138 FERC ¶ 61,235
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

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| Midwest Independent Transmission System Operator, Inc. | Docket Nos. ER12-678-000<br>ER12-679-000 |

ORDER ACCEPTING AND SUSPENDING PROPOSED TARIFF REVISIONS SUBJECT TO THE OUTCOME OF A TECHNICAL CONFERENCE AND FURTHER COMMISSION ORDER

(Issued March 30, 2012)

1. On December 23, 2011, Midwest Independent Transmission System Operator, Inc. (MISO) made two filings proposing revisions to its Open Access Transmission, Energy and Operating Reserve Markets Tariff (Tariff). In Docket No. ER12-678-000, MISO proposes to allocate a greater proportion of Revenue Sufficiency Guarantee (RSG) costs associated with resources committed for voltage or local reliability (VLR) requirements to the load in the Local Balancing Authority Area (Local BAA) benefited by such commitments. In Docket No. ER12-679-000, MISO proposes a mechanism by which to mitigate the exercise of market power with regard to offers made to address VLR issues. In this order, we accept and suspend for five months both of MISO's filings, subject to the outcome of a technical conference and further Commission order.

## I. <u>Background</u>

2. Under section 39.3.2B of the Tariff, a generation or demand response resource receives day-ahead RSG credits if MISO commits it in the day-ahead energy and operating reserve markets and if the resource then receives insufficient day-ahead energy and operating reserve revenues to cover its as-offered production and operating reserve costs. To fund the RSG credits, pursuant to section 39.3.1A of the Tariff MISO assesses market participants a day-ahead RSG charge based on their cleared demand bids, virtual bids, and export schedules.

3. Under section 40.2.19 of the Tariff, a generation or demand response resource receives real-time RSG credits if MISO commits it through the Reliability Assessment Commitment process after the close of the day-ahead energy and operating reserve

markets and if the resource then receives insufficient real-time energy and operating reserve revenues to cover its as-offered production costs. To fund the RSG credits, pursuant to section 40.3.3 of the Tariff MISO assesses market participants a real-time RSG charge based on their virtual supply offers and real-time load, injection, export, and import deviations from their day-ahead schedules.

4. Module D of the Tariff provides for mitigation of offers by resources in Narrow Constrained Areas and Broad Constrained Areas[1] that fail both conduct and impact tests. MISO's conduct test determines whether a resource's offers differ from its reference levels by more than certain threshold amounts.[2] The conduct test includes sets of thresholds for both economic withholding and uneconomic production. The economic withholding thresholds include price-based and non-price thresholds for increases in offer prices or other parameters from a resource's reference levels. The uneconomic production thresholds also apply price and non-price offer parameters, but are triggered by offers featuring decreases from reference levels or operation of units at above reference level capacity.

5. When resources fail the conduct test, MISO applies an impact test to determine whether their conduct substantially changes market prices or increases RSG payments. The impact test contains thresholds including a $50 per MW per hour increase in the market clearing prices, or day-ahead or real-time RSG credits.[3] Offers failing the impact test are subject to mitigation under section 65 of Module D.

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[1] Tariff Section 63.4.1.b defines a Narrow Constrained Area as an electrical area identified by the Independent Market Monitor (IMM) that is defined by one or more Binding Transmission Constraints or Binding Reserve Zone Constraints that are expected to be binding for at least 500 hours during a given twelve-month period and within which one or more suppliers are pivotal. Tariff section 63.4.2.a defines a Broad Constrained Area as an electrical area in which sufficient competition usually exists even when there are one or more Binding Transmission Constraints or Binding Reserve Zone Constraints, or into which the Binding Transmission Constraints or Binding Reserve Zone Constraints bind infrequently, but within which a transmission or reserve constraint can result in substantial locational market power under certain market or operating conditions.

[2] A unit's reference level is a price estimate that is "intended to reflect a Generation Resource's or Stored Energy Resource's marginal costs, including legitimate risk and opportunity costs or justifiable technical characteristics for physical Offer parameters." Tariff, section 64.1.4; *see also* Tariff, section 1.544.

[3] Tariff, section 64.2.1(d).

## II. MISO's Filing in Docket No. ER12-678-000, Protests and Comments, and MISO's Answer

### A. MISO Filing

6. In its filing in Docket No. ER12-678-000, MISO proposes Tariff revisions to change the allocation of the RSG costs associated with resources committed for VLR requirements. MISO proposes to allocate an increased proportion of those costs to the load in the Local BAA that benefits from such commitments. Under the proposed Tariff revisions, any additional resources manually committed by MISO (i.e., other than through the Security Constrained Unit Commitment process) in the day-ahead markets to meet forward planning requirements for VLR issues will be categorized as VLR commitments. Similarly, under the proposed Tariff revisions, additional resources committed through the Reliability Assessment Commitment processes of the real-time market to meet planning or other real-time operational requirements related to VLR issues, including the security of facilities under 100 kV, will also be categorized as VLR commitments.

7. MISO proposes to allocate RSG costs resulting from VLR commitments either through a default mechanism to loads in the Local BAA where the committed resources are located, or to the load in any Local BAA associated with a commercially significant VLR issue[4] for which the resource commitments were made. In both circumstances, costs would be allocated to loads on a pro rata basis using actual energy withdrawals. MISO proposes revisions to Module C of the Tariff to provide the calculation and allocation of RSG costs related to VLR commitments.

8. MISO asserts that the proposed allocation is necessary because VLR commitments are being made routinely to ensure the reliability of transmission facilities, and neither

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[4] MISO proposes to define Commercially Significant Voltage and Local Reliability Issue as:

> Transmission System voltage or other local reliability concerns that result in Voltage and Local Reliability Commitments. These issues are designated at the discretion of the Transmission Provider for reasons including, but not limited to, occurrence frequency, monetary impact, or other criteria as defined in the Business Practices Manuals. A Local Balancing Authority may request that the Transmission Provider evaluate a Voltage and Local Reliability Issue for designation as commercially significant.

Proposed Section 1.74a of the Tariff.

day-ahead schedule deviations nor deviations computed via the real-time RSG Constraint Management Charge are primary causers of the resulting costs. MISO states that starting in January 2010, there was a significant increase in the frequency of RSG costs associated with resources committed for VLR issues on the transmission system. MISO states that the associated RSG costs increased from approximately $500,000 in 2009 to $29 million in 2010.[5]

9. Under the current Tariff provisions, RSG costs related to VLR commitments are allocated region-wide. MISO notes that an RSG cost analysis for the period April 1, 2011 through November 30, 2011, shows that approximately 75 percent of RSG costs were allocated market-wide in the day-ahead schedule deviation charge.[6] However, MISO notes that an independent analysis performed by Dr. David Patton shows that only 8 percent of the RSG costs associated with VLR commitments benefit the broader market, resulting in significant cost shifts under the current market-wide allocation of such costs.[7] Dr. Patton also noted that much of the increase in RSG costs was due to increased offers (i.e., offers above the resources' competitive reference levels) under circumstances involving significant market power not covered by existing Tariff thresholds,[8] which the IMM recommended be tightened.

10. MISO states that it commenced a stakeholder process to develop a proposed solution to the significant cost shifts that are occurring under the current RSG cost

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[5] Transmittal Letter, MISO December 23, 2011 Filing, Docket No. ER12-678-000 (MISO ER12-678-000 Transmittal) at 2. MISO's IMM also noted, in part, that, "[t]his increase [in real-time RSG costs] was due primarily to more than $25 million in payments made from September to December to select units that were committed routinely *to resolve a local voltage issue* in WUMS [i.e., Wisconsin and the Upper Peninsula of Michigan]." *Id.* at 3 (quoting IMM, *2010 State of the Market Report* at xiii (italics added by MISO)).

[6] MISO ER12-678-000 Transmittal at 2-3.

[7] *Id.* at 3. Dr. Patton is an economist and President of Potomac Economics, which is MISO's IMM, *see* Affidavit of Dr. David Patton, Attachment to MISO ER12-678-000 Transmittal (Patton ER12-678-000 Affidavit).

[8] In other words, "[s]uppliers face little or no competition when they are needed to resolve local reliability requirements and can extract substantial market power rents under the current mitigation measures," because the offer prices did not increase sufficiently to warrant mitigation under those mitigation measures. MISO ER12-678-000 Transmittal at n.12 (quoting IMM, *2010 State of the Market Report* at xiii, xxvii).

allocation. MISO argues that the resulting proposal is just and reasonable and consistent with the principle of cost causation. MISO states that the Commission has found other Tariff provisions that allocate costs locally to be just and reasonable. For example, MISO maintains that the Commission found that contract costs related to System Support Resources and transmission costs for Reactive Supply and Voltage Control Service under Schedule 2 of the Tariff can reasonably be allocated to Local BAAs where the transmission issues addressed by the commitments exist. MISO states that while transmission voltage issues and related costs may sometimes be caused by individual loads, other loads proximate to the resource that is committed to maintain system reliability also benefit from the commitment of that resource; therefore, assessing such costs to all load in the impacted Local BAAs is appropriate.

11. MISO also contends that the proposal is consistent with approved provisions in other regional transmission organization (RTO) tariffs that allocate these types of costs to local loads. MISO states that RSG costs are comparable to ISO New England Inc.'s (ISO-NE) Net Commitment Period Compensation costs, which are used in the calculation of the cost of energy produced in developing rates paid by regional network load. In addition, MISO states that RSG costs are similar to PJM Interconnection, LLC's (PJM) Operating Reserve Costs, which are part of PJM's Reactive Services costs and are allocated to loads in transmission zones where reactive reliability is maintained by reactive services.[9]

12. MISO proposes to add new definitions in Module A of the Tariff. In particular, MISO proposes a definition of Voltage and Local Reliability Commitment to establish the situations warranting localized RSG cost allocation and enhanced mitigation thresholds.[10] A resource commitment will be deemed to be made for local reliability if it

[9] MISO also notes that the proposal is similar to the 2005 FERC Staff Report addressing the allocation of reactive power costs, which recommended that those who benefit from the reactive power should pay for it. MISO ER12-678-000 Transmittal at 7 (citing FERC Staff Report, *Principles for Reliable and Efficient Reactive Power Supply and Consumption*, Docket No. AD05-1-000, at 7 (Feb. 4, 2005) (FERC Staff Report).

[10] MISO proposes to define Voltage and Local Reliability Commitment as:

> A Transmission Provider issued Resource commitment in addition to, or in lieu of, commitments resulting from the Security Constrained Unit Commitment in the Day-Ahead Energy and Operating Reserve Market or any Reliability Assessment Commitment, in order to mitigate issues with Transmission System voltage or other local reliability concerns. These Resource commitment requirements are established prior to or during an Operating Day and are based on projected system reliability requirements,

(continued…)

addresses a thermal constraint where the transmission facility is less than 100 kV.[11] MISO argues that this 100 kV threshold provides comparability across the market due to the limited situations in which MISO retains functional control of such low-voltage facilities. Moreover, MISO contends that this definition is also appropriate for mitigation purposes because resources available to address congestion issues in facilities below 100 kV are likely to face little or no competition in resolving these issues.[12]

13. MISO also proposes to add definitions for Commercially Significant Voltage and Local Reliability Issue. MISO states that the default mechanism to recover RSG costs associated with VLR commitments will be assessments to load in the Local BAA where the resource is located, because reactive power does not travel over long distances and must be procured where it is needed. However, when such commitments "produce significant levels of cost," MISO will perform a study to determine the commercial significance of the impacts, the affected Local BAAs and the loads that have an impact on the constraint.[13] Commercial significance will be determined by MISO, at its sole discretion,[14] based on factors including the frequency of occurrence and monetary impact of such issues. MISO states that most voltage-related resource commitments are to

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> operational considerations, and generation and transmission outages. Resource commitments to manage congestion on facilities below voltage levels of 100 kV will be designated in this category. Resource commitments to relieve a potential or actual [Interchange Reliability Operating Limits (IROL)] violation will not be designated in this category.

Proposed Section 1.697a of the Tariff.

[11] MISO states that thermal constraints on transmission facilities with voltages greater than 100 kV are generally considered market constraints, and any resource commitments to address such constraints would be associated with an appropriate Active Transmission Constraint for the purposes of RSG cost allocation.

[12] MISO also explains that IROL will remain a market constraint and need not be studied further. MISO states that because IROLs are established to prevent regional instability or cascading outages on the bulk electric system they will not be allocated locally. Moreover, if a resource committed for a thermal constraint also assists with a voltage constraint, it will be treated as a commitment for a thermal constraint.

[13] MISO ER12-678-000 Transmittal at 10.

[14] However, an LBA may formally request that MISO evaluate the commercial significance of a given VLR issue.

support voltages in load pockets, which are local by nature. MISO will conduct studies to identify the boundaries of load pockets, and allocate RSG costs to the Local BAAs affecting the interface. MISO will continue to treat resource commitments for IROL interfaces as market constraints, and to allocate the associate RSG costs market-wide.

14. MISO proposes other definitions to calculate the appropriate charge, including the Voltage and Local Reliability Commitment Allocation Ratio.[15] It states that the IMM recommended a study methodology to determine the proportion of costs to be allocated locally and market-wide. MISO "acknowledges that the IMM's approach is superior to the alternatives discussed, as it is more consistent with cost causation and avoids gaming."[16]

15. MISO requests an April 1, 2012 effective date for its proposed tariff revisions.

### B. Protests, Comments, and MISO's Answer

16. Notice of MISO's proposed Tariff revisions was published in the *Federal Register*, 77 Fed. Reg. 274 (2012), with interventions and protests due on or before January 13, 2012. The intervening parties are identified in Appendix A, and the party abbreviations listed in Appendix A will be used throughout this order.[17] Those intervening parties that also filed protests are collectively referred to as protesting parties. MISO submitted an answer to the protests. Wisconsin Electric, Midwest TDUs and WPSC filed answers in reply to MISO's answer.

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[15] MISO proposes to define Voltage and Local Reliability Commitment Allocation Ratio as:

> The ratio of RSG costs associated with Voltage and Local Reliability Commitments allocated to Local Balancing Authority Areas. The ratio is determined by the Transmission Provider as described in Section 40.3.3.a.xviii of this Tariff.

Proposed Section 1.697b of the Tariff.

[16] MISO ER12-678-000 Transmittal at 13 (citing Patton ER12-678-000 Affidavit at P 22-24).

[17] Michigan Public Service Commission filed, but later withdrew, a notice of intervention.

17. Protesting parties state that the VLR commitment definition is not clear and does not provide a transparent process for determining VLR commitments. Wisconsin Electric asserts that additional details should be added to the Tariff, not just to the Business Practices Manuals, in order to avoid disputes, and that Operating Guides should also be used to ensure that a documented process is used to define VLR commitments.

18. Protesting parties contest the 100 kV threshold for the determination of VLR commitments. Midwest TDUs argue that MISO inappropriately assumes that commitments on facilities under 100 kV will be VLR commitments because if the VLR occurs on a facility that is under MISO's control, then the cost of the resource commitments used to resolve the VLR must be deemed to have regional benefits. Wisconsin Electric adds that facilities under 100 kV can and do have market loop flows for regional purposes and that thermal constraints on facilities with voltages under 100 kV should not be considered VLR issues. Midwest TDUs state that MISO assumes that commitments needed to support voltage may be deemed to be local even when the affected facilities are of high voltage, but that in fact, thermal limitations are local if and only if they are on facilities under 100 kV.

19. In addition, protesting parties argue that the rationale for local allocation of VLR commitment costs also applies to IROL violations involving 1000 MW or more, and that the definition of VLR commitment should not exempt IROLs. Westar argues that the provision could potentially exempt Local BAAs with significant amounts of load from the allocation of RSG costs and shift those costs to market participants with day-ahead deviations that did not cause RSG costs, thereby undermining the purpose of MISO's proposal to eliminate cost shifts. Westar asks the Commission to require MISO to remove the IROL exemption from the VLR commitment definition, arguing that the exemption removes the uplift price signal to upgrade or expand the system into areas that are frequently congested.

20. Wisconsin Electric contends that the definition of VLR commitment needs clarification so that any resource that would have been committed as part of the market process is not deemed a VLR commitment. Wisconsin Electric explains that the definition of VLR commitment may permit MISO to make VLR commitments before the Security Constrained Unit commitment process, rather than afterward, and permit any commitment other than power balance commitments to be deemed VLR commitments.[18]

[18] Protesting parties also state that nuclear plants, whose output can benefit loads in an LBA Area other than where the plant is located, should be excluded from VLR commitments.

21. Protesting parties also question the study process to determine the costs associated with VLR commitments. Protesting parties state that there is no standard to determine whether a VLR issue is commercially significant. They note that MISO will conduct a study "at its discretion" to designate a VLR issue as commercially significant, based on criteria including frequency, monetary impart or other criteria included in the Business Practices Manuals. In addition, they argue that MISO has too much discretion when performing a study to determine the portion of costs to be recovered regionally through the usual RSG cost allocation. MidAmerican asks the Commission to require Local BAA participation in the studies like transmission owners do for transmission service requests.

22. Protesting parties also contest to whom the costs associated with VLR commitments will be allocated. Midwest TDUs and MidAmerican argue that while VLR commitment costs are based on actual energy withdrawals, the charges should be based on the physical location of loads, as it is under Tariff Schedule 2, Reactive Supply and Voltage Control from Generation and Other Resources.[19] Wisconsin Electric argues that the process used for the identification of affected loads or load pockets is unclear. In addition, Wisconsin Electric contends that if a generator requires additional voltage support, then the generator should pay for it, because having loads subsidize some generators that require additional voltage support, while not subsidizing other generators, is not consistent with cost causation. Wisconsin Electric also alleges that assessing VLR commitment costs to loads may have the unintended effect of increasing virtual trading, which will exacerbate the VLR problems.[20] Hoosier requests that MISO study the feasibility of allocating costs to load served at the affected commercial pricing nodes, rather than to all load in the entire Local BAA.

23. WPSC expresses its support for market-based solutions rather than manual, out-of-market allocations. WPSC faults MISO for not explaining why market tools such as Security Constrained Unit Commitment and Security Constrained Economic Dispatch cannot indentify resource commitments to manage VLR transmission constraints, and for the lack of specificity in its proposed apportionment of costs between Local BAAs.

24. MISO in its Answer states that the definition of VLR commitments clearly describes resource commitments necessitated by local reliability needs and system operational considerations that are otherwise not addressed by the results of the Security

[19] Basing charges on the physical location of loads would mean that pseudo-ties do not affect charges.

[20] Wisconsin Electric recommends assessing the charges on loads and non-load deviations so that virtual traders do not have an incentive to possibly increase VLR issues.

Constrained Unit Commitment process. MISO argues that the 100 kV threshold is just and reasonable because it is consistent with the Tariff's definition of the Bulk Electric System, which includes transmission facilities generally above the 100 kV voltage level. Therefore, MISO argues that it is reasonable to classify the flows on facilities under 100 kV as local in nature even if they have market-wide impacts. Moreover, to the extent that such commitments have market-wide effects, MISO notes that the proposed Tariff revisions reasonably allocate some costs to the regional market (i.e., currently eight percent). Similarly, MISO argues that excluding IROL violations from the definition of VLR commitment is reasonable because IROL is defined as pertaining to the Bulk Electric System and is, therefore, not local in nature. Thus, MISO states that excluding IROL violations sends proper price signals to improve the system with upgrades.

25. MISO states that identification of VLR commitments is essential for the application of proper mitigation thresholds and cost allocation. MISO adds that these VLR commitments typically precede the initiation of both the day-ahead and real-time market processes but may be issued at various points in the sequence of administering the real-time market process, depending on when the needed requirements are known. MISO argues that making the changes proposed by Wisconsin Electric would be inappropriate given the variability in occurrence and persistence of the underlying transmission issues. MISO notes that if a VLR commitment is dispatched as part of the market process, and the market revenue is above the offered costs, the market revenues may reduce the associated RSG costs associated with the commitment.[21]

## III. MISO's Filing in Docket No. ER12-679-000, Protests and Comments, and MISO's Answer

### A. MISO's Filing

26. In its filing in Docket No. ER12-679-000, MISO proposes to implement new mitigation measures to address market power problems. Dr. Patton states that resources committed for VLR can exercise market power, and that current market power mitigation measures are not sufficient to prevent such activity.[22] MISO states that it conducted extensive stakeholder discussions throughout 2011 as to the mitigation of offers of resources needed for VLR issues, and that it has modified its proposal in response to

[21] MISO adds that any predetermined special treatment for nuclear plants is unwarranted because the proposed allocation is reasonable.

[22] Transmittal Letter, MISO December 23, 2011 Filing, Docket No. ER12-679-000 (MISO ER12-679-000 Transmittal) at 2-3, citing IMM, *2010 State of the Market Report* at xiii.

stakeholder concerns. MISO further states that the proposed mitigation thresholds are patterned on Commission-accepted proposals by New York Independent System Operator, Inc. and ISO-NE.[23] MISO maintains that its proposed Tariff revisions, similarly to mitigation measures in those RTOs, "provide for appropriate mitigation when generators are needed to address VLR issues under circumstances involving undue market power risks."[24]

27. In section 64.1.3.a of the Tariff, MISO proposes to add conditions to one of its existing thresholds for identifying uneconomic production. Currently, this threshold defines uneconomic production as energy that is scheduled at a location where the locational marginal price (LMP) is less than 50 percent of the applicable reference level and that causes a binding transmission constraint or a binding reserve zone constraint. MISO proposes to insert additional conditions to this threshold, so that uneconomic production by any resource may warrant mitigation only if:

> i. The incremental Energy Offer Price for the Resource is less than 50 percent of the applicable Reference Level; or
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> ii. The Hourly Economic Minimum Limit of an Offer for a Generation Resource is more than 25 percent higher than the applicable Reference Level; or
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> iii. Any of the conduct thresholds specified in Section 64.1.2.a.v and Section 64.1.2.a.vi are exceeded.[25]

Existing sections 64.1.2.a.v and 64.1.2.a.vi of the Tariff provide conduct thresholds to identify economic withholding in Broad Constrained Areas:

> v. Time-based Offer parameters: An increase of three (3) hours, or an increase of six (6) hours in total for multiple time-based Offer parameters. Time-based Offer parameters include, but are not limited to, Start-Up Times, Minimum Run Times and Minimum Down Times.

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[23] MISO ER12-679-000 Transmittal at 4 (citing *ISO New England, Inc.*, 129 FERC ¶ 61,008, at P 24 (2009); *New York Indep. Sys. Operator, Inc.*, 131 FERC ¶ 61,169, at P 2; *New York Indep. Sys. Operator, Inc.*, 133 FERC ¶ 61,030, at P 44 (2010)).

[24] MISO ER12-679-000 Transmittal at 4.

[25] Proposed MISO FERC Electric Tariff, §§ 64.1.3.a.i(a)-(c) (1.0.0).

> vi. Offer parameters expressed in units other than time or dollars: A 100 percent (100%) increase for parameters that are minimum values, or a 50 percent (50%) decrease for parameters that are maximum values (including but not limited to Ramp Rates and Maximum Shut Down Limits).[26]

28. Dr. Patton testifies that the proposed revisions to its thresholds for identifying uneconomic production are necessary because the existing Tariff "does not specify thresholds for the physical offer parameters." Accordingly, MISO has added conduct thresholds for [Hourly Economic Minimum Limits] and other physical parameters that are necessary for the proposed mitigation to be effective for local commitments."[27] According to Dr. Patton, the proposed 25-percent threshold for Hourly Economic Minimum Limits in section 64.1.3.a.ii will prevent over-mitigation by allowing a resource's economic minimum limits to vary due to changes in operating limits, and will also address uneconomic production that results when MISO must commit resources that submit inflated minimum generation offers and energy offers that exceed the LMP.[28]

29. In section 64.1.2.g of the Tariff, MISO proposes new thresholds for identifying economic withholding by a generation resource needed for a VLR commitment, so that the resource will fail the conduct test if:

> i. The Generation Offers result in a ten percent (10%) increase in total production costs due to an increase in the Market Participant submitted Generation Offer from the applicable Reference Level Generation Offer for a Generation Resource; or
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> ii. The Resource's conduct exceeds any of the uneconomic production thresholds proposed in either Section 64.1.3.a.i(b) or Section 64.1.3.a.i(c).

As discussed above, proposed sections 64.1.3.a.i(b) and 64.1.3.a.i(c) provide that a resource's offer may be subject to mitigation if the resource's Hourly Economic Minimum Limit exceeds the applicable reference level by more than 25 percent or if any of the existing mitigation thresholds in sections 64.1.2.a.v or 64.1.2.a.vi of the Tariff are exceeded.

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[26] MISO, FERC Electric Tariff, §§ 64.1.2.a.v-vi (0.0.0).

[27] Patton ER12-679-000 Affidavit, at P 23.

[28] *Id.* P 24.

30. Dr. Patton states in his testimony that the 10-percent threshold for identifying economic withholding is necessary because "extreme local market power exists" when the resources owned by a single supplier are required for a local reliability commitment.[29] Dr. Patton also argues that adding physical parameter thresholds will provide safeguards against generators inflating their physical parameter offers in order to increase their RSG payments. For example, he states that the proposed change in section 64.1.3.i(b) specifies that a 25 percent increase above the reference Economic Minimum Generation level will be the conduct threshold used to identify potential uneconomic production associated with that parameter.[30]

31. In section 64.2.1 of the Tariff, MISO proposes to modify the market impact threshold provisions for resources needed for VLR commitments. In particular, it proposes to change section 64.2.1.d, which contains the existing $50/MWh threshold for identifying conduct that substantially affects market clearing prices or RSG credits, to exclude RSG credits paid to generators needed for VLR commitments. MISO proposes to add a new subsection 64.2.1.f, which states that the threshold to determine a substantial effect on day-ahead or real-time RSG credits paid to generators committed for VLR issues shall be $0/MWh.

32. Dr. Patton argues that "given the extreme market power associated with local commitments and the chronic nature of the reliability issues, it is appropriate to mitigate any increase in RSG costs associated with the conduct identified in section 64.1.2 without testing the conduct for impact."[31] He maintains that because suppliers satisfying VLR requirements generally face little or no competition, an impact test is unnecessary and would reduce the effectiveness of the proposed mitigation measures. He asserts that the risk of under-mitigation is much more severe with regard to VLR commitments than it is in Broad Constrained Areas or Narrow Constrained Areas, and therefore warrants tighter thresholds. Further, Dr. Patton states that the risk of over-mitigation is lower for local

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[29] *Id.* P 19.

[30] *Id.* PP 22-24.

[31] *Id.* P 26. Dr. Patton argues that NYISO and ISO-NE proposed, and the Commission approved, mitigation measures that employ a conduct test but no impact test to mitigate market power associated with local commitments. *Id.* P 28 (citing *New York Independent Sys. Operator, Inc.*, 131 FERC ¶ 61,129 (2010); *ISO New England Inc. and New England Power Pool*, 129 FERC ¶ 61,008 (2009).

commitment RSG payments than it is for the energy market because the former is performed *ex post* and, therefore, has no impact on LMPs in the energy markets.[32]

33. MISO requests an April 1, 2012 effective date for its proposed tariff revisions.

### B. Protests and Comments, and MISO's Answer

34. Notice of MISO's proposed Tariff revisions was published in the *Federal Register*, 77 Fed. Reg. 274 (2012), with interventions and protests due on or before January 13, 2012. The intervening parties are identified in Appendix A. MISO filed an answer to the protests and comments. MidAmerican filed an answer to MISO's answer.

35. Some parties support MISO's filing. Wisconsin Electric supports MISO's efforts to refine its mitigation policies and trigger tighter mitigation thresholds for VLR commitments.[33] DC Energy requests that the Commission approve MISO's proposed definition of VLR Commitment and the proposed mitigation measures as soon as reasonably possible.[34] Xcel requests that the Commission approve MISO's proposed mitigation measures, asserting that they would benefit market participants by reducing RSG credits.[35] Hoosier supports MISO's proposed mitigation provisions and urges the Commission to accept them, contending that these provisions will prevent entities with market power in constrained areas from imposing significant uplift costs on market participants throughout MISO.[36]

36. Westar states that although it generally supports MISO's mitigation proposal, it opposes the sentence in MISO's proposed definition of Voltage and Local Reliability Commitment that exempts resource commitments made in response to an IROL violation. Westar contends that the exemption of such commitments from mitigation would significantly undermine MISO's mitigation proposal by preventing the IMM from addressing potential market power abuses in situations where resources are offered at increased prices to relieve an IROL violation.[37] MidAmerican supports MISO's

[32] *Id.* PP 27-30.

[33] Noting its concerns regarding the VLR commitment definition, Wisconsin Electric incorporates by reference its protest in Docket No. ER12-678-000.

[34] DC Energy Motion to Intervene and Comments at 3.

[35] Xcel Motion to Intervene and Comments at 4.

[36] Hoosier Motion to Intervene and Comments at 2.

[37] Westar Motion to Intervene and Protest at 3-4.

mitigation proposal, but suggests several edits and clarifications. Among these, it argues that MISO should modify the numbering of its tariff sections to clarify that the proposed mitigation applies to both Narrow Constrained Areas and Broad Constrained Areas.[38]

37. JPMorgan and Midwest TDUs are concerned about whether the proposed mitigation would be appropriately applied to market participants exercising market power. JPMorgan argues that MISO's proposed revisions lack a mechanism to ensure that offers are only mitigated during the existence of market power. It asks the Commission to direct MISO to amend its filing to incorporate a "dynamic market structure test" that can be implemented in its day-ahead market, its reliability assessment commitment, and its real-time market to ensure that MISO applies the proposed mitigation measures only when the market is structurally uncompetitive.[39] Midwest TDUs contend that rather than focusing on whether out-of-merit unit commitment is needed to address "local" reliability issues, MISO should employ mitigation based on a pivotal supplier test similar to one employed by NYISO.

38. JPMorgan and Midwest TDUs are concerned that some mitigation thresholds are based on whether an offer parameter has increased relative to previous offers. JPMorgan argues that the mechanisms used to calculate increases in certain offer parameters are unclear because the Tariff does not specify how such an increase is measured (e.g., against yesterday's offer parameters or a historical average).[40] Midwest TDUs argue that the proposed section 64.1.2.g, which provides a mitigation threshold for generation offers resulting in a 10 percent increase in total production costs from the applicable reference level, should be clarified.

39. JPMorgan contends that it is unclear whether MISO's mitigation authority remains in force for the duration of each resource's minimum operating cycle or if it ends when the VLR concerns are satisfied, regardless of whether such concerns are addressed prior to the end of a resource's minimum commitment period. JPMorgan also claims that the proposed Economic Withholding Tariff language gives the IMM undue discretion to apply mitigation and asks the Commission to require that MISO reword Section 64.1.2(g) to remove such discretion.[41]

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[38] MidAmerican Motion to Intervene and Protest at 2-5.

[39] JPMorgan Motion to Intervene and Comments at 4-7.

[40] *Id*. at 8.

[41] *Id*. at 7-9 (citing MISO December 23, 2011 Filing, Docket No. ER12-679-000, FERC Electric Tariff, § 64.1.2.g (0.5.0) (emphasis added)).

40. JPMorgan argues that the proposed mitigation of time-based offer parameters, in addition to being insufficiently precise, does not reflect run-time limitations related to natural gas-fired generators' contractual or pipeline tariff requirements to take natural gas on a ratable basis. It argues that lack of flexibility could force owners of such generators to operate at a loss during some hours for which it must purchase fuel or declare the resource unavailable for lack of fuel. JPMorgan requests that the Commission require MISO and the IMM to include the terms and conditions of fuel supply arrangements in the reference levels for minimum run times for generation resources.[42]

41. Midwest TDUs state that the Commission should closely examine whether the standards for determining a resource's reference levels are appropriate in the context of the exercise of market power to exploit a recurring constraint. They state that under section 64.1.4 of the Tariff, such reference levels are first determined by examining offers in competitive periods over the past 90 days, but that VLR commitments almost by definition occur in uncompetitive periods. Further, the next reference level standard, employed when sufficient information is not available for the first, is based on the mean of the LMP or applicable market-clearing price at the units' location during the lowest-priced 25 percent of hours that the unit was dispatched over the previous 90 days. Midwest TDUs argue that this standard is inappropriate for VLR commitments because it focuses on LMPs, while the purpose of RSG payments is to recognize that a generator's actual cost may exceed the LMP. Midwest TDUs state that a generator's reference level should be based on an estimation of its actual marginal costs, whether developed in consultation with the market participant or by the IMM.[43]

42. In its answer, MISO defends its proposed exclusion of commitments made in response to IROL violations from the definition of VLR commitments. It contends that such an exclusion is appropriate because IROL violations relate to the Bulk Electric System and the Tariff's market monitoring and mitigation provisions sufficiently address market power concerns in the broader markets. MISO asserts that the VLR mitigation proposal seeks to address offers pertaining to constraints that do not reach the level of IROL violations.[44] MISO agrees with most of MidAmerican's proposed edits to the mitigation proposal. It emphasizes that while the proposed mitigation can apply in Narrow Constrained Areas and Broad Constrained Areas in proper circumstances, VLR

[42] JPMorgan Motion to Intervene and Comments at 9-11.

[43] Midwest TDUs Motion to Intervene and Comments at 8-9.

[44] MISO Motion for Leave to Answer and Answer at 2-4.

mitigation is separate and distinct from the existing Tariff's mitigation measures directly pertaining to Narrow Constrained Areas and Broad Constrained Areas.[45]

43. MISO disagrees with Midwest TDUs' contention that VLR mitigation should be based on a pivotal supplier test, as well as JPMorgan's assertion that MISO's VLR proposal is inadequate and unsupported due to lack of a quantitative screen to assess market power. MISO argues that VLR mitigation is appropriately based on the local nature of the reliability issues necessitating such commitments. Further, it contends that its definition establishes clear standards that market and reliability administration processes must apply when determining when the more restrictive mitigation thresholds apply. In addition, MISO argues that the provisions clearly identify those resource commitments for which local market power exists, consistent with the Commission's previous findings in NYISO.[46]

44. With respect to Midwest TDUs' reference level concerns, as well as Midwest TDUs' and JPMorgan's assertions that it is unclear how increases in offer parameters will be measured, MISO clarifies that increases of total production costs are determined by comparison between generation offers submitted by market participants and the applicable generation offer reference levels. It also contends that its proposal's approach is consistent with other reference level provisions in Module D of the Tariff. In addition, MISO asserts that reference levels do not need modification to accommodate VLR measures because such situations seldom involve binding constraints and associated impacts on the LMP. It also notes existing provisions allowing for adjustment of the reference levels of individual resources.[47]

45. In response to JPMorgan's concerns about the duration of mitigation authority, MISO clarifies that the VLR mitigation measures are applicable for the duration of the VLR commitment period, regardless of when the VLR concerns are satisfied. Regarding JPMorgan's concerns about excessive discretion for the IMM, MISO states that the language that JPMorgan discusses is consistent with other language used throughout Module D of the Tariff. MISO also contends that JPMorgan's natural gas requirement concerns are beyond the scope of this proceeding. In addition, it argues that reference levels have been applied to resource commitments in other contexts and should be

[45] *Id*. at 9-10.

[46] *Id.* at 8 (citing *New York Indep. Sys. Operator, Inc.*, 133 FERC ¶ 61,030 at P 52).

[47] *Id.* at 4-5, 9.

applied here. Further, MISO contends that fuel supply terms and conditions can be adequately addressed under section 64.1.4a.ii of the Tariff.[48]

## IV. Discussion

### A. Procedural Matters

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

47. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2011), prohibits an answer to a protest or an answer unless otherwise ordered by the decisional authority. We accept MISO's answers in Docket Nos. ER12-678-000 and ER12-679-000 because they have provided information that has assisted us in our decision-making process. We are not persuaded to accept the answers to MISO's answers in Docket Nos. ER12-678-000 and ER12-679-000 and will, therefore, reject them.

### B. Substantive Matters

48. The Commission finds that MISO's proposed definition of VLR commitments, its proposed allocation of the costs associated with VLR commitments in Docket No. ER12-678-000, and its proposed mitigation measures in Docket No. ER12-679-000, may be unjust, unreasonable, unduly discriminatory or preferential. However, in light of the significant increase in RSG costs associated with VLR commitments since January 2010, and the potential financial harm from allocating such costs in a manner that could be inconsistent with cost causation and from enabling the exercise of market power by resources that are involved in VLR commitments, we accept and suspend for five months MISO's proposals in these two dockets, subject to a technical conference and further order by the Commission.

49. To expeditiously explore issues related to the allocation of costs related to VLR commitments and to supplement the existing record, we direct Commission staff to convene a technical conference.[49] The details of such conference will follow in a

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[48] *Id.* at 5-7.

[49] In addition, we remind the parties that the Commission's Dispute Resolution Service (DRS) is available to convene the parties to explore alternative dispute resolution

(continued…)

subsequent notice. Parties should be prepared to address the issues raised and to fully support their positions. Following the conference, the parties will have an opportunity to file written comments that will be included in the formal record of the proceeding, which, together with the record developed to date, will form the basis for further Commission action.

50. Generally, in Docket No. ER12-678-000, the parties have expressed agreement that costs should be allocated consistent with the principle of cost causation. However, protesting parties raise issues that fall into three general categories: They contest the process used to determine which resource commitments should constitute VLR commitments, the various study processes to determine the costs associated with VLR commitments, and the parties to whom the costs associated with VLR commitments will be allocated.

51. Protesting parties have raised numerous concerns about the VLR commitment definition, which is essential to determine not only the resources to be committed, but also the resources to be mitigated. The protesting parties allege that MISO's proposed definition, the basis for determining VLR commitments, appears to be too broad and gives MISO too much discretion.[50] They also contend that it is unclear how MISO will determine which units are committed to provide voltage management. Further, protesting parties allege that the 100 kV commitment threshold in the proposed definition allows commitments for reasons other than VLR management. The technical conference will afford the Commission staff and the parties an opportunity to further explore these issues, and to supplement the record.

52. Protesting parties also claim that MISO has too much discretion in the study process to determine whether a VLR commitment is commercially significant (and, therefore, eligible for a broader cost allocation). The technical conference will provide an opportunity to identify all criteria to be used by MISO for determining when a VLR commitment is commercially significant. In addition, the Commission notes that Dr. Patton testified[51] that local VLR commitments could satisfy regional requirements including market-wide capacity requirements. However, Dr. Patton studied only the

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process options to facilitate agreement on matters at issue. DRS can be reached at 1-877-337-2237.

[50] For example, we note Wisconsin Electric's observation that the definition is so vague that it could encompass practically any commitment. *See* Wisconsin Electric Protest at 4.

[51] Patton ER12-678-000 Affidavit, at P 13.

effect of VLR commitments on market-wide capacity requirements and did not study the effect on other regional requirements. The technical conference will allow the parties to sufficiently clarify the study process in the Tariff and to determine all of the quantifiable "other market-wide requirements" alluded to by Dr. Patton that have yet to be studied for purposes of splitting the cost of VLR commitments between local and market-wide costs.

53. Protesting parties also question the mechanism by which MISO proposes to allocate the costs associated with VLR commitments. Some protesting parties request that MISO's proposal reflect a more precise allocation,[52] while other protesting parties suggest that a wider allocation to more load is appropriate.[53] Moreover, Wisconsin Electric suggests that generators in need of voltage support should pay a portion of the costs of VLR commitments instead of requiring load to pay the costs. The Commission finds that a technical conference may prove useful in further exploring these issues and developing a more complete record

54. With regard to MISO's mitigation proposal in Docket No. ER12-679-000, the issues discussed above regarding the VLR commitment definition also apply to mitigation, as this definition will determine which units will be monitored under the proposed VLR mitigation thresholds. The technical conference will provide an opportunity to explore whether all VLR commitments present the same market power risks and whether the proposed VLR commitment definition appropriately captures those resources.

55. We note several additional issues: (1) MISO has not explained how resources needed for VLR commitments will be monitored and mitigated to the extent that they also provide other energy and operating reserve market products and may be subject to MISO's existing mitigation measures in Broad Constrained Areas and Narrow Constrained Areas; (2) Midwest TDUs raise concerns that the reference level for determining uneconomic withholding would be based on uncompetitive offers; and (3) MISO has not justified a number of revisions to the uneconomic production mitigation provisions. A technical conference may prove useful in further exploring these issues and developing a more detailed record.

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[52] For example, Hoosier and SIPC request that MISO study the feasibility of allocating to load served at the affected CPNodes, rather than to all load in the entire LBA. Hoosier and SIPC Motion to Intervene and Comments at 3.

[53] For example, Midwest TDUs state, "If the rationale for assigning costs of managing voltage problems to the loads in the areas whether they occur is sound with respect to smaller load pockets, there is no clear reason why this should not also apply to larger load pockets." Midwest TDUs Motion to Intervene and Comments at 6.

56. For the reasons discussed above, we accept and suspend for five months MISO's proposed Tariff revisions, subject to Commission staff convening a technical conference and further Commission order.

The Commission orders:

(A) MISO's proposed Tariff revisions in Docket Nos. ER12-678-000 and ER12-679-000 are hereby accepted and suspended for five months to be effective September 1, 2012, subject to a technical conference and further Commission order, as discussed in the body of this order.

(B) Commission Staff is hereby directed to convene a technical conference to be held at a date specified in a subsequent notice, as discussed in the body of this order.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,
Deputy Secretary.

## Appendix A

**Motions to Intervene and Notices of Intervention (Docket No. ER12-678-000)**

Alliant Energy Corporate Services Inc. (Alliant)
Ameren Services Company (Ameren)
American Electric Power Service Corporation (AEP)
American Municipal Power Inc. (AMP)
American Transmission Company, LLC
American Wind Energy Association (AWEA)
Calpine Corporation (Calpine)
Constellation Energy Commodities Group, Inc. and Constellation NewEnergy Inc. (jointly, Constellation)
Consumers Energy Company (Consumers)
Dairyland Power Cooperative (Dairyland)
Detroit Edison Company (Detroit Edison)
Duke Energy Corporation, on behalf of Duke Energy Kentucky, Inc., Duke Energy Ohio, Inc., Duke Energy Indiana, Inc., and Duke Energy Business Services, LLC (collectively, Duke)
Dynegy Power Marketing, LLC (Dynegy)
E.ON Climate & Renewables North America, LLC (E.ON)
Exelon Corporation (Exelon)
Iberdrola Renewables, Inc. (Iberdrola)
Invenergy Wind Development North American LLC and Invenergy Thermal Development LLC (collectively, Invenergy),
NextEra Energy Resources LLC (NextEra)
Tatanka Wind Power LLC (Tatanka),

**Motions to Intervene and Comments or Protests in Docket No. ER12-678**

DC Energy Midwest LLC (DC Energy)
Hoosier Energy Rural Electric Cooperative, Inc. (Hoosier)
Madison Gas and Electric Company, Missouri Electric Utility Commission, Missouri Joint Municipal Electric Utility Commission, Missouri River Energy Services, and WPPI Energy (jointly, Midwest TDUs),
MidAmerican Energy Company MidAmerican)
Southern Illinois Power Cooperative (SIPC)
Westar Energy Inc.  (Westar)
Wisconsin Electric Power Company (Wisconsin Electric)
Wisconsin Public Service Corporation and Upper Peninsula Power Company (WPSC)
Xcel Energy Services Inc. (Xcel)

**Motions to Intervene and Notices of Intervention (Docket No. ER12-679-000)**
AEPAlliant
Ameren
AMP
Calpine
Constellation
Consumers
Dairyland
Detroit Edison
DukeDynegy
E.ON
Exelon
Hoosier (Hoosier)
Invenergy
NextEra (NextEra)
Otter Tail Power Company
Tetanka Wind Power, LLC (Tatanka)

**Motions to Intervene and Comments or Protests in Docket No. ER12-679-000**
AWEA
DC Energy
Iberdrola
JPMorgan Ventures Energy Corporation and BE KJ LLC (JPMorgan)
MidAmerican
Midwest TDUs
Westar Wisconsin Electric
Xcel