks encompass categories such as certification, ASM infrastructure, and staffing. The Midwest ISO had previously committed to submit its readiness benchmarks and Reversion Plan at least 90 days prior to ASM start.

³ Midwest ISO July 25, 2008 Readiness Certification, Docket No. ER07-1372-011 (Readiness Certification). The Readiness Certification also includes a copy of the NERC certification letter.

Transmission Owners filed in Docket No. ER08-1254-000, pursuant to section 205 of the Federal Power Act (FPA), revisions to the Midwest ISO TO Agreement⁴ to reflect the transfer and consolidation of balancing authority responsibility in the Midwest ISO.⁵ On July 11, 2008, as amended on October 21, 2008, the Midwest ISO filed in Docket Nos. ER08-1257-000 and ER08-1257-001, pursuant to section 205 of the Federal Power Act (FPA), revisions to its Open Access Transmission and Energy Markets Tariff (Tariff)⁶ to address a number of areas that, according to the Midwest ISO, are in need of revision and/or clarification to ensure the appropriate implementation of the ASM.⁷ On October 2, 2008, in Docket No. ER09-24-000, the Midwest ISO filed, pursuant to section 205 of the Federal Power Act (FPA), revisions to its Tariff to address instances of scarcity pricing reached during operational testing of the ASM.⁸ On November 20, 2008, in Docket No. ER07-1372-005, the Midwest ISO filed a Motion for Extension of Authority to extend the Commission's previous waiver of certain tariff provisions to allow market participants to receive Manual Redispatch Make-Whole Payments during ASM operational testing.⁹ On November 21, 2008, in Docket No. ER07-1372-013, the Midwest ISO filed its updated Readiness Certification for ASM start-up on January 6, 2009, and its Final Readiness Advisor Report.

2. For the reasons discussed below, we find that the Midwest ISO's Reversion Plan and Readiness Certification are in compliance with the requirements of our February 25 Order. We conditionally accept the Midwest ISO's filings in Docket No. ER08-1254-000 and Docket Nos. ER08-1257-000 and ER08-1257-001, subject to further compliance filings. We conditionally accept in part and reject in part the October 2 Filing in Docket

⁴ Agreement of Transmission Facilities Owners to Organize the Midwest Independent Transmission System Operator, Inc., a Delaware Non-Stock Corporation, Midwest ISO, FERC Electric Tariff, First Revised Rate Schedule No. 1 (Midwest ISO TO Agreement).

⁵ Midwest ISO July 11, 2008 Filing, Docket No. ER08-1254-000 (Docket No. ER08-1254 Filing).

⁶ Midwest ISO, FERC Electric Tariff, Third Rev. Vol. No. 1.

⁷ Collectively, Docket No. ER08-1257 Filing.

⁸ Midwest ISO October 2, 2008 Filing, Docket No. ER09-24-000 (October 2 Filing).

⁹ Midwest ISO November 20, 2008 Motion for Extension of Authority, Request for Expedited Consideration, and for a Shortened Comment Period, Docket No. ER07-1372-005 (Motion for Extension of Authority).

No. ER09-24-000, subject to further compliance filings. We also grant the November 20, 2008 Motion for Extension of Authority in Docket No. ER07-1372-005 and grant limited waiver of certain additional tariff sections. We conclude that the Midwest ISO is ready for ASM start-up on January 6, 2009.

I. Background

A. History of this Proceeding

3. The Commission rejected without prejudice the Midwest ISO's initial ASM proposal and provided guidance to better enable the Midwest ISO to prepare and re-file a complete proposal.¹⁰ The Commission explained that the filing did not include (1) a market power analysis supporting the proposed ASM or (2) a Readiness Plan to ensure reliability during the transition from the current reserve and regulation system, which is managed by individual balancing authorities, to a centralized ASM managed by the Midwest ISO.

4. In the Guidance Order, the Commission directed the Midwest ISO to submit Readiness and Reversion Plans with the features necessary to ensure that the start-up of the ASM will not adversely affect reliability.¹¹ The Commission required that: (1) the Midwest ISO certify to the Commission, 45 days before ASM market startup, the reliability and readiness of its systems;¹² and (2) the Midwest ISO file, on an informational basis at least three months prior to ASM start, the readiness auditor's recommendations for metrics and the status of each metric related to ASM operational readiness, as well as the auditor's recommendation of a plan to ensure the ASM is being developed, tested, and operated to ensure reliability and efficiency.

5. The Midwest ISO filed its revised proposal on September 14, 2007. On September 19, 2007, the Midwest ISO filed proposed amendments to its September 14 filing to correct minor typographical errors and provide inadvertently omitted language in certain definitions and sections of the tariff.

¹⁰ *Midwest Indep. Transmission Sys. Operator, Inc.*, 119 FERC ¶ 61,311 (Guidance Order), *reh'g denied*, 120 FERC ¶ 61,202 (2007).

¹¹ Guidance Order, 119 FERC ¶ 61,311 at P 47.

¹² The Commission stated that this certification must also include certification that the Midwest ISO has a monitoring system in place assessing actual resource capabilities, taking into account ambient temperatures and other operating conditions, and a certification as a balancing authority by the Electric Reliability Organization (ERO).

B. February 25 Order

6. In the February 25 Order, the Commission accepted the Midwest ISO's revised ASM proposal, as modified, and ordered two compliance filings.¹³ Under the proposal, the Midwest ISO will determine operating reserve requirements and procure operating reserves from all qualified resources, in place of the current system of local management and procurement of reserves by the 24 local balancing authorities. The Midwest ISO will also transfer and consolidate balancing authority responsibility in the Midwest ISO so that the Midwest ISO may become the North American Electric Reliability Council (NERC)-certified balancing authority for the entire Midwest ISO balancing authority area. The Commission found that balancing authority consolidation will allow for more centralized and efficient management of ancillary services.

7. The Commission also praised the proposal's simultaneous co-optimization approach, which seeks to minimize overall production costs in the Midwest ISO markets by coordinating the market-based procurement of energy and operating reserves. The Commission found that the simultaneous co-optimization approach will provide for the efficient acquisition and pricing of operating reserves, noting that variations of this approach are already in use by existing ISOs and regional transmission organizations (RTOs) that provide ancillary services through market-based mechanisms.

8. The Commission accepted the Midwest ISO's proposal to file the readiness benchmarks 90 days prior to the market start and the Readiness Certification 45 days prior to the market start.¹⁴ The Commission stated that the readiness benchmarks provided by the Midwest ISO should identify benchmark metrics and the status of

¹³ The Commission ordered a compliance filing within 30 days of the date of the February 25 Order to address, *inter alia*, issues related to the ASM monitoring and mitigation plan, scarcity demand curves, and reserve zones. The Midwest ISO submitted its 30-day compliance filing on March 26, 2008, and the Commission conditionally accepted it in a subsequent order. *Midwest Indep. Transmission Sys. Operator, Inc.*, 123 FERC ¶ 61,296 (2008). The Commission also ordered a compliance filing within 60 days of the date of the February 25 Order to address automated mitigation and the participation of new technologies in the ASM. The Midwest ISO submitted its 60-day compliance filing on April 25, 2008, and the Commission is conditionally accepting it in an order being issued concurrently with this order. *Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,319 (2008).

¹⁴ February 25 Order, 122 FERC ¶ 61,172 at P 448.

progress toward achievement of the metrics, in order to maintain transparency in the reporting process. The Commission encouraged the Midwest ISO to continue discussions with stakeholders on readiness issues.

9. The Commission also found that a reliable back-up plan for a failure of the inter-control center communication protocol is an important readiness issue.¹⁵ The Commission therefore required the Midwest ISO to include in its Readiness Plan a metric that addresses loss of inter-control center communication protocol communications. The Commission also noted that ASM launch would be contingent on certification of the Midwest ISO as the balancing authority in place of the local balancing authorities and an audited verification that the readiness metrics have been achieved.

C. ASM Deferrals and Testing

10. The February 25 Order conditionally accepted the ASM for launch on June 1, 2008. The Midwest ISO subsequently delayed the ASM market start to September 9, 2008, and then deferred the ASM market start again in a notice of deferral on August 26, 2008 to provide additional time through the fall of 2008 to undertake extensive market tests. In the October 2 Filing, the Midwest ISO indicated its intent to launch the ASM on January 6, 2008. The Commission granted a temporary waiver of select tariff provisions during ASM operational testing in order to allow market participants to be compensated for costs incurred as a result of the testing.¹⁶

D. Description of Filings

11. On February 29, 2008, in compliance with the February 25 Order, the Midwest ISO submitted, in Docket No. ER07-1372-002, its Reversion Plan and the Readiness Advisor's initial benchmark report.

12. On July 25, 2008, in compliance with the Commission's February 25 Order, the Midwest ISO filed, in Docket No. ER07-1372-011, a Readiness Certification for ASM start-up on September 9, 2008. The Midwest ISO's Readiness Certification includes: a letter from Mr. John R. Bear, the President and Chief Operating Officer of the Midwest ISO, certifying that the Midwest ISO is prepared for ASM launch on September 9, 2008; a copy of the letter from NERC certifying the Midwest ISO as the sole balancing authority for the Midwest ISO control area; and a revised Readiness Advisor report with updates on readiness benchmarks and criteria completion.

¹⁵ *Id.* P 450.

¹⁶ *Midwest Indep. Transmission Sys. Operator, Inc.*, 123 FERC ¶ 61,135 (2008) (May 7 Order).

13. On July 11, 2008, the Midwest ISO and Midwest ISO Transmission Owners¹⁷ filed, in Docket No. ER08-1254-000, revisions to the Midwest ISO TO Agreement to reflect the transfer and consolidation of balancing authority functions in the Midwest ISO and the new roles and responsibilities of the local balancing authorities.
14. On July 11, 2008, as amended on October 21, 2008, the Midwest ISO filed, in Docket Nos. ER08-1257-000 and ER08-1257-001, revisions to its currently effective tariff to address a number of areas that, according to the Midwest ISO, are in need of revision and/or clarification to ensure the appropriate implementation of the ASM.
15. On August 26, 2008, the Midwest ISO submitted a Deferral Notice, stating its intent to defer ASM launch and action on several other ASM-related matters. The Midwest ISO explained that the deferral was needed to take into consideration pricing concerns raised by stakeholders.
16. On October 2, 2008, the Midwest ISO filed, in Docket No. ER09-24-000, pursuant to section 205 of the FPA, revisions to its tariff¹⁸ to address instances of scarcity pricing reached during operational testing of the ASM.
17. On November 20, 2008, the Midwest ISO filed, in Docket No. ER07-1372-005, a Motion for Extension of Authority to extend the Commission's previous limited waiver of certain tariff provisions that expired on September 8, 2008 until the revised ASM

¹⁷ For the purpose of this filing, the Midwest ISO Transmission Owners include: Ameren Services Co., American Transmission Co. LLC, American Transmission Systems, Inc., City of Columbia Water and Light Department (Columbia, MO), City Water, Light & Power (Springfield, IL), Duke Energy Shared Services, Great River Energy, Hoosier Energy Rural Electric Cooperative, Inc., Indiana Municipal Power Agency, Indianapolis Power & Light Co., International Transmission Co., ITC Midwest LLC, Michigan Electric Transmission Co., LLC, Michigan Public Power Agency, Minnesota Power, Montana-Dakota Utilities Co., Northern Indiana Public Service Co., Northern States Power Co., Northwestern Wisconsin Electric Co., Otter Tail Corporation, Southern Illinois Power Cooperative, Southern Minnesota Municipal Power Agency, Southern Indiana Gas & Electric Co., Wabash Valley Power Association, Inc., and Wolverine Power Supply Cooperative, Inc.

¹⁸ The Midwest ISO's filing reflects changes relative to the Fourth Rev. Vol. No. 1 of the Midwest ISO's Open Access Transmission, Energy, and Operating Reserve Market tariff proposed on October 1, 2008 and conditionally accepted by the Commission in an order issued concurrently with this order.

launch date of January 6, 2009. The Midwest ISO contends that an extension of this waiver is necessary to provide Manual Redispatch Make-Whole Payments to market participants during ASM operational testing.

18. On November 21, 2008, in Docket No. ER07-1372-013, the Midwest ISO filed an updated Readiness Certification for the ASM to start-up on January 6, 2009. The Midwest ISO's Readiness Certification includes a certification letter from Mr. John R. Bear, the President and Chief Operating Officer of the Midwest ISO, certifying that the Midwest ISO will be organizationally and operationally ready on January 6, 2009 to reliably operate as the balancing authority for the Midwest ISO balancing authority area and to operate the associated ASM in accordance with the terms and conditions of the tariff. The Midwest ISO filing also includes the Final Readiness Advisor Report finding that the Midwest ISO and its market participants are ready to launch, transition, and commence the ASM beginning on January 6, 2009.

II. Notices and Responsive Pleadings

19. Notice of the Midwest ISO's February 29, 2008 filing in Docket No. ER07-1372-002 was published in the *Federal Register*, 73 Fed. Reg. 13,876 (2008), with interventions and protests due on or before March 21, 2008. None were filed.

20. Notice of the Midwest ISO's July 25, 2008 filing in Docket No. ER07-1372-011 was published in the *Federal Register*, 73 Fed. Reg. 46,619 (2008), with interventions and protests due on or before August 15, 2008. Protests were filed by Duke Energy Corporation (Duke);¹⁹ ALLETE; Inc. (ALLETE); Ameren Services Company (Ameren);²⁰ Xcel Energy Services, Inc. (Xcel);²¹ and Hoosier Energy Rural Electric Cooperative, Inc., Southern Illinois Power Cooperative, and Indianapolis Power & Light (Hoosier, Southern Illinois, and Indianapolis P&L).

¹⁹ Duke submitted the filing on behalf of its subsidiaries Duke Energy Ohio, Inc., Duke Energy Indiana, Inc., and Duke Energy Kentucky, Inc.

²⁰ Ameren submitted the filing on behalf of its affiliated public utility operating companies, Union Electric Co., Central Illinois Public Service Co., Central Illinois Light Co., and Illinois Power Co. and on behalf of its affiliated marketing and generating companies, Ameren Energy Marketing Co., Ameren Energy Generating Co., and AmerenEnergy Resources Generating Co.

²¹ Xcel submitted the filing on behalf of its four utility operating company affiliates, including Northern States Power Company, a Minnesota corporation, and Northern States Power Company, a Wisconsin corporation.

21. Notice of the Midwest ISO's July 11, 2008 filing in Docket No. ER08-1254-000 was published in the *Federal Register*, 73 Fed. Reg. 43,217 (2008), with interventions and protests due on or before August 1, 2008. Motions to intervene were filed by Ameren, Consumers Energy Company (Consumers), Exelon Corporation (Exelon), Wisconsin Electric Power Company (Wisconsin Electric), and Xcel. No protests were filed.
22. Notice of the Midwest ISO's July 11, 2008 filing in Docket No. ER08-1257-000 was published in the *Federal Register*, 73 Fed. Reg. 43,215 (2008), with interventions and protests due on or before August 1, 2008. Motions to intervene were filed by Ameren; Constellation Energy Commodities Group, Inc. and Constellation NewEnergy, Inc. (collectively, Constellation); Consumers; DC Energy Midwest, LLC (DC Energy); Duke; Exelon; Indianapolis P&L; Hoosier and Southern Illinois; Wisconsin Electric; and Xcel. Protests were filed by Ameren, Duke, and Xcel. The Midwest ISO filed an answer.
23. Notice of the Midwest ISO's October 21, 2008 amendment in Docket No. ER08-1257-001 was published in the *Federal Register*, 73 Fed. Reg. 64,611 (2008), with interventions and protests due on or before November 12, 2008. None were filed.
24. Notice of the Midwest ISO's October 2, 2008 filing amendment in Docket No. ER09-24-000 was published in the *Federal Register*, 73 Fed. Reg. 60,684 (2008), with interventions and protests due on or before October 23, 2008. Motions to intervene were filed by Ameren; Beacon Power Corporation (Beacon Power); Coalition of Midwest Transmission Customers (Midwest Transmission Customers); Consumers; DC Energy; The Detroit Edison Company (Detroit Edison); Duke; Exelon; Indianapolis P&L; Integrys Energy Group (Integrys);²² Hoosier, Southern Illinois, and Indianapolis P&L; Midwest Transmission Dependent Utilities (Midwest TDUs);²³ Organization of Midwest ISO States (OMS); Reliant Energy, Inc. (Reliant); Wisconsin Electric; and Xcel. Protests were filed by Ameren; Consumers; Detroit Edison; Duke; Integrys; Hoosier, Southern Illinois and Indianapolis P&L; Midwest Transmission Customers; OMS; Reliant; and Xcel. The Midwest ISO Independent Market Monitor, Potomac Economics, Ltd., (IMM)

²² Integrys and its subsidiaries Wisconsin Public Service Corporation, Upper Peninsula Power Co., and Integrys Energy Services, Inc. submitted the filing.

²³ Midwest TDUs include Great Lakes Utilities, Madison Gas & Electric Co., Midwest Municipal Transmission Group, Missouri Joint Municipal Electric Utility Commission, Missouri River Energy Services, Municipal Energy Agency of Nebraska, Southern Minnesota Municipal Power Agency, and Wisconsin Public Power, Inc.

filed a motion to intervene out-of-time. The Midwest ISO filed an answer. Midwest Transmission Customers filed an answer to the Midwest ISO's answer. The Midwest ISO filed an answer to Midwest Transmission Customers' answer.

25. Notice of the Midwest ISO's November 20, 2008 filing in Docket No. ER07-1372-005 was published in the *Federal Register*, 73 Fed. Reg. 20,282 (2008), with interventions and protests due on or before November 28, 2008. None were filed.

26. Notice of the Midwest ISO's November 21, 2008 filing in Docket No. ER07-1372-013 was published in the *Federal Register*, 73 Fed. Reg. 73,320 (2008), with interventions and protests due on or before December 1, 2008. Protests were filed by Hoosier & Southern Illinois and E.ON U.S. LLC (E.ON).²⁴

III. Discussion

A. Procedural Matters

27. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2008), the timely, unopposed motions to intervene serve to make the entities that filed them parties to the proceeding or proceedings in which they intervened.

28. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2008), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept the answers of the Midwest ISO in Docket No. ER08-1257-000 and of the Midwest ISO and Midwest Transmission Customers in Docket No. ER09-24-000 because they have provided information that assisted us in our decision-making process.

29. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedures, 18 C.F.R § 385.214(d) (2008), the Commission will grant the IMM's late-filed motion to intervene in Docket No. ER09-24-000 given its interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

B. Substantive Matters

30. In this order, we address several ASM-related proceedings. In the first sections of this order, we conclude that the Midwest ISO is ready for ASM start-up on January 6, 2009. In these sections, which address Docket Nos. ER07-1372-002, ER07-1372-011,

²⁴ E.ON submitted the filing on behalf of its public utility subsidiaries Louisville Gas and Electric Co. and Kentucky Utilities Co.

and ER07-1372-013, we find that the Midwest ISO's Reversion Plan and Readiness Certification are in compliance with the February 25 Order. We next address the Midwest ISO's proposal, in Docket No. ER09-24-000, to address the scarcity pricing issues that delayed the start of the ASM. We conditionally accept in part and reject in part the Midwest ISO's proposal to: permit ramp sharing; revise its tolerance band, deployment penalties, and dispatch band provisions; reduce the regulating reserve demand curve price; and amend the eligibility criteria for certain make-whole payments.

In the final sections of the order, we address additional market start issues. In Docket No. ER07-1372-011, we address several issues related to ASM start that were submitted in response to the Midwest ISO's July 25, 2008 readiness filing. In Docket No. ER07-1372-005, we grant an extension of our previous grant of a limited waiver of certain tariff sections to ensure adequate compensation for market participants during ASM operational testing. In Docket No. ER08-1254-000, we conditionally accept proposed revisions to the Midwest ISO Transmission Owners Agreement. Finally, in Docket Nos. ER08-1257-000 and ER08-1257-001, we conditionally accept proposed tariff revisions that reflect reforms undertaken pursuant to Commission-mandated compliance filings and stakeholder review.

1. Reversion Plan (Docket No. ER07-1372-002)

a. Midwest ISO Proposal

31. The Commission, in the February 25 Order, accepted the Midwest ISO's proposal to file a Reversion Plan to address system operations in the event of a severe operations failure no less than 90 days prior to market launch. The Commission required the Midwest ISO to provide in its Reversion Plan information on how it would handle the back-up plan and the operation of the Midwest ISO security center and operating tools in abnormal operating conditions.

32. On February 29, 2008, the Midwest ISO submitted, in Docket No. ER07-1372-002, a compliance filing with the required Reversion Plan. The Midwest ISO requests that the Commission grant it the authority to implement the Reversion Plan in accordance with its terms and without further notice, in the event that the Reversion Plan's implementation is necessary.²⁵

33. The Reversion Plan is a three-phase plan during which responsibility for certain balancing authority functions may revert back to the local balancing authorities. The local balancing authorities are the 24 balancing authorities that currently serve the balancing authority function in the Midwest ISO. After ASM start-up, the Midwest ISO

²⁵ Midwest ISO February 29, 2008 Filing, Docket No. ER07-1372-002, transmittal letter at 5.

will be the balancing authority for the Midwest ISO balancing authority area. Pursuant to the Reversion Plan, in the event of a failure of the operating systems that the Midwest ISO uses to operate as a balancing authority and to administer the ASM, certain balancing authority functions would revert back to the local balancing authorities from the Midwest ISO balancing authority.

34. Phase I of the Reversion plan will actuate if the automatic generation control and/or energy and ASM unit dispatch system fails. During hour one of Phase I, the local balancing authorities will be responsible for net scheduled interchange. Phase II will actuate if the operating system failure persists. During Phase II, the local balancing authorities will be responsible for procuring the necessary regulating and contingency reserves. Phase III will actuate if the operating system failure persists. During Phase III, the Midwest ISO and local balancing authorities will resume energy market operation.

35. The Reversion Plan will remain in effect for a minimum of 30 consecutive days without Phase III being initiated, and if at any time Phase III is initiated, the 30-day counter will reset and the ASM must then run for 30 consecutive days without Phase III being initiated before the Reversion Plan can be terminated.²⁶ The Reversion Plan points to the use of abnormal operating procedures to handle the back-up plan and operating tools. The Readiness Advisor's report states that the abnormal operating procedures were verified and passed.²⁷

36. The Midwest ISO states that the decision to implement the Reversion Plan will be based upon the nature of the system failure, the repair time needed to correct the failure, and system operating conditions at the time.²⁸ The Midwest ISO also states that the Reversion Plan may be further supplemented and improved based upon the ongoing operational tests and results of these tests, and to address any deficiencies identified by these tests.

37. In the Readiness Certification, submitted in Docket No. ER07-1372-011 in compliance with the February 25 Order, the Midwest ISO states that it contracted Science Applications International Corporation as the Readiness Advisor to facilitate and monitor the readiness benchmarks and associated criteria.²⁹ The Midwest ISO notes that the Readiness Advisor's first survey of stakeholders found that they lacked adequate

²⁶ Reversion Plan at 4.

²⁷ Readiness Certification at App. 1, I-139.

²⁸ Reversion Plan at 7.

²⁹ We address the Readiness Certification below.

knowledge of the Reversion Plan. The Readiness Certification further states that to improve the awareness of the Reversion Plan the Midwest ISO has met with stakeholder working groups and is developing a classroom and computer-based training module to better familiarize stakeholders with the Reversion Plan.³⁰

b. Comment

38. Xcel argues that the Reversion Plan is inadequate. Xcel asserts that the unexplained market occurrences experienced in market trials during the spring and summer of 2008 suggest a higher probability of market dysfunction that could necessitate invoking the Reversion Plan. Xcel also contends that the Reversion Plan is not yet sufficiently detailed. Xcel recommends that the Reversion Plan be extended to at least 60 days to provide an additional measure of system reliability in the initial period of ASM operations.

c. Commission Determination

39. We find the Reversion Plan to be in compliance with the requirements of the February 25 Order. As discussed further in this order, the Midwest ISO delayed the ASM market start and used the additional time through the fall of 2008 to undertake extensive market tests that address the concerns raised by Xcel. Based on our review of those subsequent trials and the updated assessment by the Readiness Advisor, we do not, as suggested by Xcel, expect a higher probability of market dysfunction. We also consider the Reversion Plan to be sufficiently detailed for use by market participants and the Midwest ISO in a reversion event. Considering that the Midwest ISO has undertaken extensive tests of its ASM software and system, starting in the spring of 2008 and continuing through the fall, we do not see the need for an extended effective period for the Reversion Plan.

2. Readiness Certification (Docket Nos. ER07-1372-011 and ER07-1372-013)

a. Certifications

40. In the February 25 Order, the Commission required the Midwest ISO to file its Readiness Certification and an update of its readiness benchmarks prior to ASM start. On February 29, 2008, the Midwest ISO submitted, in Docket No. ER07-1372-002, an initial Readiness Advisor benchmark report. On July 14, 2008, NERC submitted to the Commission a copy of NERC's letter to the Midwest ISO certifying the Midwest ISO as a balancing authority. On July 25, 2008, the Midwest ISO submitted, in Docket No.

³⁰ *Id.* at 16-17.

ER07-1372-011, its Readiness Certification, including updated readiness benchmarks. This compliance filing consists of a market readiness certificate, an updated Readiness Advisor report, and a copy of NERC's letter certifying the Midwest ISO as a balancing authority. The Midwest ISO requested that the Commission accept its Readiness Certification and allow the Midwest ISO to commence ASM operations on September 9, 2008. On August 26, 2008, the Midwest ISO filed a Deferral Notice, stating its intent to defer ASM launch.

41. On November 21, 2008, the Midwest ISO filed an updated Readiness Certification in anticipation of the January 6, 2009 ASM launch date, in accordance with the February 25 Order, which required such certification 45 days prior to ASM launch. The market Readiness Certification includes a certification of Mr. John R. Bear, President and Chief Operating Officer of the Midwest ISO indicating that the Midwest ISO will be organizationally and operationally ready on January 6, 2009 to reliably operate as the balancing authority for the Midwest ISO balancing authority area and to operate the associated ASM, all in accordance with the terms and conditions of the tariff. Mr. Bear states that the certification is being made following extensive analysis of the operational test results relating to the tariff modifications proposed in Docket No. ER09-24-000.

42. The certification filing also includes the Final Readiness Advisor Report. The Final Report finds that the Midwest ISO and its market participants are ready to transition and commence the ASM beginning on January 6, 2009. The Final Report also verifies ten of the eleven readiness benchmarks and 38 of the 40 associated readiness criteria. The remaining benchmark identified in the final report will be satisfied once the Midwest ISO meets the two remaining readiness criteria, which consist of Commission acceptance of the Midwest ISO's Reversion Plan criteria and local balancing authority participation in the operational test phases. The Readiness Advisor further explains that the remaining readiness criterion was not deemed a threat to the overall reliability of ASM operations.

43. The Midwest ISO notes that the NERC certification of the Midwest ISO as the balancing authority, filed on April 16, 2008, was not affected by the subsequent delay in ASM market start.

b. Comments

44. Responding to the July 25, 2008 Readiness Certification, Minnesota Power and Xcel Energy both strongly support the ASM by stating that it will benefit utility ratepayers. However, both state that the Midwest ISO has not demonstrated that the market is ready to start on September 9, 2008, and request a delay until October 1, 2008. Both also request that the Midwest ISO file a supplemental Readiness Certification that will demonstrate that the issues raised here have been addressed.

45. Minnesota Power expresses concern that the Readiness Advisor did not respond to issues that Minnesota Power raised in a meeting with the Readiness Advisor held in March 2008.

46. Xcel Energy asserts that the market trials to date have not demonstrated sufficiently that the ASM is ready to start on September 9, 2008, noting that the Midwest ISO is still making significant changes to market information systems as a result of issues raised during market trials. Xcel recommends that ASM commencement be delayed until October 1, 2008 or such time that the Midwest ISO establishes that it can demonstrate thirty consecutive dates of consistent market trial operations. Xcel also recommends that the Commission require the Midwest ISO to file a supplemental Readiness Certification with the Commission at least ten days prior to the new launch date demonstrating that the issues raised have been addressed.

47. Xcel Energy notes that the market trials in the spring and summer of 2008 were characterized by the common occurrence of scarcity pricing and price reversal, where a lower value product is priced above a higher value product. Xcel also notes that the trials were marked by significant volatility in dispatch instructions and a lack of available ramp capability among the various energy and operating reserve products.

48. Xcel Energy recommends that the Midwest ISO take ample time to understand how its proposed remedy of sharing available ramp among energy and reserve products affects other aspects of the energy and ASM markets and that market participants should be allowed to fully evaluate the modified market design through additional market trials experience.

49. Responding to the July 25, 2008 Readiness Certification, Ameren recommends that the Midwest ISO establish a sixteen-day hiatus on any material or substantive software revisions prior to the launch date to allow the Midwest ISO, the Readiness Advisor and stakeholders the opportunity to test the entire system in a stable and unchanging software environment. Ameren avers that the results of these tests should serve as significant input to the Midwest ISO's and Readiness Advisor's final readiness determination. Ameren recommends that this final determination include certification that the pricing algorithms are ready.

50. Responding to the July 25, 2008 Readiness Certification filing, Duke also recommends that the Midwest ISO certify that operations under any revised software or tuning parameters has been stable for a period of no less than fourteen days, dating from the last pre-launch update to the software or the dispatch tuning parameters. Duke requests that the Midwest ISO conduct closed loop tests for a minimum of two and preferably three test sessions during varying times of the operating day.

51. Responding to the November 21, 2008 Readiness Certification update, Hoosier & Southern Illinois assert that the Midwest ISO should be required to file with the

Commission weekly reports on zonal price levels and price volatility. At the end of the first 60 days of market implementation, Hoosier & Southern Illinois recommend that the Commission allow the Midwest ISO and all interested stakeholders to file comments regarding the need for continued weekly reports, and that similar reviews should occur every three months thereafter unless the Commission decides to discontinue the reporting requirement.

52. E.ON contends that, if the ASM commences prior the Commission's action on the pending Amended Midwest Contingency Reserve Sharing Group Agreement³¹ that would assure a continuous supply of contingency reserves, then there will be serious reliability and cost implications on transmission customers and their end-user customers of electricity in the region covered by the Midwest Contingency Reserve Sharing Group Agreement.

c. Commission Determination

53. We find that the November 21, 2008 Readiness Certification is in compliance with the requirements of the February 25 Order. We also find that the Midwest ISO ASM is ready to start on January 6, 2009 based on the updated Readiness Certification by the Readiness Advisor that verifies that ten of the eleven readiness benchmarks and 38 of the 40 readiness criteria have been achieved. We note that the final benchmark stands incomplete pending formal acceptance by the Commission of the Midwest ISO Reversion Plan, which we accept in this order. We also note that the incomplete readiness criterion, local balancing authority participation in the operational test phases, was not deemed a threat to the overall reliability of ASM operations. This Readiness Certification, plus the NERC certification of the Midwest ISO as the balancing authority for the Midwest ISO region, the certification by the Midwest ISO Chief Operating Officer Mr. John Bear, and our acceptance of the Reversion Plan provide the necessary elements for our acceptance of the start of the Midwest ISO ASM on January 6, 2009.

54. With respect to the concerns raised regarding the July 25, 2008 Readiness Certification, we note that the Midwest ISO delayed the ASM market start, in a notice of deferral on August 26, 2008, and used the additional time through the fall of 2008 to undertake extensive market tests in order to address the concerns raised by commenters. Those tests, encompassing 42 tests over 137 hours, indicated no violations of NERC

³¹ This proposed agreement was filed in Docket No. ER08-1055-000, *et al.*, and the Commission is addressing the agreement in an order being issued concurrently with this order. *Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,323 (2008).

control performance standards. Based on these test results, we conclude that the ASM will successfully start utilizing the new procedures proposed by the Midwest ISO in Docket No. ER09-24-000, that we accept as modified, as discussed further in this order.

55. Addressing comments on the November 21, 2008 updated Readiness Certification, we will not require the Midwest ISO to submit weekly reports to the Commission regarding ASM performance, because such reports would be unduly burdensome. We note that we are requiring the IMM to submit an informational report due 180 days after the launch of the ASM³² that assesses the market performance and reliability impacts of the proposed pricing revisions. We consider this report to be sufficient for providing the Commission and stakeholders with information on how the ASM performs.

56. The Commission is addressing the Contingency Reserve Sharing Group Agreement, including its impact on reliability, in Docket No. ER08-1055-000, *et al.*, which is being issued concurrently with this order.³³ Since the Commission is ensuring that there will be sufficient reserves in that proceeding, we do not see any reliability impacts in this proceeding that require a delay in the start of the ASM.

3. Ramp Sharing Proposal (Docket No. ER09-24-000)

a. Midwest ISO Filing

57. In a notice filed on August 26, 2008, the Midwest ISO announced that it would defer the September 9, 2008 start of the ASM to a later date in order to address concerns raised by market participants with respect to the frequent occurrence of scarcity pricing during market testing. The Midwest ISO made the October 2 Filing in Docket No. ER09-24-000 with a proposal to address those concerns and to propose January 6, 2008 as the ASM launch date.

58. One element of the proposal is a proposed revision to the tariff to facilitate the sharing of ramp capability between energy, regulating reserves, and spinning reserves within each dispatch interval. The Midwest ISO explains that under the existing tariff a resource may not use the same ramp capability to simultaneously provide energy, regulating reserve, and spinning reserve. It contends that this limitation contributed to regulating reserve scarcity pricing during operational testing, even though sufficient generation capacity and ramp capability was available, in aggregate.³⁴ To address this

³² See section 5 *infra*.

³³ *Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,323.

³⁴ Doying Test., October 2 Filing at Att. D, 4.

issue, the Midwest ISO proposes to allow a resource's ramp capability to be "shared" so that the same ramp capability can be used to clear multiple products.³⁵ The Midwest ISO concludes that the ramp sharing proposal effectively doubles the amount of available ramp capability, thereby reducing instances of regulating reserve scarcity pricing and price volatility.³⁶

59. The Midwest ISO argues that the ramp sharing proposal will not adversely impact reliability. Through operational testing, the Midwest ISO has determined that ramp sharing would not prevent it from meeting NERC control performance standards under a wide range of system conditions.³⁷ According to the Midwest ISO, it can take appropriate operator actions, such as committing a combustion turbine or deploying available spinning reserves, in situations where sharing ramp between energy and regulating reserve is identified as potentially affecting compliance with such NERC standards.

b. Comments

60. OMS, Ameren, Consumers Energy, and Duke argue that the ramp sharing proposal may harm system reliability. OMS argues that the proposal serves only to produce increased offer ramp rates and questions whether there is any direct reliability benefit from the proposal. Ameren states that the proposal's double-counting causes a resource's ramp capability to be overstated. Consumers Energy contends that the Midwest ISO balancing authority may be unable to meet NERC's Disturbance Control Standard³⁸ when supplies are tight because the proposal allows the market to clear more

³⁵ For example, if a resource with a 5 MW per minute ramp rate is dispatched during a five-minute interval for 25 MW of energy, it cannot also be cleared for 25 MW of regulating reserve under the existing tariff because its ramp capacity is already being used for energy. Under the proposal, however, the resource could be dispatched for 25 MW of energy and cleared for 25 MW of regulating reserve because its ramp capability could be shared by both products.

³⁶ The Midwest ISO observed thirty five intervals of spinning reserve scarcity, three intervals of regulating reserve scarcity, and an average regulating reserve price of \$397 during an operational test without ramp sharing. In contrast, the Midwest ISO observed no spinning or regulating reserve scarcity and an average regulating reserve price of \$53 during a test of similar duration with ramp sharing. Doying Test., October 2 Filing at Att. D, 5.

³⁷ Harszy Test., October 2 Filing at Att. C, 5-6.

³⁸ NERC BAL-002, Requirement 3.1, and the associated RFC Standard BAL-002-RFC-02.

than the available ramping capability and, thus, the Midwest ISO could not ensure that it has enough contingency reserves to meet its most severe single contingency. While noting the Midwest ISO's conclusion that it would be able to meet NERC standards, Duke is concerned that energy and operating reserves could clear under circumstances where they cannot be simultaneously deployed.

61. Xcel agrees with the Midwest ISO that it will be able to reliably operate the grid while sharing ramp between all products. Xcel contends that the proposed tariff language should be revised to make clear the mechanism for ensuring compliance with the applicable reliability standards.³⁹ While the Midwest ISO's application indicates that appropriate operator actions will ensure compliance with NERC standards under the ramp sharing proposal, Xcel argues that the proposed tariff language should be revised because it suggests that compliance with reliability standards could be ensured by resource ramping constraints and/or the security constrained economic dispatch algorithm.

62. The IMM argues that the ramp sharing proposal should have little or no effect on reliability. The IMM contends that the proposal is consistent with the ramp reservation methodologies employed by the New York ISO and ISO New England. It adds that it functions as the independent market monitor for both of those ISOs and is unaware of any instances when sharing ramp capability between energy and operating reserve products has contributed to a reliability concern in those ISOs' markets.

63. Furthermore, the IMM contends that the ramp sharing proposal promises significant benefits to the market. According to the IMM, the Midwest ISO's current approach of separately reserving ramp capability can prevent the real-time market from moving certain resources that are providing ancillary services to their most efficient dispatch level. When the system needs to ramp up or down quickly, the IMM argues that this practice leads to inefficient dispatch and more frequent instances of transitory shortages. The IMM concludes that the ramp sharing proposal should improve the efficiency of the Midwest ISO's dispatch and the resulting prices.

64. Like the IMM, OMS supports the ramp sharing proposal's general concept. However, OMS and Duke are concerned that a definitive ramp sharing model was not

³⁹ Specifically, Xcel requests that the discussion of resource ramping constraints on Sheet Nos. 2236 and 2244 be revised to clarify that the mechanism for ensuring compliance with reliability standards is not part of the energy and operating reserves simultaneous co-optimized formulations or, alternatively, to remove proposed language regarding compliance with "[a]pplicable [r]eliability [s]tandards." Xcel also argues that those sentences are grammatically incorrect.

identified in the proposal. According to OMS, the Midwest ISO can modify the ramp sharing provisions in its operating procedures. OMS argues that this flexibility may circumvent transparency regarding offer and pricing issues for market participants, such as in the Market Subcommittee, and reduce the review of reliability related issues in the Reliability Subcommittee. To address these concerns, OMS requests that the Commission direct the Midwest ISO to continue to review the anticipated and operational impact of the ramp sharing proposal with stakeholders in the Market and Reliability Subcommittees and to evaluate and to report on the sufficiency of ramp offers for one calendar quarter following ASM launch. In addition, Duke notes that the Midwest ISO is in the process of developing a ramping model. Duke requests that the Commission confirm that the Midwest ISO will choose a ramping model that, among other things, would ensure that resources are neutral as to which products they are cleared to provide.

65. Several parties⁴⁰ contend that the proposal may cause problems by double-counting ramp capability for both energy and contingency reserve and thereby establishing setpoints that units cannot physically achieve. According to Ameren, ramp sharing may overstate a unit's ramp capability and promote an excessive reliance on the interconnected system, rather than the proper clearing of supplies, to meet real-time needs. It contends that load customers would be forced to pay resources for undeliverable capability and services. Integrys argues that the proposal will increase costs by forcing the Midwest ISO to commit expensive gas-fired generation in order to satisfy NERC reliability standards. Consumers Energy objects to proposed tariff revisions that may cause the Midwest ISO to establish physically unachievable setpoints and to allow a unit's actual reserve capacity used for energy dispatch ramping to be double-counted as contingency reserve capacity.⁴¹ Duke and Xcel argue that operating personnel responsible for ensuring compliance would become confused by physically

⁴⁰ Ameren, Consumers Energy, Duke, Integrys, and Xcel.

⁴¹ Consumers Energy specifically objects to the proposal to require that all cleared contingency reserve in the day-ahead and real-time energy and operating reserve market be deployable within the contingency reserve deployment period, instead of requiring full deployment, as was required under the previous tariff provisions, because this language may cause the Midwest ISO to establish setpoints that are not physically achievable. For the same reason, Consumers Energy objects to the proposal to require that all spin qualified resources in the day-ahead and real-time energy and operating reserve market be capable of deploying their cleared spinning reserve within the contingency reserve deployment period, instead of requiring 100 percent deployment, as was required under the previous tariff provisions.

unachievable dispatch instructions. To aid operating personnel, Xcel requests that the Midwest ISO deliver a message to the units so that they are aware that they are being dispatched at an unreachable set point.⁴²

66. Ameren, Duke, and Integrys request that the Commission require the Midwest ISO to design and implement long-term changes to improve its unit dispatch algorithm and associated software after ASM launch. Integrys argues that the proposal is an immediate fix to trick the co-optimization software into a solution without invoking scarcity. While they support the ramp sharing proposal as an interim measure, Duke and Integrys argue that the proposal is a sub-optimal solution and that long-term enhancements to the Midwest ISO's co-optimization algorithm are needed. Ameren argues that the Midwest ISO needs to replace the ramp sharing proposal with a revised unit commitment algorithm so that it can more accurately clear sufficient resources in the day-ahead market. While it admits that the Midwest ISO may need to clear slightly greater quantities for each product, Ameren contends that the reliability of the interconnection would not be compromised and load will only pay for deliverable services and capability under its counter proposal. Ameren and Duke request that the Midwest ISO submit and implement such changes within 180 days of ASM launch. Integrys contends that the Midwest ISO should collaborate with its stakeholders to develop such improvements.

c. Answer

67. The Midwest ISO responds that the sharing of ramp capability has not resulted in adverse reliability impacts or any violations of NERC control performance standards in the 34 operational tests it has conducted. The Midwest ISO argues that those tests confirm that the ramp sharing model will successfully meet the applicable reliability standards, consistent with similar models successfully implemented in ISO New England and New York ISO. The Midwest ISO also clarifies that its proposal to share ramp capability would not result in the sharing of energy or operating reserve capacity. In response to Xcel, the Midwest ISO clarifies that its compliance with the applicable reliability standards will not be determined solely by ramp capability or any other factor by itself. According to the Midwest ISO, its proposed tariff revisions indicate that the ramp model will clear sufficient ramp capability to allow the Midwest ISO to comply with reliability standards.

68. The Midwest ISO makes several clarifications regarding its ramp sharing model. In response to OMS, the Midwest ISO clarifies that its ramp sharing model has been incorporated into its Business Practices Manuals. The Midwest ISO also states that any future changes to the ramp sharing model will be discussed through the stakeholder

⁴² Xcel adds that this message should also be communicated through settlements.

process and reflected in the appropriate manual. The Midwest ISO also agrees with Duke and clarifies that a ramp sharing model that supports the complete sharing of ramp capability among all products will ensure that market participants are neutral as to which product is cleared for a given amount of capacity. The Midwest ISO adds that no instances of inconsistent dispatch results have been observed in recent operational tests that employed a full ramp sharing model.

69. The Midwest ISO reiterates the IMM's comments in support of the ramp sharing proposal, including the proposal's potential benefits and similarity to the ramp reservation methodologies employed in other markets.

d. Commission Determination

70. We accept the Midwest ISO proposal to share ramp rates among energy and reserves. We find the Midwest ISO's ramp sharing proposal to be an appropriate solution to eliminate instances of transitory scarcity found in early ASM market testing.⁴³ We expect that the ASM will operate reliably at start-up since the Midwest ISO has tested its proposal extensively and found no impact on reliability. Also, the sharing of ramp rates has been successfully implemented in ISO New England and New York ISO, and we have no indication that this feature has had a detrimental impact on reliability in these ISOs.⁴⁴

71. We agree with the Midwest ISO that its proposal to share ramp capability would not result in the sharing of energy or operating reserve capacity. Rather, the proposal is to share ramping capability so that multiple products can be cleared simultaneously. We interpret the analysis provided by the Midwest ISO to mean that the 5 MW per minute ramping of energy is providing the MW needed in the up direction for regulation and therefore additional ramp is not needed, and in the event the 5 MW per minute is not sufficient, the Midwest ISO is committing a fast-start peak generator to provide additional ramp capability. We find no basis to conclude that this procedure could not manage reliability effectively.

72. In the circumstance of sharing regulating and contingency reserves, we do not expect that the proposed procedures will reduce the amount of contingency reserves available for the most severe single contingency. Rather, we expect the sharing of regulating and contingency reserves to mean that the commitment and clearing process is providing adequate reserves for all reserve products, and to the extent additional ramping

⁴³ See Doying Test., October 2 Filing at Att. D, 5.

⁴⁴ Harszy Test., October 2 Filing at Att. C, 7.

capability is needed, the Midwest ISO is committing a fast-start peak generator. Sharing ramp capability does not change the requirement that the Midwest ISO must procure sufficient reserves to meet NERC standards.⁴⁵

73. We understand Consumers Energy's concern to be that deletion of "fully" and "one-hundred percent," as proposed by the Midwest ISO, will require market participants to be capable of deploying more than the full capability of their resource, and therefore the Midwest ISO is taking actions that establish a set-point that may not be physically achievable. While we recognize that this outcome could occur under the ramp sharing proposal, we expect that the other revisions proposed by the Midwest ISO to tolerance bands, deployment penalties and dispatch bands, as discussed in the next section, address the concerns of Consumers Energy. Accordingly, we accept the proposed deletions as reasonable and consistent with the proposal.⁴⁶

74. We find that market participants will be afforded sufficient transparency and opportunities to discuss the Midwest ISO's ramp sharing model. The Midwest ISO has incorporated its ramp sharing model into its Business Practices Manuals, which should provide sufficient clarity for market participants.⁴⁷ We expect the Midwest ISO to continue to work with its stakeholders, including the Market and Reliability Subcommittees, as appropriate, when evaluating the effectiveness of its ramp sharing model and developing any future changes, as OMS requests. We consider the response of the Midwest ISO that there have been no inconsistent dispatch results in recent tests of a full ramp sharing model to be responsive to the concern of Duke that the ramping model be neutral with respect to the products cleared.

75. Further, we agree with commenters that the root cause of the instances of transitory scarcity is the co-optimization software and the dispatch algorithm. While the Midwest ISO has developed acceptable solutions, we direct the Midwest ISO to continue

⁴⁵ We consider the Midwest ISO answer that the ramping model will clear sufficient ramp capability to comply with reliability standards to be an accurate representation, and therefore we will not require further tariff revisions as recommended by Xcel.

⁴⁶ We require the Midwest ISO to submit, in the compliance filing due within 30 days from the date of this order, typographical edits to tariff Sheet No. 935.

⁴⁷ We note that, in its answer, the Midwest ISO has confirmed that its ramping model will ensure that resources are neutral as to which products they are cleared to provide, consistent with Duke's request.

working with stakeholders to address this issue and expect that the Midwest ISO will make proposals in future filings to resolve the root causes of transitory scarcity, thereby ensuring a reliable and efficient market over the long-term.

4. Proposed Revisions To Tolerance Band, Deployment Penalties and Dispatch Band Provisions (Docket No. ER09-24-000)

a. Midwest ISO Proposal

76. In its proposal in Docket No. ER09-24-000, the Midwest ISO also proposes to increase the tolerance band⁴⁸ based on the amount of offered ramp capability. The Midwest ISO states that its proposed adjustment complements ramp sharing by: (1) avoiding the undue imposition of excessive/deficient energy deployment charges⁴⁹ due to ramp sharing; and (2) encouraging market participants to offer more ramp capability through expanded tolerance bands that reduce their risk of non-compliance with set-point instructions and account for the difficulty of estimating ramp rate precisely based on the operating characteristics of resources.

77. The Midwest ISO also proposes to clarify that an exemption from excessive/deficient energy deployment charges would be provided if the dispatch band⁵⁰ is deactivated.⁵¹ The Midwest ISO explains that these exemptions are required to prevent assessing such charges when more restrictive or characteristic limits and ramping

⁴⁸ The tolerance band ensures that resources follow their dispatch instructions and is used to settle deviations from those instructions. The tolerance band measures a resource's average telemetered output compared to the dispatch instruction. The Midwest ISO proposal increases the tolerance band by adding the product of the shared ramp and the duration of the dispatch interval to the average of the dispatch targets and deployment instructions in determining the upper and lower limit of the tolerance band, or Excessive/Deficient Energy Threshold.

⁴⁹ When a resource's average telemetered output over the dispatch interval is outside the tolerance band in at least three consecutive dispatch intervals, a market participant is charged an excessive/deficient energy deployment charge.

⁵⁰ A dispatch band is a set of generation resource or Demand Response Resource – Type II operating limits and ramp rates that represent the physical operating characteristics of the resource within that operating band.

⁵¹ The Tariff provides that dispatch bands may be deactivated by the Midwest ISO in cases where use of the dispatch band option has an adverse impact on system reliability.

capabilities offered through dispatch bands are replaced by default or standard limit offers and ramping capabilities if dispatch band utilization is deactivated by the Midwest ISO. In these cases, resource operators who were relying on the limitations to the setpoint instructions afforded by dispatch bands may be unable to meet performance criteria when these limitations are deactivated. An exemption from the Contingency Reserve Deployment Failure Charge⁵² would also be provided in this circumstance.

b. Comments

78. Midwest Transmission Customers assert that the Midwest ISO has failed to demonstrate that providing additional incentives for generators to offer or maintain offered ramp capability is appropriate and argues that the proposed tariff changes should be rejected.

79. Duke believes it is reasonable to provide an exemption from the excessive/deficient energy deployment charges for a transition period, such as an hour, while resources transition to the Midwest ISO standard ramp model and contends that the exemption should not continue beyond a defined transition period in the event the Midwest ISO deactivation of the dispatch band continues for an extended period. Duke explains that such a limitation to the transition period would reduce the incentive for market participants to add dispatch bands for other resources for the sole purpose of having an exemption during periods when the Midwest ISO disables dispatch bands.

80. Duke recommends that the Midwest ISO be required, in a filing subject to notice and comment within six months of ASM market start, to consider whether dispatch band deactivation can be targeted to a smaller set of units to achieve the Midwest ISO's goals without triggering a universal deactivation. Duke asserts that its recommendation would help limit incentives for market participants to choose the dispatch band deactivation option so they could obtain an exemption.

81. Duke expresses concern that the Midwest ISO proposal is being made at the potential expense of reliability, with the potential added consequence of NERC penalties that may have to be borne even by parties that deliver their contingency reserves. Duke requests that the Midwest ISO be required to explain whether reliability may be compromised as a result of this proposal.

82. Duke notes that it is unclear when excessive/deficient energy or failures to deliver contingency reserves will be deemed to be a result of deactivation of the dispatch band.

⁵² The Contingency Reserve Deployment Failure Charge is applied to resources that do not deploy contingency reserves in an amount equal or greater than their instructions within the deployment period.

83. Ameren argues that the penalty assessment provisions should be revised so that a deficient resource will only be penalized to the extent that it is deficient without taking into account the size of each resource and its total energy injection in an hour. Ameren also asserts that the elimination of penalties should only apply to resources that are using dispatch bands when the Midwest ISO violates an offer parameter that was in place by the dispatch band. Ameren indicates that it is raising this issue because it is unclear if the elimination of penalties will apply to all resources whether or not they are using dispatch bands.

84. Xcel requests that the Midwest ISO make several tariff revisions to address its concerns with the ramp sharing proposal. Xcel argues that the Midwest ISO should revise its tariff to explicitly state that “[m]arket [p]articipants are exempt from penalties when they do not achieve an unachievable set point.”⁵³ Xcel states that, to follow dispatch instructions that are in excess of its units’ ramp capabilities, especially during an emergency, a market participant may need to act beyond its normal operating procedures to ensure system reliability. In such cases, Xcel contends that the market participant should be exempt from penalties for longer than the five-minute dispatch interval.⁵⁴ In addition, Xcel argues that the deployment strategy reduces the amount of time a unit will be unable to reach the requested set point because the Midwest ISO will deploy regulation on units that are using the least amount of ramp for energy first. Also, in the event of a contingency, Xcel says that the ramp will be used to deploy spinning reserves and that there is no need to regulate simultaneously during an emergency event.

85. OMS questions whether there is any direct reliability benefit from increasing the tolerance band during ramp sharing and elimination of excessive/deficient energy charges when dispatch bands are deactivated.

86. Reliant Energy supports the Midwest ISO proposal because it provides needed certainty that resources will not be exposed to deployment charges due to circumstances outside of their control. Reliant Energy asserts that if the deployment charges are not removed when the dispatch bands are deactivated, resources will likely offer less ramp capacity in order to ensure that they will be able to meet the set-point instructions and to avoid possible assessment of deployment charges.

⁵³ Xcel specifically references proposed language regarding penalty exemptions on Sheet Nos. 1116, 921, and 1118. Xcel October 23, 2008 Comments at 8-9.

⁵⁴ Xcel specifically references Sheet Nos. 1116-1118.

c. Answer

87. The Midwest ISO responds that it does not oppose the limitation recommendation of Duke and indicates that it is willing to revise the tariff language to include a reasonable time limitation that would provide generators adequate opportunity to update their operational parameters. The Midwest ISO believes that reliability will not be adversely affected by the exemption from Contingency Reserve Deployment Failure Charges based on dispatch band deactivation. The Midwest ISO also clarifies that the dispatch band deactivation exemption is intended to apply only to resources using dispatch bands.

88. The Midwest ISO considers the Ameren arguments that the penalty should not take into account the size and total energy injection of a resource and should be limited to the hour(s) when deployment was excessive to be a collateral attack on the deployment penalty provision. The Midwest ISO notes that this provision was not modified in substance in the October 2 Filing.

89. The Midwest ISO contends that its proposal to modify the tolerance band design to account for the as-offered ramp capability of the resource prevents unfair penalties from being assessed to market participants when unachievable setpoints are issued.

d. Commission Determination

90. We accept the provisions proposed by the Midwest ISO. The modification of tolerance bands to account for ramp sharing ensures that market participants are not penalized for actions beyond their control that make it impossible to follow set-point instructions. Also, by deactivating the dispatch bands, the proposal ensures that there are no penalties when market participants cannot achieve the set-point instructions for the ramp offers that have been adjusted for ramp sharing.

91. For the reasons discussed in the previous section, we agree with the Midwest ISO that neither the ramp sharing provisions nor the revisions to penalty and offer provisions to enable ramp sharing will have an impact on the Midwest ISO's ability to meet NERC control performance standards. Sharing ramp capability does not change the requirement that the Midwest ISO must procure sufficient reserves to meet NERC standards, and therefore we do not see, from this proposal, any implications on NERC guidelines for contingency reserve requirements.

92. While we understand the concern of Duke that these provisions not be applied in circumstances other than the transitory scarcity circumstances described by the Midwest ISO in its filing, we will not require additional tariff revisions. The Midwest ISO has

determined that these provisions are necessary to avoid transitory scarcity and we accept the proposal as reasonable. Requiring tariff revisions that limit the scope or effectiveness of the proposal would be counter-productive.⁵⁵

93. The Commission has already determined that the methodology of the excessive and deficiency deployment charges are reasonable,⁵⁶ and therefore we will not require changes in these charges so that they do not take into account the size and total injection of a resource, as recommended by Ameren.

94. We consider the Midwest ISO response that it is modifying the tolerance band to account for ramp sharing to be responsive to concerns regarding unachievable set points.⁵⁷ We consider the proposed language of Xcel to exempt market participants from penalties when they do not achieve an unachievable set point to be an imprecise formulation that is subject to a wide range of interpretations, and therefore we will not require the addition of this language to the Tariff.⁵⁸

95. With regard to Ameren's concern that the Midwest ISO is proposing to delete the prohibition on violating ramping capabilities for self-scheduled resources, we understand this revision to indicate that the Midwest ISO will utilize ramp sharing for these resources in the same way that it is being utilized for other resources. We find this proposed revision to be reasonable and consistent with the purpose of its proposal.

⁵⁵ To address Duke's concern with respect to when excessive/deficient energy or failures to deliver contingency reserves is deemed to result from deactivation of the dispatch band, we require the Midwest ISO to develop notification procedures to ensure market participants understand their penalty status in the Business Practices Manuals.

⁵⁶ *Midwest Indep. Transmission Sys. Operator, Inc.*, 123 FERC ¶ 61,297, at P 95-96 (2008) (June 23 Rehearing Order).

⁵⁷ We agree with commenters that the Midwest ISO should communicate any ramp sharing actions to market participant operators so they can take this information into account in dispatching instructions.

⁵⁸ Responding to Xcel's concerns during emergency events, we note that the current tariff in section 40.3.4.d.v already exempts market participants from excessive/deficient deployment charges during emergencies and therefore they are exempt from penalties for longer than the five-minute dispatch interval in these circumstances.

5. Regulating Reserve Demand Curve (Docket No. ER09-24-000)

a. Midwest ISO Filing

96. The Midwest ISO also proposes in its filing in Docket No. ER09-24-000 to reduce the existing regulating reserve demand curve price of \$1,000 per MWh to more accurately reflect the economic value of regulating reserves during shortages.⁵⁹ It contends that the current \$1,000 per MWh price reflects the costs associated with operating reserve capacity shortages that would require emergency actions and does not reflect the cost of being short only in regulating reserve capability.⁶⁰ The Midwest ISO explains that it would typically commit a peaking unit to remedy such regulating reserve shortages. As a proxy for this cost, the Midwest ISO proposes tariff revisions that would reflect the use of the average cost of committing and running a peaking unit for one hour based on offers over the past year in setting the regulating reserve demand curve price.⁶¹ The Midwest ISO proposes to index this price to gas costs in each month because peaking units are generally gas-fired combustion turbines.

97. The Midwest ISO argues that it is appropriate to determine the regulating reserve demand curve price using a peaking unit and gas price index, because the Commission previously accepted the use of a similar proxy for the cost of using a portion of online reserve capacity to meet similar shortages of ramp capability in the energy market.⁶² The Midwest ISO concludes that using an administratively-determined proxy price for regulating reserves under scarcity conditions is more reasonable, simpler, more straightforward, and less subject to manipulation than its present pricing method.⁶³

⁵⁹ The regulating reserve demand curve price of \$1,000 per MWh is equal to the regulating reserve offer cap plus 50 percent of the energy offer cap.

⁶⁰ Doying Test., October 2 Filing at Att. D, 15.

⁶¹ The Midwest ISO proposes to set the regulating reserve demand curve price monthly as the product of (1) the average cost of gas in the first three weeks of the preceding month based on a spot gas price index that reflects the price of natural gas and (2) the average heat rate of all peaking units offered into the day-ahead and real-time markets in the previous year.

⁶² *Midwest Indep. Transmission Sys. Operator, Inc.*, 118 FERC ¶ 61,009 at 52-56, *reh'g denied* 119 FERC ¶ 61,327 (2007) (Adequate Ramp Capability Rehearing Order).

⁶³ October 2 Filing at 13 (citing Adequate Ramp Capability Rehearing Order, 119 FERC ¶ 61,327 at P 21).

b. Comments

98. The IMM argues that the existing regulating reserve demand curve price of \$1,000 per MWh is substantially higher than the marginal value of regulating reserves to the Midwest ISO. While it admits that the value of regulating reserves could be relatively high when a shortage of regulating reserve capability causes the Midwest ISO's control performance to fall below NERC's minimum levels, the IMM says that it is unlikely that such circumstances existed in the scarcity pricing events that were observed during operational testing. Instead, the IMM contends that most cases of regulating reserve shortages during testing occurred because the system was temporarily ramp constrained. The IMM concludes that the \$1,000 per MWh price is not justified during such transitory regulation shortages because they generally last for only 5 to 15 minutes and would rarely have a significant effect on the Midwest ISO's overall control performance.

99. The IMM supports the regulating reserve demand curve price proposal to replace the existing \$1,000 per MWh price. The IMM says that the most common action available to respond to transitory regulation shortages is to start an offline peaking resource that can start-up relatively quickly. Thus, the IMM says that the Midwest ISO's proposal to use the typical cost of starting a peaking resource as the regulating reserve demand curve price should better reflect the marginal value of regulating reserves and improve the efficiency of price signals during transitory, ramp-constrained shortages.

100. Like the IMM, OMS supports the regulating reserve demand curve price proposal and believes that using a combustion turbine start-up proxy price is sound. OMS argues that the existing scarcity price was inappropriately determined based on the value of lost load because starting a combustion turbine or deploying supplemental reserves, not the loss of load, is the logical outcome under regulation scarcity.⁶⁴ OMS contends that the proposal would result in a two-thirds or greater reduction in the scarcity price for regulating reserves.⁶⁵ While OMS admits that several alternate proxy prices offered by other stakeholders could be reasonable, OMS concludes that the Midwest ISO's methodology is also reasonable.

101. Ameren and Duke argue that the Midwest ISO's proposal to lower the regulating reserve demand curve price when scarcity is inaccurately invoked may fix the symptom

⁶⁴ OMS October 23, 2008 Comments, Docket No. ER09-24-000, at 3 (citing Doying Test., October 2 Filing at Att. D, 15).

⁶⁵ OMS' estimated reduction is based on the difference between the previous demand curve price of \$1,000 per MWh and the estimate of a \$250 to \$350 per MWh combustion turbine proxy price given at a Market Subcommittee meeting. OMS October 23, 2008 Comments, Docket No. ER09-24-000, at 3.

without addressing the underlying problem because altering the demand curve will not remedy the incorrect invocation of scarcity pricing. Ameren contends that the proposal may send too low of a price signal to incent the investments needed to ensure adequate regulating reserve supplies. Even if there are sufficient resources to meet regulating reserve needs, Ameren asserts that, absent the correct pricing incentives, a market participant will offer energy rather than regulating reserves.

102. Duke argues that the demand curve proposal would no longer provide for scarcity pricing, even during true scarcity conditions. Duke contends that the proposal does not differentiate between true and artificial scarcity conditions and will dampen prices and prevent scarcity pricing when there are actual scarcity conditions. Duke requests that the Commission require the Midwest ISO to explain how its approach will allow scarcity pricing when true scarcity conditions exist. If the Midwest ISO cannot provide such an explanation, Duke requests that the Commission require the Midwest ISO to revise its proposal accordingly.

103. The IMM contends that the proposal would not undermine efficient pricing during more sustained capacity shortages. According to the IMM, when there are insufficient resources to satisfy the system's energy and operating reserve requirements, peaking resources will have been fully utilized and the market should be short of all reserves. Under such conditions, the IMM argues that the demand curve price for each product will be reflected in the energy price, causing it to approach the estimated value of lost load, notwithstanding the proposed reduction in the regulating reserve demand curve price.

104. Xcel opposes the proposed regulating reserve demand curve price. Xcel asserts that while the Midwest ISO could commit a peaking unit in scarcity conditions, it does not follow that the scarcity price should be set to that unit's proxy price. Xcel contends that, if the peaking unit is only committed for five or ten minutes rather than for a full hour, the unit's price may be close to \$2,000 to \$3,000 per MWh and would not be reflected in the hourly scarcity price. According to Xcel, lowering the scarcity price may cause the Midwest ISO to commit a peaking unit because available, higher-priced units would not clear under the lower proposed price. For example, with a regulating reserve price of \$500, all units with offers above the peaking unit's price but below the peaking unit proxy price will not clear. Xcel also argues that the existing \$1,000 per MWh price may be more effective in helping demand response to act as regulating reserve because such resources may need to point to the potential for high scarcity prices to develop novel demand response programs. Xcel concludes that the Commission should direct the Midwest ISO to maintain the existing \$1,000 per MWh scarcity price.

105. In addition, Ameren contends that the Midwest ISO should implement several short-term measures before ASM launch, if possible. To operate through short-term ramp constraints, Ameren suggests that the Midwest ISO implement a threshold percentage and time frame in its real-time markets to allow the Midwest ISO to clear less

regulating reserves than scheduled for a set interval before scarcity is involved, unless reliability is threatened. For example, a threshold percentage of 50 percent and a time frame of 30 minutes would allow the real-time market to clear with regulating reserves that are greater than or equal to 50 percent of the hourly regulating reserve quantity for a period of up to 30 minutes without triggering scarcity. In addition, Ameren asserts that currently there is no specific NERC reliability standard for the amount of regulating reserve, so determining the amount of required regulating reserve is “more of an art than a science.”⁶⁶ Ameren concludes that the Midwest ISO should allow for that in its market design and should be working toward a net zero Area Control Error position.

c. Answer

106. The Midwest ISO reiterates the IMM’s comments that the existing \$1,000 per MWh price would be substantially higher than the marginal value of regulating reserves and that the cost of committing a peaking resource better reflects that marginal value. The Midwest ISO also reiterates its argument that the Commission has previously found the use of a peaking unit and gas index to be an appropriate proxy for the cost of the Midwest ISO’s use of a portion of reserve capacity of online resources to meet similar energy shortages. In addition, the Midwest ISO contends that the proposed reduction of the regulating reserve demand curve price will not compromise scarcity pricing during capacity shortages, as Duke argues, because actual capacity shortage conditions will manifest as an overall operating reserve shortage and will set the market prices as high as the value of lost load based on the operating reserve demand curve.

107. The Midwest ISO notes that, while the regulating reserve demand curve price may be based on the cost to commit a peaking unit for an hour, energy and operating reserves will continue to be settled on an hourly basis via weighted prices. Contrary to Xcel’s concerns, the Midwest ISO contends that, in the event that scarcity only occurs in one or two dispatch intervals, the hourly settlement will reflect the weighted average price based on the hourly cost of a peaking unit and the actual duration of the scarcity condition.

108. In response to the short-term measures proposed by Ameren, the Midwest ISO argues that a shortage of regulating reserve, even if transient in nature or driven by a shortage of available ramp capability, represents a scarcity condition and should be priced accordingly. The Midwest ISO says that its proposed modifications to the regulating reserve demand curve price are needed to more accurately reflect the true value of regulating reserve under scarcity conditions.

⁶⁶ Ameren says that the only issue is whether a market participant or the Midwest ISO meets the requirements of the applicable coordinated system plan. Ameren October 23, 2008 Comments at 8.

d. Commission Determination

109. We conclude that the Midwest ISO's use of the average offer cost of committing and running a peaking unit for one hour in setting the regulating reserve demand curve price is reasonable. We believe that the use of this figure will better reflect the value of additional regulating reserves to the Midwest ISO during a period of regulation shortage compared with the initial \$1,000/MWh.

110. Several commenters express concern that the lower scarcity price will not provide an adequate incentive for resources to supply regulating reserves rather than sell energy and that if a unit is only committed for a portion of the hour, the unit's price would not be reflected in the hourly scarcity price. We disagree with commenters who suggest that the lower scarcity price will send too low of a price signal to ensure adequate regulating reserve supplies. NERC has clearly defined compliance measures and penalties associated with control performance under the BAL standards. These approved standards recognize the reliability risk associated with non-compliance and have penalties adopted corresponding to the risk placed on the system. We conclude that the Midwest ISO is in an appropriate position to determine its regulation reserve needs and the control performance compliance risk if insufficient reserves are obtained.

111. However, if the lower scarcity price or other market rules create sustained periods of inadequate regulating reserves resulting in deteriorating control performance results, the Midwest ISO would need to take appropriate actions to mitigate the reliability risk being placed on the system. In order to ensure that these problems are not realized, we will require the IMM to make an informational filing 180 days after market start, to ensure that the Midwest ISO proposal does not harm its ability to perform regulating functions and provides proper price signals for the other energy and ancillary services products over the long term. In that informational filing, the IMM should assess: (1) how the reduced price cap has affected the volume and number of regulating reserve offers and their ability to comply with the control performance standards; and (2) the sufficiency of supplies in meeting regulating reserve requirements in the day-ahead and real-time markets.

112. In response to Duke's concern, we conclude that the IMM has adequately explained how the Midwest ISO's lower demand curve price for regulating reserves will allow for scarcity pricing. We agree with the IMM that this reduction in the scarcity price for regulating reserves should not interfere with efficient pricing during general capacity shortages. When sufficient resources are not available to satisfy all energy and operating reserve requirements, the market would be short reserves and the other scarcity pricing demand curves could still set prices for energy and ancillary services in the co-optimized ASM market at scarcity levels based on the value of lost load.

113. With respect to the proposal by Ameren to limit scarcity conditions to situations in which reserves are below 50 percent of the required level for at least 30 minutes, we agree with the Midwest ISO that any shortage of cleared regulation represents a scarcity condition. Accordingly, the Midwest ISO should be responding to any reserve deficiency – whatever the level and duration – with appropriate actions and the pricing in effect during these deficiency periods should provide incentives for the maximum participation of resources.

6. Real-Time Offer Revenue Sufficiency Guarantee and Day-Ahead Margin Assurance Payments (Docket No. ER09-24-000)

a. Midwest ISO Filing

114. The Midwest ISO explains that, during ASM operational testing, volatility was observed in real-time regulating reserve prices, but not in day-ahead prices, because some market participants submitted real-time offers of ramp rates that were less than their day-ahead offers. As an incentive for market participants not to reduce their ramp rate offers in real-time, the Midwest ISO proposes tariff revisions to condition eligibility for Real-Time Offer Revenue Sufficiency Guarantee and Day-Ahead Margin Assurance Payments on additional eligibility requirements,⁶⁷ as described in greater detail below.

115. The Midwest ISO explains that its proposed ramp rate eligibility requirements for the Real-Time Offer Revenue Sufficiency Guarantee and Day-Ahead Margin Assurance Payment programs are broadly based on similar ramp rate eligibility criteria of the original, pre-ASM version of the Price Volatility Make-Whole Payment program and the existing Manual Redispatch Make-Whole Payment program.⁶⁸ The Commission previously accepted the real-time Price Volatility Make-Whole Payment program to create a financial incentive for generation resources to make more flexible offers.⁶⁹ Due

⁶⁷ The existing eligibility requirements for such make-whole payments would still apply, including the requirements that resources provide a dispatch range greater than 1 MW and that, if a resource is ineligible for make-whole payments during one hour, it is ineligible for payments for all remaining hours of the operating period during that day.

⁶⁸ *Midwest Indep. Transmission Sys. Operator, Inc.*, 117 FERC ¶ 61,325 (2006) (Price Volatility Order), *order on compliance*, 119 FERC ¶ 61,160 (Price Volatility Compliance Order), *order on reh'g*, 119 FERC ¶ 61,176 (2007) (Price Volatility Rehearing Order); *Midwest Indep. Transmission Sys. Operator, Inc.* 122 FERC ¶ 61,198 (Manual Redispatch Order), *order on reh'g*, 124 FERC ¶ 61,137 (2008) (Manual Redispatch Rehearing Order).

⁶⁹ Price Volatility Order, 117 FERC ¶ 61,325 at P 37.

to software delays, only the portion of Price Volatility Make-Whole Payments applicable to units that are manually redispached by the Midwest ISO has been implemented, and such payments are referred to as Manual Redispatch Make-Whole Payments.⁷⁰ However, the Midwest ISO has notified the Commission that the remaining sections of the Price Volatility Make-Whole Payment program are ready for implementation at the start of the ASM.⁷¹ We note that the Commission previously accepted the Midwest ISO's proposal to split the Price Volatility Make-Whole Payment into two parts: the Day-Ahead Margin Assurance Payment applies to dispatch below day-ahead schedules and the Real-Time Offer Revenue Sufficiency Guarantee Payment applies to dispatch above day-ahead schedules.⁷²

116. The Midwest ISO proposes an additional eligibility criterion for the Real-Time Offer Revenue Sufficiency Guarantee and Day-Ahead Margin Assurance Payments to require that a resource's real-time ramp rates must be equal to or greater than its day-ahead ramp rate in order to receive the make-whole payments, with the following exceptions:⁷³ (1) if resources are greater than or equal to 90 percent of their real-time hourly economic maximum limit, then their real-time ramp rates must be greater than 50 percent of their day-ahead hourly ramp rate; (2) if resources are less than or equal to their hourly economic minimum plus ten percent of their hourly economic maximum limit, then their real-time ramp rates must be greater than 50 percent of their day-ahead hourly ramp rate; or (3) if resources are providing real-time regulating reserve and are between their hourly economic minimum plus ten percent of their real-time hourly economic maximum limit and ninety percent of their real-time hourly economic maximum limit, then their real-time ramp rates must be greater than the day-ahead hourly ramp rate minus 0.5 MW per minute.⁷⁴

⁷⁰ Manual Redispatch Order, 122 FERC ¶ 61,198 at P 18.

⁷¹ *Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,322 (2008) (being issued in Docket No. ER07-1372-009, *et al.* concurrently with this order).

⁷² February 25 Order, 122 FERC ¶ 61,172 at P 540, 543.

⁷³ The exceptions only apply if day-ahead ramp rates are greater than 0.5 percent of the hourly economic maximum limit of the resource per minute.

⁷⁴ For real-time must run resources, rather than day-ahead committed units, real-time ramp rates must be greater than 0.5 percent of their real-time hourly economic maximum limit per minute, with the following exceptions: if resources are greater than or equal to 90 percent of their real-time hourly economic maximum limit or if resources

(continued...)

117. The Midwest ISO proposes to relax the requirement that day-ahead and real-time ramp rates must be equal in order to accommodate the operating characteristics of regulating units as well as the use of dispatch bands. Specifically, the Midwest ISO states that its proposal addresses stakeholder concerns that the operational characteristics of certain types of resources may limit their ramp capability, particularly when they are operating close to their hourly economic maximum limit or hourly economic minimum limit and/or providing regulating reserve. The Midwest ISO concludes that the proposed eligibility criterion will increase the available ramping capability in real-time and, thus, reduce instances of real-time regulating reserve scarcity pricing.

118. According to the Midwest ISO, the proposed eligibility criterion is consistent with the Commission's previous finding that eligibility for the Price Volatility Make-Whole Payment could be properly subject to the condition that the day-ahead ramp rate could not be changed in real-time, as a means of encouraging a wider, more flexible range of real-time offers.⁷⁵ The Midwest ISO also argues that requiring a minimum ramp rate as a percentage of unit capacity as a condition for allowing the reduction of real-time ramp rates below day-ahead levels, and as a minimum requirement for real-time must-run units, is also consistent with the eligibility criteria for Price Volatility Make-Whole Payments.⁷⁶ The Midwest ISO adds that these criteria are consistent with the purpose of the Price Volatility Make-Whole Payment to create an incentive for resources to make more flexible offers and to optimize unit commitments and dispatch.

119. In addition, the Midwest ISO proposes to change the existing eligibility criterion that requires real-time ramp rates to be greater than zero MW per minute, so that it instead requires real-time and day-ahead ramp rates to be greater than 0.5 MW per minute in order to receive the make-whole payments. The Midwest ISO says that this requirement is based, in part, on the eligibility criteria for Manual Redispatch Make-Whole Payments. The Midwest ISO notes that, in the context of Manual Redispatch Make-Whole Payments, the Commission has found that a minimum ramp rate requirement appropriately encourages market participants to offer greater ramp capability and discourages severe ramp rate limitations that could undermine the reliability gains from manual redispatch.⁷⁷ The Midwest ISO submits that, based on similar

are less than or equal to their real-time hourly economic minimum plus ten percent of their hourly economic maximum limit, then their real-time ramp rates must be greater than 0.5 MW per minute.

⁷⁵ October 2 Filing at 11 (citing Price Volatility Order, 117 FERC ¶ 61,325 at P 37).

⁷⁶ *Id.* at 12 (citing Price Volatility Order, 117 FERC ¶ 61,325 at P 37).

⁷⁷ *Id.* at 11 (citing Manual Redispatch Order, 122 FERC ¶ 61,198 at P 7).

considerations, such a minimum ramp rate requirement is also appropriate for the Real-Time Offer Revenue Sufficiency Guarantee and Day-Ahead Margin Assurance Payment programs.

120. The Midwest ISO also proposes to make stored energy resources⁷⁸ and Demand Response Resources – Type I⁷⁹ eligible for the Day-Ahead Margin Assurance Payment. For Demand Response Resources – Type I, the Midwest ISO proposes that they must submit a targeted demand reduction level greater than 1 MW, instead of the requirement that real-time and day-ahead ramp rates be greater than 0.5 MW per minute.

121. The Midwest ISO recognizes that the over-relaxation of the eligibility requirements could lead to gaming opportunities which, as the Commission previously noted, could inappropriately increase make-whole payments to individual market participants, thus increasing overall market costs, without providing additional offer flexibility. The Midwest ISO submits that the proposed ramp rate eligibility requirements for the Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payment programs strike an appropriate balance between facilitating an increase of available real-time ramping capability and preventing gaming. The Midwest ISO also notes that Module D of its tariff includes provisions authorizing the IMM to monitor and/or audit offers or changes in offer parameters, including ramp rates, that could constitute economic or physical withholding. The Midwest ISO concludes that the increase in ramping capability generated by the make-whole payment programs, as modified, will reduce the volatility of the real-time regulating reserve price.

b. Comments

122. OMS contends that the Midwest ISO has not estimated the additional costs that may be incurred due to some of its proposed provisions, such as the Real-Time Offer Revenue Sufficiency Guarantee and Day-Ahead Margin Assurance Payments' eligibility

⁷⁸ A stored energy resource is a resource capable of supplying one or more types of operating reserve, but not energy, through the short-term storage and discharge of electrical energy in response to set-point instructions. Midwest ISO April 25, 2008 Filing, Docket No. ER07-1372-007, FERC Electric Tariff, Third Revised Vol. No. 1, First Revised Sheet No. 125B. The Commission is conditionally accepting the Midwest ISO's April 25, 2008 filing in an order issued concurrently with this order. *Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,319 (2008).

⁷⁹ Demand Response Resources – Type I are demand resources that are capable of only providing two outputs: zero and the targeted demand reduction. Demand Response Resources – Type I are not eligible to provide regulating reserves since they cannot respond to set-point instructions.

criteria. While these costs may be negligible compared to the market efficiency benefits, OMS concludes that a firm estimate of these costs would improve confidence in the cost-effectiveness of the Midwest ISO's proposal. OMS also questions whether there are any direct reliability benefits from the provision of make-whole payments to incent more aggressive real-time offers of ramp capability.

123. OMS is concerned that the over-relaxation of the eligibility requirements may increase opportunities to exercise market power. In particular, OMS questions whether the IMM's lack of a formalized approach to monitor offer parameters, such as generators' ramp rates, is sufficient to address gaming opportunities that may be created by the greater offer flexibility permitted under the proposal. OMS encourages the IMM to develop a formalized approach for monitoring ramp rate offers and to state clearly whether it has all of the necessary tools to "monitor and/or audit [o]ffers or changes in [o]ffer parameters, including ramp rates, that could constitute economic or physical withholding."⁸⁰

124. Ameren and Detroit Edison argue that the Midwest ISO should adopt similar ramp rate parameters for the day-ahead and real-time markets after ASM operations commence. They explain that the day-ahead market uses a single hourly ramp rate to cover the entire operating range of a resource for energy and operating reserves, while the real-time market uses separate ramp up, ramp down, and, for regulating reserves, bi-directional ramp rates to reflect actual ramp rate capabilities.⁸¹ Detroit Edison explains that ramp rates vary over the operating range of some generators and, thus, their physical operating parameters may cause them to weigh the benefits of clearing the highest possible volume in the market against the likelihood of ASM-related deviation penalties. For example, Detroit Edison says that a generator offering its higher energy ramp rate (as opposed to its lower bi-directional regulating reserves ramp rate) in the day-ahead market may clear for more resources than it can physically provide in real-time for one or more segments of its dispatch range. Detroit Edison explains that this situation causes inefficient outcomes because the generator would be subject to potentially significant deviation penalties and the Midwest ISO would need to clear more real-time ancillary services, potentially causing additional price volatility.

125. Ameren contends that the discrepancy in ramp rate parameters between the day-ahead and real-time markets encourages conservative day-ahead offers, causes the

⁸⁰ OMS October 23, 2008 Comments, Docket No. ER09-24-000, at 5 (citing October 2 Filing at 13).

⁸¹ They also note that the real-time market allows resources to use ramp rate curves so that different ramp rates can be applied throughout its operating range and to provide different ramp rates in each dispatch band.

incorrect invocation of scarcity pricing and fails to send appropriate long-term market signals. For example, Ameren says that a generator with an up/down ramp rate of 5 MW per minute, and a bi-directional ramp rate of 3 MW per minute must choose whether to offer its 3 MW or 5 MW ramp rate as its single day-ahead ramp rate. In a single five-minute interval, if the resource offers its 5 MW per minute ramp rate, it could be correctly cleared to provide the maximum possible amount of energy, 25 MW, but could also be cleared to provide up to 25 MW of regulating reserve. Since its bi-directional ramp rate is only 3 MW, the resource would only be physically capable of providing 15 MW of regulating reserve, so it would need to buy back 10 MW of its day-ahead position in real-time and, since it changed its real-time ramp rate by more than the proposed 0.5 MW limit, it would be ineligible for Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payments. To counteract this, the resource would offer a more conservative day-ahead ramp rate of 3 MW. While the resource would clear for 10 MW less energy and regulating reserve in the day-ahead market under this lower ramp rate, it would be able to offer its higher up/down ramp rate in the real-time market without being made ineligible for certain uplift payments. If many resources follow this strategy, Ameren contends that the conservative day-ahead offers will cause more frequent scarcity conditions and higher prices in the day-ahead market.

126. Ameren and Detroit Edison agree that the ASM launch should not be delayed to address their concerns. Detroit Edison requests that the Commission direct the Midwest ISO to start meeting with its stakeholders to address this issue as soon as possible and to report the status of these discussions to the Commission every 60 days. To give the Midwest ISO sufficient time to address this issue, Ameren requests that the Commission require the Midwest ISO to modify its tariff to use the same ramp parameters for its day-ahead and real-time markets within 180 days after the ASM launch. Ameren also suggests that the Midwest ISO ignore a unit's real-time bi-directional ramp rate when determining eligibility for payments. Ameren contends that this change would provide resources with the incentive to offer more ramp in the day-ahead market and would properly reflect that there is no offer parameter for bi-directional ramp rates in the day-ahead market. Ameren requests that the Midwest ISO make this change before market start.

127. Ameren, Detroit Edison, and Duke contend that the Midwest ISO should remove the requirement that a resource that is ineligible for payments in one hour of the day be ineligible for all remaining hours of the day. They argue that a resource that has an operating problem for a short period of time that makes it ineligible for make-whole payments may be capable of providing service in subsequent hours but would be ineligible for make-whole payments in all remaining hours of the day. However, because such a unit would be ineligible for make-whole payments in all remaining hours of the day, they contend that the market participant will have no incentive under the proposal to flexibly offer its available ramp during the remaining hours. Ameren contends that such inflexible offers during the remainder of the day will result in more volatile real-time

prices. They conclude that the requirement prevents the make-whole payments from achieving their goals of encouraging resources to provide available ramp and request that resources be ineligible for make-whole payments only for the hours in which a generator failed to perform as directed.

128. Detroit Edison and Duke request that the Midwest ISO remove the requirement that real-time ramp rates must be equal to or greater than the day-ahead hourly ramp rate, except where the day-ahead ramp rate is greater than 0.5 percent of the hourly economic maximum limit of the resource per minute. Detroit Edison contends that this requirement would unfairly exclude from Day-Ahead Margin Assurance Payment eligibility large generators that typically have greater ramp variation across their dispatch ranges, leaving these generators with little financial incentive to provide ramp and dispatch flexibility to the market. Detroit Edison argues that, because the ramp parameters applicable to generators in the day-ahead market differ significantly from those applicable in real-time, it is inappropriate to, in effect, penalize generators for deviations between the two markets until the Midwest ISO modifies its day-ahead model to allow for a better representation of actual generator ramp limitations. Duke explains that the proposal is unduly discriminatory because a 10 MW unit with a day-ahead ramp rate greater than 0.5 MW per minute would qualify for the exception, while a 1000 MW unit would qualify only if its day-ahead ramp rate is greater than 5 MW per minute. Duke requests that the Commission require the Midwest ISO to revise the eligibility criterion to be 0.5 MW per minute, so that it is the same for all generation resources.

129. While it supports the goal of encouraging more ramp, Duke is concerned that, by being overly restrictive, some of the eligibility criteria changes will cause market participants to be more conservative in offering ramp capability. Duke contends that the Price Volatility Make-Whole Payment Order was issued in the context of a single product market and is not comparable to the ASM. According to Duke, in the ASM generators may choose how to offer direct products and, thus, the requirement that real-time ramp rates be greater than day-ahead ones would make it more difficult for them to obtain adequate compensation and will tend to drive them toward other products. Duke argues that the Commission should reject this change to the eligibility criteria.

130. Duke argues that the Midwest ISO has not appropriately supported its proposal to allow ramp rate offers to be reduced by 0.5 MW per minute when a resource is providing regulating reserves. Duke contends that this limit was derived from analysis of real-time ramp rate offer data submitted as part of ASM operational testing and represents a typical reduction between up/down and bi-directional ramp offers.⁸² Duke adds that elsewhere the Midwest ISO has stated that the data from operational testing should not be used for

⁸² Duke October 23, 2008 Comments, Docket No. ER09-24-000, at 5 (citing Doying Test., October 2 Filing at Att. D, 13).

actual analysis because it is considered test data in a test environment.⁸³ Thus, Duke concludes that the Midwest ISO should remove the value of the bi-directional ramp rate from the eligibility criteria.

c. Answer

131. In response to OMS, the Midwest ISO notes that the IMM's monitoring of offer parameters has not been shown to be deficient and OMS has not cited or provided evidence that such monitoring would be deficient. The Midwest ISO concludes that there is no need for additional measures to improve the IMM's monitoring of ramp withholding.

132. In response to concerns regarding the difference between day-ahead and real-time ramp parameters, the Midwest ISO states that it is evaluating system and operating changes required to provide enhanced ramp offering and modeling capabilities in the day-ahead energy and operating reserves markets. The Midwest ISO commits to discussing these proposed changes with stakeholders and to implementing these enhanced capabilities as soon as practical after ASM launch. With respect to Ameren's observation that real-time bi-directional ramp rates are often more than 0.5 MW per minute lower than their energy ramp rate, the Midwest ISO contends that the offer data during ASM operational tests provided the Midwest ISO with an appropriate basis for determining a representative ramp rate value for its proposal. The Midwest ISO states that it relied on ramp rate data derived from how market participants offered their units for actual physical system operations during ASM operational testing.

133. With respect to Detroit Edison's remark that the Midwest ISO should not penalize market participants for day-ahead versus real-time deviations in offered ramp parameters, the Midwest ISO clarifies that the make-whole payments are incentives that should not be confused with penalties. Similar to the original Price Volatility Make-Whole Payment, the Midwest ISO says that the Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payments are incentives to increase real-time operating flexibility while eliminating payments for units with reduced flexibility in real-time. The Midwest ISO contends that such incentives necessarily involve eligibility requirements, and failure to meet such requirements would result in not receiving the incentive make-whole payments, but the resulting ineligibility does not amount to a penalty.

134. The Midwest ISO contends that the Commission previously found that making a resource ineligible for make-whole payments for the remainder of the day is a just and

⁸³ Duke explains that the Midwest ISO issues such a disclaimer for every weekly ASM operational testing briefing call. *Id.* at 5.

reasonable means of preventing gaming.⁸⁴ The Midwest ISO notes that both Duke and Detroit Edison raised arguments similar to those raised in the Price Volatility Make-Whole Payment proceeding and argues that they should be similarly rejected here. The Midwest ISO reiterates that, in the context of Manual Redispatch Make-Whole Payments, the Commission has found that a minimum ramp rate requirement of 0.5 MW per minute appropriately encourages market participants to offer greater ramp capability.⁸⁵ The Midwest ISO states that its proposal essentially adopts the Manual Redispatch Make-Whole Payment's minimum ramp rate requirements. The Midwest ISO asserts that any challenge to the reasonableness of those requirements in this proceeding is tantamount to an impermissible collateral attack on the Manual Redispatch Order's finding that the minimum ramp requirement is just and reasonable. The Midwest ISO also states that the Commission has specifically recognized that it may be appropriate at the initiation of the Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payment programs to have fairly strict eligibility criteria.⁸⁶ The Midwest ISO concludes that its proposal fine-tunes the eligibility criteria and that the criteria should not be prematurely loosened before the ASM launch.

135. With regard to the concerns of Duke and Detroit Edison about limiting the exemption to situations where the day-ahead ramp rates are greater than 0.5 percent of the unit's hourly economic maximum limit per minute, the Midwest ISO submits that the 0.5 percent threshold is appropriate for purposes of encouraging offer flexibility. The Midwest ISO reiterates that the objective of the Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payments is to protect resources that provide such flexibility from any negative financial consequences due to hourly real-time price volatility. The Midwest ISO believes that the 0.5 percent thresholds sets a reasonable minimum ramp rate for a unit and that making the eligibility criteria too accommodating,

⁸⁴ Price Volatility Order, 117 FERC ¶ 61,325 at P 39; Price Volatility Rehearing Order, 119 FERC ¶ 61,176 at n.29; Price Volatility Compliance Order, 119 FERC ¶ 61,160 at P 8; Manual Redispatch Order, 122 FERC ¶ 61,198 at P 37 and 38; Manual Redispatch Rehearing Order, 124 FERC ¶ 61,137 at P 14. The Midwest ISO argues that the Commission has conditionally accepted the use of such eligibility requirements as a safeguard against gaming. February 25 Order, 122 FERC ¶ 61,172 at P 543; *Midwest Indep. Transmission Sys. Operator, Inc.*, 123 FERC ¶ 61,296, at P 95 (2008).

⁸⁵ October 2 Filing at 11 (citing Manual Redispatch Order, 122 FERC ¶ 61,198 at P 25, Manual Redispatch Rehearing Order, 124 FERC ¶ 61,137, at P 7 (2008)).

⁸⁶ February 25 Order, 122 FERC ¶ 61,172 at n.209.

such as forgiving a resource for imbalance charges resulting from reducing operating flexibility in real-time, would undermine the fundamental economic incentives built into the two-settlement market design.

136. The Midwest ISO contends that Duke fails to show how compensation would be rendered inadequate by the requirement that real-time ramp rates be equal to or greater than the day-ahead ramp rate. Without such an eligibility requirement, the Midwest ISO argues that market participants could unjustly receive Day-Ahead Margin Assurance Payments if, for example, a reduction in a unit's real-time ramp rate limited the amount of energy and operating reserves that cleared in the real-time market and the market participant were nonetheless made whole to its day-ahead margins on those deficient real-time volumes. Furthermore, the Midwest ISO says that the rationale for the requirement with respect to the Price Volatility Make-Whole Payment – to encourage offers of more ramp capability – remains applicable and viable despite the greater number of products in the real-time market. The Midwest ISO points out that the make-whole payments are even more important in the ASM to protect market participants' day-ahead margins associated with real-time reductions below day-ahead schedules. The Midwest ISO concludes that the proposed eligibility criteria avoid unwarranted payments and eliminate incentives for behavior that reduces available system capabilities needed to meet energy and operating reserve requirements.

137. In response to concerns regarding the Midwest ISO's use of operational testing data, the Midwest ISO states that its standard disclaimer cautions market participants not to rely on test data for actual market analyses because market participants are less familiar than the Midwest ISO with the full details of test parameters and limitations. However, the Midwest ISO argues that this limitation does not preclude the Midwest ISO from properly analyzing the test data for operational purposes because the Midwest ISO is well aware of the design and conditions of the tests, and is accordingly in a position to evaluate the test data.

d. Commission Determination

138. We accept the Midwest ISO's proposed modifications to the eligibility criteria for the Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payment programs, subject to a compliance filing, as discussed further below. We find that the additional eligibility criteria should help to address real-time price volatility and to reduce instances of regulating reserve scarcity pricing by providing market participants with a financial incentive to submit more flexible ramp rate offers. The Midwest ISO's proposed eligibility criteria are also designed to accommodate resources' physical operating characteristics, which should expand make-whole payment eligibility to additional resources and, in turn, elicit more flexible ramp rate offers.

139. The Midwest ISO's proposed tariff revisions make certain Stored Energy Resources and Demand Response Resources – Type I eligible for the Day-Ahead Margin

Assurance Payment. However, the Midwest ISO does not explain these proposed changes, including why these resources should be made eligible for the Day-Ahead Margin Assurance Payment and not the Real-Time Offer Revenue Sufficiency Guarantee Payment and whether the eligibility criteria are appropriate for such resources. We require the Midwest ISO to submit, in the compliance filing due within 30 days from the date of this order, clarification of whether further modifications to the eligibility criteria are needed to accommodate such resources in a manner comparable to generation resources and to Demand Response Resources – Type II⁸⁷ and whether Stored Energy Resources and/or Demand Response Resources – Type I should receive the Real-Time Offer Revenue Sufficiency Guarantee Payment.

140. We do not require the Midwest ISO to submit additional information regarding the costs and benefits of the proposal, as OMS requests. While we encourage the Midwest ISO to work with its stakeholders to identify and minimize any unforeseen costs, the expected cost of the Midwest ISO's overall proposal, including the implementation of software changes to reflect the additional eligibility criteria, should be small relative to the expected benefits of the proposal and the associated launch of the ASM. A more complete description of the proposal's costs and benefits would be difficult because, as the Commission previously noted in regard to the Price Volatility Make-Whole Payment program, we cannot discern the full extent of the make-whole payment programs' potential effectiveness until the programs are implemented at ASM launch.⁸⁸ Furthermore, we find that no further explanation of the reliability benefits associated with the Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payment programs are needed because the programs should create reliability benefits similar to those previously identified by the Commission regarding their predecessor, the Price Volatility Make-Whole Payment program.⁸⁹

141. We find that the Midwest ISO's proposal to modify its eligibility criteria do not increase opportunities to exercise market power. The Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payment programs incorporate the eligibility criteria previously accepted by the Commission to address the potential gaming risks and to prevent from occurring such activity as was identified regarding the similar Price Volatility Make-Whole Payment program. While the Midwest ISO has modified one of those anti-gaming eligibility criteria to allow resources to increase the real-time

⁸⁷ Demand Response Resources – Type II are dispatchable controllable load or behind-the-meter-generation demand resources that qualify to provide regulating and operating reserves.

⁸⁸ Price Volatility Order, 117 FERC ¶ 61,325 at P 38.

⁸⁹ *See* Price Volatility Rehearing Order, 119 FERC ¶ 61,176 at P 12.

ramp offers above their day-ahead values, this change is designed to encourage more flexible real-time ramp rate offers and should not increase the potential gaming risks. Moreover, this change is consistent with the Commission's previous directive that the Midwest ISO "should endeavor to loosen the eligibility criteria to encourage greater participation without undermining their effectiveness at preventing gaming" regarding the Price Volatility Make-Whole Payment.⁹⁰ Furthermore, we note that the Commission recently accepted the Midwest ISO's proposal to allow the IMM to audit resources to detect physical withholding activities, including the withholding of ramp capability, which provides additional assurance that the IMM has sufficient tools to mitigate ramp withholding.⁹¹

142. In regard to Ameren and Detroit Edison's concerns regarding the difference in real-time versus day-ahead ramp rate parameters, we note the Midwest ISO's statement that it is evaluating system and operating changes required to provide enhanced ramp offering and modeling capability in the day-ahead energy and operating reserves markets.⁹² We accept the Midwest ISO's commitment to work with its stakeholders to develop and implement these day-ahead ramp rate offering and modeling improvements as soon as practical after the launch of the ASM. To provide the Midwest ISO with sufficient time to consult with its stakeholders and to develop the necessary enhancements to its software and operating procedures, we will not require the Midwest ISO to complete such proposed day-ahead ramp rate changes in a specific timeframe, as commenters request. However, we require the Midwest ISO to provide an update on the status of making day-ahead ramp rate offering and modeling improvements in the informational filing to be submitted within 180 days of the start of the ASM.

143. The requests of Ameren, Detroit Edison, and Duke that the Midwest ISO should remove the requirement that a resource ineligible for make-whole payments in one hour is ineligible for payments during all remaining hours are outside of the scope of this proceeding because the Midwest ISO's proposal does not modify this requirement. This eligibility requirement was previously accepted by the Commission in regard to the Price Volatility Make-Whole Payment, and the Commission addressed similar comments

⁹⁰ Price Volatility Order, 117 FERC ¶ 61,325 at P 40.

⁹¹ February 25 Order, 122 FERC ¶ 61,172 at P 151.

⁹² Midwest ISO November 12, 2008 Answer, Docket No. ER09-24-000, at 12.

submitted by those parties in that proceeding.⁹³ Furthermore, the Commission found that this eligibility criterion is necessary to address the numerous ways that market participants could potentially game the make-whole payment process.⁹⁴

144. With regard to the remaining requests that the Commission require the Midwest ISO to loosen, remove, or otherwise modify the eligibility criteria, we find that “it is in the best interests of all market participants to implement this new program in a somewhat conservative mode to monitor the results before attempting to expand it to cover additional operational circumstances as the protesters request,” consistent with the Price Volatility Order.⁹⁵ While we encourage the Midwest ISO to continue to work with its stakeholders to maximize make-whole payment eligibility and the associated ramp rate offer flexibility as it gains operational experience with the make-whole payment programs, we will not require the Midwest ISO to further modify the eligibility criteria at this time. In addition, some eligibility criteria, including the requirement that real-time ramp rates may not be less than day-ahead ramp rates, are needed to prevent potential gaming activities. We note that the Midwest ISO is required to file a report no later than 12 months from the effective date of the Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payment programs to discuss the effectiveness of the programs, to identify any problems, and to address other issues, such as any further modifications to the eligibility criteria.⁹⁶

145. We disagree with Duke’s argument that the Price Volatility Make-Whole Payment program is not comparable to the Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payment programs. The Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payment programs are direct derivations of the Price Volatility Make-Whole Payment program, including the associated eligibility criteria. While the Price Volatility Make-Whole Payment was accepted in the context of the energy market, the Midwest ISO submitted and the Commission accepted appropriate revisions to rename the payment and to reflect the introduction of operating reserves. We note that the eligibility criteria remained largely unchanged.

⁹³ Price Volatility Order, 117 FERC ¶ 61,325 at P 25, 28, 37-42; Price Volatility Rehearing Order, 119 FERC ¶ 61,176 at P 16-19.

⁹⁴ *Id.* P 39; Price Volatility Rehearing Order, 119 FERC ¶ 61,176 at P 18.

⁹⁵ Price Volatility Order, 117 FERC ¶ 61,325 at P 38.

⁹⁶ Manual Redispatch Order, 122 FERC ¶ 61,198 at P 57 (citing Price Volatility Order, 117 FERC ¶ 61,325 at P 41-42).

146. Finally, we find that the Midwest ISO's use of operational testing data is appropriate and that it has supported its proposal to allow ramp rate offers to be reduced by 0.5 MW per minute when a resource is providing regulating reserves. The Midwest ISO is familiar with the valid uses of and limitations associated with such operational testing data. We find that the Midwest ISO's use of such data to determine the eligibility criteria is appropriate.

7. Market Design Issues (Docket No. ER09-24-000)

a. Comments

147. While it states that the proposal would result in more offers and the lower prevalence of scarcity, OMS believes that the Midwest ISO did not quantify the frequency of artificial scarcity observed during operational testing or clearly explain how its proposal is proportional to or an effective remedy for artificial scarcity. OMS is also concerned that the price volatility initially recognized as the underlying problem "indicates major changes to the [co-optimized] dispatching algorithm."⁹⁷ To address its concerns, OMS recommends that the Commission direct the Midwest ISO to conduct further operational testing to quantitatively demonstrate the impact of its proposal on business practices and market design and to submit another readiness filing no later than 45 days prior to the expected ASM launch. OMS concludes that additional testing should allow stakeholders to assess whether the unexpected and artificial scarcity conditions that were observed during operational testing will be sufficiently mitigated under the proposal and that each of the proposed tariff and Business Practices Manual changes are reasonable and appropriate. Finally, OMS also requests that the Commission direct the Midwest ISO to continue to review the anticipated and operational impacts of the proposal with stakeholders in the Market and Reliability Subcommittees.

148. While Hoosier, Southern Illinois, & Indianapolis P&L do not oppose the proposal, they are concerned that ASM design is needlessly complex and does not resolve fundamental market design problems.⁹⁸ They contend that the modeling characteristics of resources, particularly with regard to ramp rates, differ from day-ahead to real-time because the Midwest ISO continues to use a five-minute co-optimization in the real-time market and an hourly co-optimization in the day-ahead market. They argue that the complexity of this co-optimization structure makes it difficult for market participants to

⁹⁷ OMS October 23, 2008 Comments, Docket No. ER09-24-000, at 6.

⁹⁸ To demonstrate this complexity, they point to the Midwest ISO's various amendments to its initial market design and to the Readiness Certificate attesting to the readiness of the ASM notwithstanding the artificial scarcity pricing issues.

predict how their actions in the ASM will affect them financially.⁹⁹ To alleviate their concerns, Hoosier, Southern Illinois, & Indianapolis P&L request that, if the Commission permits the ASM launch to occur on January 6, 2009, the Commission should also require the Midwest ISO to submit to the Commission and make available to market participants weekly reports on pricing and settlements in the ASM.¹⁰⁰

149. Midwest Transmission Customers contend that the Midwest ISO's proposal reveals the significant shortcomings of the Midwest ISO's and IMM's ability to detect and remedy market power and will not remedy the artificial scarcity observed during operational testing. Specifically, Midwest Transmission Customers argue that generators routinely submitted real-time ramp rates that were less than those submitted for use in the day-ahead market, and that the Commission previously concluded that such behavior to withhold ramp to artificially trigger scarcity pricing would constitute physical withholding.¹⁰¹ Midwest Transmission Customers submit that such behavior apparently went undetected by the IMM and unreported to the Commission. They conclude that the Midwest ISO should have proposed measures to mitigate such behavior and contend that the Commission should reject the proposal to provide incentives to offer and maintain ramping capability¹⁰² because it would force customers to pay more to generators in the hope that such exercises of market power subsidize. Accordingly, Midwest Transmission Customers request that the Commission suspend the effective date of the tariff revisions associated with the Midwest ISO's ASM until such time as the Midwest ISO proposes and the Commission accepts mitigation measures to address ramp withholding. Midwest Transmission Customers also contend that the Commission should require the Midwest ISO to report why the existing market monitoring measures failed to detect and report physical withholding behavior and what additional mitigation measures should be incorporated into the Midwest ISO's tariff to remedy this deficiency. Midwest Transmission Customers oppose the proposed January 6, 2009 implementation date and

⁹⁹ They contend that the potential dangers of complex market designs that prevent market participants from assessing the cost and value of the products being offered is illustrated by the recent problems with derivatives in the mortgage and other financial markets.

¹⁰⁰ To ensure quick recognition of system problems, they request that the reports be filed no later than five business days after the end of each week whose results are being reported.

¹⁰¹ Midwest Transmission Customers October 23, 2008 Filing, Docket No. ER09-24-000, at 7 (citing June 23 Rehearing Order, 123 FERC ¶ 61,297 at 45).

¹⁰² Midwest Transmission Customers do not object to the ramp sharing and regulating reserve demand curve portions of the Midwest ISO's proposal.

request that the Commission suspend the ASM launch date until the Midwest ISO proposes and the Commission accepts effective mitigation measures to address ramp withholding.

b. Answers

150. The Midwest ISO contends that none of the requested changes would necessitate a further deferral of ASM launch. In response to OMS, the Midwest ISO points out that it is continuing to perform appropriate tests to assess the effectiveness of the proposed changes, and also that the Midwest ISO intends to submit another readiness filing before ASM start. In response to Hoosier, Southern Illinois, & Indianapolis P&L, the Midwest ISO contends that the request for weekly reports is unwarranted and unduly burdensome. Instead, the Midwest ISO states its willingness to submit to the Commission an informational report one quarter after ASM launch regarding any system problems with ASM pricing or settlements.

151. With regard to Midwest Transmission Customer's comments on the IMM's reporting of physical withholding during the operational tests, the Midwest ISO clarifies that there was no delay in the Midwest ISO's own detection that less ramp capability was routinely offered in real-time than day-ahead during such tests. However, the Midwest ISO states that the IMM did not actively participate in such operational tests, which were designed to test the ability of the systems to successfully price, dispatch and control resources. While the Midwest ISO did brief the IMM about the test results, the Midwest ISO contends that it was unnecessary for the IMM to monitor and report on the test results upon or soon after their occurrence. However, the Midwest ISO clarifies that it has discussed the scarcity pricing issues and potential solutions with the IMM and notes that the IMM supports its proposal. Thus, the Midwest ISO concludes that there is no need for additional measures to improve the IMM's monitoring of ramp withholding.

152. Furthermore, the Midwest ISO submits that in the Price Volatility Make-Whole Payment proceeding the Commission found that not offering more ramp capability is not necessarily an exercise of market power because generators may decrease their ramp rates "to minimize the risk of being cleared by the real-time dispatch system under conditions where the ex post real-time LMP would be insufficient to permit full recovery of their incremental energy costs for any movements from their day-ahead dispatch levels."¹⁰³ The Midwest ISO adds that the Commission also found that it is reasonable to use make-whole payments "to create a financial incentive for generators to make more flexible offers and [to] provide [the] Midwest ISO with a wider dispatch range to

¹⁰³ Midwest ISO November 12, 2008 Answer, Docket No. ER09-24-000, at 17-18 (citing Price Volatility Order, 117 FERC ¶ 61,325 at P 5 and n.8).

optimize unit commitments and dispatch.”¹⁰⁴ The Midwest ISO explains that the Price Volatility Make-Whole Payment was not a measure to mitigate market power, but rather an incentive to elicit offer parameters that market participants might otherwise be unwilling or disinclined to submit for reasons that do not involve market power. As the Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payments are variants of the Price Volatility Make-Whole Payment,¹⁰⁵ the Midwest ISO concludes that they are likewise appropriate incentives to promote dispatch flexibility.

153. In response to the Midwest ISO’s statement that the IMM did not actively participate in operational testing, Midwest Transmission Customers request that the Commission direct the Midwest ISO to conduct additional operational tests to demonstrate whether the IMM has the systems and procedures in place to detect and mitigate the exercise of market power through physical withholding of ramp capability. Midwest Transmission Customers contend that it is appropriate to use operational testing to test the mitigation measures because the effects of any unmitigated market power would not affect customers. They conclude that the Commission should suspend the effective date of the ASM until the Midwest ISO demonstrates, based on operational testing data, that the IMM is fully capable of detecting and remedying the physical withholding of ramp capability.

154. In response to Midwest Transmission Customers’ answer, the Midwest ISO argues that monitoring and mitigation for physical withholding was not needed during ASM operational testing. The Midwest ISO contends that Midwest Transmission Customers fail to cite any Commission precedent, market rule, readiness metric, or industry practice that requires monitoring and mitigation for physical withholding during ASM operational testing.¹⁰⁶ According to the Midwest ISO, such monitoring and mitigation is unnecessary because testing participation is voluntary and the IMM generally does not modify physical parameters during short testing periods. The Midwest ISO explains that the operational tests were designed to assess the effectiveness of automated software processes,¹⁰⁷ which would not include the manual processes used to track physical

¹⁰⁴ *Id.* (citing Price Volatility Order, 117 FERC ¶ 61,325 at P 37).

¹⁰⁵ *Id.* (citing February 25 Order, 122 FERC ¶ 61,172 at P 540).

¹⁰⁶ The Midwest ISO notes that monitoring and mitigation for physical withholding was not required by the Commission prior to the start of the Midwest ISO’s energy market and was not performed during comparable operational tests in other markets.

¹⁰⁷ For example, the Midwest ISO states that the IMM applied its monitoring and mitigating measures for economic withholding during operational testing because they involve an automated software process.

withholding. The Midwest ISO adds that Midwest Transmission Customers' insistence on monitoring and mitigation for physical withholding during testing is a collateral attack on the February 25 Order, which did not require such tests. The Midwest ISO concludes that the lack of monitoring and mitigation for physical withholding during ASM operational testing should not cause a suspension of ASM start-up.

c. Commission Determination

155. We agree with OMS that operational testing is vital to allowing stakeholders to assess whether the unexpected and artificial scarcity conditions observed during earlier operational tests will be resolved by the proposal, and we accept the Midwest ISO's commitment to continue performing appropriate tests to assess the effectiveness of the proposed changes. As described above, we note that the Midwest ISO has submitted another readiness filing, in Docket No. ER07-1372-013, as OMS requested.

156. We direct the Midwest ISO to continue to review the anticipated and operational impacts of the proposal with its stakeholders, including through the appropriate Midwest ISO committees, consistent with OMS' request. We will not require the Midwest ISO to submit weekly reports to the Commission regarding ASM performance, because such reports would be unduly burdensome. However, we will require the IMM to submit, in the informational report due 180 days after the launch of the ASM, a discussion of any system problems with ASM pricing or settlements. In regard to the concerns raised by Hoosier, Southern Illinois, & Indianapolis P&L, we note that the Midwest ISO has committed to implement system and operating changes to address the difference between real-time and day-ahead ramp rate offers and modeling capabilities as soon as practical after ASM launch.¹⁰⁸

157. We disagree with Midwest Transmission Customers' argument that behavior to withhold ramp capability necessarily constitutes an exercise of market power in violation of the tariff's prohibition against physical withholding. In the context of the Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payments, for example, generators may seek to minimize the risk of being cleared by the real-time dispatch system under conditions where market prices would be insufficient to permit full recovery of their incremental energy costs for any movements from their day-ahead dispatch levels.¹⁰⁹ Such behavior may not necessarily involve an exercise of market power.

¹⁰⁸ Midwest ISO November 12, 2008 Answer, Docket No. ER09-24-000, at 12.

¹⁰⁹ Price Volatility Order, 117 FERC ¶ 61,325 at P 5.

158. Furthermore, we reiterate our finding that “the IMM is an adequate safeguard to protect against physical withholding in the ASM.”¹¹⁰ The market monitoring and mitigation measures provided in Module D of the tariff provide methods for the IMM to detect and address efforts to physically withhold ramp capability, including audits of individual generation resources and referrals to the Commission. We note that the IMM was consulted regarding the results of operational testing and submitted comments in support of the Midwest ISO’s proposal. In addition, the Day-Ahead Margin Assurance and Real-Time Offer Revenue Sufficiency Guarantee Payments should provide a financial incentive for resources to offer additional ramp flexibility and the associated eligibility criteria, along with the IMM’s monitoring and mitigation measures, should prevent or address gaming behavior associated with such payments.

8. Tariff Issues (Docket No. ER09-24-000)

a. Comments

159. Xcel contends that the term “[h]ours” appears instead of “[d]ispatch [i]ntervals” on Sheet No. 2236. Xcel also argues that Sheet No. 936 contains an extraneous “of” in two instances where the Midwest ISO omitted the phrase “one hundred percent (100%)” in the tariff text. Xcel says that the Midwest ISO should have omitted the full phrase “one hundred percent (100%) of” in the tariff text.

160. Ameren states that the Midwest ISO should clarify whether the deletion of “ramping capabilities” from section 39.1 means that ramping capabilities are not considered part of a resource’s limits.

b. Answer

161. The Midwest ISO states that it is willing to correct instances of an extraneous “of,” as requested by Xcel.¹¹¹

162. The Midwest ISO also clarifies that “ramping capabilities” are part of the limitations of a resource, but ramp sharing would allow those limitations to be handled differently than other physical characteristics of a resource.

¹¹⁰ June 23 Rehearing Order, 123 FERC ¶ 61,297 at P 45.

¹¹¹ Midwest ISO November 12, 2008 Answer at 8.

c. **Commission Determination**

163. We reject proposed Sheet Nos. 755, 935, and 1168A because they are not compliant with the pagination guidelines of Order No. 614.¹¹² We require the Midwest ISO to submit, in a compliance filing due within 30 days from the date of this order, proposed tariff revisions to ensure that the sheets are appropriately paginated.¹¹³

164. As for the remaining tariff sheets, while we agree that the Midwest ISO should implement certain parts of the proposal one-week prior to the ASM launch date, we deny the Midwest ISO's requested effective date of December 31, 2008 for certain tariff sheets proposed under the Fourth Revised Vol. No. 1 of the Tariff.¹¹⁴ In an order being issued in Docket No. ER09-15-000 concurrently with this order, the Commission is conditionally accepting the Fourth Revised Vol. No. 1 of the Tariff with an effective date of January 6, 2009 to coincide with the ASM launch date.¹¹⁵ In the order conditionally accepting the Fourth Revised Vol. No. 1 of the Tariff, the Commission found that the Midwest ISO cannot make portions of the Fourth Revised Vol. No. 1 effective on December 31, 2008 because corresponding sections of the Third Revised Vol. No. 1 of the tariff would also be effective during the one-week period prior to the ASM launch and, thus, overlapping tariff sections in the two tariffs could create confusion. In accordance with and subject to the outcome of that proceeding, we conditionally accept the proposed tariff sheets effective on the ASM launch date, which is planned for January 6, 2009.¹¹⁶ We also require the Midwest ISO to submit, in a compliance filing due within

¹¹² Specifically, proposed Sheet Nos. 755 and 935 should each be paginated as a "First Revised Sheet" instead of a "First Revised Original Sheet." Proposed Sheet No. 1168A should be paginated as an "Original Sheet" instead of an "Original Revised Sheet." See *Designation of Electric Rate Schedule Sheets*, Order No. 614, FERC Stats. & Regs. ¶ 31,096 (2000).

¹¹³ October 2 Filing, FERC Electric Tariff, Fourth Revised Vol. No. 1, First Revised Original Sheet Nos. 755 and 935 and Original Revised Sheet No. 1168A.

¹¹⁴ October 2 Filing, FERC Electric Tariff, Fourth Revised Vol. No. 1, First Revised Sheet Nos. 721, 730, 733, 754-55, 847-48, 870, 921, 923, 935, 1039, 1047-48, 1083, 1116-18, 1143-44, 1150, 1156-57, 1167-68, and Original Sheet Nos. 1118A, 1152A-B, 1157A, and 1168A-B.

¹¹⁵ *Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,321(2008).

¹¹⁶ The effective date of the Midwest ISO's proposed tariff sheets submitted under the Fourth Revised Vol. No. 1 of the Tariff will be changed to January 6, 2009. Thus, further compliance is not needed to address this issue.

30 days from the date of this order, tariff revisions to reflect the appropriate tariff language, and any associated tariff definitions, under the Third Revised Vol. No. 1 of the tariff, effective on December 31, 2008, one-week prior to the ASM launch date.

165. In addition, we require the Midwest ISO to submit, in the compliance filing due within 30 days from the date of this order, tariff revisions to reflect the following modifications:

“Hours” should be changed to “[d]ispatch [i]ntervals” on Sheet No. 2236.

The two extraneous instances of “of” on Sheet No. 936 should be removed, as Xcel requests.

The footer of proposed Sheet No. 1083 reads, in part, “I Issued by” and should instead read “Issued by.”¹¹⁷

The word “the” should be added on Sheet No. 1167, so that section 40.3.6.4 reads, in part “[m]arket [p]articipant that owns or represents the [r]esource.”

Certain proposed sheets in Schedule 28 were incorrectly designated under the Third Revised Vol. No. 1 of the tariff. We require the Midwest ISO to designate the sheets under the Fourth Revised Vol. No. 1 of the tariff.¹¹⁸

9. Issues Related To ASM Market Start (Docket No. ER07-1372-011)

166. Commenters responded to the July 25, 2008 readiness filing of the Midwest ISO by raising several issues related to the start of the ASM, which are discussed in detail below.

a. Reserve Zones

167. Xcel expresses concern that the reserve zones used in the ASM operational testing do not reflect the actual ASM zones. Minnesota Power also expresses concern that the

¹¹⁷ October 2 Filing, FERC Electric Tariff, Fourth Revised Vol. No. 1, First Revised Sheet No. 1083.

¹¹⁸ October 2 Filing, FERC Electric Tariff, Third Revised Vol. No. 1, First Revised Sheet Nos. 2225-27 and Original Sheet Nos. 2226A-C.

reserve zones have been fluctuating during testing and that therefore it is difficult to gain confidence in the dispatch and pricing in the ASM model. Xcel explains that the Midwest ISO has used a four reserve zone model for testing, rather than the seven zone model that will be effective upon start-up of the ASM. Xcel recommends that the Midwest ISO be required to perform its operational tests using the actual applicable ASM reserve zones. Xcel argues that the Commission cannot find that the Midwest ISO is fully ready for the ASM without testing that adopts the actual ASM reserve zones.

168. The Midwest is currently testing on all zones, as indicated on the Midwest ISO Energy and Operating Reserve LMP Contour Map.¹¹⁹ We consider this testing to be an indication that all zones are ready for implementation at market start. With respect to Minnesota Power's concerns with the fluctuations in zones during testing, we note that after the ASM starts the Midwest ISO will be changing reserve zone designations quarterly. We expect that the Midwest ISO will be fully explaining these upcoming changes in reserve zones to market participants, thereby ensuring that they gain confidence in the dispatch and pricing associated with reserve zones.

b. Reserve Obligations of Contingency Reserve Sharing Group Agreement Parties

169. Xcel contends that the reserve obligations of both the Midwest ISO and non-Midwest ISO Contingency Reserve Sharing Group Agreement parties must be clear to ensure reliability. If the reserve obligations are not clear, asserts Xcel, it is possible that reserve shortages by non-Midwest ISO Contingency Reserve Sharing Group Agreement parties could cause reliability concerns within the Midwest ISO footprint. However, Xcel states, the Commission has not yet accepted the Restated Contingency Reserve Sharing Group Agreement. Xcel asserts that it is necessary to delay commencement of the ASM until the Restated Contingency Reserve Sharing Group Agreement is accepted in its final form. The Commission is addressing the Contingency Reserve Sharing Group Agreement, including its impact on reliability, in Docket No. ER08-1055-000, *et al.*, which is being issued concurrently with this order.¹²⁰ Since the Commission is ensuring there will be sufficient reserves in that proceeding, we do not see any reliability impacts in this proceeding that require a delay in the start of the ASM.

¹¹⁹ Midwest ISO, Energy and Operating Reserve LMP Contour Map, [http://www.midwestmarket.org/page/LMP+Contour+Map+\(EOR\)](http://www.midwestmarket.org/page/LMP+Contour+Map+(EOR)).

¹²⁰ *Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,323 (2008).

c. **Settlement Statements**

170. Minnesota Power asserts that it is not ready to support implementation of the ASM on September 9, 2008 since it has yet to receive an accurate settlement statement that demonstrates full utilization and accuracy of the charge types represented in the ASM business practices manual. We note that the Midwest ISO has indicated in its November 10, 2008 Ancillary Services Market Project Report¹²¹ that settlement statements have been published and it is addressing settlement issues raised by the Settlements Working Group. The Midwest ISO also states that it expects a seamless transition for settlements, credit and invoicing systems. As part of its transition, we encourage the Midwest ISO to provide market participants with information on settlement statements that incorporate ASM charges.

d. **Designation of Dispatch Interval**

171. Under the Midwest ISO's software, the Midwest ISO designates all data in a dispatch interval as invalid if the market participant provides even a couple of invalid data values. Ameren considers this designation problematic and requests that the Midwest ISO address this issue. Ameren notes that the Midwest ISO is working with its software vendor to develop a solution to the problem. We expect the Midwest ISO has resolved this issue. To ensure this problem is resolved, we require the Midwest ISO to provide an update on the status of invalid dispatch data in the 30-day compliance filing required by the Commission in this order.

10. **Motion for Extension of Authority (Docket No. ER07-1372-005)**

a. **Midwest ISO Motion**

172. The Midwest ISO requests that the Commission extend its previous temporary waiver of tariff section 33.8.1 to allow the Midwest ISO to use the Manual Redispatch Make-Whole Payment program to ensure adequate compensation for market participants during ASM operational testing. The Midwest ISO explains that the Commission's earlier waiver of this tariff provision expired on the previous ASM launch date of

¹²¹ See Midwest ISO ASM Project Implementation and Development Meeting, http://www.midwestiso.org/publish/Document/45e84c_11cdc615aa1_-7b6e0a48324a/ASM%20I%20&%20D%20Meeting%20ppt_November%202008_FINAL.pdf?action=download&_property=Attachment.

September 8, 2008.¹²² The Midwest ISO requests that the waiver be extended until the revised ASM launch date of January 6, 2009.

b. Commission Determination

173. To allow the Midwest ISO to provide Manual Redispatch Make-Whole Payments to market participants during ASM operational testing, we grant the Midwest ISO's request for an extension of the Commission's limited waiver of section 33.8.1 during ASM operational testing until the launch of the ASM on January 6, 2009. Consistent with the May 7 Order, we will also grant limited waivers of sections 1.121, 33.8.2, 33.8.3 during these periods to allow participation by demand response resources, to remove certain eligibility criteria, and to allocate Manual Redispatch Make-Whole Payment costs associated with operational testing to all market participants.¹²³

11. Midwest ISO TO Agreement Revisions (Docket No. ER08-1254-000)

a. Midwest ISO Proposal

174. On July 11, 2008, the Midwest ISO and Midwest ISO Transmission Owners submitted proposed revisions to the Midwest ISO TO Agreement to reflect the transfer and consolidation of the balancing authority functions in the Midwest ISO and the new roles and responsibilities of the local balancing authorities. Among other things, the proposed revisions provide that the Amended BA Agreement¹²⁴ will prevail in the event of a discrepancy with the Midwest ISO TO Agreement.

b. Commission Determination

175. We accept the proposed revisions to the Midwest ISO TO Agreement effective on January 6, 2009, subject to a compliance filing. While the proposed revisions are needed

¹²² Midwest ISO November 20, 2008 Filing, Docket No. ER07-1372-005, at 1 (citing May 7 Order, 123 FERC ¶ 61,135).

¹²³ We note that these limited waivers are subject to refund and the outcome of the proceeding regarding monitoring and mitigation of Manual Redispatch Make-Whole Payments in Docket No. ER08-416-004. May 7 Order, 123 FERC ¶ 61,135.

¹²⁴ Agreement Between Midwest ISO and Midwest ISO Balancing Authorities Relating to Implementation of the Midwest ISO Open Access Transmission and Energy Markets Tariff as Amended on March 14, 2008, Midwest ISO, First Revised Rate Schedule FERC No. 3 (Amended BA Agreement).

to reflect the new roles and responsibilities of the Midwest ISO and local balancing authorities, we are concerned that some of the proposed revisions have not been made consistently throughout the agreement and may create confusion. To ensure consistency and to correct any errors, we require the Midwest ISO and Midwest ISO Transmission Owners to submit, in a compliance filing due within 30 days of the date of this order, revisions to the Midwest ISO Transmission Owners Agreement to refer to “[l]ocal [b]alancing [a]uthority [a]rea(s)” and “[l]ocal [b]alancing [a]uthority” rather than “control area(s)” and “control area operator,” respectively,¹²⁵ and to list “Stephen G. Kozey” rather than “James P. Torgerson” as the issuing officer on Sheet No. 2. In that compliance filing, we also require the Midwest ISO to clarify whether transmission “[u]sers,” as well as “[o]wners” may serve as local balancing authorities and to submit revisions to consistently reflect this information.¹²⁶

12. Other Revisions to Ancillary Services Market Tariff Provisions
(Docket Nos. ER08-1257-000 and ER08-1257-001)

176. On July 11, 2008, as amended on October 21, 2008, the Midwest ISO filed, in Docket Nos. ER08-1257-000 and ER08-1257-001, to ensure appropriate implementation of the ASM, tariff revisions that reflect tariff reforms it has undertaken pursuant to Commission-mandated compliance filings and additional stakeholder review.

a. Combined Cycle Offers

i. Midwest ISO Proposal

177. The Midwest ISO proposes that once a combined cycle generation resource is committed in the day-ahead energy and operating reserve market or in the Reliability Assessment Commitment process, subsequent generation offers must be submitted using the same option that was used in the commitment of the resource, i.e., either an independent offer or aggregate offer.

ii. Comment

178. Xcel objects to this decrease in offer flexibility proposed by the Midwest ISO, and notes that this provision forecloses a more efficient mode of operation in real-time.

¹²⁵ Instances of “control area(s)” remain unchanged on Sheet Nos. 85, 120, 121a, 130, 130a, 130c, 155, and 215.

¹²⁶ While proposed Sheet Nos. 150A and 158 have been changed to indicate that both “[o]wners” and “[u]sers” may serve as local balancing authorities, Sheet Nos. 159 and 159A suggest that “[u]sers” may not perform this function.

Accordingly, Xcel recommends allowing offers for combined cycle generation facilities to be changed in real-time after the unit has been committed in the day-ahead market. Xcel explains that combined cycle generation units have different modes of operation and costs for the combustion and steam turbines, and therefore recommends that the proposal be revised to allow for multiple aggregate offers from a single combined cycle generation resource.

iii. Answer

179. The Midwest ISO responds that it cannot incorporate Xcel's recommendation since it would involve substantial design changes to the tariff and the software and settlements system have been designed to support only a single daily offer mode for combined cycle units. The Midwest ISO states that it commits to work with Xcel to resolve its concerns once the ASM is launched.

iv. Commission Determination

180. While we accept the Midwest ISO's tariff revisions because they reflect the capabilities of its software system for market start, we agree with Xcel that allowing for revised offers in real-time to reflect more efficient combined-cycle operating modes would enhance the efficiency of the ancillary services and energy markets. Accordingly, we encourage the Midwest ISO to fulfill its commitment to work with stakeholders and to develop the software and systems that are necessary to allow for real-time offer flexibility. We require the Midwest ISO to provide an update on the status of allowing for flexible offers in the informational filing to be submitted within 180 days of the start of the ancillary services market.

b. Negative Price Floor for Offers

i. Midwest ISO Proposal

181. The Midwest ISO proposes to revise its tariff to set negative \$500/MW to be the regulating reserve offer price floor and negative \$100/MW to be the contingency reserve offer price floor. The Midwest ISO notes that the proposed offer price floor changes are consistent with the negative \$500/MW floor that is applicable to energy offers.

ii. Comment

182. Ameren expresses concern about the need for negative price floors since they provide no incentive for generators to make reserve offers and have the potential to create a disincentive to provide such services. Ameren also asserts that the Midwest ISO has not adequately explained why or under what circumstances it will impose negative pricing. If the Midwest ISO intends to allow self-scheduling market participants to make negative price offers, Ameren argues that these offers should not disrupt economic price

signals and cause price volatility. While Ameren understands that the purpose of negative price floors in energy markets is to alleviate constraints in highly congested areas by sending price signals to units in such areas to reduce output, it asserts that such reasoning does not explain the need to transfer to regulation and contingency reserves.

iii. Answer

183. The Midwest ISO responds that the energy and ancillary services market design allows self-scheduling of and submission of negative offers for reserves and therefore there is always the possibility of negative clearing prices. The Midwest ISO explains that its proposal simply puts a floor on such offers.

iv. Commission Determination

184. We accept the Midwest ISO's proposed negative offer price floors. We agree with the Midwest ISO that self-scheduling and negative price offers have been a feature of its energy market since its inception and they have also been part of the ASM proposal. We have not found any indications that such offers either disrupt price signals or cause price volatility.

c. Definitions

185. The Midwest ISO proposes to define "intermittent resources" as resources that are not capable of being dispatched or following set-point instructions. Wisconsin Electric asserts that this definition could be applied to resources that are capable of being turned on or off and therefore are not intermittent, such as small diesel units, demand response resources or nuclear units. Wisconsin Electric recommends that the intermittent resource definition be revised to be a resource that is not capable of being committed or de-committed, or is not capable of following set-point instructions in the real-time market. Wisconsin Electric asserts that the revisions will narrow the scope of the definition to ensure that it will not be applied to resources other than those intended under the tariff and it will reflect that intermittent resources can be committed, de-committed, and receive output instructions in the day-ahead market. The Midwest ISO does not oppose Wisconsin Electric's recommendation. We accept the revision proposed by Wisconsin Electric since it ensures that resources that are not intermittent are not classified erroneously as intermittent resources. We require the Midwest ISO to make this revision in a compliance filing to be submitted within 30 days of the date of this order.

186. Duke notes that the proposed term "market-wide non-DRR 1 operating reserve constraints" is not defined. Given that this term will directly impact ASM prices, Duke asserts that it is essential that stakeholders understand how this term is defined and have an opportunity to comment on the definition. The Midwest ISO responds in its answer that it will amend the tariff, if so ordered, to define market-wide non-DRR operating reserve constraints as constraints that require resources other than Demand Response

Resources – Type I to meet the regulating reserve plus spinning reserve plus 75 percent of the supplemental reserve requirement. We agree with Duke that this is an important term that is used in ASM price calculations, and therefore we require the Midwest ISO to provide a definition for this term in a compliance filing to be submitted within 30 days of the date of this order.

d. Other Proposed Tariff Revisions

187. We find the other proposed tariff revisions to be reasonable, as modified below. Accordingly, we conditionally accept them subject to the Midwest ISO submitting the revisions detailed below in a compliance filing to be submitted within 30 days of the date of this order:

Tariff revisions clarifying that Demand Response Resources – Type II must comply with the same Regional Entity standards as generation resources and they will be treated like any other generation resource;

Revisions incorporating Demand Response Resources – Type II into the determination of day-ahead, ex ante and ex post regulating and operating reserve prices and clarifications on the calculation of ex post prices and marginal clearing prices for reserves;

Revisions to include Demand Response Resources – Type I and stored energy resources with day-ahead schedules for operating reserves as resources covered under the day-ahead margin assurance payment;

Revisions stating that Demand Response Resources – Type I must submit a targeted demand reduction greater than one megawatt. Also, if the resource receives an average set-point instruction over the dispatch interval that is equal to that resource's maximum limit as used by the dispatch software, the resource will be ineligible for the day-ahead margin assurance payment;

Revisions to the tolerance band and excessive energy/deficient energy threshold calculations to take into account the resource's applicable ramp rate for Demand Response Resources – Type II and stored energy resources;

Revisions to clarify the settlement treatment relating to the modeling of multiple demand response resources, as follows:

(1) revised hourly excessive energy calculations for Demand Response Resources – Types I and II that take into account circumstances where multiple demand response resources are associated with a specific host load zone; (2) clarifications that the calculated output for a dispatch interval is equal to the load zone dispatch interval demand forecast divided by the duration of the dispatch interval minus the host load zone average demand amount for demand response resources and an identical clarification for hourly deficient energy and non-excessive energy; and (3) clarifications that allow multiple demand response resources to register for common bus treatment;

New definitions for offer parameters of generation offers and Demand Response Resource – Type II offers and revised definitions for Non-Excessive Energy and Energy Offer; and

Revisions to Attachment L to expand the applicability of the Credit Policy to include energy and operating reserve markets and to revise the formulae used to calculate the day-ahead and real-time potential exposure to ensure they properly apply to energy and operating reserves.

188. We note that the proposed tariff makes reference to Demand Response Resources – Type I when the reference should be made to Demand Response Resources – Type II on first revised sheet no. 1136, 1142 and 1145. We require the Midwest ISO to revise these references in a compliance filing to be submitted within 30 days of the date of this order.

The Commission orders:

(A) The Midwest ISO ancillary services market is hereby authorized for start-up on January 6, 2009, based on the certification of the Midwest ISO as the balancing authority for the Midwest ISO region by the NERC, and the Certificate of Operational Readiness provided by the Midwest ISO in Docket Nos. ER07-1372-011 and ER07-1372-013.

(B) The Midwest ISO's proposed Reversion Plan in Docket No. ER07-1372-002 is hereby accepted, as discussed in the body of this order.

(C) The Midwest ISO's October 2, 2008 filing in Docket No. ER09-24-000 is hereby accepted, as discussed in the body of this order.

(D) The Midwest ISO's July 11, 2008 filing in Docket No. ER08-1254-000 is hereby accepted, as discussed in the body of this order.

(E) The Midwest ISO's July 11, 2008 filing in Docket No. ER08-1257-000, as amended in Docket No. ER08-1257-001, is hereby accepted, as discussed in the body of this order.

(F) The Midwest ISO's request in Docket No. ER07-1372-005 for limited waiver of sections 33.8.1, 33.8.2, 33.8.3, 1.121 of the Tariff is hereby granted, as discussed in the body of this order, effective until ASM start-up on January 6, 2009.

(G) The Midwest ISO is hereby directed to make a compliance filing, within 30 days of the date of this order, as discussed in the body of this order.

(H) The IMM is hereby directed to submit an informational filing within 180 days of the start of the ancillary services market, as discussed in the body of this order.

(I) The Midwest ISO is hereby directed to submit an informational filing within 180 days of the start of the ancillary services market, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.