

143 FERC ¶ 61,146
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Midwest Independent Transmission
System Operator, Inc.

Docket No. ER12-1266-003

ORDER ON COMPLIANCE FILING

(Issued May 16, 2013)

1. On August 21, 2012, the Midwest Independent Transmission System Operator, Inc. (MISO) submitted a filing¹ in compliance with Order No. 745² proposing revisions to its Open Access Transmission, Energy and Operating Reserve Markets Tariff (Tariff)³ to comply with the Commission's July 19, 2012 order on rehearing and compliance.⁴ As discussed below, we conditionally accept MISO's August 2012 Compliance Filing, subject to the submission of a compliance filing due within 45 days of the issuance of this order.

¹ MISO August 21, 2012 Compliance Filing, Docket No. ER12-1266-000 (August 2012 Compliance Filing).

² *Demand Response Compensation in Organized Wholesale Energy Markets*, Order No. 745, FERC Stats. & Regs. ¶ 31,322, *order on reh'g*, Order No. 745-A, 137 FERC ¶ 61,215 (2011), *reh'g denied*, Order No. 745-B, 138 FERC ¶ 61,148 (2012).

³ MISO, FERC Electric Tariff.

⁴ *Midwest Indep. Transmission Sys. Operator, Inc.*, 140 FERC ¶ 61,059 (2012) (July 19 Order).

I. Background

A. Order No. 719 and MISO's Order No. 719 Compliance Filings

2. In Order No. 719,⁵ the Commission established reforms to improve the operation of organized wholesale electric power markets, including with respect to demand response, and amended its regulations under the Federal Power Act (FPA) accordingly. In an order issued on December 15, 2011,⁶ the Commission conditionally accepted MISO's filings in compliance with Order No. 719, notably rejecting MISO's proposed compensation for demand response hosted by aggregators of retail customers (ARC).⁷ In an order issued July 19, 2012, the Commission conditionally accepted MISO's March 2012 filings made in compliance with the Order No. 719 Compliance Order, including MISO's revised proposal to compensate demand response hosted by ARCs at the market price for energy, the locational marginal price (LMP).⁸ In an order issued concurrently with this order, the Commission denies the request for rehearing and clarification of the Order No. 719 Rehearing and Compliance Order and conditionally accepts MISO's August 2012 compliance filing related to Order No. 719, subject to submission of Tariff revisions in a further compliance filing.⁹

B. Order No. 745 and MISO's Order No. 745 Compliance Filings

3. On March 15, 2011, the Commission issued Order No. 745, which addressed compensation for demand response resources participating in wholesale energy markets (i.e., the day-ahead energy and operating reserve markets and real-time energy and operating reserve markets) administered by Regional Transmission Organizations (RTO) and Independent System Operators (ISOs) and amended the Commission's regulations

⁵ *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, FERC Stats. & Regs. ¶ 31,281 (2008), *order on reh'g*, Order No. 719-A, FERC Stats. & Regs. ¶ 31,292 (2009), *order on reh'g*, Order No. 719-B, 129 FERC ¶ 61,252 (2009).

⁶ *Midwest Indep. Transmission Sys. Operator, Inc.*, 137 FERC ¶ 61,214 (2011) (Order No. 719 Compliance Order).

⁷ The term "ARC" refers to an entity that aggregates demand response bids (which are mostly from retail loads). Order No. 719, FERC Stats. & Regs. ¶ 31,281 at P 3 n.3.

⁸ *Midwest Indep. Transmission Sys. Operator, Inc.*, 140 FERC ¶ 61,060, at P 127 (2012) (Order No. 719 Rehearing and Compliance Order).

⁹ *Midwest Indep. Transmission Sys. Operator, Inc.*, 143 FERC ¶ 61,145 (2013).

under the FPA.¹⁰ Specifically, Order No. 745 required each RTO and ISO to pay a demand response resource the LMP, under certain circumstances. The Commission required each RTO and ISO, including MISO, to make a compliance filing, proposing Tariff revisions necessary to implement the compensation approach adopted in Order No. 745, including a net benefits test, a cost allocation mechanism, and an assessment of the RTO's or ISO's demand response measurement and verification protocols and any modifications to those protocols that may be necessary to ensure adequate baseline measurement and verification of demand response performance, each of which is discussed more fully below.

4. In the order on compliance issued December 15, 2011, the Commission conditionally accepted in part and rejected in part MISO's August 19, 2011 compliance filing, subject to MISO submitting a further compliance filing within 90 days of issuance of the order.¹¹ On March 14, 2012, as amended March 23, 2012, MISO submitted its filing in compliance with the December 2011 Order on Compliance.¹² In the July 19 Order, the Commission denied requests for rehearing and clarification of the December 2011 Order on Compliance and conditionally accepted MISO's March 2012 Compliance Filings, requiring MISO to submit a compliance filing within 30 days of issuance of the order.¹³

5. On August 21, 2012, MISO submitted its August 2012 Compliance Filing, which is discussed below. This third round of compliance focuses on the following: the Net Benefits Price Threshold and demand response compensation; cost allocation; and measurement and verification protocols and registration procedures. MISO also proposes various Tariff revisions to clarify definitions and acronyms and to correct punctuation. In addition, MISO requests an extension of the effective date for section 40.3.3.a(xix) of the Tariff (Reserve Zone Demand Response Resources Compensation Recovery Charge) until 120 days after the provision is accepted.

¹⁰ Order No. 745, FERC Stats. & Regs. ¶ 31,322 at P 6.

¹¹ *Midwest Indep. Transmission Sys. Operator, Inc.*, 137 FERC ¶ 61,212, at P 2 (2011) (December 2011 Order on Compliance).

¹² MISO March 14, 2012 Compliance Filing, Docket No. ER12-1266-000 (March 2012 Compliance Filing); MISO March 23, 2012 Amended Compliance Filing, Docket No. ER12-1266-001 (March 2012 Amended Filing) (together, March 2012 Compliance Filings).

¹³ July 19 Order, 140 FERC ¶ 61,059 at P 3.

II. Notice of Filing and Responsive Pleadings

6. Notice of MISO's August 2012 Compliance Filing was published in the *Federal Register*, 77 Fed. Reg. 53,193 (2012), with comments due on or before September 11, 2012. On September 11, 2012, Demand Response Supporters¹⁴ and the Environmental Law and Policy Center each filed timely protests.¹⁵

III. Discussion

A. Net Benefits Price Threshold and Demand Response Compensation

1. Background

7. Order No. 745 required each RTO and ISO to pay a demand response resource the LMP when certain conditions are met, including when dispatch of the demand response resource is cost-effective as determined by a net benefits test. The Commission required each RTO and ISO to implement a net benefits test to determine whether a demand response resource is a cost-effective alternative to generation for balancing supply and demand in any given hour. Specifically, Order No. 745 directed each RTO and ISO to undertake an analysis on a monthly basis, based on historical data and the prior year's supply curve, to identify a price threshold to estimate where customer net benefits would occur. The Commission explained that the RTO or ISO should determine the threshold price corresponding to the point along the supply stack for each month at which the benefit to load from the reduced LMP that results from dispatching demand response resources exceeds the increased cost to load associated with the billing unit effect from the demand response,¹⁶ and should update the calculation monthly as new information

¹⁴ Demand Response Supporters include: Coalition of Midwest Transmission Customers, Comverge, Inc., EnergyConnect by Johnson Controls, EnerNOC, Inc., the Minnesota Large Industrial Group and Wisconsin Industrial Energy Group and Wal-Mart Stores Inc.

¹⁵ Demand Response Supporters September 11, 2012 Protest, Docket Nos. ER12-1265-003 and ER12-1266-003 (Demand Response Supporters Protest); Environmental Law and Policy Center September 11, 2012 Protest, Docket No. ER12-1266 -003 (Environmental Law and Policy Center Protest).

¹⁶ The "billing unit effect" refers to the possibility that dispatching demand response resources may result in an increased cost per unit to load as a result of the decrease in load purchasing electricity during periods of demand response. *See generally* Order No. 745, FERC Stats. & Regs. ¶ 31,322 at PP 4, 50-58. *See infra* PP 52-61.

becomes available and post the threshold price on the RTO or ISO website.¹⁷ The Commission also required posting of the Commission-approved net benefits test methodology on the RTO's or ISO's website, with supporting documentation.¹⁸ The Commission further explained that the threshold point along the supply stack for each month will fall in the area where the supply curve becomes inelastic, rather than the extreme steep portion at the peak or in the flat portion of the supply curve.¹⁹

8. MISO, in its August 2011 compliance filing, proposed that when demand response resources clear in the day-ahead and/or real-time energy market in a given hour, the market would pay such resources for Non-Excessive Energy²⁰ at the applicable hourly LMP if the applicable hourly LMP equals or exceeds the Net Benefits Price Threshold in effect for that month. MISO proposed that, if the applicable hourly LMP is instead less than the Net Benefits Price Threshold (i.e., if the demand response is not cost-effective), then cleared demand response resources would receive no compensation.²¹

9. To determine the Net Benefits Price Threshold, MISO proposed to construct supply curves from real-time offers (excluding those of demand response resources) for the previous year. In conjunction with appropriate explanatory variables, MISO proposed to use mathematical techniques to estimate a "smoothed," aggregate net benefits supply curve.²² Proposed section 38.7.1 of the Tariff provided that, for 2011, MISO would use historical real-time offers for 2010, and subsequently incorporate additional offer pairs on an annual basis, so that an updated net benefits supply curve would be determined on February 15th of each year to be effective on March 1st. MISO stated that, for each operating month, it would determine the Net Benefits Price Threshold by finding the price that corresponds to the point on the net benefits supply curve where the elasticity of supply is less than or equal to one for all greater quantities.²³

¹⁷ *Id.* P 79.

¹⁸ *Id.* P 81.

¹⁹ *Id.* P 80.

²⁰ Section 1.461 of the Tariff defines Non-Excessive Energy as: "Energy injected or withdrawn by a Resource at a Commercial Pricing Node in an Hour in the Real-Time Energy and Operating Reserve Market that is less than or equal to that Resource's Excessive Energy Threshold." Section 1.210 of the Tariff defines the Excessive Energy Threshold as "The maximum value of a Resource's Tolerance Band."

²¹ MISO August 2011 Compliance Filing, Transmittal Letter at 5.

²² *Id.* at 6, Att. A at 4-6.

²³ *Id.* at 6.

MISO's proposed section 38.7.1 of the Tariff provided that this monthly threshold would be determined by the 15th day of each month prior to the operating month and then posted on MISO's website.²⁴

10. In the December 2011 Order on Compliance, the Commission conditionally accepted in part and rejected in part MISO's compensation proposal, subject to the outcome of the MISO Order No. 719 compliance proceeding and further compliance. Significantly, the Commission rejected MISO's proposal to not compensate demand response resources when the applicable hourly LMP is below the Net Benefits Price Threshold. The Commission rejected MISO's compensation proposal because it was beyond the scope of Order No. 745.²⁵

11. Among other things, the Commission expressed several concerns regarding the proposed definitions of "Net Benefits Price Threshold" and "Net Benefits Supply Curve" in sections 1.443b and 1.443c of the Tariff, respectively. The Commission noted that the definition of "Net Benefits Price Threshold" in section 1.443b is different from the definition proposed in section 38.7.1.3²⁶ and required MISO to submit Tariff revisions to make the definition in section 1.443b consistent with proposed section 38.7.1.3.²⁷ As for the definition of "Net Benefits Supply Curve" in section 1.443c, the Commission directed MISO to revise it to ensure that the real-time offers MISO uses are updated monthly as new data become available. The Commission also required an explanation of whether day-ahead offers and/or demand response resource offers should be used to derive the supply curve, and, if needed, corresponding revisions to sections 1.443c and 38.7.1.1.²⁸

²⁴ *Id.* at 7.

²⁵ *Id.*

²⁶ MISO proposed in section 1.443b to define "Net Benefits Price Threshold" as the point along the net benefits supply curve beyond which the benefit from the reduced LMP resulting from dispatching demand response resources "exceeds the payments made to the Demand Response Resources." Proposed section 38.7.1.3 defined the Net Benefits Price Threshold as the "price-quantity point where the Net Benefits Supply Curve becomes inelastic for all larger quantities supplied," consistent with the statement in Order No. 745 that "the threshold point along the supply stack for each month will fall in the area where the supply curve becomes inelastic." *See id.* P 44 and n.93 (citing Order No. 745, FERC Stats. & Regs. ¶ 31,322 at P 80).

²⁷ December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 44.

²⁸ *Id.* P 45.

12. The Commission found that MISO's proposed determination of the Net Benefits Price Threshold in section 38.7.1 did not comply with Order No. 745, and therefore the Commission required MISO to provide additional information in the Tariff regarding the derivation of net benefits supply curves.²⁹

13. MISO, in its March 2012 Compliance Filing, proposed to remove Tariff provisions that make demand response resources ineligible for compensation when the applicable LMP is below the Net Benefits Price Threshold and/or when the demand response is facilitated by behind-the-meter generation. MISO stated that, as a result of these changes, demand response resources will be compensated at the LMP, regardless of whether the applicable hourly LMP equals or exceeds the Net Benefits Price Threshold.³⁰

14. MISO explained that day-ahead offers are not used when deriving the supply curve because the Net Benefits Price Threshold "is only of material impact" in the real-time market.³¹ Elaborating upon this, MISO explained that demand response resources are paid the LMP in the day-ahead market, and that there is not any "missing money" in the day-ahead market requiring cost allocation protocols.³²

15. MISO proposed to revise section 38.7.1 of the Tariff to include additional information on the determination of the Net Benefits Price Threshold. In particular, MISO proposed to remove language describing its determination of the net benefits supply curve, including the use of historical data and inclusion of updated offer information. MISO proposed Tariff revisions describing the determination of the Net Benefits Price Threshold and associated explanatory variables. Proposed section 38.7.1.2 defined the Net Benefits Price Threshold as "the price that corresponds to the determined point on the supply curve."³³ MISO also proposed to post, prior to the 15th of each

²⁹ In particular, the Commission stated that the Tariff provisions do not include information regarding the explanatory variables that MISO will consider, the elimination of explanatory variables that are not statistically significant, or the aggregation of daily supply curves. *Id.* P 46.

³⁰ March 2012 Compliance Filing, Transmittal Letter at 3-4, 9.

³¹ *Id.* at 7-8.

³² *Id.* at 8 (citing December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 43). "Missing money" is another way to refer to the "billing unit effect," which is defined at footnote 17 and discussed *infra* PP 52-61.

³³ *Id.*, MISO, FERC Electric Tariff, [38.7.1, Net Benefits Price Threshold Version 1.0.0](#), § 38.7.1.

month, its supply curve analysis, net-benefits methodology, Net Benefits Price Thresholds for the following month and previous year, and supporting documentation.³⁴

2. July 19 Order

16. The Commission conditionally accepted MISO's demand response compensation, after having found several deficiencies that it required MISO to address. First, it found that MISO had not complied with prior directives regarding the definition of "Net Benefits Price Threshold" and "Net Benefits Supply Curve" in sections 1.443b and 1.443c of the Tariff, respectively. The Commission had previously required MISO to submit Tariff revisions to make the definition of "Net Benefits Price Threshold" in section 1.443b consistent with proposed section 38.7.1.3.³⁵ Specifically, the Commission found that MISO, in its March 2012 Compliance Filing, did not submit the required revisions to section 1.443b. Second, the Commission found that proposed sections 1.443c and 38.7.1.1 of the Tariff continued to contain unexplained conflicting language regarding whether MISO will use demand response resource offers when deriving the supply curve.³⁶

17. Third, the Commission found that further Tariff revisions were needed with regard to the determination of the Net Benefits Price Threshold in section 38.7.1, to comply with the December 2011 Order on Compliance's requirement that MISO provide additional information regarding the derivation of net benefits supply curves. In particular, the Commission noted that section 38.7.1 did not include information regarding the explanatory variables that MISO will consider, the elimination of explanatory variables that are not statistically significant, or the aggregation of daily supply curves.³⁷ The Commission found that MISO's proposed Tariff revisions referred to the relevant explanatory variables, but did not define these terms or use consistent terminology when describing them.³⁸ The Commission stated that, while MISO's proposed Tariff revisions

³⁴ March 2012 Compliance Filing, MISO, FERC Electric Tariff, [38.7.1, Net Benefits Price Threshold, 1.0.0](#), § 38.7.1.

³⁵ July 19 Order, 140 FERC ¶ 61,059 at P 77 (citing December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 44).

³⁶ *Id.* MISO, FERC Electric Tariff, [38.7.1.2, Net Benefits Price Threshold, 1.0.0](#), § 38.7.1.2.

³⁷ July 19 Order, 140 FERC ¶ 61,059 at P 78 (citing December 2011 Order on Compliance, 137 FERC ¶ 61,212 at PP 46-47).

³⁸ The proposed Tariff revisions refer to "an index to reflect outages" and "coal and natural gas fuel price data" for the determination of initial supply curves, but later refer to "the most recent available information on projected outages" and "future prices

referred to an “aggregate power supply curve,” they did not mention daily supply curves or their aggregation, as required by the December 2011 Order on Compliance. The Commission therefore required MISO to submit, in its compliance filing, revisions to section 38.7.1 to address these issues, consistent with the Commission’s previous directives.³⁹

18. Fourth, the Commission also noted that MISO removed from section 38.7.1, without explanation, information relating to the determination of the Net Benefits Price Threshold, including removing: (1) the initial use of historical hourly real-time offers “for the period 2010;” (2) the subsequent use of the historical hourly real-time offers “for the previous year;” (3) the requirement that MISO will determine “a smoothed mathematical representation of the Net Benefits Supply Curve;” (4) the subsection numbering denoting section 38.7.1.3; and (5) references to the defined term, Net Benefits Supply Curve,” which it replaced with “supply curve” and “aggregate power supply curve,” which are not defined in the Tariff. The Commission required MISO to either reinsert the specified information into section 38.7.1 or to provide an explanation of why these Tariff revisions were necessary to comply with the December 2011 Order on Compliance.⁴⁰

3. August 2012 Compliance Filing

19. In response to the Commission’s first directive, regarding consistency between sections 38.7.1 and 1.443b of the Tariff, MISO now proposes to remove the definition of Net Benefits Price Threshold from section 38.7.1. MISO also proposes to move the phrase “the point on the supply curve where elasticity is less than or equal to one for all greater quantities” from section 38.7.1 to the definition of Net Benefits Price Threshold in section 1.443b.

20. In response to the Commission’s second directive, that MISO make sections 1.443c and 38.7.1.1 consistent with respect to the use of demand response resource offers when determining the Net Benefits Supply Curve, MISO explains that it does not believe that offers for Demand Response Resources – Type I or Demand Response Resources – Type – II⁴¹ should be included as part of the aggregate supply curve used to derive the

for coal, and natural gas prices obtained from the first business day of each month” for the determination of subsequent supply curves. March 2012 Compliance Filing, MISO, FERC Electric Tariff, [38.7.1, Net Benefits Price Threshold, 1.0.0](#), § 38.7.1.

³⁹ July 19 Order, 140 FERC ¶ 61,059 at P 78.

⁴⁰ *Id.* P 79.

⁴¹ MISO FERC Electric Tariff characterizes Demand Response Resources (DRR) as either DRR-Type I or DRR-Type II. DRR-Type I are capable of supplying a specific

Net Benefits Supply Curve, because Net Benefits Supply Curves are designed to determine whether a demand response resource offer benefits the market. MISO states that if it were to include such offers in the development of the Net Benefits Supply Curve, then the resulting estimates would be biased and inefficient. MISO proposes to revise section 1.443c to note the exclusion of demand response resources from the Net Benefits Supply Curve definition.⁴²

21. In response to the Commission's third directive, that MISO provide additional information in section 38.7.1 regarding the derivation of the Net Benefits Supply Curve, MISO proposes to revise section 38.7.1.1 to describe the econometric approach to derivation of the Net Benefits Supply Curve. These Tariff revisions include: (1) an identification of explanatory variables (including, for example, an outage index); (2) a description of the elimination of explanatory variables that are not statistically significant; and (3) the aggregation of daily supply curves. MISO, in its Transmittal Letter, also references documents submitted to the Commission providing greater detail on daily supply curve aggregation.

22. The Commission's fourth directive concerns MISO's unexplained removal in the May 2012 Compliance Filing of certain language from section 38.7.1 (which addresses procedures for developing the Net Benefits Price Threshold). MISO explains that it deleted the phrase "for the period 2010" from the Tariff because section 38.7.1.1 will apply to each year, not just 2010. MISO states that in the current filing, MISO proposes to add "for the previous year" to the Tariff to clarify that data beyond the year 2010 would be used in the derivation of the Net Benefits Supply Curve. MISO explains that it proposed to remove its statement in section 38.7.1.2 that it will determine "a smoothed mathematical representation of the Net Benefits Supply Curve" and replace this phrase with a more complete description of the steps that MISO will take to update the Net Benefits Price Threshold.

23. MISO states that it proposed deleting section 38.7.1.3 because the information had been folded in to section 38.7.1.2 and the subsection number was therefore no longer needed.⁴³ MISO also proposes to reinsert references to the defined term "Net Benefits

quantity of energy or contingency reserve through physical load interruption. DRR-Type II are capable of supplying energy and/or operating reserves over a dispatchable range. See MISO, FERC Electric Tariff, §§ 39.2.5A, 40.2.5.

⁴² MISO August 2012 Compliance Filing, Transmittal Letter at 3.

⁴³ *Id.* at 4.

Supply Curve” where appropriate.⁴⁴ MISO clarifies, in response to the Commission’s directive, that in order to be more precise, it used the phrases “aggregate power supply curve” and “supply curve” in the Tariff in previous filings because these concepts are components of the Net Benefits Supply Curve. MISO states that it believes that these terms, while undefined in the Tariff, “substantively describe the terms and conditions of MISO’s service.”⁴⁵ MISO proposes to further clarify in section 38.7.1.1(iii) how the “aggregate power supply curve” is used.⁴⁶ Additionally, MISO proposes to eliminate the use of “supply curve” in that section of the Tariff. In response to the Commission’s directive, MISO also proposes to replace the term “estimated aggregate power supply curve” with “Net Benefits Supply Curve” in section 38.7.2 because the estimation of an aggregate power supply curve is the Net Benefits Supply Curve.⁴⁷

4. Commission Determination

24. With regard to our first directive, which required consistency between sections 38.7.1 and 1.443b, we accept MISO’s proposed revisions to sections 1.443b and 38.7.1 of the Tariff regarding the Net Benefits Price Threshold. Proposed revisions to section 1.443b clarify the definition of the Net Benefits Price Threshold, and MISO’s deletion from section 38.7.1 of a definition of Net Benefits Price Threshold that was different from the definition in section 1.443b eliminates any inconsistency between the two sections.

⁴⁴ For instance, MISO proposes to insert the following sentence into section 38.7.1.1: “The Transmission Provider will develop a mathematical model based upon the econometric approach to determine the Net Benefits Supply Curve.”

⁴⁵ MISO August 2012 Compliance Filing, Transmittal Letter at 4.

⁴⁶ MISO proposes to insert the following sentence in section 38.7.1:

After the Transmission Provider has determined an Energy Offer curve for each Resource, the Energy Offer curves for all Resources are combined to determine the aggregate amount of Energy offered to the market at a given price which represents the hourly aggregate power supply curve.

MISO, FERC Electric Tariff, 38.7.1, Net Benefits Price Threshold, 2.0.0, § 38.7.1.1(iii).

⁴⁷ We note that the change that MISO describes is in section 38.7.1.2 and not 38.7.2, as stated in MISO’s Transmittal Letter. MISO proposes to replace “estimated power supply curve” with “Net Benefits Supply Curve” in the following sentence: “Transmission Provider will determine, prior to the 15th of each Month, the Net Benefits Price Threshold by using: (1) the Net Benefits Supply Curve...” MISO August 2012 Compliance Filing, Transmittal Letter at 3.

25. With regard to our second directive, that MISO make sections 1.443c and 38.7.1.1 consistent with respect to the use of demand response resource offers when determining the net benefits supply curve, we accept MISO's proposed revision to section 1.443c clarifying that demand response resource offers are not used in the development of the Net Benefits Supply Curve. We find MISO's proposed exclusion of demand response resource offers from the calculation of the Net Benefits Supply Curve to be consistent with Tariff provisions that we have accepted for use in other RTOs and ISOs.⁴⁸

26. With regard to the Commission's third directive, that MISO provide additional information in section 38.7.1 regarding the derivation of the Net Benefits Supply Curve, we find that MISO's proposed Tariff revisions describing explanatory variables, the exclusion of explanatory variables, and the development of the aggregate power supply curve are consistent with Commission directives and provide clarity on the development of the Net Benefits Price Threshold. However, we note that MISO's Tariff revisions in section 38.7.1.2 do not describe how the aggregate power supply curve, as described in MISO's proposed revisions to section 38.7.1(iii), is used to develop the Net Benefits Price Supply Curve. We therefore direct MISO to file such revisions in a compliance filing due within 45 days of the date of this order.

27. We find that MISO has sufficiently complied with our fourth directive, with its explanations relating to and modified Tariff language in section 38.7.1. We accept MISO's explanation for the elimination of the "for the period 2010" because this phase limited the requirements of the section going forward. Although we note that MISO has not provided an explanation for the deletion of "the previous year" from section 38.7.1.2, we find that the reorganization of section 38.7.1.2 in response to the Commission's third directive renders this phrase unnecessary. We accept MISO's proposed revisions to section 38.7.1.2 of the Tariff, which provides a more detailed description of the steps that MISO will take to update the Net Benefits Price Threshold, in lieu of the more general phrase "a smoothed mathematical representation of the Net Benefits Supply Curve," because the new description provides greater detail and transparency for a calculation that directly affects rates terms or conditions of service.⁴⁹ We also accept as reasonable MISO's proposal to merge section 38.7.1.3 into 38.7.1.2. Finally, we accept MISO's insertion of references to the defined term "Net Benefits Supply Curve," where appropriate, as well as MISO's replacement of the term "estimated aggregate power supply curve" with "Net Benefits Supply Curve" in section 38.7.1. This elimination of

⁴⁸ See *PJM Interconnection, L.L.C.*, 137 FERC ¶ 61,216, at PP 40, 43 (2011); *Cal. Indep. Sys. Op. Corp.* 137 FERC ¶ 61,217, at PP 20, 28 (2011); *ISO New England, Inc.*, 138 FERC ¶ 61,042, at PP 14, 23 (2012).

⁴⁹ *City of Cleveland v. FERC*, 773 F.2d 1368, 1376 (D.C. Cir. 1985).

the use of non-defined terms complies with our directive and enhances the clarity and the transparency of the Tariff.

B. Cost Allocation

1. Cost Allocation Across Zones

a. Background

28. In Order No. 745, the Commission determined that it is just and reasonable to allocate the costs associated with demand response compensation proportionally to all entities that purchase from the relevant energy market in the area(s) where the demand response reduces the LMPs for energy at the time the demand response resource is committed or dispatched.⁵⁰ Thus, the Commission required each RTO and ISO to make a compliance filing that either demonstrates that its current demand response cost allocation methodology appropriately allocates costs to those that benefit from the demand reduction or to propose revised Tariff provisions that conform to this requirement.⁵¹

MISO proposed in compliance with Order No. 745, among other things, to allocate the cost of compensating cost-effective demand response resources in the real-time energy market through a direct allocation to load-serving entities and a zonal energy surcharge to energy buyers, with any remaining costs allocated to all market participants based on load ratio share. MISO proposed to rely on the Marginal Foregone Retail Rate (MFRR)⁵² to allocate costs directly to load-serving entities as part of its cost allocation methodology.⁵³

29. In the December 2011 Compliance Order, the Commission rejected MISO's cost allocation methodology and required MISO to submit Tariff revisions to remove any language associated with the rejected cost allocation proposal and to propose a just and

⁵⁰ Order No. 745, FERC Stats. & Regs. ¶ 31,322 at P 102.

⁵¹ *Id.*

⁵² MISO described the MFRR as “a proxy for the price that the retail customers would have paid under their current retail tariff for the energy they did not consume and for which the ARC received compensation from the [MISO].” MISO October 2, 2009 Order No. 719 Compliance Filing, Docket No. EL09-1049-002, at 17-18 (October 2009 Order No. 719 Compliance filing), *quoted in* December 2011 Order on Compliance, 137 FERC ¶ 61,214 at P 160.

⁵³ MISO August 2011 Compliance Filing, Transmittal Letter at 10, 12.

reasonable cost allocation proposal.⁵⁴ The Commission noted that MISO did not explain several components of its cost allocation proposal, including its formula for calculating demand response compensation. The Commission stated that MISO should explain the entirety of its cost allocation proposal, including the associated formulas, and ensure that the proposal is accurately reflected in the Tariff and applies only to those hours when compensating demand response resources at the applicable hourly LMP is cost effective, as determined by the net benefits test.⁵⁵

In its March 2012 Compliance Filing, MISO proposed to remove Tariff language in section 40.3.3.a.(xvii) associated with cost allocation, thereby eliminating direct cost allocation to load-serving entities. MISO proposed a new, zonal cost allocation methodology, under which it would allocate the cost of compensating cost-effective demand response resources in a given hour to the “Real-Time Energy buyers” in the reserve zone(s) where the demand response resources that reduce demand are located based upon each buyer’s share of real-time energy purchases in the reserve zone during the hour.⁵⁶ MISO proposed to identify the reserve zone(s) to which costs will be allocated for each demand response resource using the elemental pricing nodes identified during the resource’s registration and Reserve Zone Configuration Studies.⁵⁷ MISO stated that, if a demand response resource is located in more than one reserve zone, then the costs of compensating it will be apportioned *pro rata* to the affected reserve zones

⁵⁴ December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 99.

⁵⁵ *Id.* P 100.

⁵⁶ March 2012 Compliance Filing, Transmittal Letter at 10, MISO, FERC Electric Tariff, [40.3.3, Real-Time Energy and Operating Reserve Market Settlement Cal, 2.5.0](#), § 40.3.3.a(xvii).

⁵⁷ MISO stated that Reserve Zone Configuration Studies establish the number of reserve zones and the assignment of resource, load, and/or interface elemental pricing nodes to specific reserve zones. March 2012 Compliance Filing, Transmittal Letter at 11-12.

“based on the D[emand] R[esponse] R[esource] Actual Energy Injections.”⁵⁸ MISO proposed to limit the costs recovered from a given reserve zone, so that the costs recovered based on MWh of real-time energy purchases do not exceed the demand response resources’ MWh of actual energy injections. MISO proposed to allocate any remaining costs to market participants system-wide, based on their load ratio shares.⁵⁹

30. MISO maintained that its then-proposed cost allocation methodology comported with the Commission’s requirement that the method of allocating costs be proportional to all entities that purchase from the relevant energy market in the area(s) where the demand response reduces the market price for energy at the time when the demand response resource is committed or dispatched.⁶⁰ According to MISO, reserve zones are updated periodically to reflect transmission constraints and are the appropriate geographic region to reflect the preponderance of the benefits associated with demand response resources. MISO stated that it currently uses reserve zones to allocate operating reserve costs and that the reserve zones are constructed to reflect transmission congestion that restricts deliverability and produces price separation for operating reserve products. MISO added that it opposed the allocation of costs on a system-wide basis, maintaining that such allocation would not equitably account for transmission constraints, which can cause price separation within MISO’s large footprint.⁶¹

b. July 19 Order

31. The Commission conditionally accepted MISO’s proposed cost allocation Tariff provisions in its March 2012 Compliance Filing. However, it found several deficiencies in MISO’s filing. First, the Commission found that MISO had not demonstrated that, in

⁵⁸ *Id.* at 10. Section 1.1a of the MISO Tariff defined “Actual Energy Injection” for a Demand Response Resource – Type II that is qualified to provide regulating reserves as “a calculated volume in MWh that is equal to i) the time-weighted average of the Dispatch Interval Demand Forecasts (positive value) for the Hour minus ii) the actual net interval data of the Host Load Zone (withdrawal positive, injection negative) for the Hour.” For each other type of demand response resource, an “Actual Energy Injection” is “a calculated volume in MWh that is equal to the amount as calculated or metered according to the specifications and protocols in the Measurement and Verification Procedures.” MISO, FERC Electric Tariff, [1.1a, Actual Energy Injections, 1.0.0](#).

⁵⁹ March 2012 Compliance Filing, Transmittal Letter at 10, MISO, FERC Electric Tariff, [40.3.3, Real-Time Energy and Operating Reserve Market Settlement Cal, 2.5.0](#), § 40.3.3.a.xvii.

⁶⁰ *Id.* (citing Order No. 745, FERC Stats. & Regs. ¶ 31,322 at PP 101-102).

⁶¹ *Id.*

hours in which transmission constraints are not actively binding, the benefits of the demand response will not extend beyond the boundaries of the associated reserve zone(s). Consequently, it required MISO to submit Tariff revisions to allocate the costs of compensating cost-effective demand response, so that during any hour when the transmission constraints associated with one or more adjacent reserve zones are not actively binding (i.e., when there is not price separation between one or more specific reserve zones), those reserve zones will share the cost associated with compensating those demand response resources during the hour.⁶²

32. Second, the Commission had required MISO to “explain the entirety of its cost allocation proposal, including the associated formulas, and ensure that the proposal is accurately reflected in the Tariff.”⁶³ In the July 19 Order, the Commission found that MISO had not fully complied with this requirement. In the March 2012 Compliance Filing, MISO had proposed to omit the formula for calculating Demand Response Resource compensation and to simply retain existing language providing that MISO shall recover “the total Demand Response Resource compensation” from the applicable reserve zone(s).⁶⁴ The Commission found in the July 19 Order that MISO had not defined the term “Demand Response Resource compensation,” nor described how it will determine this compensation for each reserve zone. Accordingly, the Commission required MISO to submit an explanation of its determination of demand response resource compensation in each reserve zone, including any associated formulas, and to ensure that the proposal is accurately reflected in the Tariff.⁶⁵

33. Third, MISO, in its March 2012 Compliance Filing, proposed revisions to section 40.3.3.a.xvii of the Tariff, which provided that, when a demand response resource resides in more than one reserve zone, the total demand response resource compensation will be apportioned to each affected reserve zone, pro rata, “based on the Actual Energy Injections within each Reserve Zone.” The Commission found that this description was not consistent with MISO’s reference in its transmittal letter to injections by demand response resources, which stated that such costs will be apportioned to “the affected Reserve Zones based on the D[emand] R[esponse] R[esource] Actual Energy

⁶² July 19 Order, 140 FERC ¶ 61,059 at P 102.

⁶³ *Id.* P 106 (quoting December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 100).

⁶⁴ *Id.* (citing MISO, FERC Electric Tariff, [40.3.3, Real-Time Energy and Operating Reserve Market Settlement Cal, 2.5.0](#), § 40.3.3.a(xvii)).

⁶⁵ *Id.* P 106 (citing December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 100).

Injections.”⁶⁶ Accordingly, the Commission required MISO to submit an explanation of whether it will use the actual energy injections of demand response resources and/or other resources and corresponding Tariff revisions.

34. Fourth, the Commission found that MISO had not fully complied with the Commission’s requirement that MISO ensure that its cost allocation proposal “applies only to those hours when compensating demand response resources at the LMP is cost effective, as determined by the net benefits test.”⁶⁷ It noted that MISO had proposed to apply its cost allocation methodology in “each Hour in which a [Demand Response Resource’s] LMP is greater than or equal to the Net Benefits Threshold.”⁶⁸ However, it found that MISO’s Tariff does not define the term “DRR’s LMP,” and that this term is not used consistently in other Tariff sections that describe the application of the Net Benefits Price Threshold. The Commission thus required MISO to submit Tariff revisions to either define “DRR’s LMP” or to refer to one or more terms that are defined in the Tariff.⁶⁹

35. Fifth, the Commission stated that MISO’s proposed Tariff revisions in section 40.3.3.a(xvii) did not differentiate sufficiently between costs that are calculated on a zonal basis versus a market-wide basis. In particular, this Tariff section had provided that, if, for a given reserve zone, in an hour, the actual energy injections of all demand response resources exceed the amount of real-time energy purchases, then “the amount of total Demand Response Resource compensation allocated to Real-Time Energy purchases” will be limited to certain costs.⁷⁰ The Commission noted that the proposed Tariff language did not provide that this limitation in the amount of compensation allocated to real-time energy purchases would apply only within the relevant reserve zone. The proposed Tariff revisions also stated that any compensation not recovered from real-time energy purchases “will be allocated, pro rata, to Market Participants based on their Load Ratio Share.”⁷¹ The Commission found that this language did not specify

⁶⁶ *Id.* P 107 (citing March 2012 Compliance Filing, Transmittal Letter at 10 (citing Order No. 745, FERC Stats. & Regs. ¶ 31,322 at P 102)).

⁶⁷ *Id.* P 108 & n.213 (citing Order No. 745 Compliance Order, 137 FERC ¶ 61,212 at P 100).

⁶⁸ *Id.* P 108 & n.214 (citing MISO, FERC Electric Tariff, [40.3.3, Real-Time Energy and Operating Reserve Market Settlement Cal, 2.5.0](#), § 40.3.3.a(xvii)).

⁶⁹ *Id.* P 108.

⁷⁰ *Id.* P 109.

⁷¹ *Id.*

that the costs would be recovered from all market participants on a system-wide basis, and so the Commission required MISO to submit revisions to the Tariff to address these concerns.⁷²

c. August 2012 Compliance Filing

36. MISO proposes to comply with the Commission's first directive, regarding allocation of costs across zones when constraints are not binding, through proposed section 40.3.3a(xix) (Reserve Zone Demand Response Resource Compensation Recovery Charge). Section 40.3.3.a(xix) of the Tariff provides that, for demand response in reserve zones where there are active transmission constraints, the Transmission Provider will recover the demand response resource compensation from the reserve zones in which the demand response is located. MISO argues that constraints are binding when the Marginal Congestion Components of the LMPs are non-zero. MISO states that it will treat one or more reserves zones as being adjacent to one another when they feature no price separation resulting from actively binding constraints, (which MISO describes as the Marginal Congestion Component within the zone equaling zero). Additionally, MISO states that when transmission constraints for reserve zone(s) are not actively binding, then MISO shall recover the total demand response resource compensation from the reserve zones where the demand response resource is located along with any other reserve zone(s) that does not have price separation from the reserve zone(s) where the demand response resource is located.⁷³

37. In response to the Commission's second directive, regarding the provision of formulas and the definition of "Demand Response Resource compensation," MISO proposes to modify section 40.3.3.a(xix) of the Tariff to include the formula for total demand response resource compensation as follows: "total [Demand Response Resource] compensation for an Hour is equal to the Hourly Ex Post LMP for such Demand Response Resource times the Non-Excessive Energy for such [Demand Response Resource.]" Furthermore, MISO clarifies in proposed revisions to section 40.3.3.a(xix) that when a demand response resource resides in more than one reserve zone, the total demand response resource compensation will be apportioned to each affected reserve zone, *pro rata*, based on the demand response resource's Actual Energy Injections within each reserve zone. MISO also explains that the phrases "Demand Response Resource compensation" and "DRR compensation" in the Tariff mean the

⁷² *Id.*

⁷³ MISO August 2012 Compliance Filing, Transmittal Letter at 10

financial compensation that a demand response provider receives for reducing its demand.⁷⁴

38. In response to the Commission's third directive, regarding Actual Energy Injections, MISO also proposes to modify section 40.3.3.a(xix) of the Tariff to explicitly state that the Actual Energy Injections used to apportion the total demand response resource compensation between reserve zones are the Actual Energy Injections from the demand response resource, by inserting the term "[Demand Response Resource]" into the Tariff such that it reads "the Transmission Provider shall recover the total [Demand Response Resource] compensation from the Reserve Zone(s) where the [Demand Response Resource] which reduces demand during such Hour is located." In response to the Commission's fourth directive, regarding the definition of the term "DRR's LMP," MISO states that it has replaced this term with "the Hourly Ex Post LMP for a given DRR [Commercial Pricing Node]."⁷⁵ MISO did not address the Commission's fifth requirement.

d. Comments and Protests

39. Regarding the Commission's first directive, Demand Response Supporters and Environmental Law and Policy Center object to MISO's proposal for cost allocation associated with cost-effective demand response. They state that this proposal is unresponsive to the Commission's directives because it fails to allocate costs properly to all those who benefit from cost-effective demand response, and it attempts to again allocate all demand response costs within one reserve zone, without providing empirical support for this approach. Specifically, they note that MISO's proposal states that a reserve zone in which a demand response resource is located has no actively binding constraints when the Marginal Congestion Component for all Commercial Pricing Nodes in that zone is zero, meaning that one non-zero Marginal Congestion Component value would isolate costs to that one single reserve zone and not properly allocate them to all those who benefit.⁷⁶

40. Further, Demand Response Supporters argue that if all busses in a network have positive Marginal Congestion Component values and the demand response resource is the marginal resource, all load at busses with a positive Marginal Congestion Component value would benefit from the demand response resource.⁷⁷ They argue that accordingly,

⁷⁴ August 2012 Compliance Filing, Transmittal Letter at 8.

⁷⁵ *Id.*

⁷⁶ Demand Response Supporters Protest at 7.

⁷⁷ *Id.*

MISO's claim that a zero Marginal Congestion Component signals demand response beneficiaries only holds true in the absence of any transmission constraints. Demand Response Supporters state that once transmission constraints occur, the Marginal Congestion Component at network busses will become non-zero and MISO's proposal would simply allocate demand response costs within a single reserve zone, rather than to all beneficiaries as directed by the Commission.⁷⁸ Demand Response Supporters also argue that MISO's proposal results in an inappropriately high allocation of costs to the entities providing more demand response. Demand Response Supporters instead support a "zonal approach" that allocates costs "equally to all the zones where the LMP exceeds the threshold price – a test that simply indicates who is above the 'line' and who is below the 'line.'"⁷⁹

41. Similarly, Environmental Law and Policy Center asserts that:

MISO has not demonstrated that any constraint within a Reserve Zone will always result in a restriction on the benefits of Demand Response Resources across Reserve Zones. Nor has MISO demonstrated that identification of such constraints within Reserve Zones is the best method to determine whether there is price separation between Reserve Zones. Instead, MISO's reliance on [Marginal Congestion Component] replaces one arbitrary indicator of price separation (i.e., Reserve Zones) with another (i.e., [Marginal Congestion Components]).^[80]

42. Environmental Law and Policy Center states that MISO's proposal effectively restricts the allocation of costs to the reserve zone in which the demand response resource is located because, in practice, reserve zones are rarely without at least one Commercial Pricing Node with a non-zero Marginal Congestion Component.

e. Commission Determination

43. With respect to the Commission's first directive, regarding the allocation of cost-effective demand response resources in hours when transmission constraints are not binding, we find that MISO's proposed cost allocation methodology does not fully address the concerns the Commission expressed in the July 19 Order. MISO asserts that

⁷⁸ *Id.*

⁷⁹ We note that Demand Response Supporters' proposal is the same as the cost allocation rule that PJM proposed and the Commission recently accepted for use in PJM. *See PJM Interconnection, L.L.C.*, Docket No. ER11-4106 (Aug. 27, 2012) (unpublished letter order).

⁸⁰ Environmental Law and Policy Center Protest at 3.

it complies with the Commission's directive to propose Tariff revisions to allocate costs to adjacent reserves zones when they feature no price separation resulting from actively binding constraints.⁸¹

44. However, MISO's proposed Tariff language does not appear to accomplish this result. Instead it requires a different standard -- that there is no price separation *between the MISO-wide reference bus* and any Commercial Pricing Node in any of the zones in which the cost-effective demand response costs are to be allocated such that the Marginal Congestion Component is zero (and thus the same for all zones for which costs are allocated).⁸² Under proposed section 40.3.3a(xix), MISO uses the existence of non-zero Marginal Congestion Components of LMPs at Commercial Pricing Nodes within a zone to limit the zones to which cost-effective demand response costs are to be allocated. A Marginal Congestion Component measures the congestion cost between the reference bus and a particular Commercial Pricing Node, and calculates the cost of congestion based on that comparison. Accordingly, two zones could feature the same non-zero Marginal Congestion Components, such that they do not exhibit actual price separation from each other and have no actively binding constraint, yet they will be determined under proposed section 40.3.3a(xix) to have a binding constraint between them. This will prevent cost allocation of cost-effective demand response associated with one or both zones to both of the zones.

45. In this scenario, there would be no demand response resource cost sharing among multiple reserve zones on the same side of a constraint, even where there are the same non-zero Marginal Congestion Components (and where there is, accordingly, no actual cost separation). Contrary to the Commission's directive that MISO allocate costs of cost-effective demand response to multiple reserve zones when their transmission constraints are not actively binding,⁸³ no costs would be allocated to adjacent reserve zones whose non-zero Marginal Congestion Components reflect only that constraints other than between those specific reserve zones are binding. Accordingly, we reject MISO's proposed cost allocation methodology and direct MISO to address this concern in the compliance filing to be submitted within 45 days of this filing.

⁸¹ MISO August 2012 Compliance Filing, Transmittal Letter at 6. Note that the proposal and this discussion do not focus on differences in marginal losses that also factor into market prices.

⁸² The MISO-wide reference bus is an aggregation of fixed market load buses, which may change from hour to hour, and represents the point from which congestion is measured.

⁸³ See July 19 Order, 140 FERC ¶ 61,059 at P 102.

46. We share Demand Response Supporters' concerns that the Marginal Congestion Components could differ at least slightly between zones, perhaps only at a few Commercial Pricing Nodes within the zone, a substantial portion of the time, effectively allocating all costs within zones under MISO's proposal. If MISO, in its compliance filing, still seeks to use the Marginal Congestion Component to allocate demand response resource costs, we direct MISO to provide information with its filing on the frequency of non-zero Marginal Congestion Components for each zone for each of the most recent 12 months for which data is available, and either explain why use of the Marginal Congestion Component is still appropriate, notwithstanding these concerns, or submit revised proposed Tariff provisions to address these concerns.

47. We also share Environmental Law and Policy Center's concern that MISO has not demonstrated: (1) that any constraint within a reserve zone will always result in a restriction of the Demand Response Resource across reserve zones; or (2) that constraints within reserve zones optimally correspond to constraints between zones. Accordingly, if MISO, in its compliance filing, still seeks to use the Marginal Congestion Component to allocate demand response resource costs, we direct MISO to address such concerns.

48. We find Demand Response Supporters' concern whether MISO's proposal accounts for whether the Marginal Congestion Component is negative or positive falls outside the scope of this compliance proceeding. In the July 19 Order, the Commission required MISO to propose modifications and associated Tariff revisions "so that during any hour when the transmission constraints associated with one or more *adjacent reserve zones are not actively binding (e.g., when there is not price separation between one or more reserve zones)*, those reserve zones will share the cost associated with compensating those demand response resources during the hour."⁸⁴ The Commission did not require MISO to consider which side of the constraint a resource is located, or the direction of the constraint, which dictates whether the zone features a negative or positive Marginal Congestion Component. Accordingly, we will not address such concerns.

49. We also will not require MISO to adopt Demand Response Supporters' suggested zonal approach that would allocate costs "equally to all the zones where the LMP exceeds the threshold price."⁸⁵ This is not what the Commission required for compliance with the July 19 Order⁸⁶ and we are not required to evaluate competing proposals.⁸⁷

⁸⁴ *Id.* (emphasis added).

⁸⁵ Demand Response Supporters Protest at 7.

⁸⁶ See July 19 Order, 140 FERC ¶ 61,059 at P 102.

⁸⁷ See *id.* P 103 & n.207 (Commission need not consider alternatives to MISO's cost allocation proposal, such as the cost allocation methodology proposed by Demand

50. We find that MISO has complied with the Commission's second directive by defining the term "Demand Response Resource compensation." We find reasonable MISO's proposed formula that total demand response resource compensation for an hour is equal to the hourly *ex post* LMP for such demand response resource times the Non-Excessive Energy for such a demand response resource. Consequently, we accept MISO's definition of total demand response resource compensation in section 40.3.3.a(xix) of the Tariff.

51. We also find that MISO has complied with the Commission's third directive, that it explain whether it will use the actual energy injections of demand response resources and/or other resources by Tariff revisions to section 40.3.3.a(xix). We accept MISO's proposed modification of section 40.3.3.a(xix) of the Tariff to explicitly state that the Actual Energy Injections are those from the demand response resource.

52. With respect to the Commission's fourth directive, regarding the definition of the term "DRR's LMP," we find that MISO's replacement of the term "DRR's LMP" with "Hourly Ex Post LMP for a given DRR [Commercial Pricing Node]" addresses the Commission's concerns regarding sufficient definition, and therefore we accept it.

53. With respect to the Commission's fifth directive, the differentiation of costs that are calculated on a zonal basis versus a market-wide basis, MISO has not proposed any revisions to section 40.3.3.a.xvii of the Tariff. We direct MISO in the compliance filing directed below to submit revisions to the Tariff to address the Commission's concerns, described in paragraph 37 above.

2. Cost Allocation Between Day Ahead and Real-Time Market Participants

a. Background

54. In its March 2012 Compliance Filing, MISO proposed a cost allocation under which it would allocate the cost of compensating cost-effective demand response resources in a given hour to the "Real-Time Energy buyers" in the reserve zone(s) where the demand response resources that reduce demand are located.⁸⁸ In defining "cost-effective demand response," the Commission explained that the "billing unit effect"

Response Supporters) (citing *Cities of Bethlehem*, 727 FERC ¶ 1131, 1136 (D.C. Cir. 1984); *Oxy USA, Inc. v. FERC*, 64 F.3d 679, 692 (D.C. Cir. 1995); *Louisville Gas & Elec. Co.*, 114 FERC ¶ 61,282, at P 29, *order on reh'g*, 116 FERC ¶ 61,020 (2006)).

⁸⁸ March 2012 Compliance Filing, Transmittal Letter at 10, MISO, FERC Electric Tariff, [40.3.3, Real-Time Energy and Operating Reserve Market Settlement Cal. 2.5.0](#), § 40.3.3.a(xvii). For further details, *see supra* P 31.

occurs when demand response resources are dispatched to balance the system, such that the associated reduction in load results in fewer MWh of realized load (demand) paying for the sum of generator and demand response resource MWh, so load pays an effective rate which is greater than the LMP set to procure resources.⁸⁹ In determining whether demand response is cost-effective, one needs to determine whether the reduction in the total amount consumers pay for resources is greater than the amount consumers spend acquiring demand response resources at the LMP.⁹⁰

b. July 19 Order

55. The Commission in the July 19 Order stated that it shared protesters' concerns regarding MISO's earlier proposal to allocate the costs of compensating cost-effective demand response to "Real-Time Energy buyers" based on their "Real-Time Energy purchases." The Commission found that MISO had neither defined these terms nor justified limiting its proposed cost allocation to only market participants who purchase energy in the real-time market. It required MISO to submit: (1) definitions of the terms "Real-Time Energy buyers" and "Real-Time Energy purchases" or, instead, proposed revisions to the specification of cost allocation in the proposed zonal method, in order to refer to one or more terms that are defined in the Tariff; (2) an explanation of whether MISO will allocate costs based on market participants' export, wheel-through, and/or virtual transactions and justification for its proposed treatment of such transactions; (3) Tariff revisions that make allocation of demand response cost to additional resources clear, should MISO propose to allocate demand response costs to additional resources; (4) justification for limiting its cost allocation proposal to market participants that purchase energy in the real-time market or, in the alternative, justification for allocating costs to additional market participants in the day-ahead market.⁹¹

c. August 2012 Compliance Filing

56. In order to comply with the Commission's first directive, regarding the definitions of "Real-Time Energy Buyers" and "Real-Time Energy purchases," MISO proposes to remove the phrase "Real-Time Energy Buyers" in section 40.3.3.a.(xix) and to replace this phrase with the defined Term "Market Participants" to clarify that the allocation of the costs of compensating cost-effective demand response applies to all market

⁸⁹ Order No. 745, FERC Stats. & Regs. ¶ 31,322 at PP 50, 72.

⁹⁰ *Id.* P 50.

⁹¹ July 19 Order, 140 FERC ¶ 61,059 at P 104.

participants with real-time energy purchases. MISO also proposes to modify section 40.3.3.a(xix) to delete its reference to “Real-Time Energy purchases.”⁹²

57. The Commission’s second and third directives require an explanation of whether MISO will allocate costs based on market participants’ export, wheel-through, and/or virtual transactions and justification for its proposed treatment of such transactions; and associated Tariff provisions if MISO were to propose to allocate demand response costs to additional resources. In response, MISO proposes to clarify in the Tariff how each type of real-time energy transaction will be considered when calculating real-time energy purchases, in MWh, for each market participant, for cost allocation purposes.⁹³ Specifically, MISO proposes to include in section 40.3.3.a(xix) revised Tariff language specifying the calculation of real-time energy purchases for each of six different types of real-time energy purchases, including virtual transactions, export schedules, and import schedules.⁹⁴ MISO states that these different types of real-time energy purchases are the result of all of the transactions that cause real-time imbalances from a market participant’s day-ahead position that result in a market participant receiving an energy charge at a positive hourly *ex post* LMP.⁹⁵

58. The Commission’s fourth directive required that MISO justify limiting its cost allocation proposal to market participants that purchase energy in the real-time market or, in the alternative, justify allocating costs to additional market participants in the day-ahead market and submit corresponding Tariff revisions. In response, MISO explains why, under its proposal, it believes it is appropriately allocating the costs of demand response to market participants in both the day-ahead and real-time markets. MISO

⁹² MISO proposes to delete from section 40.3.3.a.(xix) the sentence, “The Transmission Provider shall allocate [costs associated with demand response when a [Demand Response Resource] resides in more than one zone] *pro rata* to Real-Time Energy buyers in such reserve zone based on such buyer’s share of real-time energy purchases in the reserve zone during such an hour.

⁹³ August 2012 Compliance Filing, Transmittal Letter at 6.

⁹⁴ These six different types of real-time energy transactions are categorized as: (1) Load Zones; (2) Resources; (3) Virtual Transactions; (4) Import Schedules; (5) Export Schedules; and (6) Real-Time Financial Schedules without any associated Actual Energy Injections or Actual Energy Withdrawals pursuant to sections 40.3.3.a.xvii(i) and 40.3.3.a.vii(ii). *See* August 2012 Compliance Filing, MISO, FERC Electric Tariff [40.3.3, Real-Time Energy and Operating Reserve Market Settlement Cal, 2.5.0 § 40.3.3.a\(xix\)\(i\)-\(vi\)](#).

⁹⁵ August 2012 Compliance Filing, Transmittal Letter at 6.

states that no additional Tariff modifications are needed to meet the Commission's directives related to the billing unit effect.⁹⁶ MISO states that the day-ahead market is a financial market in which load-serving entities submit bids to buy in the day-ahead market, as do virtual bidders. MISO explains that, as a result of demand response resource assets clearing in the day-ahead market, LMPs are lower than they would have been. MISO achieves energy balance in a least-cost manner and the credits to supply (generation resources, demand response resource and cleared virtual supply offers) equal the charges to load. MISO states that, "[i]n this instance, the 'billing unit effect' does not occur in the Day-Ahead case so there are no additional costs to allocate."⁹⁷ It maintains that the Demand Response Resources that clear in the Day-Ahead Market reduce LMPs in the Day-Ahead Market and thus benefit all buyers in this market in direct proportion to their energy purchase quantities."⁹⁸ Accordingly, it believes that costs of demand response should be allocated in part to market participants in the day-ahead market.

59. MISO explains that the real-time market is a physical delivery market, rather than a financial clearing market. MISO states that it projects expected demand in the short-term horizon and then dispatches supply offers (generators and demand response resources) in a least cost manner to meet projected demand. As a result of least cost dispatch in the real-time market, the credits to supply (generation resources and demand response resources) exceed charges to load (the LMP revenues from market settlements). MISO states that consequently, the "billing unit effect" would apply in the real-time market and the additional costs (the difference between LMP credits from, for example, 100 MW of supply and LMP charges from 90 MW of load, assuming 10 MW Demand Response Resource) would be uplifted to some market participants in the real-time market pursuant to section 40.3.3.a(xix) of the Tariff. The uplift is allocated to those buyers who benefit, via reduced real-time LMPs, from the demand response resource participating in the real-time market.

60. MISO states that when a demand response resource clears in the day-ahead market, the credits that the market participant receives for the load reduction provided in real-time will be charged to market participants that buy energy or operating reserves in the day-ahead market. MISO explains that when a demand response resource clears in the real-time market, the credits that the market participant receives for the load reduction provided in real-time will be charged to the market participants that buy energy or operating reserves in real-time. Thus, MISO states that it is not proposing to limit its cost

⁹⁶ *Id.* at 7-8.

⁹⁷ *Id.* at 7.

⁹⁸ *Id.*

allocation proposal to market participants in the real-time market only, but instead to allocate costs of demand response in both the day-ahead and real-time markets.⁹⁹

d. Commission Determination

61. We accept MISO's proposed Tariff revisions with respect to "Real-Time Energy buyers," including elimination of this term from section 40.3.3.a(xix) the Tariff. We find, however, that the undefined term "Real-Time Energy purchases" remains in numerous locations within section 40.3.3.a(xix). We direct MISO to either define this term or replace it with terms defined in the Tariff.

62. We accept MISO's response with respect to the Commission's second and third directives, requiring MISO to provide an explanation of whether MISO will allocate costs based on market participants' export, wheel-through, and/or virtual transactions and justification for its proposed treatment of such transactions. MISO has shown that these resources must purchase energy at the LMP when they are out of balance in the real-time market, and thus they benefit when demand response lowers the LMP that they would otherwise pay. MISO has proposed Tariff language in section 40.3.3 related to the cost allocation of such transactions, consistent with the Commission's third directive.

63. We find that MISO has complied with the Commission's fourth directive to either justify limiting its cost allocation proposal to market participants that purchase energy in the real-time market or justify its allocation of costs to market participants in the day-ahead market as well as those in the real-time market and submit any corresponding Tariff revisions. We find that MISO has sufficiently explained how the costs of demand response resources procured during the day ahead market are effectively allocated to market participants that purchase energy in the day-ahead market and find that no associated Tariff changes are needed with respect to this directive.

C. Actual Energy Withdrawal

1. Background

64. MISO, in its August 2011 Compliance Filing, proposed to revise section 1.2 of its Tariff, the definition of "Actual Energy Withdrawal," so that the actual energy withdrawal for load zones that host demand response resources that are committed during a given hour would be the metered volume that flows out of the transmission system at each load zone, rather than the metered volume of the load zone "plus Actual Energy

⁹⁹ *Id.*

Injects [sic] within the Load Zone for the Demand Response Resources.”¹⁰⁰ MISO did not explain this change.

65. The Commission, in the December 2011 Order on Compliance, found that the proposed revisions to the definition of “Actual Energy Withdrawal” alter MISO’s existing allocation of the cost of compensating demand response resources during all hours. The Commission directed MISO to explain the Tariff revisions that would be necessary to modify its existing cost allocation methodology to comply with the requirements of Order No. 745 and to ensure that those revisions apply only to the allocation of the cost of compensating demand response resources for energy when they are cost effective, as determined by the net benefits test.¹⁰¹

66. In its March 2012 Compliance Filing, in response to the Commission’s requirement to explain the Tariff revisions necessary to modify its existing cost allocation methodology, MISO stated that it proposed to modify the definition of “Actual Energy Withdrawal” to “exclude the component ‘Actual Energy Injections by the D[emand] R[esponse] R[esource] asset.’”¹⁰² MISO stated that, when the applicable hourly LMP equals or exceeds the Net Benefits Price Threshold, this modification would ensure that costs are allocated to those who benefit.¹⁰³

67. MISO proposed to insert language in the definition of “Actual Energy Withdrawal” providing that “[f]or an Hour where the Hourly Ex Post LMP is less than the Net Benefits Price Threshold, the amount of Actual Energy Injections for all D[emand] R[esponse] R[esource]s associated with a given Load Zone are added to the Metered volume at the specified Load Zone.”¹⁰⁴ MISO stated that this change will avoid charging real-time Revenue Sufficiency Guarantee charges and administrative charges to a load-serving entity for deviations due to a demand response resource providing demand reduction in the real-time market.¹⁰⁵

¹⁰⁰ MISO, FERC Electric Tariff, [1.2, Actual Energy Withdrawal:, 1.0.0.](#)

¹⁰¹ December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 101.

¹⁰² March 2012 Compliance Filing, Transmittal Letter at 13.

¹⁰³ *Id.*

¹⁰⁴ March 2012 Compliance Filing, MISO, FERC Electric Tariff, [1.2, Actual Energy Withdrawal:, 2.0.0.](#)

¹⁰⁵ March 2012 Compliance Filing, Transmittal Letter at 14.

2. July 19 Order

68. The Commission found MISO's proposed revision to the definition would ensure that MISO's existing cost allocation methodology continued to apply when the net benefits test is not satisfied. However, the Commission found that MISO had not explained how the revisions to section 1.2 could modify other sections of the Tariff that use the term "Actual Energy Withdrawal," or why such modifications are needed to comply with Order No. 745, and therefore it required MISO to provide further explanation in the compliance filing.¹⁰⁶

3. August 2012 Compliance Filing

69. MISO now explains that when MISO had included in the definition of "Actual Energy Withdrawal" the Actual Energy Injections by the demand response resource asset, MISO was reconstituting the load for the purposes of Settlement. According to MISO, after omitting the term "Actual Energy Injections" by the demand response resource asset, as a result of the Commission's requirement to allocate costs to those who benefit, MISO did consider how this might impact other sections of the Tariff. MISO states that the changes that it proposes are "appropriate" consistent with those that were identified by the Commission to clarify the definition of "Actual Energy Withdrawal."¹⁰⁷

70. MISO states that it analyzed the settlement charges and credits impacted by the definition of Actual Energy Withdrawals when it proposed the changes to the definition of Actual Energy Withdrawals. It found that, in general, all charges and credits that used the term "Actual Energy Withdrawals" fell into one of two categories: (1) those that should apply to imbalances from day-ahead schedules for energy; and (2) those that should apply to the actual amount of energy withdrawn in real-time. MISO found that most charges applied to the actual amount of energy withdrawn in real-time. MISO states that in order to avoid confusion, and partly based upon how the majority of charges and credits are applied to the actual amount of energy withdrawn in real-time, it decided to use the term "Actual Energy Withdrawals" to apply only to that amount of actual energy withdrawn in real-time.¹⁰⁸

4. Commission Determination

71. We agree with MISO that Actual Energy Withdrawals relate to imbalances in the real-time market. However, we find that MISO's filing does not comply with the Commission's directive to explain how the revisions to section 1.2 could modify other

¹⁰⁶ July 19 Order, 140 FERC ¶ 61,059 at P 110.

¹⁰⁷ MISO August 2012 Compliance Filing, Transmittal Letter at 8-9.

¹⁰⁸ *Id.*

sections of the Tariff that use the term “Actual Energy Withdrawal.” MISO’s assertion that the Tariff revisions are “appropriate” and consistent with the Commission’s directive does not describe specifically how, including a list of affected sections, revisions to section 1.2 would modify other sections of the Tariff. We direct MISO in its compliance filing directed below to explain how revisions to section 1.2 of the Tariff specifically modify (or not) the application of other sections of the Tariff that use the term “Actual Energy Withdrawal,” in particular for those provisions with potential economic or reliability implications.¹⁰⁹ This explanation should address in detail the impact on each affected Tariff section.

D. Demand Response Resource Measurement and Verification and Registration Procedures

1. Measurement and Verification Protocols

a. Background

72. In Order No. 745, the Commission directed each RTO and ISO to include in its compliance filing an explanation of how its current measurement and verification procedures will continue to ensure that appropriate baselines are set, and that demand response will continue to be adequately measured and verified as necessary to ensure the performance of each demand response resource. The Commission directed each RTO and ISO to propose, if necessary, changes to ensure that measurement and verification of demand response will adequately capture the performance (or non-performance) of each participating demand response market participant to be consistent with the requirements of Order No. 745.¹¹⁰

73. As in its October 2009 Order No. 719 Compliance Filing, MISO proposed to incorporate North American Energy Standards Board (NAESB) standards regarding measurement and verification, and stated that its Business Practices Manuals will provide the implementation details for measurement and verification of demand response. For most demand response resources, MISO proposed to relax the one-to-one relationship between the Host Load Zone and demand response resource assets and to eliminate the Load Zone Dispatch Internal Demand Forecast requirement. MISO proposed replacing this requirement with measurement and verification protocols, and proposed Tariff revisions stating that the measurement and verification protocols are described in the Tariff and Business Practices Manuals. However, for Demand Response Resources –

¹⁰⁹ For example, MISO should explain the implications of changes in the definition of Actual Energy Withdrawal on market settlement calculations in section 40.3.3 of the Tariff and the development of the Multi-Use Project Usage Rate in Schedule 26A.

¹¹⁰ Order No. 745, FERC Stats. & Regs. ¶ 31,322 at P 94.

Type II that are qualified to provide regulating reserves (i.e., that are regulation-qualified), MISO proposed, as it did in the MISO Order No. 719 compliance proceeding, to maintain the one-to-one relationship between the Host Load Zone and demand response resource asset. MISO stated that closely monitoring these resources is necessary to ensure reliability and to satisfy North American Electric Reliability Corporation (NERC) standards.¹¹¹

74. In the December 2011 Order on Compliance, the Commission deferred judgment as to whether MISO had complied with the measurement and verification requirements of Order No. 745, noting that MISO was required to include its measurement and verification protocols in its Tariff in the MISO Order No. 719 compliance proceeding.¹¹² The Commission required MISO to provide an explanation of how its measurement and verification protocols, as amended in the ongoing MISO Order No. 719 compliance proceeding, comply with Order No. 745's measurement and verification requirements.¹¹³ The Commission also required MISO to remove references to the measurement and verification protocols being in the Business Practices Manuals.¹¹⁴

75. In addition, the Commission conditionally accepted MISO's proposed language regarding the definition of Host Load Zone and the one-to-one relationship between Host Load Zones and regulation-qualified Demand Response Resources – Type II, subject to the outcome of the MISO Order No. 719 compliance proceeding and further explanation and Tariff revisions on compliance.¹¹⁵ The Commission also noted that, despite MISO's arguments for continuing the one-to-one relationship between Host Load Zones and regulation-qualified Demand Response Resources – Type II, MISO had removed,

¹¹¹ August 2011 Compliance Filing, Transmittal Letter at 7-8.

¹¹² December 2011 Order on Compliance, 137 FERC ¶ 61,212 at PP 121-122 (citing Order No. 719 Compliance Order, 137 FERC ¶ 61,214 at P 79 n.118).

¹¹³ *Id.* (citing Order No. 745, FERC Stats. & Regs. ¶ 31,322 at P 94).

¹¹⁴ *Id.* P 124.

¹¹⁵ *Id.* P 125. The Commission noted that in this Order No. 745-related proceeding, MISO reiterated the arguments it made in the Order No. 719-related proceeding to support retaining the one-to-one relationship between the Host Load Zones and Demand Response Resources – Type II that are qualified to provide regulating services. *Id.* The Commission pointed out, however, that in the Order No. 719 compliance proceeding, the Commission required MISO to provide sufficient justification for its decision to maintain the one-to-one relationship between a regulation-qualified Demand Response Resources – Type II and the Host Load Zone and to provide a better definition of Host Load Zone. *Id.*

without explanation, language in several Tariff sections specific to this relationship. Accordingly, the Commission required MISO to submit either an explanation for the removal of such language specific to regulation-qualified Demand Response Resources – Type II or revisions to ensure that the proposed Tariff revisions appropriately apply to such resources.¹¹⁶ In addition, the Commission noted that the definition of “Measurement and Verification” procedures in section 1.411 of the Tariff excluded, without explanation, regulation-qualified Demand Response Resources – Type II.¹¹⁷

76. In its March 2012 Compliance Filing and in the MISO Order No. 719 compliance proceeding, MISO submitted its (identical) proposed measurement and verification protocols in a new Attachment TT to the Tariff.¹¹⁸ MISO also stated that it had added the language regarding the one-to-one relationship to the Host Load Zone for regulation-qualified Demand Response Resources – Type II.¹¹⁹ MISO argued that it was necessary to retain the one-to-one relationship between Host Load Zones and regulation-qualified Demand Response Resources – Type II because closely monitoring assets that are providing regulating reserves is important to ensuring reliability and meeting NERC standards.¹²⁰ Moreover, MISO contended that a Host Load Zone is required as a modeling tool, to facilitate the modeling of Demand Response Resources – Type II in a similar fashion as generation resources in the network model.¹²¹

77. In the July 19 Order, the Commission found that MISO had generally satisfied the measurement and verification requirements of Order No. 745, and accepted MISO’s proposed Tariff revisions, subject to a compliance requirement. However, it found that MISO had not complied with the Commission’s requirement in the December 2011 Order on Compliance to “either explain its removal of certain Tariff language specific to regulation-qualified Demand Response Resources – Type II (despite its statement that such provisions should apply to these resources) or to submit revisions to ensure that the

¹¹⁶ *Id.* P 126.

¹¹⁷ *Id.*

¹¹⁸ For a complete description of proposed Attachment TT, *see* Order No. 719 Rehearing and Compliance Order, 140 FERC ¶ 61,060 at PP 72-75.

¹¹⁹ March 2012 Compliance Filing, Transmittal Letter at 17.

¹²⁰ *Id.*

¹²¹ *Id.* at 18.

proposed Tariff revisions appropriately apply to such resources.”¹²² The Commission also noted that MISO’s proposed revisions to the definition of “Calculated [Demand Response Resource]-Type II Output” in section 1.61 of the Tariff continue to refer to Host Load Zones but are not limited to applying only to regulation-qualified Demand Response Resources – Type II. Additionally, the Commission found that MISO had not explained the removal of Tariff language specific to Host Load Zones in a number of other specified Tariff sections in its August 2011 Compliance Filing.¹²³

78. Accordingly, the Commission required MISO to submit “either an explanation for the removal of the language specific to regulation-qualified Demand Response Resources – Type II and/or revisions to ensure that the Tariff appropriately applies to such resources.”¹²⁴ Consistent with the Order No. 719 Rehearing and Compliance Order, the Commission also required MISO to submit Tariff revisions to ensure that, when referring to Demand Response Resources – Type II that are eligible to provide regulating reserves, it consistently characterizes them as “Regulation Qualified Resources.”¹²⁵

b. August 2012 Compliance Filing

79. In response to the Commission’s July 2012 Order No. 719 Rehearing and Compliance Order, MISO proposes to remove the Host Load Zone concept from the Tariff, including eliminating the one-to-one relationship between Host Load Zones and regulation-qualified Demand Response Resources – Type II.¹²⁶ Consequently, in this proceeding, MISO proposes Tariff revisions to address the removal of Tariff language specific to regulation qualified Demand Response Resources – Type II. Specifically, MISO proposes to revise section 1.411 of the Tariff, which addresses measurement and verification, to reflect the inclusion of Demand Response Resources – Types I and II in measurement and verification procedures by removing the phrase “that are regulation-

¹²² July 19 Order, 140 FERC ¶ 61,059 at P 123 & n.24, noting that the Commission specifically referenced sections 1.61, 39.3.1, 39.3.2C, 40.2.5.b(xxxii), 40.3.3.a(i), 40.3.4.a(vii), 40.3.4.a(x), and 40.3.4.a(xii) of the Tariff. *See id.* (citing December 2011 Order on Compliance Order, 137 FERC ¶ 61,212 at P 126 n.261).

¹²³ *Id.* P 123.

¹²⁴ *Id.* P 124.

¹²⁵ *Id.* P 124 & n.245 (citing Order No. 719 Rehearing and Compliance Order, 140 FERC ¶ 61,060 at P 169).

¹²⁶ MISO August 21, 2012 Order No. 719 Compliance Filing, Docket No. ER12-1265-003, Transmittal Letter at 9 (citing Order No. 719 Rehearing and Compliance Order, 140 FERC ¶ 61,060 at P 94).

qualified,” which had limited the section’s applicability to those demand response resources that are not regulation qualified. Similarly, MISO proposes to modify the definition of “Calculated DRR – Type II Output” in section 40.3.4.a(vii) of the Tariff to eliminate the reference to Host Load Zones. Additionally, MISO proposes to modify section 40.2.5.b(ii) of the Tariff to characterize Demand Response Resources – Type II that are eligible to provide regulating reserves as “Regulation Qualified Resources.” Finally, MISO proposes to modify section 40.3.4.a(vii) of the Tariff to ensure that the Tariff differentiates between those Demand Response Resources – Type II that are and those that are not regulation-qualified resources. MISO proposes that, for regulation-qualified Demand Response Resources – Type II, the output equals the average telemetered output; and, for non-regulation-qualified Demand Response Resources – Type II, MISO proposes that the output equals the average Dispatch Target for energy.¹²⁷

c. Commission Determination

80. We accept MISO's revisions to the measurement and verification protocols. We find that MISO’s proposed revision to section 1.411 of the Tariff, removing the distinction between Demand Response Resources – Type II that are and those that are not regulation qualified, is consistent with MISO’s elimination of the Host Load Zone concept from the Tariff.¹²⁸ For the same reason we find that MISO has sufficiently explained the removal of Host Load Zone language in sections 39.3.1, 39.3.2C, 40.2.5.b(xxxii), 40.3.3.a(i), 40.3.4.a(vii), 40.3.4.a(x), and 40.3.4.a(xii) in its August 2012 Compliance Filing. Similarly, we accept MISO’s proposed revisions to section 40.3.4(vii) to eliminate references to Host Load Zones from the definition of “Calculated [Demand Response Resource] – Type II Output” because this is also consistent with MISO’s elimination of the Host Load Zone concept. Finally, we accept as consistent with our prior directive MISO’s proposed revision to section 40.2.5.b(ii) to characterize Demand Resources – Type II that are eligible to provide regulating reserves as “Regulation Qualified Resources.” We also accept MISO’s proposed revision to section 40.3.4.a(vii), which makes the distinction between those Demand Response Resources – Type II that are and those that are not regulation qualified, noting that such regulation-

¹²⁷ Section 1.161 of the Tariff defines the Dispatch Target as “Instructions issued by the Transmission Provider to Resources indicating Resource Energy quantities to be injected (or reductions in withdrawals in the case of a Demand Response Resource Type II) and Operating Reserve cleared for Resources at the end of a specific Dispatch Interval.”

¹²⁸ See MISO August 21, 2012 filing in compliance with Order No. 719, Docket No. ER12-1265-003, Transmittal Letter at 9 & n.48 (citing Order No. 719 Rehearing and Compliance Order, 140 FERC ¶ 61,060 at P 94).

qualified resources should already have the equipment needed for measurement via telemetry.

2. Demand Response Resource Registration

a. Background

81. In the August 2011 Compliance Filing, MISO proposed in section 38.7.2 of the Tariff to provide procedures for the registration of demand response resources, including a listing of the information that market participants must provide to register.¹²⁹ Among other things, proposed section 38.7.2 required that MISO notify the relevant electric retail regulatory authority of the registration of relevant retail customers and the level of their participation. It also specified that relevant electric retail regulatory authorities seeking to assert that laws or regulations expressly prohibit an end-use customer's participation in MISO's markets must provide requisite certification within 10 business days of receipt of notice for MISO of a registration request (i.e., the 10-day deadline).¹³⁰

82. In the December 2011 Order on Compliance, the Commission found that the proposed registration requirements in section 38.7.2 of the Tariff did not explain what will happen under the Tariff if: (1) the relevant electric retail regulatory authority challenges a registration request before the 10-day deadline; (2) an otherwise prohibited customer registers its demand response resources; (3) an end-use customer becomes non-compliant with the relevant electric retail regulatory authority's requirements after having registered with MISO; (4) a demand response resource submits an offer before the 10-day deadline; or (5) the relevant electric retail regulatory authority rejects the demand resource's registration after the 10-day deadline. The Commission found that the Tariff does not establish the timeline for MISO to provide notifications to relevant electric retail regulatory authorities and to complete registration. In addition, the Commission found that MISO had not addressed in the Tariff how it will deal with situations where a market participant fails to designate a contact person for the load-serving entity, relevant electric retail regulatory authority, and/or local balancing authority for notification purposes. Accordingly, the Commission directed MISO to further explain its registration requirements, and to modify proposed section 38.7.2 of the Tariff, as appropriate.¹³¹

¹²⁹ Registration requirements for ARCs in section 38.6 of the Tariff are addressed in the Order No. 719 Rehearing and Compliance Order, 140 FERC ¶ 61,060 at PP 109-113.

¹³⁰ August 2011 Compliance Filing, MISO, FERC Electric Tariff, 38.7.2, Demand Response Resource Procedures, 0.0.0.

¹³¹ December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 128.

83. In its March 2012 Compliance Filing, MISO described its registration procedures for demand response resources, stating that it would not accept offers from demand response resources until after the 10-day deadline and that MISO will automatically accept a demand response resource's registration following the 10-day deadline, unless the relevant electric retail regulatory authority objects. MISO stated that relevant electric retail regulatory authorities can reject a demand response resource's registration at any time, including after the 10-day notice period, and the demand response resource asset will be promptly removed from participating in MISO's markets. MISO added that, if an otherwise prohibited customer registers its demand response resources or an end-use customer becomes non-compliant after having registered with MISO, then MISO will not allow the customer to participate in its markets.¹³²

84. MISO also submitted proposed revisions to section 38.7.2 to revise its process for communicating day-ahead cleared schedules for demand response resources to local balancing authorities. In particular, MISO proposed to revise the section to: (1) provide that local balancing authorities will receive an email informing them that information pertaining to demand response resources' day-ahead schedules is available via MISO's market portal; and (2) describe the information that will be posted via the market portal.¹³³

b. July 19 Order

85. The Commission required MISO to revise its Tariff to include a further explanation of and revisions to section 38.7.2 regarding the timeline for MISO to notify the relevant retail regulatory authorities of a Demand Response Resource's registration so that the relevant retail regulatory may assert that laws or regulations expressly prohibit an end-use customer's participation in a transmission provider's markets. The Commission also required MISO to correct certain typographical errors, identified by American Municipal Power, Inc. (AMP).¹³⁴

86. The Commission also found that MISO had not appropriately revised section 38.7.2 of the Tariff to reflect its explanation of its registration procedures, as previously

¹³² March 2012 Compliance Filing, Transmittal Letter at 19.

¹³³ March 2012 Amended Filing, Transmittal Letter at 2.

¹³⁴ AMP identified two instances where the Tariff incorrectly referred to a "contract" person instead of a "contact" person. AMP also suggested the elimination of the words "approved by" in the phrase "the addition of or change to a [demand response resource] will be approved by denied." AMP Comments at 4-5 (citing MISO, FERC Electric Tariff, 38.7.2, Demand Response Resource Procedures, 1.0.0, § 38.7.2.3). *See* July 19 Order, 140 FERC ¶ 61,059 at n.252.

required by the Commission. It found that proposed section 38.7.2 did not reflect MISO's statements in its March 2012 Compliance Filing that: (1) MISO will not accept offers from new demand response resources until after the 10-day deadline; (2) MISO will automatically accept a demand response resource's registration following the 10-day deadline, unless the relevant electric retail regulatory authority objects; (3) relevant electric retail regulatory authorities can reject a demand response resource's registration at any time, including after the 10-day notice period, and the demand response asset will be promptly removed from participating in MISO's markets; and (4) if an otherwise prohibited customer registers its demand response resources or an end-use customer becomes non-compliant after having registered with MISO, then MISO will not allow the customer to participate in its markets.¹³⁵ Accordingly, the Commission required MISO to revise its section 38.7.2 of the Tariff to include this information.¹³⁶

c. August 2012 Compliance Filing

87. In response to the Commission's directive, MISO proposes to modify section 38.7.2 to establish a timeline for MISO to notify the relevant electric retail regulatory authority of a demand response resource's registration and to complete the registration. MISO provides the following explanation of timing in section 38.7.2: upon submission of the demand response resource registration, the relevant electric retail regulatory authority will be notified and MISO will wait up to 10 days to approve such registration to allow an opportunity for the relevant electric retail regulatory authority to contest such registration, provided however, that the relevant electric retail regulatory authority will be able to contest such registration at any time.¹³⁷ Furthermore, MISO proposes to include provisions in section 38.7.2.5 of the Tariff describing what would occur if and when such registration is challenged. MISO states that it will not allow an ARC to use a demand response resource whose registration has been contested by a relevant electric retail regulatory authority until the relevant electric retail regulatory authority notifies MISO that the relevant electric retail regulatory authority no longer contests the registration. MISO also proposes revisions to section 38.7.3 of the Tariff to correct typographical errors.¹³⁸

¹³⁵ July 19 Order, 140 FERC ¶ 61,059 at P 127 & n.249 (citing March 2012 Compliance Filing, Transmittal Letter at 19).

¹³⁶ *Id.* PP 132-133.

¹³⁷ MISO notes that the period could be less than 10 days if the relevant electric regulatory authority indicates its acquiescence earlier. August 2012 Compliance Filing, Transmittal Letter at 11.

¹³⁸ *Id.* at 12.

d. Commission Determination

88. We accept MISO's proposed revisions to section 38.7.2 of the Tariff as consistent with the Commission's directives. We find that MISO has satisfied the Commission's directive to establish a timeline in its Tariff to notify the relevant electric retail regulatory authority of a demand response resource registration. We also find that MISO's proposed revisions describe the following key required points: (1) MISO will not accept offers from new demand response resources until after the 10-day deadline; (2) MISO will automatically accept a demand response resource's registration following the 10-day deadline, unless the relevant electric retail regulatory authority objects; (3) relevant electric retail regulatory authorities can reject a demand response resource's registration at any time, including after the 10-day notice period, and the demand response resource asset will be promptly removed from participating in MISO's markets;¹³⁹ and (4) if an otherwise prohibited customer registers its demand response resources or an end-use customer becomes non-compliant after having registered with MISO, then MISO will not allow the customer to participate in its markets. We also accept MISO's corrections to typographical errors.

E. Miscellaneous Issues

1. July 19 Order

89. In the July 19 Order, the Commission required MISO to submit Tariff revisions to refer consistently to the terms "Measurement and Verification procedures" and/or "Attachment TT."¹⁴⁰ In addition, the Commission reiterated its requirement in the December 2011 Order on Compliance that MISO address references to the undefined terms "sales" and "purchases" in section 40.3.3.c(ii) of the Tariff.¹⁴¹

90. The Commission also noted that, in several instances, MISO's proposed Tariff revisions in the MISO Order No. 719 compliance proceeding were not reflected in, and were superseded by, corresponding Tariff revisions proposed in this MISO Order No. 745 compliance proceeding. Consequently, the version of MISO's Tariff that would have applied in July 2012 after conditional acceptance of the Tariff revisions proposed in this

¹³⁹ Our acceptance of provisions in section 38.7.2.5 regarding what happens if the relevant electric retail regulatory challenges an ARC registration is consistent with our determination in paragraph 82 of the order issued on compliance with Order No. 719, *Midwest Indep. Transmission Sys. Operator, Inc.*, 143 FERC ¶ 61,145 (2013).

¹⁴⁰ July 19 Order, 140 FERC ¶ 61,059 at P 134.

¹⁴¹ *Id.* P 135 & n.258 (citing December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 131).

Order No. 745 proceeding would not have reflected all of the Tariff revisions accepted in the Order No. 719 Rehearing and Compliance Order, which was issued concurrently with the July 19 Order. Accordingly, the Commission required MISO to submit in its August 2012 Compliance Filing in this proceeding revisions to ensure that Tariff revisions accepted in the Order No. 719 Rehearing and Compliance Order would be appropriately reflected in the Tariff provisions accepted in this proceeding, as needed, including in sections 1.141, 1.142, 1.569a, 40.3.3.c(iv), 40.3.4.a(vii), and 40.3.4.g(i).¹⁴²

91. Additionally, the Commission required MISO to submit in its subsequent compliance filing Tariff revisions to ensure that the Tariff provisions conditionally accepted reflect Tariff revisions accepted in previous proceedings. The Commission stated that, for example, MISO should submit corrections to sections 40.3.4.e(ii)-(iii), as those sections did not reflect revisions accepted in Docket No. ER12-2908-002.¹⁴³ The Commission also required MISO to submit in the August 2012 Compliance Filing additional Tariff revisions to: (1) define various undefined acronyms, including “LBA;”¹⁴⁴ (2) capitalize terms consistently to indicate that they are defined in the Tariff;¹⁴⁵ and (3) make various other minor revisions.¹⁴⁶ The Commission required MISO to make Tariff revisions to section 38.7.1 of the Tariff, which refers to “net-benefits methodology,” which is not defined in the Tariff.¹⁴⁷ It also required MISO to make revisions to section 40.3.3.a(xvii) of the Tariff to refer to “Net Benefits Price Threshold” rather than simply “Net Benefits Threshold.”¹⁴⁸ The Commission also directed that section 39.3.2C should state, in part, that “Demand Response Resources

¹⁴² *Id.* P 136 & n.262-267, P 137 & n.268.

¹⁴³ *Id.* P 137.

¹⁴⁴ *Id.* P 138 & n.269 (citing MISO, FERC Electric Tariff, [38.7.2, Demand Response Resource Procedures, 1.0.0](#)).

¹⁴⁵ *Id.* P 138 & 270 (citing MISO, FERC Electric Tariff, [38.7.1, Net Benefits Price Threshold, 1.0.0](#)).

¹⁴⁶ *Id.* P 138 (requiring section 38.7.2.4 of the Tariff to refer to “cleared Day-Ahead Schedules,” rather than “Day-Ahead Cleared Schedules,” which is not defined in the Tariff; stating that section 40.3.4.a.xiv of the Tariff should refer to “Attachment TT” rather than “the Attachment TT;” Section 39.3.2C should state, in part, that “Demand Response Resources shall be credited each Hour at the Day-Ahead LMP” and refer to the “Day-Ahead LMP for Day-Ahead Financial Schedules”).

¹⁴⁷ *Id.* P 138 & n.271.

¹⁴⁸ *Id.* P 138 & n.275.

shall be credited each Hour at the Day-Ahead LMP” and refer to the “Day-Ahead LMP for Day-Ahead Financial Schedules.”¹⁴⁹

2. August 2012 Compliance Filing

92. MISO explains that, because it is submitting compliance filings in the Order Nos. 745 and 719 proceedings simultaneously, it is electronically filing the proposed Tariff amendments associated with each of the proceedings together in each of these proceedings to avoid potential concern that acceptance of one set of Tariff revisions in one proceeding would negate the changes put forward in the other docket.¹⁵⁰

93. In response to the Commission’s concern that sections 39.3.2C and 40.3.3.c.ii of the Tariff refer to Financial Schedule “sales” and “purchases,” which are not defined in the Tariff, MISO states that it has amended section 40.3.3.c(ii) to reflect the language that was modified in section 39.3.2C and has changed “sales” and “purchases” to “charges” and “credits.” In addition, MISO states that it has made each of the seven changes that the Commission required in paragraph 138 of the July 19 Order.

94. Furthermore, MISO explains that, in compliance with Order No. 719, it proposed an alternative to section 40.3.4.a.vii of the Tariff because MISO removed Host Load Zones from the Tariff.¹⁵¹ Also, MISO states that it is making the required modifications in response to the Commission’s directives, and submitting proposed revisions to sections 1.141, 1.142, 1.596a, 38.7.1, 38.7.2, 38.7.2.4, 39.3.2C, 40.3.3.c(iv), 40.3.3.a(xix), 40.3.4.a(vii), and 40.3.4.g(i) of the Tariff. MISO states that it also proposes revisions to the definitions of Commercial Pricing Node (section 1.74), Demand Response Resource (section 1.40a), Elemental Pricing Node (section 1.174) and Local Balancing Authority (section 1.364) to define the acronyms associated with these terms. MISO states that it will use the acronym “DRR” for Demand Response Resources, “EPNode” for Elemental Pricing Node and “LBA” for Local Balancing Authority. Additionally, MISO states that to ensure consistency in the Tariff, it has deleted the unnecessary space between the “C” and “P” for “C PNode” so that it now reads “CPNode.”¹⁵²

¹⁴⁹ *Id.* P 138 & n.274.

¹⁵⁰ August 2012 Compliance Filing, Transmittal Letter at 14.

¹⁵¹ *Id.* (citing Order No. 719 Rehearing and Compliance Order, 140 FERC ¶ 61,060 at P 94).

¹⁵² *Id.* at 14-15.

95. MISO states that it is not correcting the use of “net-benefits methodology” because this is not a defined term in the Tariff.¹⁵³ MISO proposes to amend Section 40.3.3.a(xix) of the Tariff to add “Price” between “Net Benefits” and “Threshold.”¹⁵⁴

3. Commission Determination

96. We conditionally accept MISO’s proposed Tariff revisions described above as consistent with the directives in the July 19 Order. However, we require several additional modifications and clarifications. First, with respect to the net benefits methodology, MISO explains that it is not correcting the use of the term “net-benefits methodology” because it is not a defined term in the Tariff. We find that MISO has ostensibly misconstrued and therefore not complied with our directive to define precisely what the term “net-benefits methodology” means. If MISO intends to use the term “net-benefits methodology” in the Tariff, then MISO must define the term. We therefore require MISO to clarify this in the compliance filing submitted within 45 days of issuance of this order.

97. Next, we find that MISO has not complied with the Commission’s directive to define the acronym “LBA” in section 1.364 of its Tariff, and therefore we direct MISO to revise this section in its compliance filing directed below. Additionally, MISO has not complied with the Commission’s directive to revise section 39.3.2C to read in part “Demand Response Resources shall be credited each Hour at the Day-Ahead LMP” and refer to the “Day-Ahead LMP for Day-Ahead Financial Schedules.” We also require MISO to submit in its compliance filing Tariff revisions to address the following concerns:

- 1) In section 38.7.1.1(i) change “Net Benefits Supply curve” to the “Net Benefits Supply Curve.”
- 2) In sections 1.1a and 1.142 change “capacity” to “Capacity.”
- 3) In section 38.6.4 change “resources” to “Resources.”
- 4) In section 38.7.1.1(i) change “resource outage index” to “the Resource Outage Index.” We also direct MISO to define the term, “Resource Outage Index.”
- 5) Define and capitalize in the Tariff the term “aggregate power supply curve,” used in section 38.7.1.

¹⁵³ *Id.* at 15.

¹⁵⁴ *Id.*

- 6) Change section 38.7.2.4 from “Transmission Provider” to “the Transmission Provider.”
- 7) In section 38.7.1.1(i), change “Resource outage index” to “the Resource Outage Index.”
- 8) In sections 38.7.2.4 and 38.7.1.2, change “Transmission Provider” to “the Transmission Provider.”
- 9) In section 40.3.3.a(iii)(7), remove one of the two identical paragraphs beginning with “The sum, by Asset Owner.”
- 10) Throughout the Tariff, capitalize the term “Aggregate Power Supply Curve.”
- 11) Correct the section headings in section 40.2.5 of the Tariff, which contains subsections c and e but no subsection d.

4. Tariff Inconsistencies

a. Inconsistencies between Tariff Provisions Accepted in the July 19 Order and MISO’s August 2012 Compliance Filing

98. MISO, without explanation, has reinserted or removed language that the Commission has previously approved regarding compensation for demand response resources and behind-the-meter generation in sections 40.3.3.b(vi), 40.3.3.c(ii), and 40.3.3.c(iii). These modifications were neither red-lined nor explained by MISO.

99. In MISO’s August 2011 Compliance Filing in Docket No. ER11-4337, MISO inserted language providing that MISO would not compensate demand response resources when the applicable hourly LMP is below the Net Benefits Price Threshold.¹⁵⁵ In addition, the August 2011 Compliance Filing included language differentiating between the treatment of demand response that is facilitated by behind-the-meter generation and other types of demand response resources. MISO proposed to compensate the latter but not the former, if cleared in the real-time and/or day-ahead market at the applicable hourly LMP.¹⁵⁶

¹⁵⁵ MISO August 19, 2011 Compliance Filing, Docket No. ER11-4337 (August 2011 Compliance Filing), sections 40.3.3.b(vi), 40.3.3.c(ii), 40.3.3.c(iii).

¹⁵⁶ *Id.*

100. In our December 2011 Order on Compliance, the Commission ordered MISO to remove language that MISO had proposed such that there would be no compensation for demand response resources when the applicable hourly LMP is below the Net Benefits Price Threshold.¹⁵⁷ The Commission found that the revisions were beyond the scope of the proceeding because the “Commission’s section 206 action [in Order No. 745] did not extend to situations where the LMP is not greater than or equal to the threshold price, and as a result, compensation of demand response resources in those situations is beyond the scope of this compliance proceeding.”¹⁵⁸ The Commission also ordered MISO to remove language differentiating between the compensation for demand response that is facilitated by behind-the-meter generation and other types of demand response resources because the definitions of Demand Response Resource – Type I and Demand Response Resource – Type II both allow for behind-the-meter generation.¹⁵⁹

101. In MISO’s March 2012 Compliance Filing, MISO made the required revisions to sections 40.3.3.b(vi), 40.3.3.c(ii), and 40.3.3.c(iii). In the Commission’s July 19 Order, it accepted MISO’s proposed Tariff revisions regarding demand response compensation and behind-the-meter generation.¹⁶⁰ In the July 19 Order, the Commission also noted that MISO properly inserted language ensuring that demand response resource offers from ARCs would be compensated at the applicable hourly LMP as long as they are cost effective as determined by the net benefits test.¹⁶¹

102. In its August 2012 Compliance Filing, however, MISO reinserted (in the case of sections 40.3.3.c(ii) and 40.3.3.c(iii)) or removed (in the case of section 40.3.3.c(ii)) language, thereby substantively modifying language that had just been accepted in the July 19 Order. In order to correct these errors, we order MISO to comply with the following requirements in the compliance filing directed below such that the Tariff contains language that has been approved by the Commission in its December 2011 and July 19 Orders:

- (1) In section 40.3.3.b(vi), remove the following language: “When the Hourly Ex Post LMP is less than the Net Benefit Price Threshold for a given Demand Response Resource, applicable hourly Production Costs will be equal to zero for those hour(s) in which the Real Time LMP is less than the Net Benefits Price

¹⁵⁷ December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 37.

¹⁵⁸ *Id.*

¹⁵⁹ *Id.* P 72.

¹⁶⁰ July 19 Order, 140 FERC ¶ 61,059 at P 74.

¹⁶¹ *Id.*

Threshold. If the Demand Response Resource is a BTMG then the applicable hourly production cost will be equal to zero.” The Commission required MISO to remove this language in the December 2011 Order on Compliance.¹⁶² MISO correctly deleted this language in its March 2012 Compliance Filing to comply with the December 2011 Order on Compliance, and the Commission accepted this deletion in its July 19 Order.¹⁶³

(2) In section 40.3.3.c(ii), in the first sentence remove the phrases: “When the Hourly Ex Post LMP is greater than or equal to the Net Benefit Price Threshold” and “(that are not BTMG) pursuant to Section 40.3.4, that exceeds their Day-Ahead Scheduled Injections.” In the second sentence, remove the phrase: “When the Hourly Ex Post LMP is less than the Net Benefit Price Threshold, then Market Participants will be credited at a price of zero dollars per MWh (\$0/MWh) for Non-Excessive Energy injection for Demand Response Resources.” As with the language cited above, the Commission required MISO to remove this language in the December 2011 Order on Compliance.¹⁶⁴ MISO correctly deleted this language in its March 2012 Compliance Filing to comply with the December 2011 Order on Compliance, and the Commission accepted this deletion in its July 19 Order.¹⁶⁵

(3) In section 40.3.3.c(ii), in the first sentence reinsert the parenthetical: “(including Market Participants that are ARCs).” The Commission required MISO to include such language in the December 2011 Order on Compliance.¹⁶⁶ MISO correctly added this language in its March 2012 Compliance Filing to comply with the December 2011 Order on Compliance, and the Commission accepted it in its July 19 Order.¹⁶⁷ Also reinsert the phrase “injections for Demand Response Resources” in the sentence beginning “Market Participants will be charged....”¹⁶⁸

¹⁶² December 2011 Order on Compliance, 137 FERC ¶ 61,212 at PP 37, 72.

¹⁶³ July 19 Order, 140 FERC ¶ 61,059 at P 74.

¹⁶⁴ December 2011 Order on Compliance, 137 FERC ¶ 61,212 at PP 37, 72.

¹⁶⁵ July 19 Order, 140 FERC ¶ 61,059 at P 74.

¹⁶⁶ December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 41.

¹⁶⁷ July 19 Order, 140 FERC ¶ 61,059 at P 74.

¹⁶⁸ The entirety of section 40.3.3.c(ii) should therefore read: “Market Participants (including Market Participants that are ARCs) will be credited the applicable Hourly Ex Post LMP for Non-Excessive Energy injection for Demand Response Resources pursuant to Section 40.3.4, that exceeds their Day-Ahead Scheduled Injections. Market

The Commission required MISO to include such language in the December 2011 Order on Compliance.¹⁶⁹ MISO correctly added this language in its March 2012 Compliance Filing to comply with the December 2011 Order on Compliance.

- (4) In 40.3.3.c(iii), in the first sentence, remove the parenthetical: “(other than BTMG).” The Commission required MISO to remove this language in the December 2011 Order on Compliance.¹⁷⁰ MISO correctly deleted this language in its March 2012 Compliance Filing to comply with the December 2011 Order on Compliance, and the Commission accepted this deletion in its July 19 Order.¹⁷¹

103. We also find that in section 40.3.3.c(iii) MISO has inappropriately re-inserted language that determines Demand Response Resource excessive energy payments in relation to the net benefits threshold and to behind the meter generation.¹⁷² We will require MISO to remove this language and to establish that Demand Response Resource excessive energy credits are to be credited to the market participant as the lesser of the applicable hourly ex post LMP and the hourly excessive energy price.

104. We also find that Tariff section 40.3.3 in MISO’s August 2012 Compliance Filing contains numerous other inconsistencies (either added or removed language) with provisions in MISO’s March 2012 Compliance Filing that are neither explained nor redlined in MISO’s August 2012 Compliance Filing. These include, but may not be limited to, inconsistencies between the two filings with respect to sections 40.3.3.a(i), 40.3.3.a(ii)(2), 40.3.3.a(ii)(4), 40.3.3.a(ii)(7), 40.3.3.a(iii)(1), 40.3.3.a(iii)(2), 40.3.3.a(iii)(7), 40.3.3.a(v), 40.3.3.a(vi), 40.3.3.a(viii), 40.3.3.a(xvii), and 40.3.3.c(iv).

105. We direct MISO to provide in its compliance filing either (1) detailed explanations for the basis for each such discrepancy (excluding those specifically accepted in the July

Participants will be charged the applicable Hourly Ex Post LMP for Non-Excessive Energy injections for Demand Response Resources below their Day-Ahead Scheduled Injections. Market Participants with Real Time Financial Schedules will be charged the applicable Hourly Ex Post LMP for Real Time Financial Schedule sales and will be credited for Real Time Financial Schedule purchases. The applicable Hourly Ex Post LMP is the LMP at the Commercial Pricing Node.”

¹⁶⁹ December 2011 Order on Compliance, 137 FERC ¶ 61,212 at P 131.

¹⁷⁰ *Id.* P 72.

¹⁷¹ July 19 Order, 140 FERC ¶ 61,059 at P 74.

¹⁷² *See* December 2011 Order on Compliance, 137 FERC ¶ 61,212 at PP 37, 72; July 19 Order, 140 FERC ¶ 61,059 at P 74.

19 Order) between the section 40.3.3 provisions in MISO's March and August 2012 Compliance Filings, including, where applicable, a description of any dockets in which the Commission has accepted the provisions included in MISO's August 2012 Compliance Filing; or (2) proposed Tariff revisions to address such inconsistencies.

106. In addition, MISO, without explanation, includes in its filing numerous proposed revisions to Tariff Schedule 27: Real-Time Offer Revenue Sufficiency Guarantee Payment and Day-Ahead Margin Assurance Payment. Those revisions are included in sections A.2.b, A.2.c, A.2.d, B.2.b.i, B.2.b.ii, B.2.c.i and B.2.c.ii of Schedule 27.

107. We find that MISO's proposed revisions to Schedule 27 are beyond the scope of this compliance filing and are without support or explanation. As such, we direct MISO to remove any proposed revisions to Schedule 27 unless and until they have been accepted by the Commission in another proceeding.

108. Finally, except for where the Commission has required additional explanation of Tariff changes, as described above, to the extent that we do not specifically address any of the Tariff revisions MISO proposes in its August 2012 Compliance Filing to comply with Order No. 745, we accept them.¹⁷³

b. Inconsistencies between ELibrary and ETariff Filings

109. Pursuant to Order No. 714,¹⁷⁴ the Commission requires public utilities to file all tariffs, tariff revisions and rate change applications with the Commission.¹⁷⁵ The Commission specified that no substantive differences should exist between the tariff provisions filed as part of the XML data (in eTariff) and the tariff provisions filed as attachments (in eLibrary).¹⁷⁶ To the extent that such differences exist and are significant, the Commission stated that it will need to address them on a case-by-case basis.¹⁷⁷ As such, MISO's filings in eTariff and in eLibrary should be identical. However, in this proceeding, MISO has omitted certain parts of the filing in eTariff that it included in

¹⁷³ We note that in an order issued concurrently today, we address the Tariff provisions MISO submitted in compliance with the Commission's Order No. 719-related directive. *See Midwest Indep. Transmission Sys. Operator, Inc.* 143 FERC ¶ 61,145 (2013).

¹⁷⁴ *Electronic Tariff Filings*, Order No. 714, FERC Stats. & Regs. ¶ 31,276 (2008).

¹⁷⁵ *Id.* P 114.

¹⁷⁶ *Id.* P 59.

¹⁷⁷ *Id.*

eLibrary. For example, sections 1.74, 39.2.5a, 39.3.1, 39.3.1A, and 39.3.1B are included with changes in redline in the eLibrary filing but not in eTariff. Conversely, section 1.569a is included in the eTariff but not the eLibrary filing. We also note inconsistency between the eTariff and eLibrary filings in section 38.6(3), in which only the eLibrary version contains the phrase “or energy provision of an EDR resource.” Additionally, in section 40.2.6(b)(viii), the eLibrary version refers to “Module E-1” and the eTariff version refers to “Section 69.” We direct MISO to review the entire eLibrary and eTariff filings from this proceeding and, with respect to each inconsistency, MISO is required to submit appropriate changes to either the eTariff version or the eLibrary version, or both, to ensure consistency, as well as an explanation supporting each change. The compliance filing is due within 45 days of the issuance of this order.

F. Effective Date

110. In the July 19 Order, the Commission granted MISO’s request for a June 12, 2012 effective date, consistent with the effective date of the other Tariff provisions accepted in this proceeding.¹⁷⁸

111. In its August 2012 Compliance Filing, MISO asks the Commission to grant an effective date for section 40.3.3.a(xix) of the Tariff of 120 days after issuance of an order approving that section of the Tariff.¹⁷⁹ MISO explains that implementation of the proposed Tariff revisions in this section (which relates to real-time cost allocation) will require MISO to modify its market settlement applications, including making changes to market participant settlement statements. MISO asserts that setting an effective date 120 days after issuance of the order approving section 40.3.3.a(xix) for this section will provide MISO the necessary time to implement and test the software changes needed to implement the Tariff modification. It will also provide market participants sufficient time to update shadow settlements and understand the implications and impact of the proposed revisions.

Commission Determination

112. We grant, for good cause shown, MISO’s requested extension of the effective date for revised section 40.3.3.a(xix) of the Tariff until 120 days after we accept section 2012 Compliance Filing, subject to MISO revising section 40.3.3a(xix) and resubmitting it on

¹⁷⁸ July 19 Order, 140 FERC ¶ 61,060 at P 139 & n.277 (citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 138 FERC ¶ 61,143 (2012)).

¹⁷⁹ August 2012 Compliance Filing, Transmittal Letter at 15.

compliance with this order.¹⁸⁰ Accordingly, the 120-day period will not begin until after the Commission accepts MISO's new proposed revised section 40.3.3a(xix).

The Commission orders:

(A) MISO's August 2012 Compliance Filing is hereby conditionally accepted, as modified, effective July 12, 2012, except for revised section 40.3.3.a(xix), which will be effective 120 days after section 40.3.3.a(xix) is accepted, as discussed in the body of this order.

(B) MISO is hereby directed to submit a compliance filing, due 45 days after issuance of this order, as discussed in the body of this order.

By the Commission. Commissioner Moeller is dissenting.
Commissioner Clark is dissenting with a separate statement attached.

Nathaniel J. Davis, Sr.,
Deputy Secretary.

¹⁸⁰ For further discussion of this issue, *see supra* P 47.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Midwest Independent Transmission
System Operator, Inc.

Docket No. ER12-1266-003

(Issued May 16, 2013)

CLARK, Commissioner, *dissenting in part*:

While I agree with the decisions made in today's order, I write separately to highlight my disagreement with the underlying decision in Order No. 745 to overcompensate demand response resources by paying them full LMP in the energy markets.¹

Order No. 745 was created to alleviate barriers to demand response in wholesale energy markets by ensuring greater comparability between the compensation of demand response resources and supply-side resources. However, the compensation settled on by the Commission goes beyond the level needed to promote competition, and overcompensates demand response resources.

I support comparable treatment and compensation between resources as necessary precursors to a diverse resource pool and robust wholesale energy markets. These fundamental principles prevent me from supporting full LMP compensation for demand response. As a resource, demand response is capable of delivering benefits to the markets by curtailing load when our grid is most in need. However, when a demand response resource provides a service to the market, it avoids a payment that it would otherwise incur. These savings should be accounted for when determining a just, reasonable, and not unduly discriminatory rate. This is where Order No. 745 falls short. By providing full LMP compensation, the wholesale energy markets are now overcompensating demand response resources for their services and forcing consumers to pay more than needed to ensure comparability and overcome barriers faced by demand response.

¹ For further analysis, see the dissent of Commissioner Moeller in *Demand Response Compensation in Organized Wholesale Energy Markets*, Order No. 745, FERC Stats. & Regs. ¶ 31,322 (Order No. 745) (Moeller, Comm'r, Dissenting), *order on reh'g*, Order No. 745-A, 137 FERC ¶ 61,215 (2011) (Order No. 745-A), *reh'g denied*, 138 FERC ¶ 61,148 (2012) (Order No. 745-B).

The decision to compensate demand response at full LMP also leads to differential treatment between resources participating in the energy market. Order No. 745 provides demand response with a payment equal to LMP plus the savings associated with avoided energy usage. This extra incentive places other resources at a disadvantage and at risk of being displaced. I cannot support this preferential treatment, especially at a time when resources are relying on accurate market signals to weather a storm of changing economic and regulatory conditions.

For these reasons, I respectfully partially dissent from this order.

Tony Clark
Commissioner