

153 FERC ¶ 61,317
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Midcontinent Independent System
Operator, Inc.

Docket Nos. ER15-2256-000
EL14-25-000

ORDER ON COMPLIANCE FILING

(Issued December 17, 2015)

1. By order issued March 20, 2014,¹ the Commission instituted an inquiry pursuant to section 206 of the Federal Power Act (FPA)² in Docket No. EL14-25-000 to ensure that Midcontinent Independent System Operator, Inc.'s (MISO) scheduling, particularly, its day-ahead scheduling practices, correlate with revisions to the natural gas scheduling practices ultimately adopted by the Commission in Order No. 809.³ On July 23, 2015, MISO filed a compliance filing with the Commission in Docket No. ER15-2256-000, proposing revisions to MISO's Open Access Transmission, Energy and Operating Reserve Markets Tariff (Tariff) to meet the 206 Order's directives and contending that MISO has shown cause why further changes are not necessary.

2. In this order, we find that MISO has failed to show cause that it not be required to post its day-ahead market results in advance of the revised Timely Nomination Cycle deadline. Thus, we find that MISO's existing Tariff and its proposed Tariff revisions are

¹ *Cal. Indep. Sys. Operator Corp.*, 146 FERC ¶ 61,202 (2014) (206 Order). The 206 Order applied to all six jurisdictional independent system operators (ISOs) and regional transmission organizations (RTOs), assigning separate docket numbers to each ISO or RTO. This order only relates to MISO.

² 16 U.S.C. § 824e (2012).

³ *Coordination of the Scheduling Processes of Interstate Natural Gas Pipelines and Public Utilities*, Order No. 809, 80 Fed. Reg. 23,198-01 (Apr. 24, 2015), FERC Stats. & Regs. ¶ 31,368 (2015) (cross-referenced at 151 FERC ¶ 61,049 (2015)), *order on clarification*, 152 FERC ¶ 61,095, *order on reh'g*, 152 FERC ¶ 61,212 (2015).

unjust and unreasonable, and we reject MISO's compliance filing. Accordingly, we require MISO to submit a further compliance filing within 30 days of the date of issuance of this order moving MISO's day-ahead market results posting time at least 30 minutes in advance of the Timely Nomination Cycle to 1:30 p.m. Eastern Prevailing Time (EPT) (12:30 p.m. Central Clock Time (CCT)). We also require MISO to propose a notification time for its Forward Reliability Assessment Commitment (FRAC)⁴ that is sufficiently in advance of the Evening Nomination Cycle.⁵

I. Background

3. Beginning in 1996, the Commission has adopted regulations to standardize the business practices and communication methodologies of interstate natural gas pipelines to create a more integrated and efficient pipeline grid. These regulations were promulgated in the Order No. 587 series of orders,⁶ wherein the Commission incorporated by reference into the Commission's regulations standards for interstate natural gas pipeline business practices and electronic communications developed and adopted by the North American Energy Standards Board (NAESB) Wholesale Gas Quadrant (WGQ). The NAESB WGQ standards, including the standard nationwide nomination timeline, were developed to improve the speed and efficiency with which shippers can transact business across interconnecting pipelines.

⁴ The FRAC is MISO's reliability unit commitment process.

⁵ As discussed below, we find that MISO's proposed FRAC notification time of 6:00 p.m. EPT (5:00 p.m. CCT) would satisfy the requirement that MISO's FRAC notification time be sufficiently in advance of the Evening Nomination Cycle. However, we will permit MISO in its further compliance filing to propose a different FRAC notification time as MISO revises its day-ahead market timeline in response to this order, provided that this time is also sufficiently in advance of the Evening Nomination Cycle.

⁶ This series of orders began with the Commission's issuance of *Standards for Business Practices of Interstate Natural Gas Pipelines*, Order No. 587, FERC Stats. & Regs. ¶ 31,038 (1996). The most recent order in this series is Order No. 587-W, issued on October 15, 2015, wherein the Commission incorporated by reference the Version 3.0 WGQ Business Practice Standards. *Standards for Business Practices of Interstate Natural Gas Pipelines*, Order No. 587-W, 80 Fed. Reg. 67,302 (Nov. 2, 2015), FERC Stats. & Regs. ¶ 31,373 (2015) (cross-referenced at 153 FERC ¶ 61,061 (2015)).

4. The NAESB WGQ standards provide a minimum number of nomination opportunities for natural gas shippers to schedule service for the Gas Day, which starts at 9:00 a.m. CCT:⁷ (a) the Timely Nomination Cycle, which occurs the day before the operating day on which the gas will flow (Gas Day); (b) the Evening Nomination Cycle, which occurs late in the day prior to gas flow and allows shippers to modify their Timely Nomination Cycle schedules; and (c) two intraday nominations (three after implementation of Order No. 809) that occur during the Gas Day. The Commission meanwhile has accepted regional variations in the development of wholesale electric industry scheduling practices.

5. The differences between the day-ahead nationwide natural gas scheduling timeline and the day-ahead regional organized electricity market scheduling timelines can create complications for interstate natural gas pipelines and electric transmission operators in coordinating the scheduling of the two industries. The Timely Nomination Cycle is the most liquid time to acquire both natural gas supply and pipeline transportation capacity. During that cycle, all of a natural gas pipeline's scheduling nomination priorities are in effect: primary firm nominations⁸ have priority over secondary firm nominations,⁹ and secondary firm nominations have priority over interruptible nominations.¹⁰ Under Commission policy and pipeline tariffs, once firm transportation is scheduled, including secondary firm nominations, it cannot be displaced, or bumped, by another firm or interruptible nomination for that Gas Day.¹¹

6. As detailed below, day-ahead electric generation commitments generally occur after the Timely Nomination Cycle. Typically, a natural gas-fired generator must either submit its nomination for natural gas transportation services before it knows when and

⁷ See NAESB WGQ Standards 1.3.2. NAESB's standards in general make reference to CCT, which refers to the actual time in the Central Time Zone, reflecting Central Standard Time or Daylight Savings Time, whichever is applicable.

⁸ Primary firm nominations are nominations of firm transportation from a primary receipt point to a primary delivery point. Order No. 809, FERC Stats. & Regs. ¶ 31,368 at P 72.

⁹ Secondary firm nominations are firm nominations that include at least one secondary point. *Id.* P 72 n.134.

¹⁰ Interruptible nominations are nominations for service that is "subject to a prior claim by another customer or another class of service and receives a lower priority than such other classes of service." 18 C.F.R. § 284.9(a)(3) (2015).

¹¹ See Order No. 809, FERC Stats. & Regs. ¶ 31,368 at PP 73, 75.

how much electricity it will be committed to produce the next day, or it must wait until it receives its day-ahead commitment to nominate natural gas transportation services, with the risk that during some periods natural gas supply and transportation capacity may not be available or economical, given the Independent System Operator (ISO) and Regional Transmission Organization (RTO) day-ahead market clearing price. If a natural gas-fired generator acquires natural gas supply and transportation prior to learning whether it is dispatched, it runs the risk of having to sell off excess natural gas supply and pipeline transportation capacity during the less liquid Evening or intraday Nomination Cycles to the extent its bid does not clear the day-ahead market. If the natural gas-fired generator waits to acquire natural gas supply and pipeline transportation until its bid clears the day-ahead market, it would be doing so during the less liquid Evening or intraday Nomination Cycles, where the generator may be unable to acquire pipeline transportation capacity if the pipeline is fully scheduled. While natural gas-fired generators may be able to obtain natural gas supply and pipeline transportation throughout the day during many periods of the year, their ability to procure natural gas supply and pipeline transportation in the most liquid Timely Nomination Cycle may be critical to their ability to provide service during periods when the pipeline is constrained.

7. After the day-ahead electric dispatch schedule is set, ISOs and RTOs also conduct reliability assessments to assess whether they have sufficient generation committed to meet expected load for the following electric operating day. If the day-ahead electric dispatch schedule does not appear adequate to meet load, the ISO or RTO may schedule additional units to be ready during real time. Each ISO and RTO establishes its own timing for the day-ahead schedule and reliability unit commitment. As with the Timely Nomination Cycle, if the ISOs and RTOs do not announce commitments of these generators prior to the Evening Nomination Cycle, those generators might have difficulty obtaining natural gas supply at reasonable prices and scheduling pipeline transportation service using only the intraday nomination cycles.

8. The following table shows each ISO's and RTO's existing day-ahead scheduling timeline:

Table 1 – ISO and RTO Day-Ahead Scheduling¹²

ISO or RTO	Time for Bid Submission (CCT)	Time for Publication of Day-Ahead Commitment Bids (CCT)	Notification of Reliability Unit Assessment (CCT)
California Independent System Operator Corporation (CAISO)	12:00 p.m.	3:00 p.m.	3:00 p.m.
ISO New England Inc. (ISO-NE)	9:00 a.m.	12:30 p.m.	4:00 p.m.
PJM Interconnection, L.L.C. (PJM)	11:00 a.m.	3:00 p.m.	7:00 p.m.
MISO	10:00 a.m. (during period of the year not covered by Daylight Savings Time) 11:00 a.m. (during period of the year covered by Daylight Savings Time)	2:00 p.m. (during period of the year not covered by Daylight Savings Time) 3:00 p.m. (during period of the year covered by Daylight Savings Time)	7:00 p.m. (during period of the year not covered by Daylight Savings Time) 8:00 p.m. (during period of the year covered by Daylight Savings Time)
New York Independent System	4:00 a.m.	10:00 a.m.	10:00 a.m.

¹² This table does not reflect revisions to PJM’s day-ahead timeline, to become effective on March 31, 2016, which the Commission recently approved in *PJM Interconnection, L.L.C.*, 153 FERC ¶ 61,209 (2015). Nor does this table reflect revisions to SPP’s day-ahead timeline, to become effective October 1, 2016, which the Commission has approved in *Sw. Power Pool, Inc.*, 153 FERC ¶ 61,316 (2015), issued contemporaneously with this order.

ISO or RTO	Time for Bid Submission (CCT)	Time for Publication of Day-Ahead Commitment Bids (CCT)	Notification of Reliability Unit Assessment (CCT)
Operator, Inc. (NYISO)			
Southwest Power Pool, Inc. (SPP)	11:00 a.m.	4:00 p.m.	8:00 p.m.

Under existing day-ahead timelines, all ISOs and RTOs (except NYISO) post successful economic dispatch bids *after* the current nomination deadline for the Timely Nomination Cycle at 11:30 a.m. CCT, and MISO and SPP post successful initial reliability unit commitments *after* the current nomination deadline for the Evening Nomination Cycle at 6:00 p.m. CCT.

9. As part of its efforts to coordinate the scheduling practices of the wholesale natural gas and electric industries, and as relevant here, on March 20, 2014, the Commission concurrently issued: (1) a notice of proposed rulemaking in Docket No. RM14-2-000, proposing changes to the scheduling practices of the wholesale natural gas industry;¹³ and (2) the 206 Order, instituting an FPA section 206 inquiry into ISO and RTO electric scheduling practices. In the NOPR, the Commission proposed, among other things, to move the Timely Nomination Cycle from 11:30 a.m. CCT to 1:00 p.m. CCT. The Commission proposed this change in order to provide the ISOs and RTOs with additional time in which to post results of their day-ahead markets so that gas-fired generators will know their day-ahead commitments for the following electric operating day in time to submit nominations for pipeline capacity during the Timely Nomination Cycle, the most liquid nomination cycle.

10. The 206 Order directed each ISO and RTO, within 90 days of the issuance of a final rule in Docket No. RM14-2-000, either “(1) to make a filing that proposes tariff changes to adjust the time at which the results of its day-ahead energy market and reliability unit commitment process (or equivalent) are posted to a time that is sufficiently in advance of the Timely and Evening Nomination Cycles, respectively, to allow gas-fired generators to procure natural gas supply and pipeline transportation capacity to

¹³ *Coordination of the Scheduling Processes of Interstate Natural Gas Pipelines and Public Utilities*, 146 FERC ¶ 61,201 (2014) (NOPR).

serve their obligations, or (2) to show cause why such changes are not necessary.”¹⁴ The Commission directed each ISO and RTO to “explain how its proposed modifications are sufficient for gas-fired generators to secure natural gas pipeline capacity prior to the Timely and Evening Nomination Cycles.”¹⁵

11. On April 16, 2015, the Commission issued the final rule in Docket No. RM14-2-000, Order No. 809, which amended the Commission’s regulations to incorporate by reference NAESB’s revised standards that changed the nationwide Timely Nomination Cycle nomination deadline from 11:30 a.m. CCT to 1:00 p.m. CCT and revised the intraday nomination timeline to include an additional intraday scheduling opportunity during the Gas Day.¹⁶ The large majority of commenters supported moving the start time for the Timely Nomination Cycle from 11:30 a.m. CCT to 1:00 p.m. CCT, including commenters that did not generally support NAESB’s revised intraday nomination timeline.¹⁷ Many commenters to the NOPR stated that moving the Timely Nomination Cycle nomination deadline to 1:00 p.m. CCT would provide generators more time to acquire natural gas supply and pipeline transportation capacity after learning their electric dispatch obligations, provided changes are made to the ISO and RTO scheduling processes.¹⁸ The Commission agreed with these commenters finding that moving the close of the Timely Nomination Cycle from 11:30 a.m. CCT to 1:00 p.m. CCT “will provide generators more time to acquire natural gas supply and pipeline transportation after learning their electric dispatch obligations, *provided changes are made to the ISO and RTO scheduling processes.*”¹⁹

¹⁴ 206 Order, 146 FERC ¶ 61,202 at P 19.

¹⁵ *Id.*

¹⁶ Order No. 809, FERC Stats. & Regs. ¶ 31,368 at PP 1, 168. Although the NOPR proposed moving the start of the Gas Day from 9:00 a.m. CCT to 4:00 a.m. CCT, the Commission declined to adopt that proposal. *Id.* PP 3, 13.

¹⁷ *Id.* P 84.

¹⁸ *Id.*

¹⁹ *Id.* P 87 (emphasis added).

12. The following table shows the current NAESB gas nomination timeline and the revised NAESB gas nomination timeline accepted in Order No. 809 and effective April 1, 2016:²⁰

Table 2 – Current and Revised NAESB Natural Gas Nomination Cycles

Time Shifts -- All times CCT		Current NAESB Standards	Revised NAESB Standards
Timely	Nomination Deadline	11:30 AM	1:00 PM
Evening	Nomination Deadline	6:00 PM	6:00 PM
Intraday 1	Nomination Deadline	10:00 AM	10:00 AM
	IT Bump Rights	bumpable	bumpable
Intraday 2	Nomination Deadline	5:00 PM	2:30 PM
	IT Bump Rights	no bump	bumpable
Intraday 3	Nomination Deadline		7:00 PM
	IT Bump Rights		no bump

II. MISO's Compliance Filing

A. Proposed Tariff Revisions

13. As summarized in Table 1 above, the day-ahead market trading deadline in MISO is currently 11:00 Eastern Standard Time (EST), which corresponds to 11:00 a.m. EPT (10:00 a.m. CCT) during the period of the year *not* covered by Daylight Savings Time and 12:00 p.m. EPT (11:00 p.m. CCT) during the period of year covered by Daylight Savings Time (from mid-March through early November).²¹ MISO posts successful bids for the day-ahead energy market at 3:00 p.m. EST, which corresponds to 3:00 p.m. EPT (2:00 p.m. CCT) during the non-Daylight Savings Time period and 4:00 p.m. EPT (3:00 p.m. CCT) during the Daylight Savings Time period. MISO posts FRAC notifications at 8:00 p.m. EST, which corresponds to 8:00 p.m. EPT (7:00 p.m. CCT) during the non-

²⁰ See *id.* at app. (emphasis added). See also *Coordination of the Scheduling Processes of Interstate Natural Gas Pipelines and Public Utilities*, 152 FERC ¶ 61,095 (2015) (clarifying that the new day-ahead nomination timelines will apply as of March 31, 2016 for those nominations that will become effective April 1, 2016).

²¹ MISO Compliance Filing, Docket No. ER15-2256-000 at 9-10. Eastern Standard Time is the equivalent of Eastern Prevailing Time during the period of the year not covered by Daylight Savings Time and the equivalent of Central Clock Time during the period of year covered by Daylight Savings Time.

Daylight Savings Time period and at 9:00 p.m. EPT (8:00 p.m. CCT) during the Daylight Savings Time period.

14. MISO states that after the Commission issued the NOPR, MISO began a comprehensive evaluation process with its stakeholders and an internal evaluation of options to improve alignment between MISO's day-ahead markets and FRAC with the nomination and scheduling processes for interstate natural gas pipelines.²² MISO explains that this process built upon efforts relating to scheduling that already had been initiated in MISO's Electric Natural Gas Coordination Task Force stakeholder forum.

15. MISO explains that in August 2014 it developed and discussed with its stakeholders a strawman proposal to move up both the day-ahead market and its FRAC closing times as a possible means of addressing the Commission's requirements in the NOPR.²³ MISO states that it continued to engage stakeholders in a number of Market Subcommittee and Electric Natural Gas Coordination Task Force meetings through early 2015. MISO explains that at the February Market Subcommittee meeting, members passed motions requesting MISO to develop alternatives to moving up the closing time of the day-ahead market to comply with potential changes in natural gas scheduling timelines. MISO explains that MISO discussed with stakeholders the ability to reduce market solve times (i.e., the time between MISO's day-ahead market trading deadline and MISO's day-ahead market results posting, which is used to run MISO's day-ahead market, and the time between MISO's FRAC rebid deadline and MISO's FRAC notifications), and MISO surveyed stakeholders on the alternatives.²⁴

16. MISO notes that following issuance of Order No. 809 in April 2015, MISO again engaged its stakeholders and evaluated opportunities to improve reliability and economic efficiency as provided by the revised gas scheduling timelines and affirmation of the existing Gas Day. MISO explains that after extensive consultation with stakeholders, MISO developed additional alternatives to its original strawman proposal. MISO states that it presented its stakeholders with three alternatives for complying with Order No. 809 at its May and June 2015 Market Subcommittee meetings. MISO states that it held further stakeholder discussions and developed a ballot containing three compliance alternatives, which was administered in June 2015.²⁵

²² MISO Compliance Filing, Docket No. ER15-2256-000 at 1.

²³ Under this strawman proposal, MISO's day-ahead market trading deadline would be 9:00 a.m. EPT (8:00 a.m. CCT).

²⁴ MISO Compliance Filing, Docket No. ER15-2256-000 at 6-7.

²⁵ *Id.* at 7.

17. MISO states that Alternative 1, maintaining the status quo, was supported by most of MISO's stakeholders.²⁶ MISO states that most MISO stakeholders did not favor Alternative 2, which involved moving up the day-ahead market trading deadline to 10:00 a.m. EPT (9:00 a.m. CCT) and the posting of MISO's day-ahead market results to 1:00 p.m. EPT (12:00 p.m. CCT), one hour before the revised Timely Nomination Cycle deadline.²⁷ MISO explains that these stakeholders cited concerns relating to "seams management and greater price uncertainty, with associated uplifts."²⁸ MISO states that stakeholders also indicated they have learned to manage the electric/natural gas markets timing issues that occur as a result of the status quo, and that stakeholders preferred that MISO allow natural gas trading to occur at the most liquid trading time, which would be encroached on if the day-ahead market trading deadline is moved to 10:00 a.m. EPT (9:00 a.m. CCT).²⁹ MISO explains that given MISO's regional gas infrastructure and operations, MISO and its members have not experienced the gas scheduling challenges experienced in some of the other RTOs.³⁰

18. MISO explains that a majority of MISO's stakeholders, while preferring to maintain the status quo, also supported Alternative 3, which would, *inter alia*, align MISO's day-ahead market with the Intraday 2 Nomination Cycle by posting day-ahead results at 2:00 p.m. EPT (1:00 p.m. CCT).³¹ MISO notes that owners of some of the largest gas-fired generators in the MISO region were included in this majority supporting Alternative 3.

19. On July 23, 2015, MISO submitted a compliance filing in response to the 206 Order that proposes revisions to its Tariff consistent with MISO's Alternative 3 proposal, as discussed below. In its compliance filing, MISO proposes to modify the day-ahead market results posting time from 3:00 p.m. EST to 2:00 p.m. EPT (1:00 p.m. CCT) and the FRAC notification time from 8:00 p.m. EST to 6:00 p.m. EPT (5:00 p.m. CCT).

²⁶ MISO notes that Alternative 1 received 39 "yes" votes (78%) and 11 "no" votes (22%), with five abstentions. *Id.* at 8.

²⁷ MISO notes that Alternative 2 received nine "yes" votes (18%) and 41 "no" votes (82%), with four abstentions. *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ MISO notes that Alternative 3 received 25 "yes" votes (53%) and 22 "no" votes (47%), with seven abstentions. *Id.*

MISO proposes to move its day-ahead market trading deadline earlier by one hour during Daylight Savings Time such that the deadline will be 11:00 a.m. EPT (10:00 a.m. CCT) for the entire year.³² MISO states that moving its day-ahead market trading deadline will effectively impact market administration only during Daylight Savings Time periods of the year. MISO also proposes to reduce the day-ahead market solve time from four hours to three hours.³³ MISO asserts that by removing an hour from MISO's day-ahead market solve time, rather than requiring an earlier market closing, MISO's approach will meet Order No. 809's directive to post market results "sufficiently in advance" of the Evening Nomination Cycle "to allow gas-fired generators to procure natural gas supply and pipeline transportation capacity to serve their obligations" while minimizing the impact to market participants.³⁴

20. In addition, MISO proposes to move the FRAC rebid deadline earlier by one hour during non-Daylight Savings Time and by two hours during Daylight Savings Time to 3:00 p.m. EPT (2:00 p.m. CCT) year-around. MISO also proposes to reduce its FRAC solve time from four hours to three hours.³⁵

21. The following table presents the revised timelines for MISO day-ahead markets:

Table 3 – MISO's Current and Proposed Day-Ahead Schedules

Event	Current	Proposed
Day-Ahead Market Trading Deadline	11:00 a.m. EPT (10:00 a.m. CCT) (during period of the year not	11:00 a.m. EPT (10:00 a.m. CCT)

³² *Id.* at 9-10. MISO proposes to shift its day-ahead and FRAC timelines from Eastern Standard Time to Eastern Prevailing Time to account for Daylight Savings Time in order to align MISO's administrative timelines more closely to the revised natural gas nomination timelines. MISO argues that this change will achieve consistent deadlines, results posting, and nomination timing timelines, year-round. *Id.* at 8.

³³ *Id.* at 9-10.

³⁴ *Id.* at 9 (quoting Order No. 809, FERC Stats. & Regs. ¶ 31,368 at P 19). MISO states that it is continually improving the performance of its day-ahead market solve times. *Id.* MISO states that it anticipates that, with projected improvements and efficiency gains, it will be able to reduce its day-ahead market solve time to a three hours by mid-2016, in advance of MISO's requested effective date. *Id.*

³⁵ *Id.* at 9-10.

Event	Current	Proposed
	<p>covered by Daylight Savings Time)</p> <p>12:00 p.m. EPT (11:00 a.m. CCT) (during period of the year covered by Daylight Savings Time)</p>	
Day-Ahead Market Results Posting	<p>3:00 p.m. EPT (2:00 p.m. CCT) (during period of the year not covered by Daylight Savings Time)</p> <p>4:00 p.m. EPT (3:00 p.m. CCT) (during period of the year covered by Daylight Savings Time)</p>	2:00 p.m. EPT (1:00 p.m. CCT)
FRAC Rebid Deadline	<p>4:00 p.m. EPT (3:00 p.m. CCT) (during period of the year not covered by Daylight Savings Time)</p> <p>5:00 p.m. EPT (4:00 p.m. CCT) (during period of the year covered by Daylight Savings Time)</p>	3:00 p.m. EPT (2:00 p.m. CCT)
FRAC Notifications	<p>8:00 p.m. EPT (7:00 p.m. CCT) (during period of the year not covered by Daylight Savings Time)</p> <p>9:00 p.m. EPT (8:00 p.m. CCT) (during period of the</p>	6:00 p.m. EPT (5:00 p.m. CCT)

Event	Current	Proposed
	year covered by Daylight Savings Time)	
Day-Ahead Market Schedules become effective	12:00 a.m. EPT (11:00 p.m. CCT) (during period of the year not covered by Daylight Savings Time) 1:00 a.m. EPT (12:00 a.m. CCT) (during period of the year covered by Daylight Savings Time)	12:00 a.m. EPT (11:00 p.m. CCT) (during period of the year not covered by Daylight Savings Time) 1:00 a.m. EPT (12:00 a.m. CCT) (during period of the year covered by Daylight Savings Time) ³⁶

22. MISO asserts several benefits to its revised timeline. MISO states that publication of day-ahead market results ahead of the Intraday 2 Nomination Cycle deadline adopted in Order No. 809 will benefit firm shippers because such publication would allow committed and scheduled natural gas-fired generation resources to take advantage of the additional scheduling opportunities to acquire natural gas and nominate transportation in a bumpable cycle for current Gas Day scheduling.³⁷ MISO argues that given the bifurcation of the electric day across two Gas Days, this timeline will address fuel procurement and scheduling issues and associated unit availability during morning winter ramp and peak periods.

23. MISO explains that publication of the day-ahead market results one hour earlier than current time during non-Daylight Savings Time and two hours earlier than current time during Daylight Savings Time is expected to improve market efficiency.³⁸ MISO represents, for example, that the posting change will improve unit commitment, resulting in reduced costs, as up to 1,600 MW of longer lead notification generation capacity will

³⁶ MISO’s proposal to shift its day-ahead and FRAC timelines from EST to EPT does not extend to the time that MISO’s day-ahead market schedules become effective. *See id.* at 10. This time would remain 12:00 a.m. EST, which is 12:00 a.m. EPT (11:00 p.m. CCT) during the non-Daylight Savings Time period and 1:00 a.m. EPT (12:00 a.m. CCT) during the Daylight Savings Time period.

³⁷ *Id.* at 10-11.

³⁸ *Id.* at 10.

be considered in the more robust day-ahead market Security Constrained Unit Commitment process. MISO notes that these units now would only be considered in the Reliability Assessment Commitment process conducted prior to the day-ahead market as specified in section 40.1 of the Tariff. MISO explains that this process is not a robust unit commitment process, but rather a reliability backstop.

24. Further, MISO asserts that the earlier FRAC notification time of 6:00 p.m. EPT (5:00 p.m. CCT) is also expected to improve market efficiency and result in benefits.³⁹ MISO explains that the change will lower costs by allowing up to 4,214 MW of longer lead notification generation resources to be considered due to the longer start-up time period allowed.

25. MISO explains that completing the FRAC process and notifying Market Participants one hour ahead of the Evening Nomination Cycle will also allow committed natural gas-fired generation resources to acquire natural gas and nominate transportation for the next Gas Day to meet obligations, including afternoon peak periods.⁴⁰

B. Show Cause Explanation

26. MISO asserts that it has shown cause as to why posting day-ahead market results ahead of the Timely Nomination Cycle is not necessary.⁴¹ MISO asserts that its proposed revisions strike a reasonable balance between achieving the Commission's intended long-term benefits from revising the Timely Nomination Cycle with MISO's stakeholder preferences, incremental market efficiency gains, and reliability improvements.⁴² MISO argues that its proposal provides the functional benefits sought by the Commission while honoring the preference of stakeholders to maintain a later morning day-ahead market trading deadline in order to allow sufficient time to finalize commercial decisions and to formulate bids and orders. MISO further notes that it and its members have not experienced the natural gas scheduling challenges expressed by market participants in some of the other ISOs and RTOs.⁴³

27. MISO argues that posting day-ahead market results ahead of the revised Timely Nomination Cycle deadline in the MISO region would not address issues with procuring

³⁹ *Id.* at 11.

⁴⁰ *Id.*

⁴¹ *Id.* at 8.

⁴² *Id.* at 11.

⁴³ *Id.* at 2.

and scheduling natural gas to meet winter morning ramps and peaks, which require the use of Intraday Nomination Cycles.⁴⁴ MISO asserts that because Order No. 809 did not include the morning electric ramp and evening peak within a single Gas Day, aligning the day-ahead market with the Timely Nomination Cycle is less imperative. MISO posits that posting day-ahead market results prior to the revised Intraday 2 Nomination Cycle will provide natural gas-fired generators enhanced opportunities to acquire and schedule natural gas for the morning ramp and peak period during times of critical natural gas supply periods, thus mitigating potential reliability issues.

28. MISO states that its stakeholders prefer to keep the day-ahead market trading deadline no earlier than 11:00 a.m. EPT (10:00 a.m. CCT).⁴⁵ MISO explains that a majority of its footprint operates in the Central Time Zone, and plant personnel and commercial operations rely on morning work hours to determine generation resource availability and capability, develop forecasts, and formulate bids and offers. MISO notes that stakeholders consistently expressed that earlier market deadlines will have negative impacts to their business in terms of (1) earlier staff start times; (2) measurable costs; (3) measureable risks; (4) degraded forecast accuracy; and (5) uncertainty around unit availability and capability. MISO adds that its market participants assert keeping the close of the day-ahead market no later than 11:00 a.m. EPT (10:00 a.m. CCT) allows sufficient time for price discovery during the most liquid trading period for natural gas that occurs each weekday morning. MISO argues that improving this price discovery will also allow offers placed into the day-ahead market to be more representative of actual costs, leading to more accurate day-ahead market results.

29. MISO states that its market participants claim, and have demonstrated, their ability to mitigate risk associated with natural gas acquisition and scheduling given available infrastructure and services in the MISO market footprint.⁴⁶ MISO cites firm shippers as claiming that scheduling natural gas during the Evening Nomination Cycle is nearly as good in the MISO region as scheduling in the Timely Nomination Cycle for next day natural gas due to bumping rules.⁴⁷ Similarly, MISO cites non-firm shippers as indicating that scheduling natural gas requirements in the Timely Nomination Cycle for next day natural gas may be no more effective or beneficial than scheduling in the Evening Nomination Cycle because transactions accepted in the Timely Nomination Cycle may be bumped due to priority. MISO notes that to meet afternoon system peaks

⁴⁴ *Id.* at 11-13.

⁴⁵ *Id.* at 12.

⁴⁶ *Id.*

⁴⁷ *Id.*

during summer months, some market participants have preferred price certainty to volume certainty and can utilize the Evening Nomination Cycle to alter schedules once day-ahead electric schedules are known.⁴⁸ MISO asserts that the day-ahead and FRAC posting times are sufficiently in advance of the revised Evening Nomination Cycle, thus meeting this directive of Order No. 809.⁴⁹

30. MISO expects that its proposal will result in improved alignment with PJM and SPP.⁵⁰ MISO foresees that its proposal will help ensure continued approximate alignment in market and commitment timelines so that any differences are minimized rather than further exacerbated.

31. MISO requests that the Commission accept its compliance filing and its proposed Tariff revisions to be effective November 5, 2016 for the Operating Day on November 6, 2016. MISO requests waiver of 18 C.F.R. § 35.3(a)(1), which requires that proposed revisions to rate schedules be filed no earlier than 120 days before their requested effective date. MISO asserts that good cause exists to grant this waiver because of the complexity of the processes impacted by the changes proposed in the compliance filing and the need to develop and to enhance software and related processes to support the implementation.⁵¹

III. Notices, Interventions, and Pleadings

32. Notice of the 206 Order in Docket No. EL14-25-000 was published in the *Federal Register*, 79 Fed. Reg. 16,791 (2014). Motions to intervene or notices of intervention were filed by Algonquin Gas Transmission, LLC, Alliant Energy Corporate Services, Inc. (Alliant), Ameren Services Company, America's Natural Gas Alliance, American Electric Power Service Corporation, American Gas Association, American Municipal Power, Inc., American Public Power Association, Arizona Public Service Company, Atmos Energy Corporation, Atmos Energy Marketing LLC and Trans Louisiana Gas Pipeline, Inc., Atmos Pipeline Texas, Big Sandy Pipeline, LLC, Calpine Corporation, CenterPoint Energy Resources Corp., Central Kentucky Transmission Company, Coalition of MISO Transmission Customers, Columbia Gulf Transmission, LLC, Crossroads Pipeline Company, DC Office of the People's Counsel, Delaware Division of the Public Advocate, Dominion Resources Services, Inc., DTE Electric Company, DTE

⁴⁸ *Id.*

⁴⁹ *Id.* at 9 (quoting Order No. 809, FERC Stats. & Regs. ¶ 31,368 at P 19).

⁵⁰ *Id.* at 13.

⁵¹ *Id.* at 14.

Gas Company, Duke Energy Corporation, Duke Energy Corporation Subsidiaries,⁵² Duquesne Light Company, Duquesne Power, LLC, Dynegy Marketing and Trade, LLC, East Tennessee Natural Gas, LLC, Edison Electric Institute, Electric Power Supply Association (EPSA), Electricity Consumers Resource Council, Entergy Services, Inc., Exelon Corporation, Gulfstream Natural Gas System, L.L.C., Interstate Natural Gas Association of America, Macquarie Energy LLC, Maritimes & Northeast Pipeline, L.L.C., MidAmerican Energy Company (MidAmerican), Mississippi Public Service Commission, Missouri Public Service Commission, Morgan Stanley Capital Group Inc., National Rural Electric Cooperative Association, Natural Gas Supply Association (NGSA), New England States Committee on Electricity, New York Transmission Owners,⁵³ Northern Indiana Public Service Company, NRG Companies I,⁵⁴ Old Dominion Electric Cooperative, Ozark Gas Transmission, L.L.C., Pacific Gas and Electric Company, Pennsylvania Office of Consumer Advocate, PSEG Companies,⁵⁵ Public Utilities Commission of The State of California, Puget Sound Energy, Inc., Repsol Energy North America Corporation, South Mississippi Electric Power Association, Southeast Supply Header, LLC, Southern California Generation Coalition, Southern Company Services, Inc., Tennessee Valley Authority, Texas Eastern Transmission, LP, Vitol Inc., Wabash Valley Power Association, Inc. Western Power Trading Forum, Wisconsin Electric Power Company, and Xcel Energy Services Inc. Comments were filed by Midcontinent Independent System Operator, Inc. and Puget Sound Energy, Inc.

33. Notice of MISO's July 23, 2015 compliance filing in Docket No. ER15-2256-000 was published in the *Federal Register*, 80 Fed. Reg. 45,217 (2015), with interventions and protests due on or before August 13, 2015. Timely motions to intervene were filed by Alliant, Ameren Services Company, America's Natural Gas Alliance, Consumers

⁵² Duke Energy Corporation Subsidiaries include Duke Energy Carolinas, LLC, Duke Energy Progress, Inc., and Duke Energy Florida, Inc.

⁵³ New York Transmission Owners include Central Hudson Gas & Electric Corporation, Consolidated Energy Company of New York, Inc., Long Island Power Authority, New York Power Authority, New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

⁵⁴ NRG Companies I include NRG Power Marketing LLC, GenOn Energy Management, LLC, Bayou Cove Peaking Power LLC, Big Cajun I Peaking Power LLC, Cottonwood Energy Company LP, Louisiana Generating LLC, NRG Sterlington Power LLC, and NRG Wholesale Generation LP.

⁵⁵ PSEG Companies include PSEG Energy Resources & Trade LLC and PSEG Power LLC.

Energy Company, Exelon Corporation, EPSA, Interstate Natural Gas Association of America, Manitoba Hydro, MidAmerican, NGSAs, Northern Indiana Public Service Company, NRG Companies II,⁵⁶ Wisconsin Electric Power Company, WPPI Energy (WPPI), and Xcel Energy Inc. American Gas Association, Duke Energy Corporation, and Wabash Valley Power Association, Inc. each filed a motion to intervene out-of-time.

34. Alliant, MidAmerican, NGSAs, and WPPI filed comments. On August 14, 2015, EPSA and NRG Companies II filed untimely comments, and on August 18, 2015, NRG Companies II also filed an untimely protest. On August 28, 2015, MISO filed an answer to EPSA's comments and NRG Companies II's comments and protest. On September 8, 2015, NRG Companies II filed an answer to MISO's answer.

35. Commenters are generally supportive of MISO's proposal. Both Alliant and WPPI support MISO's filing as proposed,⁵⁷ and MidAmerican asserts that the Commission should conditionally accept MISO's proposal,⁵⁸ although these commenters note their initial preference for maintaining the status quo.⁵⁹ Alliant and WPPI assert that MISO's filing represents an appropriate balance between MISO's perceived needs to comply with the Commission's directives and the operational needs of MISO's stakeholders.⁶⁰ Similarly, MidAmerican asserts that MISO's proposal reasonably balances trade-offs between competing advantages, disadvantages, and costs.⁶¹

36. Alliant, WPPI, and MidAmerican agree with MISO that it is unnecessary for MISO to move the posting of MISO's day-ahead market results in advance of the Timely Nomination Cycle. Alliant and WPPI note that the MISO region has not experienced problems with natural gas scheduling due to differences in scheduling timelines between

⁵⁶ NRG Companies II are NRG Power Marketing LLC and GenOn Energy Management, LLC.

⁵⁷ Alliant Comments at 4; WPPI Comments at 1.

⁵⁸ MidAmerican Comments at 5. MidAmerican argues that the Commission should condition acceptance of MISO's proposal on MISO's ability to clear its day-ahead market and FRAC within three hours and to implement further market enhancements. MidAmerican states that MISO should be directed to provide status reports so that unanticipated problems can be identified promptly, allowing MISO's proposal to be adjusted if necessary.

⁵⁹ Alliant Comments at 4; WPPI Comments at 4-5; MidAmerican Comments at 7.

⁶⁰ Alliant Comments at 4; WPPI Comments at 5.

⁶¹ MidAmerican Comments at 7.

natural gas and electric markets.⁶² Similarly, MidAmerican states that it is not aware of significant market disruptions caused by the fact that the revised Timely Nomination Cycle deadline occurs prior to the posting of day-ahead market results.⁶³ Alliant adds that MISO should not be required to make additional changes to its electric day in an attempt to address problems that do not exist.⁶⁴ Similarly, WPPI states that it prefers to avoid making changes to market timelines unless a problem has been identified that needs to be addressed.⁶⁵

37. Alliant notes that problems with obtaining firm natural gas access only occur during times of extreme cold weather, so wholesale changes to the electric day would essentially solve a problem that does not exist most operating days of the year.⁶⁶ Similarly, MidAmerican notes that during the vast majority of the year, natural gas supplies and pipeline capabilities are not an issue in the MISO region.⁶⁷ Further, MidAmerican asserts that advancing the day-ahead market deadline to align with the revised Timely Nomination Cycle deadline would provide no advantage during rare, extreme events.⁶⁸ MidAmerican explains that when the lack of gas-electric coordination has caused problems for MidAmerican, it was generally due to the lack of a multi-day commitment rather than the comparatively smaller gaps between the current day-ahead market results postings and the natural gas nomination deadlines.⁶⁹

38. MidAmerican also asserts that aligning MISO's day-ahead market with the revised Timely Nomination Cycle deadline will not affect MISO's ability to function during the morning ramp period.⁷⁰ In addition, MidAmerican argues that even if the timing of the day-ahead market were coordinated with the revised Timely Nomination Cycle deadline, there would be no coordination with MISO's ongoing intraday reliability assessment

⁶² Alliant Comments at 4-5; WPPI Comments at 5 (citations omitted).

⁶³ MidAmerican Comments at 7.

⁶⁴ Alliant Comments at 5.

⁶⁵ WPPI Comments at 2-3.

⁶⁶ Alliant Comments at 4.

⁶⁷ MidAmerican Comments at 8.

⁶⁸ *Id.* at 5.

⁶⁹ *Id.* 4-5.

⁷⁰ *Id.* at 8.

commitment analyses.⁷¹ MidAmerican asserts that in general, the commitments resulting from these intraday analyses pose more challenges than commitments resulting from the day-ahead market or the evening reliability assessment commitment. MidAmerican explains that intraday reliability assessment leads to commitment of natural gas-fired resources with little notice due to unforeseen real-time system conditions such as generator outages, load increases, and transmission constraints. MidAmerican argues that by their nature, these conditions cannot be identified at the time of the day-ahead market or the evening reliability assessment commitment, and they therefore cannot be addressed by changes in the schedule for the day-ahead market.

39. Commenters also express concerns that advancing the day-ahead market trading deadline to accommodate the Timely Nomination Cycle would create negative impacts on other market elements. WPPI asserts that submitted offers and bids would generally be less accurate because the market participant will have less information, including on natural gas pricing, and must submit offers and bids based on information that is more removed from the actual operating day.⁷² WPPI explains that as a result, individual market participants will have to transact more in the real-time markets which, in general, comes at a higher cost relative to day-ahead markets.⁷³ MidAmerican argues that an earlier day-ahead market trading deadline would deteriorate forecast accuracy and reduce natural gas price certainty.⁷⁴

40. WPPI notes that that MISO's proposal to decrease its solve time from four hours to three hours will likely entail some cost.⁷⁵ WPPI explains that decreasing MISO's day-ahead solve time may preclude other market improvements that would require a solve time in excess of three hours.⁷⁶ Similarly, MidAmerican expresses concern that reducing MISO's solve time by one hour may jeopardize significant market enhancements.⁷⁷

⁷¹ *Id.* at 8-9

⁷² WPPI Comments at 5-6.

⁷³ *Id.* at 6.

⁷⁴ MidAmerican Comments at 9.

⁷⁵ WPPI Comments at 6.

⁷⁶ *Id.*

⁷⁷ MidAmerican Comments at 11.

41. MidAmerican also asserts that the Commission should order a minor editorial correction to the concluding sentence of section 40.1.3.c of the MISO Tariff.⁷⁸ MidAmerican states either the reference to “1600 EST” should be changed to “1500 EPT” or, alternatively, the latter part of the sentence could be deleted.

42. NGSAs supports regional variation in responding to the 206 Order. NGSAs, however, urges the Commission and ISOs and RTOs to consider revising scheduling timelines in the future should pipeline capacity become constrained, particularly as states move to implement the Clean Power Plan.⁷⁹

43. EPSA commends MISO for shortening the market solve time for its day-ahead energy market from four hours to three hours during Daylight Savings Time.⁸⁰ EPSA contends that shortening the day-ahead market solve time is critical in allowing generators access to the natural gas market when it is most liquid and transparent. EPSA, however, asserts that the choices MISO offered for stakeholder consideration were conservative and likely overly limited or narrow.⁸¹ Although EPSA agrees with MISO that allowing for natural gas procurement through 11:00 a.m. EPT, the liquid period of the day, is important for natural gas-fired generation, EPSA asserts that MISO has not made a specific and clear showing why this benefit outweighs the ability of gas-fired generators to nominate gas during the revised Timely Nomination Cycle.⁸² EPSA argues that before the Commission approves MISO’s proposed revisions, MISO must provide more support for why this bargain is necessary at all.⁸³

⁷⁸ *Id.* at 11-12. The referenced sentence currently reads:

A Market Participant must submit or update their real-time Offers and/or Self-Schedules prior to the execution of the RAC process, which normally occurs at 1600 EST or one hour following the posting of the Day-Ahead Energy and Operating Reserve results, whichever is later.

⁷⁹ NGSAs Comments at 6-7.

⁸⁰ EPSA Comments at 4-5. EPSA appears to misinterpret MISO’s proposal. As described above, MISO’s proposed shortened day-ahead market solve time would apply year-round and not just during Daylight Savings Time. *See* MISO Compliance Filing, Docket No. ER15-2256-000 at 9-10.

⁸¹ *Id.* at 4.

⁸² *Id.* at 5-6.

⁸³ *Id.* at 6.

44. In addition, EPSA argues that MISO's proposal only benefits offers submitted for the Evening Nomination Cycle. EPSA argues that MISO's contentions that the Evening Nomination Cycle is nearly as good for one class of shippers due to natural gas scheduling bumping rules and that scheduling in the Timely Nomination Cycle "may be no more effective or beneficial than scheduling in the Evening cycle" are not sufficient to support MISO's proposal or to respond to the show cause requirements set out in the 206 Order.⁸⁴

45. NRG Companies II argue that MISO's refusal to post day-ahead results prior to the revised Timely Nomination Cycle deadline fails to meet the requirements of Order No. 809.⁸⁵ NRG Companies II acknowledge that MISO has faced different natural gas liquidity problems than the eastern ISOs and RTOs; however, NRG Companies II argue that MISO should have measures in place to address problems that might arise in the future.⁸⁶ NRG Companies II suggest that publicizing bids before the Timely Nomination Cycle would help natural gas-fired generators in MISO, during the winter months, when pipelines are more likely to operate under conservative balancing rules. NRG Companies II contend that MISO's proposal will not allow generators to have natural gas quantity certainty.⁸⁷

46. NRG Companies II also argue that MISO should use the same timeframes proposed by PJM and move the day-ahead market trading and results posting deadlines forward an additional 30 minutes so that posting would occur at 1:30 p.m. EPT, 30

minutes before the close of the Timely Nomination Cycle at 2:00 p.m. EPT.⁸⁸ NRG Companies II assert that this change would allow market participants sufficient time for price discovery prior to the trading deadline. NRG Companies II argue that while MISO's proposal to shorten its solve time is a step in the right direction, the Commission should require MISO to shorten the solve time even further.⁸⁹

⁸⁴ *Id.*

⁸⁵ NRG Companies II August 13, 2015 Comments at 3; NRG Companies II August 18, 2015 Protest at 4.

⁸⁶ NRG Companies II August 13, 2015 Comments at 4.

⁸⁷ NRG Companies II August 18, 2015 Protest at 6.

⁸⁸ *Id.* As noted above, the Commission recently accepted PJM's proposal. *PJM Interconnection, L.L.C.*, 153 FERC ¶ 61,209.

⁸⁹ NRG Companies II August 13, 2015 Comments at 4.

47. In MISO's answer, MISO states that EPSA's and NRG Companies II's comments are inconsistent with these entities' respective participation in the MISO stakeholder process.⁹⁰ MISO notes that the two EPSA members voted in the MISO stakeholder process in support of MISO not making any changes to the day-ahead market on compliance, and no EPSA member supported MISO moving its day-ahead market in advance of the revised Timely Nomination Cycle deadline. MISO also notes that NRG Companies II opted out of submitting a ballot communicating their preferred alternative and providing feedback on the three alternatives presented.

48. MISO argues that NRG Companies II's assertion that ISOs and RTOs can publish day-ahead results faster is an oversimplification and fails to consider the realities of market complexities and linear programming.⁹¹ MISO notes that it has previously reduced its solve time from six hours in 2005, to five hours in 2007, to four hours in 2010. MISO states that the Commission, in Order No. 809, has set the benchmark for all markets to strive for and need not take up NRG Companies II's invitation to mandate market solve times. MISO argues that allowing the on-going industry-wide efforts to dictate when such advances are feasible and enabling each ISO and RTO to determine when such changes are appropriately implemented is the most prudent course for the Commission to take.

49. In NRG Companies II's answer to MISO's answer, NRG Companies II argue that, contrary to MISO's assertions, NRG Companies were active participants in the MISO stakeholder process.⁹² NRG Companies II state that they suggested at multiple points in the stakeholder process that failing to move the day-ahead results posting deadline prior to the Timely Nomination Cycle was not compliant with the Commission's directive in Order No. 809. Further, NRG Companies II argue that participation or non-participation in the stakeholder process is not grounds for MISO's non-compliance with this directive.⁹³

⁹⁰ MISO Answer at 3.

⁹¹ *Id.* at 4.

⁹² NRG Companies Answer at 2-3.

⁹³ *Id.* at 2.

IV. Discussion

A. Procedural Matters

50. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2015), the timely, unopposed motions to intervene serve to make the entities that filed them parties to the proceeding or proceedings in which they intervened. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2015), the Commission will grant American Gas Association's, Duke Energy Corporation's and Wabash Valley's late-filed motions to intervene given their interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

51. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2015), prohibits an answer to a protest or answer unless otherwise ordered by the decisional authority. We will accept MISO's and NRG Companies II's answers because they have provided information that assisted us in our decision-making process.

B. Commission Determination

52. We find that MISO's existing Tariff and its revised proposal are unjust and unreasonable insofar as they do not provide for the posting of MISO's day-ahead market results so that natural gas-fired generators will know their day-ahead commitments for the following electric operating day in time to submit nominations for natural gas pipeline capacity during the Timely Nomination Cycle. MISO's proposed day-ahead market results posting time of 2:00 p.m. EPT (1:00 p.m. CCT) is at the same time that nominations are due in the Timely Nomination Cycle such that gas-fired generators cannot know their commitments prior to submitting their nominations for pipeline transportation. As discussed below, we find that MISO has failed to show cause why this scheduling change is sufficient. We therefore will require MISO to submit a further compliance filing within 30 days of the date of issuance of this order that moves its posting of its day-ahead market results at least 30 minutes earlier than proposed to 1:30 p.m. EPT (12:30 p.m. CCT).⁹⁴ We further find that MISO has failed to demonstrate that

⁹⁴ MISO has proposed to move its FRAC notification time to 6:00 p.m. EPT (5:00 p.m. CCT), which we find to be sufficiently in advance of the Evening Nomination Cycle of 7:00 p.m. EPT (6:00 p.m. CCT). However, we will permit MISO in its further compliance filing to propose a different FRAC notification time as MISO revises its day-ahead market timeline in response to this order, provided that this time is also sufficiently in advance of the Evening Nomination Cycle.

making this incremental change in its market results posting time will be unduly burdensome or disrupt its markets.

53. In issuing the NOPR leading to Order No. 809, the Commission recognized that at issue, when determining the scheduling of ISO and RTO markets relative to the scheduling of natural gas transportation, is whether the electric markets are better served by notifying gas-fired generators of their dispatch requirements before the deadline for Timely nominations or by allowing generators to determine the most current gas prices before they must submit their energy market bids.⁹⁵ In balancing these issues, the Commission concluded that posting day-ahead energy market results prior to the Timely Nomination Cycle would improve reliability and reduce costs by permitting the natural gas fired generator to procure natural gas and pipeline transportation during the most liquid scheduling period, the Timely Nomination Cycle. As the Commission explained, during the Timely Nomination Cycle, all of a natural gas pipeline's scheduling nomination priorities are in effect, so that a generator with firm service or one obtaining firm released capacity has the best opportunity to schedule its natural gas transportation. A gas-fired generator scheduling after the Timely Nomination Cycle may not be able to locate natural gas pipeline transportation capacity, and it runs the risk that its transportation requests will not be scheduled since under Commission policy and pipeline tariffs later nominations cannot displace firm nominations.

54. In response to the NOPR, the Commission received no comments opposing this determination and, in Order No. 809, moved the natural gas Timely Nomination Cycle from 12:30 p.m. EPT (11:30 a.m. CCT) to 2:00 p.m. EPT (1:00 p.m. CCT), because this change would better enable ISOs and RTOs to move their day-ahead market results posting time prior to the Timely Nomination Cycle.⁹⁶ In the 206 Order, the Commission similarly recognized that, as a general rule, permitting gas-fired generators to arrange natural gas transportation service during the Timely Nomination Cycle, when the market is most liquid, is preferable because the ability to acquire transportation service during peak periods can be critical to these gas-fired generators' ability to provide reliable service.⁹⁷ The Commission, however, provided the ISOs and RTOs with the opportunity to show cause why conditions in their region justify posting their day-ahead market results after the Timely Nomination Cycle. We find that MISO has failed to make such a showing for its region.

⁹⁵ NOPR, 146 FERC ¶ 61,201 at P 45.

⁹⁶ Order No. 809, FERC Stats. & Regs. ¶ 31,368 at P 87 (no comments were filed contending that the ISOs and RTOs should schedule after the Timely Nomination cycle to improve natural gas price discovery).

⁹⁷ 206 Order, 146 FERC ¶ 61,202 at P 9.

55. MISO, like PJM, NYISO, and ISO-NE, has extensive gas-fired generation in its region and is subject to the possibility of coincident peak demands for electricity and natural gas during winter months. MISO also, for part of the year, generally schedules using Eastern Prevailing Time, as do the other ISOs and RTOs that are subject to coincident peak demands. Ensuring that natural gas-fired generation has the ability to arrange for pipeline transportation service during the most liquid Timely Nomination Cycle after learning whether it is dispatched is of particular importance when pipelines are constrained.⁹⁸ Moreover, securing natural gas pipeline transportation and supply after the Timely Nomination Cycle to fulfill day-ahead electric commitments during constrained periods is often difficult since firm service is already scheduled and cannot be displaced. During the gas-electric coordination proceedings, prior to the issuance of Order No. 809, MISO recognized that in the future it could have scheduling difficulties as coal-fired plants retire.⁹⁹

56. Given the importance of notifying natural gas-fired generators of their electric dispatch obligations prior to the Timely Nomination Cycle deadline, MISO has failed to demonstrate that posting its day-ahead market results at least 30 minutes earlier than it has proposed, i.e., by 1:30 p.m. EPT (12:30 p.m. CCT), will be unduly burdensome or disrupt its markets. As noted above, for at least part of the year, MISO, like PJM, NYISO, and ISO-NE, generally schedules its day-ahead market using Eastern Prevailing Time, which means that it has more time compared to SPP and CAISO during the morning hours to complete its day-ahead schedule in time to meet the 2:00 p.m. EPT (1:00 p.m. CCT) revised Timely Nomination Cycle deadline.¹⁰⁰ Thus, it is not apparent how requiring MISO to move its day-ahead posting deadline in advance of the Timely Nomination Cycle places an undue burden on the staffs of MISO and its stakeholders. Further, as we explain in *California Independent System Operator Corporation*,¹⁰¹ as compared with CAISO's scheduling on Pacific Time, ISOs and RTOs who schedule on

⁹⁸ *See id.*

⁹⁹ *See, e.g.*, MISO Comments, Coordination between Natural Gas and Electricity Markets, Docket No. AD12-12-000 at 1-3 (filed Mar. 30, 2012) (noting that environmental regulation may force the replacement of 12,000 MW of coal-fired generation in the MISO footprint in the next few years, requiring a greater dependence on natural gas generation).

¹⁰⁰ For example, during the period of the year *not* covered by Daylight Savings Time, MISO's day-ahead market schedules become effective at 12:00 a.m. EPT.

¹⁰¹ *Cal. Indep. Sys. Operator Corp.*, 153 FERC ¶ 61,315, at P 42 (2015).

Eastern Prevailing Time¹⁰² essentially have three additional hours to align their schedules with interstate natural gas pipelines, which operate on Central Clock Time. Thus, when ISOs and RTOs scheduling on Eastern Prevailing Time align their schedules with interstate pipelines, their 7:00 a.m. EPT (6:00 a.m. CCT on pipeline time) load forecast is an hour closer to actual load, and hence more accurate, than a contemporaneous 4:00 a.m. PT forecast that CAISO might make.

57. While MISO's compliance filing seeks to justify the preferences of the majority of its stakeholders, we find that MISO has failed to substantiate that these preferences sufficiently address the gas-electric coordination problem that the Commission sought to resolve in Order No. 809. Indeed, market participants representing significant natural gas-fired generation were concerned with their ability to obtain secure pipeline transportation and supported alternatives that would have moved MISO's posting time prior to the Timely Nomination Cycle.¹⁰³

58. MISO and some commenters argue that requiring MISO to post its day-ahead market results prior to the Timely Nomination Cycle would result in negative impacts, such as a deterioration in forecast accuracy, including the forecast accuracy for wind generation.¹⁰⁴ While MISO has extensive wind resources, MISO itself has concluded, based on empirical and numerical analysis, that such a change in scheduling would have minimal impacts on load and wind generation forecasting accuracy.¹⁰⁵ Based on the

¹⁰² As noted above, MISO currently schedules on Eastern Standard Time but has generally proposed to shift its day-ahead and FRAC timelines to Eastern Prevailing Time (with the exception of the time MISO's day-ahead market schedule becomes effective).

¹⁰³ See pages 6 and 8 of MISO's July 7, 2015 presentation to its Market Subcommittee, to which MISO has provided an internet link in Tab D of its compliance filing.

¹⁰⁴ See, e.g., MISO Compliance Filing at 2, 12; MidAmerican Comments at 9.

¹⁰⁵ See MISO Compliance Filing, Docket No. ER15-2256-000, Tab E, at 1, 3. In MISO's Forecast Accuracy Analysis, MISO states that, "MISO expects impacts to Load Forecasting Accuracy to be minimal accuracy [sic] due to moving the Day Ahead and FRAC timelines associated with Alternatives 2 and 3, ahead by 1 to 2 hours." *Id.* at 1. Further, with respect to wind generation forecasting accuracy, MISO states that, "MISO expects impacts to Wind Generation Forecasting Accuracy to be minimal accuracy [sic] due to moving the Day Ahead and FRAC timelines associated with Alternatives 2 and 3, ahead by 1 to 2 hours." *Id.* at 3. Similarly, on page 18 of MISO's June 2, 2015 presentation to its Market Subcommittee, to which MISO has provided an internet link in Tab D of its compliance filing, MISO states, "Analysis indicates that [load and wind] forecasting will not be significantly impacted by a one or two hour movement of the

(continued ...)

record in this proceeding, we do not believe that forecast accuracy will be significantly compromised by the minimal change necessary for MISO to move its day-ahead market results posting time ahead of the Timely Nomination Cycle as required in this order.¹⁰⁶ We therefore find that MISO's demonstration of harm caused by posting its day-ahead market results sufficiently in advance of the Timely Nomination Cycle is inadequate.

59. We recognize that MISO's stakeholders indicate a general preference to purchase natural gas supply during its most liquid period (natural gas price certainty) over being able to obtain natural gas pipeline transportation service at the Timely Nomination Cycle (quantity certainty).¹⁰⁷ First, assuming that MISO has to post its day-ahead market trading deadline 30 minutes earlier than proposed, i.e. to 10:30 a.m. EPT (9:30 a.m. CCT), to accommodate a change to its result posting deadline as required by this order, no commenter has shown that such a minor change in timing would seriously affect generators' abilities to discern natural gas price movements. However, we recognize the benefits that could accrue from shorter market solve times and encourage MISO to continue work with its stakeholders, in an effort to improve market efficiency, to develop means to reduce its market solve times further and to allow market participants to submit bids reflecting increased fuel price certainty.¹⁰⁸

60. Second, as NRG Companies II mention in their comments, a key issue raised in the gas-electric coordination proceedings with which the Commission grappled is the tradeoff between natural gas price certainty (i.e., knowledge of the current price of natural gas used for fuel in electric generation) and natural gas quantity certainty (i.e., ensuring that natural gas-fired generators have the opportunity to schedule natural gas

[day-ahead market] or Next-Day FRAC timelines." These statements contrast those made by CAISO and SPP in their respective compliance filings, who assert that an earlier close to their day-ahead markets may result in less accurate weather, load, and supply forecasts.

¹⁰⁶ In contrast, in accepting CAISO's and SPP's show-cause demonstrations, the Commission has concluded that it lacks a sufficient record to find their tariffs unjust and unreasonable given the differences in time zones, market solve times, and other aspects of their market design. *See Cal. Indep. Sys. Operator Corp.*, 153 FERC ¶ 61,315, at PP 41-42; *Sw. Power Pool, Inc.*, 153 FERC ¶ 61,316, at PP 48-50.

¹⁰⁷ *See, e.g.*, MISO Compliance Filing, Docket No. ER15-2256-000 at 8, 12.

¹⁰⁸ *See* MISO Answer at 5. Regarding NRG Companies II's request that we require to MISO further shorten its day-ahead market solve time, we do not have sufficient evidence in this record that MISO has the current capability to make this change.

during the time period in which transportation capacity is the most available). The NOPR recognized that certain generators preferred price certainty, noting that, “[s]ome generators prefer bidding into the ISO and RTO markets after the Timely Nomination Cycle deadline so their bids to supply electricity reflect the current natural gas prices.”¹⁰⁹ Nevertheless, in moving the Timely Nomination Cycle deadline to 1:00 p.m. CCT to provide the ISOs and RTOs additional time to complete their day-ahead scheduling sufficiently in advance of this revised deadline,¹¹⁰ the Commission determined in Order No. 809 that pipeline transportation (quantity) certainty takes precedence over price certainty.¹¹¹ Neither MISO nor its stakeholders took issue with the Commission’s conclusion in the NOPR or sought rehearing of Order No. 809.

61. We also find that MISO has not substantiated the claim that stakeholders can adequately mitigate risk associated with natural gas acquisition and scheduling. MISO’s argument that scheduling during the Evening Nomination Cycle is nearly as good as scheduling in the Timely Nomination Cycle and that natural gas-fired generators may use the Intraday 2 Nomination Cycle to mitigate potential reliability issues are at odds with the Commission’s determination in Order No. 809, based on the record, that the Timely Nomination Cycle is the most liquid time to obtain natural gas pipeline transportation and that being able to obtain pipeline transportation during this period is particularly critical during coincident peaks and other extreme events, such as polar vortices, when sufficient

¹⁰⁹ NOPR, 146 FERC ¶ 61,201 at P 45.

¹¹⁰ *See, e.g.*, Order No. 809, FERC Stats. & Regs. ¶ 31,368 at P 24 (“Moving the Timely Nomination Cycle to an hour and a half later will allow electric transmission operators additional time to complete their day-ahead scheduling sufficiently before the Timely Nomination Cycle deadline, so that gas-fired generators receive electric market dispatch instructions prior to the deadline for acquiring pipeline capacity in the Timely Nomination Cycle.”), *id.* P 87 (“NAESB’s revised 1:00 p.m. CCT start time for the Timely Nomination Cycle, like the NOPR’s proposed 1:00 p.m. CCT start time, will provide generators more time to acquire natural gas supply and pipeline transportation after learning their electric dispatch obligations, provided changes are made to the ISO and RTO scheduling processes.”).

¹¹¹ As the Commission stated in Order No. 809, procuring natural gas transportation at the Timely Nomination Cycle and knowing the results of the day-ahead electric market could “minimize situations in which gas-fired generators, particularly those that opt to procure natural gas supply and pipeline transportation after the day-ahead electric market results are posted, are unable to procure sufficient resources to fulfill their electric market commitments and to contribute to reliable electric system operation.” Order No. 809, FERC Stats. & Regs. ¶ 31,368 at P 80.

pipeline capacity on pipelines may not be available.¹¹² For example, after the Timely Nomination Cycle, a significant portion of natural gas pipeline transportation is already committed and, even if the generator obtains pipeline secondary firm capacity, it may not be able to change receipt or delivery points since subsequent nominations cannot bump already scheduled firm service. Similarly, Alliant and MidAmerican's argument that MISO should not be required to make wholesale changes to its electric day to address what they describe as rare events conflicts with these objectives. We agree with NRG Companies II that the observation that MISO and its members may not yet have experienced gas scheduling challenges is insufficient justification for MISO's failure to post its day-ahead commitments sufficiently in advance of the Timely Nomination Cycle to allow natural gas-fired generators to better ensure access to pipeline transportation capacity when faced with extreme weather events.¹¹³

62. We disagree with MISO and commenters that aligning MISO's day-ahead market with the revised Timely Nomination Cycle deadline would provide little benefit to natural gas-fired generators without a change to the natural gas operating day. As the Commission found in Order No. 809, moving the close of the Timely Nomination Cycle from 11:30 a.m. CCT to 1:00 p.m. CCT, even without a change to the Gas Day, "will provide generators more time to acquire natural gas supply and pipeline transportation after learning their electric dispatch obligations, *provided changes are made to the ISO and RTO scheduling processes.*"¹¹⁴ Moreover, the Gas Day and natural gas pipeline

¹¹² See, e.g., Order No. 809, FERC Stats. & Regs. ¶ 31,368 at P 9; 206 Order, 146 FERC ¶ 61,202 at P 5.

¹¹³ As discussed earlier, MISO has expressed concern regarding the potential for inadequate gas infrastructure in the future. See, e.g., MISO Comments, Coordination between Natural Gas and Electricity Markets, Docket No. AD12-12-000 at 1-2 (filed Mar. 30, 2012) ("Although MISO does not anticipate any difficulties in procuring sufficient natural gas supplies, certainly not 'prior to the next heating season,' MISO supports the effort to begin this discussion now. MISO believes that since the Commission last reviewed natural gas/electricity coordination, and concluded that regional solutions were adequate to address regional problems, little has changed that would require a different answer. But . . . significant changes in the U.S. energy industry will soon require attention within each region to continue a safe and reliable energy supply using natural gas and electricity. What is changing is that large volumes of natural gas are being developed in areas for which the existing infrastructure may be inadequate, and environmental regulation will force coal fired generation retirements and a greater dependence on natural gas generation.").

¹¹⁴ Order No. 809, FERC Stats. & Regs. ¶ 31,368 at P 87 (emphasis added); see also 206 Order, 146 FERC ¶ 61,202 at P 16.

transportation scheduling address two separate concerns. The Gas Day addresses only the question of the time period when schedules become effective. Scheduling involves the ability to obtain natural gas pipeline transportation regardless of the timing of the Gas Day. Having the opportunity to schedule during the Timely Nomination Cycle will

provide gas-fired generators with the greatest opportunity to obtain reliable natural gas transportation capacity for the next Gas Day, without regard to when that Gas Day begins.

63. Therefore, we find that MISO has failed to show cause that it not be required to post its day-ahead market results sufficiently in advance of the revised Timely Nomination Cycle deadline. Thus, we find that MISO's existing Tariff and its proposed Tariff revisions are unjust and unreasonable, and we reject MISO's compliance filing.

64. Accordingly, we direct MISO to submit a further compliance filing within 30 days of the date of issuance of this order adjusting the time at which the results of MISO's day-ahead energy market and reliability unit commitment process are posted to a time that is sufficiently in advance of the Timely and Evening Nomination Cycles, respectively. Specifically, we require that MISO move its day-ahead market results posting deadline such that it is at least 30 minutes in advance of the revised Timely Nomination Cycle deadline of 2:00 p.m. EPT (1:00 p.m. CCT) adopted in Order No. 809. Such a Tariff revision would mirror the approaches of ISO-NE and PJM that the Commission has recently approved.¹¹⁵ We find that this revision will provide natural gas-fired generators in the MISO market with the opportunity to participate in the Timely Nomination Cycle, which would "forward the objective of minimizing situations in which gas-fired generators, particularly those that opt to procure natural gas supply and transportation after the day-ahead electricity market results are posted, are unable to procure sufficient resources to fulfill their electricity market commitments and to contribute to reliable system operation."¹¹⁶

65. Further, electric market outcomes may better reflect expected operating costs if gas-fired generators were provided with day-ahead market results sufficiently in advance of the revised Timely Nomination Cycle deadline.¹¹⁷ As explained in the 206 Order and in Order No. 809, if gas-fired generators know whether they were committed in the day-ahead electricity market prior to the Timely Nomination Cycle, these generators might

¹¹⁵ *ISO New England Inc.*, 153 FERC ¶ 61,211 (2015); *PJM Interconnection, L.L.C.*, 153 FERC ¶ 61,209.

¹¹⁶ 206 Order, 146 FERC ¶ 61,202 at P 16.

¹¹⁷ *Id.* P 17; Order No. 809, FERC Stats. & Regs. ¶ 31,368 at P 80.

have a greater opportunity to procure natural gas transportation in the Timely Nomination Cycle—when there is the greatest opportunity to procure pipeline capacity.¹¹⁸ This, in turn, could reduce the potential for gas-fired generators to engage in costly actions that raise real-time energy market prices.¹¹⁹

66. In addition, we will require MISO to address in its compliance filing its current practice under its Tariff to make its day-ahead market schedules effective at 12:00 a.m. EPT (11:00 p.m. CCT) during the period of time not covered by Daylight Savings Time and 1:00 a.m. EPT (12:00 a.m. CCT) when Daylight Savings time is in effect. While we appreciate MISO's efforts to shift its day-ahead and FRAC timelines from Eastern Standard Time to Eastern Prevailing Time, MISO failed to explain why this change did not extend to the time when its day-ahead market schedules become effective. We find that using Eastern Prevailing Time year round would align MISO's administrative timelines with the time that MISO's day-ahead market schedules become effective. Accordingly, in its compliance filing, MISO must make its day-ahead market schedules effective at 12:00 a.m. EPT (11:00 p.m. CCT) or explain why differing start times should depend on the use of Daylight Savings Time.¹²⁰

The Commission orders:

(A) MISO's proposed Tariff revisions are hereby rejected.

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

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ As MidAmerican has observed, any change MISO proposes to make to the FRAC rebid deadline should also be reflected in section 40.1.3.c of MISO's Tariff so that the Tariff is internally consistent. *See* MidAmerican Comments at 11-12.