UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Midwest Independent Transmission System Operator, Inc. Docket No. ER07-550-000
Electric Tariff Filing To Reflect Ancillary Services Markets

COMMENTS OF THE ORGANIZATION OF MISO STATES AND NOTICE OF INTERVENTION

I. Introduction

On February 15, 2007, the Midwest Independent Transmission System Operator, Inc. ("Midwest ISO") filed with the Federal Energy Regulatory Commission ("Commission") revisions and amendments to its Open Access Transmission and Energy Markets Tariff relating to the implementation of Day-Ahead and Real-Time Energy and Ancillary Services Markets ("ASM").

On February 21, 2007, the Commission issued an errata notice setting March 23, 2007, as the deadline for comments and protests. On March 1, 2007, the Midwest ISO filed an addendum to provide the Commission and stakeholders with a status report on amendments to the "Agreement Between Midwest ISO and Midwest ISO Balancing Authorities Relating to Implementation of the TEMT," FERC Electric Tariff, Rate Schedule No. 3, which the Midwest ISO referenced in the February 15 filing. On March 2, 2007, the Midwest ISO Transmission Owners filed with the Commission a request to extend the deadline for comments and protests. On March 7, 2007, the Commission issued a notice extending the deadline to March 30, 2007, for comment on Midwest ISO filing. The Organization of MISO States ("OMS") hereby submits its comments.

After review of the February 15 filing, the OMS has identified the following issues and recommendations for the Commission's consideration. Each of these points is discussed at greater length in its own subsection in section three of this document.

II. Statement of Issues

A. Market Power

To support the role of the market monitor and to aid in a fair and competitive ancillary services market, the OMS offers the following six revisions to the Midwest ISO ASM design to ensure that market power in the ASM does not increase. The importance of an independent market monitor is a key element in the Midwest ISO markets and the suggested changes are intended to diminish market power concerns.

The Midwest ISO did not explain why it is not proposing to impose a must-offer requirement (after the first 180 days) on regulation service while maintaining the must-offer requirement on contingency reserve providers. The Commission should direct the Midwest ISO to explain the reasons for its proposal to eliminate the must-offer requirement for regulation after the first 180 days.

While market participants with generation resources that are capable of providing regulation service will not be required to submit offers to provide regulating reserves, Module D of the Midwest ISO's tariff states that not offering such capability could constitute physical withholding and make the market participant subject to market power mitigation measures. These positions appear inconsistent, and the Commission should direct the Midwest ISO to reconcile this apparent inconsistency.

OMS believes questions still remain whether regulation capable network resources should be subject to a must-offer requirement for regulating reserves. Therefore, OMS suggests that the Midwest ISO not automatically lift the must-offer requirement, and instead assess the need to continue the must-offer requirement for regulation prior to the 180 day deadline.

The total market size for operating reserves will be substantially smaller than the total market size for energy. It is not clear how the market monitor will apply the withholding threshold to ancillary services. The market monitor should clarify exactly how it intends to apply the threshold in each market. If the market monitor applies the threshold separately to the smaller quantity of operating reserves in the total market as compared to the quantity of energy in the total market, then a correspondingly smaller threshold should be used for identifying

physical withholding in the operating reserve market. Therefore, the OMS recommends that the threshold be proportionally smaller than the five percent in the existing tariff.

Subsections 64.1.2(a)(iii) and 64.1.2(a)(iv) of module D of the tariff (revised sheets 768 and 769) address the conduct test for ancillary services offers in broad constrained areas. The two paragraphs provide for different thresholds--$10 in the case of Subsection 64.1.2(a)(iii) and $5 in the case of Subsection 64.1.2(a)(iv). The Commission should direct the Midwest ISO to clarify this apparent inconsistency.

The opportunity for operating reserve resource providers to exercise market power within reserve zones is of significant concern. Mr. Jones describes the Midwest ISO's two goals to be achieved with the creation of reserve zones (operating reliability sufficiency and "dispersal") and he testifies about the Midwest ISO's proposed four-step reserve zone study process that takes transmission constraints into account. However, the linkage between how the four-step reserve zone study process is designed to achieve the stated goals is not clear. Since transmission constraints are so important in monitoring the energy markets, OMS has a concern about a possible disjoint and insufficient robustness of the market power monitoring and mitigation measures as applied to the reserve zones proposed by the Midwest ISO. Dr. Patton did not provide testimony concerning this important matter sufficient to lessen OMS concerns about market power in reserve zones.

B. Cost Allocation

In principle, the OMS believes that a cost recovery allocation should assign costs for ancillary services to the beneficiaries of reliable transmission operation, as well as market participants that cause the costs to be incurred. Yet, in its filing, the Midwest ISO proposes to allocate ASM costs prevailingly to load.

The OMS does not support the Midwest ISO's proposed cost allocation because it inequitably assigns the cost of regulation and contingency reserves prevailingly to load. Six OMS member states advocate a finding that the filed cost allocation has not been shown to be just and reasonable and recommend that costs be allocated to all beneficiaries of reliable transmission operation, specifically recommending differing allocations of costs for regulation and for contingency reserves. Alternatively, other OMS member states take the somewhat

different position that costs of ancillary services should be allocated to all MWh delivered into or out of the Midwest ISO.

In addition, the OMS is also concerned with potential inequities associated with having reserve zones throughout the Midwest ISO footprint that could potentially have very different Market Clearing Prices (MCPs), but not having a cost allocation methodology that recognizes these differences. The MCP's determine the amount of compensation that the Midwest ISO will provided to resources providing Ancillary Services; however, the Midwest ISO's proposal for funding these payments to resources is inconsistent with the compensation methodology. The Midwest ISO proposes to charge market participants that withdraw energy a load ratio share charge without regard to the potentially different MCP's in each of the reserve zones. The OMS urges the Commission to require the Midwest ISO to develop a cost allocation methodology that recognizes the potential MCP differences across the Midwest ISO footprint, consistent with the methodology utilized to compensate resources for providing the Ancillary Services.

At a minimum, OMS urges the Commission to direct the Midwest ISO to provide a detailed report, one year from the start of the ASM and annually thereafter, that evaluates the prior twelve month's market clearing prices across the Midwest ISO footprint for each operating reserve product and zone to determine if the ancillary service revenues and costs are appropriately allocated using the load ratio share method.

C. Hedging

Tension exists between a robust ASM design that includes scarcity prices, market clearing prices and demand curves, and an existing ancillary services regime that is already paid for in many state tariffs. While the states acknowledge the efficiency of the ASM, it is unreasonable to charge ratepayers twice for ancillary services. Given that no perfect hedge exists to offset ASM costs, the state commissions will be faced with difficult cost recovery issues. For example, a Midwest ISO utility that already has planning reserves built into base rates is already paying for operating reserves. Under this circumstance, a state commission could not support paying additional ASM charges under its fuel clause adjustment or other flow-through mechanisms. Therefore, it is imperative to implement an ASM that avoids new charges on top of existing rates in the various states.

Adequate hedging and assurance that utilities can manage the costs in the ASM are necessary to prevent higher market costs from being passed on to utilities and ratepayers, where adequate integrated resource planning and reserve margins exist. ASM should be cost neutral or beneficial. Accordingly, the Commission should require the Midwest ISO to ensure that ASM provides adequate hedging through: self-providing of ASM; ensuring ASM costs are offset with measurable benefits; having the ability of the utility to make an informed offer and bid into the market to avoid after-the-fact costs; and providing certainty that ASM zonal boundary changes do not negatively impact hedging. Therefore, the OMS urges the Commission to make sure the Midwest ISO is designing the ASM to ensure that the benefits flow to ratepayers, while avoiding undue cost increases.

D. Demand Response

The start of the ancillary services market will be a challenging time for market participants. Many demand response resources are managed through the load serving entities and, as a result, demand response resources are not always aware of market conditions and opportunities for participation or how to obtain this information. The Midwest ISO should ensure that demand response has information on market conditions and prices, including market clearing prices and scarcity prices.

The use of a scarcity pricing mechanism that allows bid prices to rise to the value of lost load is new for the Midwest ISO. Without experience as to how well it will operate, the OMS is concerned about the risk of unnecessarily high prices and the resulting effects on ratepayers exposed to the ancillary services market. The OMS urges the Commission to direct the Midwest ISO to use its stakeholder process to further refine its market rules and business practices to encourage participation of demand response in the day-ahead and real-time energy and ancillary service markets at market start.

E. ASM Costs and Benefits

State regulators are keenly interested in the costs that ratepayers will bear with the launch of the new ASM. The OMS will seek to fully understand the costs and benefits of the ASM on a stand-alone basis, separate from the energy market. Although the Midwest ISO has estimated

significant benefits of a footprint-wide contingency reserve and the ASM projects, the OMS will want to ensure that ratepayers receive the benefits that the Midwest ISO has suggested.

Given the change to a fully co-optimized energy and ancillary service market, it is critical to install an audit system that builds in diagnostic safeguards for the new ASM costs. The OMS believes that the audit functions must be in place to assure that the co-optimization is done prudently and at the least cost. Currently, it is unclear if the Midwest ISO will have the capability to ascertain if the generation choices using co-optimization for energy and ancillary services are indeed optimal selections for energy and ancillary services. Therefore, the OMS asks the Commission to direct the Midwest ISO to develop diagnostic safeguards, metrics and audit functions into the ancillary services market design to ensure that the ancillary services and energy market co-optimization is both prudent and the least cost solution.

F. Value of Lost Load

The Midwest ISO did not provide sufficient supporting documentation for the Value of Lost Load (VOLL) in the filing. Determining the appropriate VOLL is an important step in designing the ASM and as a result, the OMS is concerned with the calculation of the VOLL.

The scarcity price on the administratively determined demand curve must strike an appropriate balance: high enough to achieve the goal of economically maintaining system reliability but not excessively high to create unnecessary costs and to encourage undesired market behavior. As a result of the importance of establishing this value and its effects on the reliability of the system, the OMS urges the Commission to direct the Midwest ISO to provide additional support for its proposed VOLL before it is utilized in the operation of the ASM. The OMS posed eight questions of the Midwest ISO to assist with deriving a VOLL that is truly reflective of the characteristics of the Midwest ISO footprint.

Generally, the OMS considers $3,500 VOLL to be too high. The VOLL studies are too broad and the studies used by the Midwest ISO are, in many cases, twenty years old and do not include Midwest residential customers. The VOLL studies should be contemporary and be more relevant to the actual customers in the Midwest ISO footprint. The OMS questions the value of using out-of-date VOLL studies with little Midwestern data. Second, many of the states in the MISO footprint have planning reserve requirements and continue to be rate regulated, so a fully

unhedged market price may not be appropriate. The planning reserves already provide a safety net for reliability. Third, the Midwest ISO lacks experience with scarcity pricing based upon a VOLL, and therefore it may be appropriate to set the VOLL at a more conservative level. Fourth, the majority of the outages experienced by residential customers are not attributable to ancillary services but to local problems with storms, transformers malfunctioning and wildlife damage. Finally, residential customers are, in all likelihood, paying currently for operating and maintenance costs in their regulated distribution rates to avoid these types of outages. Therefore, the OMS requests that the Commission determine that the VOLL level proposed by the Midwest ISO was not sufficiently supported by the data in its filing and therefore is unjust and unreasonable. The OMS asks the Commission to direct the Midwest ISO to reevaluate, with detailed justification, the VOLL level.

G. Clarity of ASM Costs in Invoice Design

The OMS is interested in the ability of regulators to consider operating information in order to make findings of prudence and reasonableness of ASM costs, particularly with respect to energy and ASM offers, real-time performance, and the amount of any penalties that may accrue. Similarly, the OMS is concerned that utilities have the ability to identify areas for operational or market participation improvements to control costs on behalf of their customers.

Under the ASM, new credits and charges for ancillary services will be developed that include settlements, performance monitoring, and charge types. The OMS has concerns as to the level of detail that will be included on invoices and settlement statements. Specifically, will each of the seven settlement calculations and charge types be readily apparent in invoices and settlement statements? The OMS strongly suggests that the Commission recognize the need for the Midwest ISO to remain strongly committed to addressing this issue and to work with the states to understand the impact of the ASM on current state ratemaking as it implements the ASM.

H. Long-Term Resource Adequacy

The OMS suggests the following calendar changes for certain event completion dates for the long-term resource adequacy plan:

- Change the date to October 2007 from December 2007 for Midwest ISO stakeholder and applicable Planned Reserve Sharing Group discussions to facilitate load serving entity achievement of planning reserve margins.

- Change the date to October 2007 from December 2007 for Midwest ISO stakeholder and applicable Planned Reserve Sharing Group discussions to develop compliance protocols to monitor and respond to compliance issues.

I. The OMS Commitment to Work With the Midwest ISO

The OMS is committed to work with the Midwest ISO on a series of local Midwest workshops to provide the OMS with a ground-level understanding of where the Midwest ISO wants to go over the next year, and how the co-optimization of ancillary services and energy will incorporate long-term policy issues such as reserve sharing planning agreements, reserve margins, and forward-looking capacity planning so that the right resources will be deliverable.

III. Discussion of the Midwest ISO's Proposed Ancillary Services Tariff

The OMS generally supports the Midwest ISO's proposed ancillary services market design, and offers these comments with the intent to improve and to ensure an efficient and workable ancillary services market.

A. Market Power

1. Reason for Eliminating the Must-Offer Obligation on Regulation Offers After the First 180 Days of Ancillary Service Market Operation

The issue of the must-offer requirement in the energy and ancillary services market is addressed at page 14 of the Prepared Direct Testimony of Roy Jones. Mr. Jones explains that, after the first 180 days of ASM operation, market participants with generation resources that are capable of providing regulation service will not be required to submit offers to provide regulating reserves. This Midwest ISO-proposed policy contrasts with the Midwest ISO's proposed policy for contingency reserves which provides that, if a market participant is designated as a network resource and submits an energy offer, it must also submit offers for contingency reserves. Mr. Jones does not provide testimony explaining why the Midwest ISO is proposing not to impose a must-offer requirement (after the first 180 days) on regulation service while maintaining the must-offer requirement on contingency reserve providers. The Commission should direct the

Midwest ISO to explain the reasons for its proposal to eliminate the must-offer requirement for regulation after the first 180 days.

2. Inconsistency in the Midwest ISO's Position on the Must-Offer Requirement for Regulation

The Midwest ISO's witness Mr. Jones explains that, after the first 180 days of ancillary services market operation, market participants with generation resources that are capable of providing regulation service will not be required to submit offers to provide regulating reserves.[1] However, Section 63.3 of the Midwest ISO's tariff Module D defines physical withholding as, "not offering to sell or schedule the output of or services provided by an Electric Facility capable of serving the Energy and Operating Reserve Markets, or any other market administered by the Transmission Provider." (Underlining added). So, while Mr. Jones testifies that market participants with generation resources that are capable of providing regulation service will not be required to submit offers to provide regulating reserves, Module D of the Midwest ISO's tariff states that not offering such capability could constitute physical withholding and make the market participant subject to market power mitigation measures. These positions appear to be inconsistent. The Commission should direct the Midwest ISO to reconcile this apparent inconsistency.

3. The Must-Offer Issue and the ICF Study

The cost benefit analysis of Midwest ISO operations conducted by its consultant ICF International (ICF) includes a discussion about certain units in the Midwest ISO footprint that were determined by ICF to be "must-run" units. In the context of the cost-benefit study conducted by ICF, these units were modeled as running regardless of economic factors.[2] ICF stated the reason for modeling the units as "must-run" was based on assumptions provided by stakeholders about voltage and system support issues such as regulation. Exhibit 3-12 in the ICF report shows the plants in the Midwest ISO footprint that were considered to be "must-run".[3]

With respect to the ancillary services market and tariffs, this ICF exhibit raises several issues with respect to the "must-offer" requirement associated with ancillary services. In the

[1] Prepared Direct Testimony of Roy Jones at page 14
[2] Independent Assessment of Midwest ISO Operational Benefits, ICF International , February 28, 2007 page 60
[3] ibid page 61

testimony, Mr. Jones states generation resources designated as network resources will have a must-offer requirement for the first 180 days of operation of the proposed ancillary services market.[4] After that time, market participants will not be required to submit offers for regulating reserves, but if a market participant designated as a network resource submits an energy offer it must also submit offers for contingency reserves.[5] The OMS finds the 180 day limitation on the must offer requirement for regulating reserves puzzling. In light of the information cited above from the ICF study, it appears that there are units in the Midwest ISO footprint that must be run to provide voltage and system support elements of the regulating reserve service. How will the Midwest ISO ensure that units are available to provide these necessary services without a must-offer requirement?

Until adequate experience is gained with the Midwest ISO operating as a balancing authority and until it can be determined how the actual ASM operates in practice, there is no rationale for removing the must-offer requirement for regulating reserves in 180 days. The Midwest ISO has not offered any evidence supporting removing the requirement in 180 days. At this point, the OMS does not see any reason for removing the must-offer requirement for regulating reserves in any given period of time. Removing the requirement may have negative implications for system reliability. Also, it appears that there may be delivery zones created with one, two, or three suppliers. The situation appears ripe for the exercise of market power and the tools proposed by the market monitor may not be sufficient to address all the possible exercises of market power. For these reasons, the OMS believes questions still remain whether regulation capable network resources should be subject to a must-offer requirement for regulating reserves. Therefore, the OMS suggests that the Commission direct the Midwest ISO to not automatically lift the must-offer requirement, and instead assess the need to continue the must-offer requirement for regulation prior to the 180 day deadline.

4. Physical Withholding Threshold

Section 64.1.1 of the Midwest ISO's tariff Module D addresses the thresholds that the Midwest ISO's market monitor will apply to identify physical withholding in the energy and ancillary services market. Section 64.1.1(a)(i) (Sheet No. 765) of the Midwest ISO's existing

[4] Docket No. ER07-550 Exhibit No. E Testimony of Roy Jones page 14
[5] ibid

tariff currently states that the threshold for identifying physical withholding will be "Withholding more than the lower of 5 percent or 200 MW of the total capability owned or controlled by a Market Participant and its Affiliates." Dr. David B Patton testifies that, "No change is proposed for physical withholding thresholds. Physical Withholding will affect both Energy Markets and Ancillary Services Markets, and the existing threshold is adequate to identify such conduct."[6] So, the Midwest ISO is proposing that the market monitor use the same quantity threshold for identifying physical withholding of operating reserves in the energy and ancillary services market as previously applied to energy in the energy market.

Despite Dr. Patton's assurance that the existing physical withholding threshold is "adequate" for the ancillary services market, we believe that the Midwest ISO's proposed threshold for physical withholding of operating reserves may be too high if the total market size for operating reserves will be substantially smaller than the total market size for energy.

It is not clear how the Midwest ISO market monitor will apply the withholding threshold to ancillary services. The Midwest ISO market monitor should clarify exactly how it intends to apply the threshold in each market. If the market monitor applies the threshold separately to the smaller quantity of operating reserves in the total market as compared to the quantity of energy in the total market, then a correspondingly smaller threshold should be used for identifying physical withholding in the operating reserve market. Therefore, the OMS recommends that the threshold be proportionally smaller than the five percent in the existing tariff.[7]

5. Conduct Test for Economic Withholding

Subsections 64.1.2(a)(iii) and 64.1.2(a)(iv) of module D (revised sheets 768 and 769) address the conduct test for ancillary services offers in broadly constrained areas. These subsections appear to be inconsistent with each other. Subsection 64.1.2(a)(iii) is titled "Contingency Reserves and Regulating Reserve Offers" and provides that "Contingency Reserve

[6] Prepared Direct Testimony of David B. Patton at page 15

[7] As a starting point for discussion, certain OMS members (the Michigan Public Service Commission, the Montana Public Service Commission, and the Wisconsin Public Service Commission) suggest that the threshold could be the lower of 1 percent or 40 MW. The maximum size of the ancillary service market is 20% of the total capability of any individual resource, so the threshold limit should be no larger than this maximum. As the Midwest ISO's witness Mr. Roy Jones testifies, "The Midwest ISO will limit the amount of Regulation Capability or Contingency Reserve carried on any individual Resource, or group of Resources at a common location, to 20% in order to

and Regulating Reserve Offers below $10 per MW/h shall be deemed not to constitute economic withholding." Subsection 64.1.2(a)(iv) is titled "Offer for Operating Reserve Offers" and provides that "Offers for Operating Reserve below $5 per MW/h shall be deemed not to constitute economic withholding." Given that operating reserves are defined as including contingency reserves and regulating reserves, it is not clear that these two paragraphs of Module D are addressing different things. Nevertheless, the two paragraphs provide for different thresholds--$10 in the case of Subsection 64.1.2(a)(iii) and $5 in the case of Subsection 64.1.2(a)(iv). The Commission should direct the Midwest ISO to clarify this apparent inconsistency.

6. Reserve Zones

Sections 39.2.1A.c and 40.2.3.c, respectively, of the Midwest ISO's tariff Module C address the Midwest ISO's plans for reserve zones in the day-ahead and real-time market. The Midwest ISO's witness Mr. Roy Jones describes the Midwest ISO's plans to establish reserve zones at pages 48-53 of his testimony. Mr. Jones states, "Reserve Zones represent Resources within a certain sub-region of the Midwest ISO Balancing Authority Area. Reserve Zones are used to accomplish two goals: (1) to identify the minimum required Operating Reserve within the Reserve Zone to meet reliability requirements of the Reserve Zone; and (2) to disperse the clearing of Operating Reserve on Resources throughout the Midwest ISO Balancing Authority Area."[8] Mr. Jones also testifies that, "Separate requirements will be established for Regulating Reserve, total Contingency Reserve and Spinning Reserve if such of the Reserve Zones are required.".[9]

As testified by Mr. Jones, the establishment of reserve zones will have to do with operating reliability requirements and resource "dispersal." It is notable that the criteria determining the establishment of reserve zones will not take into account economic criteria like reserve resource supplier concentration or other measures of market dominance. For this reason, the opportunity for operating reserve resource providers to exercise market power within reserve zones is of significant concern. The Commission has recently demonstrated its awareness of

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maintain reliability." Prepared Direct Testimony of Roy Jones at page 34. The one percent suggestion threshold is derived in this manner: 1% = 20% of 5% above in Sheet No. 765.

[8] Jones Testimony at pages 48 - 49

[9] Jones Testimony at page 49

these issues of supplier dominance with respect to ancillary services in its Order in Docket No. ER07-323, where it allowed Dynegy Power Marketing and Dynegy Midwest Generation to sell Regulation Services to Ameren Services at market-based rates but capped those rates at the level of cost-based rates established by Ameren Services affiliates.[10] Although the Commission did allow market-based rates, it showed it was aware of how potentially limited the market for these services are and put in protective measures. Similarly, in the context of the Midwest ISO's ancillary services market there must be measures in place to prevent or mitigate the exercise of market power. The Midwest ISO's market monitor must have robust tools to ensure these markets are adequately protected.

Section 63.4.1.d of the Midwest ISO's tariff Module D includes the concept of a "constrained reserve zone" in its determination of a narrow constrained area. Similarly, Section 63.4.2.c of the Midwest ISO's tariff Module D includes the concept of a "constrained reserve zone" in its determination of a broad constrained area. Mr. Jones describes the Midwest ISO's two goals to be achieved with the creation of reserve zones (operating reliability sufficiency and "dispersal")[11] and he testifies about the Midwest ISO's proposed four-step reserve zone study process that takes transmission constraints into account.[12] However, the linkage between how the four-step reserve zone study process is designed to achieve the stated goals is not clear. Since transmission constraints are so important in monitoring the energy markets, the OMS has a concern about a possible disjoint and insufficient robustness of the market power monitoring and mitigation measures as applied to the reserve zones proposed by the Midwest ISO. Dr. Patton did not provide testimony concerning this important matter sufficient to lessen the OMS' concerns about market power in reserve zones.

In conclusion, to support the role of the market monitor and to aid in a fair and competitive ancillary services market, the OMS has offered six revisions to the Midwest ISO ASM design to ensure that market power in the ASM do not increase. The importance of an independent market monitor is a key element in the Midwest ISO markets and the suggested changes are intended to diminish market power concerns.

[10] Docket No. ER07-323 Dynegy Energy Marketing and Dynegy Midwest Generation Order at page 7
[11] Jones Affidavit at page 48

The OMS does not consider ASM unethical behavior a minor concern. For example, the ERCOT market monitor recently reported that a utility engaged in market power abuse and manipulated prices in 2005 to gain an additional $19.6 million in revenues from the ERCOT ancillary services market. As a pivotal supplier, its offers were not competitive and contributed to a significant increase in balancing energy prices. By the exercise of market power in the balancing energy market, the utility increased the costs of ancillary services by 15.5% or approximately $70 million dollars.[13] Therefore, the OMS urges the Commission to carefully consider the modifications to the tariff to reduce the potential for exercising market power in the Midwest ISO.

B. Cost Allocation[14]

The Midwest ISO proposes to allocate ASM costs prevailingly to load. The OMS recommends that the Commission reject this proposed cost allocation because it inequitably assigns the cost of regulation and contingency reserves to load. The OMS recommends a cost allocation approach that assigns the cost for ancillary services to the beneficiaries from reliable transmission operation, as well as market participants that cause the cost to be incurred.

Six OMS member states advocate a finding that the filed cost allocation has not been shown to be just and reasonable and recommend that costs be allocated to all beneficiaries , specifically recommending differing allocations of costs for regulation and for contingency reserves. Alternatively, some OMS member states take the somewhat different position that costs of ancillary services should be allocated to all MWh delivered into or out of the Midwest ISO. [15]

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[12] Jones Testimony at page 49

[13] Potomac Economics, Ltd., *Investigation of the Wholesale Market Activities of TXU from June 1 to September 30, 2005*, March 2007, http://www.potomaceconomics.com/ercot/2005%20txu%20investigation%20(final%20-%20redacted).pdf

[14] The Indiana Utility Regulatory Commission (IURC) and the Indiana Office of Utility Consumer Counselor (Indiana OUCC) do not agree with either cost allocation recommendation and have provided separate comments explaining their position (attached at the end of these comments).

[15] Because the cost allocation methodologies proposed by the Midwest ISO and by some of the OMS member states do not recognize price differences across the Midwest ISO footprint, the Missouri Commission is concerned about the impact this will have on the viability of the operating reserve markets. Specifically, when some utilities determine that they are likely to be allocated costs that exceed what they are being paid to provide operating reserves to the market, in order to avoid this difference between revenues and costs, these utilities will self-provide operating reserves rather than bid them into the various markets. Self-provision does not allow the markets to determine the least-cost combination of operating reserves, which could result in a significant reduction to the benefits from

The OMS also has a concern on a separate, but related matter regarding cost allocation. An ASM design element calls for the development of operating reserve zones which may create additional cost allocation inequities. In accordance with the proposed ASM tariff, the Midwest ISO intends to utilize reserve deliverability zones across the footprint. An ASM market clearing price will be derived for each of the zones, resulting in the possibility of varying the cost to provide ancillary services across the footprint. The Midwest ISO recognizes the different levels of service, the different pricing curves used and the resulting effects on locational market prices and market clearing prices when it pays resources. Although the cost may vary significantly with location, especially during reserve deployment events, the Midwest ISO proposes to assign the costs across the entire footprint using a load ratio share allocation method. This approach is inappropriate because it makes no attempt to align costs with cost causers on the load side of the Midwest ISO's market. It is also inconsistent with the methodology used to allocate revenue to pay market participants.[16] For revenue, the Midwest ISO calculates costs at each location to pay resources.[17] The OMS plurality urges the Commission to require the Midwest ISO to develop an allocation methodology that recognizes the price differences across the Midwest ISO footprint.

The OMS recognizes that until the ASM is operating and the actual market clearing prices are cleared for the various zones, it will be difficult to evaluate the impact the proposed cost allocation will have on market participants. Therefore, at a minimum, the OMS urges the Commission to direct Midwest ISO to provide a detailed report, one year from the start of the ASM and annually thereafter, that evaluates the prior twelve month's market clearing prices across the Midwest ISO footprint for each operating reserve product and zone to determine if allocating the ancillary service revenues and costs are appropriately allocated using the load ratio share method. If the prices across the footprint tend to be equal or similar across the zones, then no change would be necessary. However, if large price variances do occur, then the Midwest

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having operating reserve markets. In addition, reduced offerings into the operating reserve markets are likely to exacerbate market power problems that, as these comments earlier point out, have an increased potential because of the smaller size of the operating reserve markets.

[16] It also mutes market signals to load when a reserve zone is sufficiently constrained to cause higher costs within that zone.

[17] The Midwest ISO recognizes the level of service provided, the specific zonal pricing curves and the applicable locational market prices and market clearing prices when it pays each resource.

ISO should be directed to develop an allocation methodology that accounts for the price variances and allocates the costs to the appropriate market participants.

1. Plurality Position[18]

In its filing, the Midwest ISO proposes that the cost of procuring and deploying regulating reserves be recovered from actual load in the Midwest ISO balancing authority Area plus actual energy injections associated with resources subject to excessive/deficient energy deployment charges. It proposes that the cost of procuring and deploying contingency reserves should be recovered from actual energy withdrawals and export schedules.[19]

The OMS plurality recommends that the Commission reject this proposed cost allocation because it inequitably assigns the cost of regulation and contingency reserves prevailingly to load.

The OMS plurality recommends that the costs for ancillary services should be allocated to all beneficiaries of reliable transmission operation, including market participants that cause the incurred costs, and recovered from all energy injections into and all energy withdrawals from the transmission system, including imports and exports. Specifically, the OMS plurality recommends regulation be assigned to all MWh injections and withdrawals in the footprint consistent with Schedule 17.[20] The OMS plurality also recommends that contingency reserves be assigned on a cost-causative basis to the extent possible, or alternately to all MW hours. The OMS plurality would support the Midwest ISO working with OMS to better understand the cost allocation alternatives for ASM or a Commission technical conference if other parties share our concerns on cost allocation.[21]

[18] OMS members supporting this position are Iowa Utilities Board, Kentucky Public Service Commission, Minnesota Public Utilities Commission, Montana Public Service Commission, the Nebraska Power Review Board, and the Public Utilities Commission of Ohio.

[19] Exhibit E, Direct Testimony of Roy Jones, page 73, line 19 through page 74, line 3.

[20] The OMS also asks assurance or clarification that transactions carried across the Midwest ISO footprint as 'through-and-out" transactions would bear the costs of an ASM, since those transactions clearly benefit from ancillary services.

[21] The Public Utilities Commission of Ohio does not believe a technical conference would be necessary to address this question.

a. Regulation should be assigned to all MWh injections and withdrawals in the MISO Market.

Regulation is the positive and negative resources capacity set aside for the purpose of managing interconnection frequency and balancing generation with demand, plus net scheduled interchange with a specific balancing authority on a real-time basis. Regulation provides transmission grid stability and benefits everyone in the Midwest ISO market. Benefiting all, the cost of regulation should be assigned to every MWh in the market. Further, the need for regulation to balance load and generation is not caused solely by load, but by generation that deviates. The market design's energy generation tolerance band recognizes this variance, but assigns a cost to deviating generation units only for deviations outside the defined acceptable tolerances. Some resources deviate but are not assigned costs for deviations. Similar to load, these resources impose a need for and benefit from regulation, and clearly demonstrate why the Midwest ISO should assign costs per MWh (by assigning to all MWh injected and withdrawn into the market consistent with MISO's bill of Schedule 17 MISO Day 2 administrative charges) rather than just to load.

In its proposal to allocate the cost of ancillary services to load, the Midwest ISO proposes to exempt export load from the cost of regulation services. The Midwest ISO supports exempting exports on the grounds that it does not impose a regulating reserve deployment burden because export schedules are fixed at a specific MW level for an hour.[22] This argument erroneously assumes that an export schedule can have no deviation either for the hour or within an hour. It ignores that export load receives the benefit from transmission grid stability. It appears premised on an assignment of costs to those that caused them, which is no longer the Midwest ISO's position with respect to regulation. It also is contrary to the Midwest ISO's earlier conclusion that energy injections into and energy withdrawals from the transmission system, including exports and imports, should pay.[23] If only load bears the cost of regulation, then equity would demand that exports be included in the definition of load and not be granted a free ride from regulation costs.

b. Contingency reserves should be assigned on a cost-causative basis to the extent possible, or alternately to all MWh injections and withdrawals in the MISO footprint.

[22] Exhibit E, Direct Testimony of Roy Jones, page 74, lines 6 – 8

[23] Ancillary Services Market Design Meeting presentation, 30 November 2006 - 1 December 2006, slides 86 - 87

Contingency reserves are resources that stand ready to serve load immediately or within a short period of time in case of an unplanned event such as a generation or transmission line outage. Contingency reserves likewise provide transmission grid stability and benefit everyone in the market. Benefiting all, the cost of contingency reserves should be assigned to cost causers if possible or alternatively to every MWh in the Midwest ISO market (i.e., to both injections and withdrawal in the Midwest ISO market). Further, the need for contingency reserves is driven, in part, by unplanned generation unit outages. These resources impose both a need for contingency reserves and benefit from contingency reserve.

In conclusion, the OMS plurality recommends that the costs for ancillary services should be allocated to all beneficiaries from reliable transmission operation, including market participants that cause the incurred costs from all energy injections into and all energy withdrawals from the transmission system, including imports and exports. Specifically, OMS recommends regulation costs be assigned to all MWh injections and withdrawals in the footprint consistent with Schedule 17. The OMS plurality also recommends contingency reserves be assigned on a cost-causative basis to the extent possible or alternately to all MW hours. The OMS plurality would support the Midwest ISO working with the OMS to better understand the cost allocation alternatives for ASM or a technical conference at the Commission if other parties share our concerns on cost allocation.

2. Minority Position[24]

In principle, these states believe that a cost recovery allocation should assign market settlement costs for ancillary services to the beneficiaries of reliable transmission operation, as well as market participants that cause the costs to be incurred.[25] Yet, in its filing, the Midwest ISO proposes to allocate ASM costs prevailingly to load. As designed, these states believe that the ASM cost recovery method creates inequities. These states are not reasonably convinced that the cost allocation method is fair because it makes no attempt to align costs with cost causers.

[24] OMS members supporting this position are the Public Service Commissions of Michigan, and Wisconsin. At this time the North Dakota Public Service Commission is still studying cost allocation issues and does not have a recommendation. NDPSC does not support an attempt to identify and allocate ASM costs to specific cost causers.

[25] References to ancillary service costs in this section refer to the market settlement charges for the cost of procuring service. This section does not discuss, and OMS takes no position on the recovery method for administrative costs, the costs to implement and run its ancillary services market. The Midwest ISO proposes to recover its administrative costs for ancillary services from Schedule 17.

These states do not support the Midwest ISO's proposed cost allocation because it inequitably assigns the cost of regulation and contingency reserves prevailingly to load. Instead, these states recommend a cost allocation approach that assigns the cost for ancillary services to the beneficiaries from reliable transmission operation, as well as market participants that cause the costs to be incurred. Therefore, these states propose an alternative method allocating costs to every MWh, including injections and withdrawals in the Midwest ISO footprint consistent with schedule 17. [26]

These states do not dispute that the Midwest ISO's filed cost allocation approach was decided upon after due consideration. Stakeholders discussed the issue of who should pay the cost of ancillary services and the merits of the alternatives in the ancillary services market design meetings. Upon conclusion of those discussions, the Midwest ISO stated that it had determined that energy injections into and energy withdrawals from the transmission system should pay.[27] The Midwest ISO believed that the beneficiaries from reliable transmission operation, as well as market participants that cause the costs to be incurred should pay for ancillary services. Regrettably, the Midwest ISO subsequently abandoned the 'beneficiaries pay' approach and filed a cost allocation method that largely assigns the cost of ancillary services to load.

Ancillary services provide transmission grid stability and benefit everyone in the market. As a reliability resource for all, the costs of ancillary services should be assigned to every MWh in the Midwest ISO market. The ASM costs would be assigned to all MW hours injected into and withdrawn from the market consistent with the Midwest ISO's schedule 17 Day 2 administrative changes. These states suggest the need for ancillary services is not caused solely by load, but by unplanned events such as a generation or transmission line outage or by generation that deviates. Yet, in the proposal, only load internal to the footprint bears the costs of reliability and this is not fair or reasonable. For example, some resources deviate, but will not be assigned costs for deviations under the Midwest ISO's proposal. Intermittent resources impose a need for and benefit from ancillary services, and provide a clear demonstration why costs should be assigned per MWh rather than just to load.

[26] The OMS also asks assurance or clarification that transactions carried across the Midwest ISO footprint as "through-and-out" transactions would bear the costs of an ASM, since those transactions clearly benefit from ancillary services.

Another example of why the allocation is unfair is the proposal to exempt exports from the cost of regulation services. The Midwest ISO exempted exports on the grounds that it will not impose a regulating reserve deployment burden because export schedules are fixed at a specific MW level for an hour.[28] This argument erroneously assumes that an export schedule will not deviate either for the hour or within an hour. The Midwest ISO proposal unfairly ignores that export load receives the benefit from transmission grid stability. Equity demands that exports pay for regulation and not be granted a free ride from regulation costs.

Upon consideration of the inequities described above, these states recommend that the costs for ancillary services should be fairly allocated to the beneficiaries of reliable transmission operation, as well as to market participants that cause the costs incurred to deploy ancillary services. These states believe that allocating costs to every MWh is a reasonable and appropriate cost allocation method. Therefore, these states recommend that the Commission direct the Midwest ISO to allocate costs to all energy injections into and all energy withdrawals from the transmission system, including imports and exports.

C. Hedging Versus Exposure to Market Prices[29]

Traditionally, ancillary services were self-provided at cost-based rates per the Midwest ISO Schedules 3, 5 and 6. Under the new ASM, the Midwest ISO is moving to a market-based approach that includes lost opportunity costs and scarcity pricing via the demand curves that establish the ASM price.[30] The transition is problematic for rate regulated states that require integrated resource planning and reserve requirements to ensure resources are adequate and reasonably priced, and thereby avoiding the need to pay opportunity costs and scarcity pricing levels for energy costs. Ratepayers already pay the costs of facilities resulting from resource planning and reserve requirements.

For example, the Mid-Continent Area Power Pool (MAPP) has a 15% planning reserve requirement and, as a result, MAPP utilities already have adequate reserves, the cost of which are

[27] Ancillary Services Market Design Meeting presentation, 30 November 2006 - 1 December 2006, slides 86 – 87.
[28] Exhibit E, Direct Testimony of Roy Jones, page 74, lines 6 – 8.
[29] The IURC and the Indiana OUCC do not support many of the points raised in this section and have provided separate comments stating their position (attached to these comments).

already in base rates.[31] As a result, these ratepayers should not have to pay again for adequate reserves with the launch of a new ASM. To the extent that ASM creates new costs that utilities have not anticipated, state commissions may have a difficult time supporting the additional costs passed on to state ratepayers.

It is therefore extremely important that utilities have the ability to hedge the ASM costs by providing these services from the market or through ensuring that utilities have sufficient resources to meet their load requirements by assuring they receive revenues sufficient to cover ASM costs. It is our understanding that the Midwest ISO will be the overall balancing authority for ASM. Generation resources designated as network resources must provide comprehensive bids which include a bid price for energy, regulation and contingency. The Midwest ISO then determines whether a generating unit will be used for energy, regulation, contingency or some combination of these products. The Midwest ISO will then procure the required ancillary services needed for the entire Midwest ISO footprint and acquire the resources. Utilities will be assigned ASM costs after the operating day primarily based on a pro-rated share of a utility's load to the total Midwest ISO load.

However, the Midwest ISO will publish the day prior to the operating day, in advance of the day-ahead market close, its operating reserve procurement quantities. The information will allow market participants to self-provide through the Midwest ISO market based on the expected operating reserve allocation. The ability to self-provide by bidding into the co-optimized energy and ancillary services markets is very important for utilities to be able to hedge with a degree of certainty their share of ancillary services prior to the real-time period to ensure their ability to provide sufficient resources to meet their load needs. Utility companies can only hedge their ancillary service costs through bidding into the energy and ancillary service markets to the extent that they are assured the costs incurred are less than or equal to the bids submitted into the coo-optimized energy and ancillary services markets. Without this assurance, the ability to self-provide ancillary services will not result in a one hundred percent hedge. Constraints in a

[30] The issues of scarcity pricing, lost opportunity costs and demand curves used in determined ASM prices are discussed in Exhibit E, Direct Testimony of Roy Jones, starting at page 53.
[31] A sufficient planning reserve margin should assure adequate capacity for supplying operating reserves (ASM reserves).

reserve zone could also impact the level of reserves a region may need to provide, if imports to a state are limited.

In a simple example, if a utility knows it must provide 20 MW of regulation (its proportional share of regulation) and it is able to offer 20 MW and required to provide 20 MW, then it should be fully hedged from regulation costs, with the exception of the Midwest ISO's administrative costs under Schedule 17. The Midwest ISO could tell a utility just before the day-ahead market closing, but well after the utility has secured the resources that it needs 25 MW and it will have to pay for the 5 MW at a market price level. Unless there is an offset from being able to sell more energy rather than provide capacity, the utility will be exposed to additional costs.

Additionally, OMS continues to be very concerned with the lack of matching the ASM revenues and the ASM costs assigned because of the ancillary services market design. Even if the generation of a load serving entity is chosen to provide its required ancillary services on a 100% basis, if it is located in a zone where the market price is below the system-wide average, the costs for ancillary services will exceed the payments that the load servicing entity will receive for providing ancillary services.

Another high cost concern is that the Midwest ISO Day 2 market forced plant outage costs can have a significant impact on energy costs for end-use customers. The cost increase is largely due to forced outages resulting in utilities purchasing at a locational market price, rather than at traditional cost of service prices. Forced plant outages may be a larger cost driver in the ASM, as a result of a utility buying energy and capacity for ASM services. This price may also be higher due to limited reserves in some regions, and we do not want the higher costs unfairly passed on to states that undertake adequate resource planning.

Tension exists between a robust ASM design that includes scarcity prices, market clearing prices and demand curves, and an existing ancillary services regime that is already paid for in many state tariffs. While the states acknowledge the efficiency of the ASM, it would be unreasonable to charge ratepayers twice for ancillary services. Given no perfect hedge exists to offset ASM costs because of the lack of matching ASM revenues and expenses, the state

commissions will be faced with difficult cost recovery issues. For example, a Midwest ISO utility that already has planning reserves built into base rates is already paying for operating reserves. Under this circumstance, a state commission could not support paying additional ASM charges under its fuel clause adjustment or other flow-through mechanisms. Therefore, it is imperative to implement an ASM that avoids new charges on top of existing rates in the various states.

How can an entity effectively hedge itself against potentially high scarcity pricing when it is unknown, until two-days prior to the operating day, in which zone the generation will be assigned by the Midwest ISO? For example, the Midwest ISO has determined it needs a Zone A that would include Michigan, Indiana, and Ohio[32]. The remainder of the Midwest ISO includes the rest of the footprint. A customer in Ohio enters into a long-term agreement with a base load coal generator in Indiana. The intent is to rely on the bilateral agreement it has with this generator to obtain energy supply and hedge its exposure to scarcity prices by self-scheduling regulation reserves. At the time the agreement was entered into, the generator and customer were in Zone A, so it appeared to be a reasonable contract. After commitments are made by the parties, the Midwest ISO's study determines that a change to the zones is necessary and Indiana is no longer in Zone A and, therefore, the customer's source of generation is no longer in the same zone. As a result, the ability to hedge exposure to scarcity prices is compromised and the entity's risks are higher. Zone A could experience the need for scarcity pricing and prices could go as high as $3,500 (set administratively using scarcity demand curves), while the generation the customer was using as a hedge, is in a different zone not experiencing scarcity pricing and is therefore limited to $1,000/MW cap (based on offer prices). The customer is left unhedged and could face significant exposure to scarcity prices. With the possibility of the zones changing daily, this example could become commonplace. Therefore, the commission should direct the Midwest ISO to explain the use of a daily zonal assessment.

In conclusion, adequate hedging and assurance that utilities can manage the costs in the ASM are necessary to prevent higher market costs from being passed on to utilities and ratepayers, where adequate integrated resource planning and reserve margins exist. ASM should

[32] The example uses state boundaries as reserve boundaries, but it is understood the boundaries will be electrical, not geographical; however, state boundaries are being utilized to simplify the example as the issue can present itself in either case.

be cost neutral or beneficial. Accordingly, the Commission should require the Midwest ISO to ensure that ASM provides adequate hedging through: self-providing of ASM; ensuring ASM costs are offset with measurable benefits; having the ability of the utility to make an informed offer and bid into the market to avoid after-the-fact costs; and providing certainty that ASM zonal boundary changes do not negatively impact hedging. Therefore, the OMS urges the Commission to make sure the Midwest ISO is designing the ASM to ensure that the benefits flow to ratepayers, while avoiding undue cost increases.

D. Demand Response Resources

Demand response is a key design element to a successful ASM. The Commission recognizes that "for a workable EOM [energy-only market], robust DSM programs are of vital importance."[33] The OMS agrees.

The OMS recently formed the Midwest Demand Response Initiative, a collaborative composed of the OMS member states, because it sees an urgent need to strengthen wholesale markets and deliver benefits to retail customers by developing a robust regional demand response capability within retail markets.[34]

The Midwest ISO's proposal provides an opportunity for demand response to participate in ancillary services. The opportunity, however, is not an easy element to design for the market. For example, the Midwest ISO requires the ability to demonstrate response by gathering data at ten-second intervals and in some cases, telemetering.[35] Resources that do not currently have this ability will have to undergo additional expense to participate.[36] Because the OMS Demand Response Initiative is in its infancy and there is no operating experience with demand response in the Midwest ISO's ASM construct, the OMS is hopeful that the FERC and the Midwest ISO would be amenable to changes in the ASM design to foster cost-effective demand response.

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[33] Docket No. ER06-1112 *Midwest Independent Transmission System Operator, Inc.* at page 55.

[34] The MWDRI recently held a kick-off meeting in Chicago on February 9, 2007. See http://misostates.org/MWDRI%20Kick-off%20Meeting%20Chicago%20Feb%209%202007%20.htm.

[35] Type II demand response must provide telemetering. ASM Business Rules Sec s 3.1.2.2, 3.2.2.5; draft Module C tariff sheets 482H, 482J, 553A, 553C.

[36] These expenses will not be reimbursed by the Midwest ISO. It proposes a reimbursement program for improvements to the data systems for load serving entities. The program provides for a data connection, but not the cost of the hardware or software to collect the required data. The proposed reimbursement program was presented at the Midwest ISO's March 7, 2007 ASM Project - Implementation and Development Meeting. See meeting materials, presentation page 36.

The start of the wholesale ancillary services market will be a challenging time for market participants. Many demand response resources are managed through the load serving entities and, as a result, are not always aware of market conditions and opportunities for participation or how to obtain this information. Demand response resources will not be recognized by the Midwest ISO as a designated network resource, so they will not have the ability to participate in the market.[37] Market information is therefore important for encouraging demand response to bid into the wholesale Midwest ISO energy and ancillary services markets.

While the state regulatory commissions certainly have their own work to do to encourage retail demand response, the Midwest ISO can help demand response resources' full participation by ensuring that wholesale market conditions and prices, including market clearing prices and locational market prices, are readily known to all. Participation in the Midwest ISO would result in additional revenue to demand response resources if their offers are cleared in the wholesale energy and ancillary services markets. As demand response resources become familiar with market operations, they will participate more effectively.

Thus encouraged, demand response participation would help mitigate the threat of high prices both before and during scarcity pricing conditions.[38]. This would also help mitigate the need for frequent emergencies along with significantly higher scarcity price offer caps and help prevent market manipulation because the demand response offers limit the ability of market participants to manipulate the market through resource withholding. Demand response participation in both the energy and ASM is important, but demand response is particularly important because it is the service that is most sensitive to shortages due to its design as support for balancing the energy market.

The use of a scarcity pricing mechanism that allows bid prices to rise to the value of lost load is new for the Midwest ISO. Without experience as to how well it will operate, the OMS is

[37] Demand response will not be a designated network resource under the tariff. The terms used for demand response in Module C are different that those used in Module E. In Module E, demand reductions and behind-the-meter generation are defined as an "Alternative Capacity Resource" while in Module C the reference is to a "Type I Demand Response Resource" or "Type II Demand Response Resource." While clarification of terms would help, OMS assumes that Module E and Module C both refer to the same demand response that is excluded.

[38] OMS notes that during extreme shortage conditions, both the energy and ancillary services markets could reach prices as high as the VOLL. Therefore, demand response resource participation in all markets is important.

concerned about the risk of unnecessarily high prices and the resulting effects on ratepayers for those exposed to the ancillary services market.[39] The OMS urges the Commission to direct the Midwest ISO to use its stakeholder process to further refine its market rules and business practices to encourage participation of demand response in the day-ahead and real-time energy and ancillary service markets at market start.

E. Ancillary Service Market Costs and Benefits

State regulators are keenly interested in the market implementation costs that ratepayers will bear with the launch of the new ASM. The OMS notes that the Midwest ISO had revised the ASM cost information in the filed tariff. Yet, the filing did not provide many financial details compared to the April 3, 2006 Information Filing. While it is expected that as the design of the ASM is better understood, cost information can be further defined, the OMS will be seeking a better understanding of the cost and benefit estimates that the Midwest ISO has developed.

In particular, the OMS will seek to fully understand the costs and benefits of the ASM on a stand-alone basis, separate from the energy market. Although the Midwest ISO has estimated significant benefits of a footprint-wide contingency reserve and the ASM projects, the OMS will want to ensure that ratepayers receive the benefits that the Midwest ISO has suggested.

Clearly demonstrating ASM benefits will be vital before the Midwest ISO market participants seek to recover ASM costs from the states. The OMS believes that ASM cost recovery should not occur without a clear and positive demonstration of ASM benefits on a local balancing authority basis.

Finally, given the change to a fully co-optimized energy and ancillary service market, it is critical to install an audit system that builds in diagnostic safeguards for the new ASM costs. The OMS believes that the audit functions must be in place to assure that the co-optimization is done prudently and at the least cost. Currently, it is unclear if the Midwest ISO will have the capability to ascertain if the generation choices using co-optimization for energy and ancillary services are indeed optimal selections for energy and ancillary services. Therefore, the OMS

[39] This concern is heightened by the increased risk of exposure due to the reserve zone requirements that can change

asks the Commission to direct the Midwest ISO to develop diagnostic safeguards, metrics and audit functions into the ancillary services market design to ensure that the ancillary services and energy market co-optimization is prudent and the least cost solution.

A significant portion of the promised Ancillary Services cost reductions have already been achieved by the Midwest ISO and Stakeholders with decreased contingency reserve requirements earlier this year.[40] The Midwest ISO anticipates that the inclusion of regulating and contingency reserves in the market will result in additional savings in the range of $113 million to $208 million per year, at an expected cost of $25 million per year.

While this appears a desirable expected net benefit, past experience with the launch of the Midwest ISO Day 2 energy market should be taken as a cautionary note. Its launch appears to have been less than optimal with possible inefficiencies.[41] The recently released ICF Benefit Study appears to support that opinion. Based on the ICF Benefit Study, it now appears that only 22 percent of the theoretical benefits were achieved in the early days of the energy market. It is important to note the intent of these comments is not one of criticism. The launch of the Day 2 energy market was a major undertaking and the steep learning curve should have been expected.

However, that experience and the magnitude of the additional benefits of regulating and contingency reserves in the market suggest that the Midwest ISO should learn from the launch of the Day 2 energy market and take the time necessary to achieve a more successful ASM launch. If actual benefits are achieved at the rate of the early days of the Energy Market and theoretical benefits turn out to be lower than estimated, the ASM may deliver a net cost, rather than a net benefit, post-launch. Therefore, the OMS expects that the Midwest ISO will gain from the lessons learned from Day 2 in the ASM start up, while demonstrating clear and separate benefits from the ASM.

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as frequently as daily. *See section C Hedging.*

[40] Or will soon be achieved. The changes in contingency reserve requirements requires approval from the regional reliability organizations within the Midwest ISO's foot print, after which each load serving entity will be able to reduce their contingency reserve obligations to that required by the Midwest ISO Contingency Reserve Sharing Group. For example, some utilities only recently received approval to alter their reserve obligations.

[41] For example, the magnitude of the Real-time Revenue Sufficiency Guarantee charges in the early days of the market suggests that an over-commitment of generation units may have occurred. The error in interpretation, participant understanding and application of the tariff with respect to virtual offers may have contributed to that as well.

F. Value of Lost Load in Scarcity Pricing Demand Curves

The Value of Lost Load (VOLL) is defined as "the average maximum price a consumer is willing to pay to avoid firm load interruption[42] under capacity shortages." According to the Midwest ISO witness Jones, the VOLL was calculated using the results from 24 studies of eight different load serving entities over a period of thirteen years (from 1989 to 2002). After discussions with the Midwest ISO, it was learned that this information is taken directly from Joseph Eto, et al, *A Framework and Review of the Customer Outage Costs: Integration and Analysis of Electric Utility Outage Cost Surveys*, U.S. Department of Energy, Lawrence Berkeley Laboratory (November 2003) (hereinafter the "U.S. DOE November 2003 paper").[43] The Midwest ISO converted the estimates to real 2005 dollars for comparability. Although the Midwest ISO definition of VOLL indicates it is the maximum price a customer is willing to pay to avoid firm interruption, determining such price is difficult and, therefore, estimates of outage costs were used as a proxy.

Midwest ISO witness Jones's characterization of the VOLL as the "price a consumer is willing to pay" is misinterpreted. The 24 studies used by the Midwest ISO and referenced by the U.S. DOE November 2003 paper are overwhelmingly devoted to determining the cost to the consumer of forced outages.[44] One model reviewed by the November 2003 paper predicts that the average cost experienced by an "average" customer for a single summer afternoon outage of one hour is approximately $3 for residential, $1,200 for small-medium commercial and industrial and $82,000 for large commercial and industrial.[45] In other words, if a residential customer has to discard $3 of ground beef because it spoiled in his non-functioning refrigerator freezer during a one hour electricity outage, the value of the lost load to her was three dollars worth of spoiled meat. This does not mean that the electric customer was "willing to pay" $3,500 MWh ($3.50 kWh)(VOLL) for regulation service, if, in fact, the residential customer knew what regulation service was. More importantly, the U.S. DOE November 2003 paper reveals that **no** residential customers were surveyed by the only Midwest survey on the list of 24 datasets (emphasis added). This singular Midwest survey was conducted five years ago in 2002.[46]

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[42] Roy Jones Direct Testimony, Exhibit E, Page 69.
[43] U.S. DOE November 2003 paper at page 51.
[44] Roy Jones Direct Testimony Exhibit E, pages 69-70.
[45] November 2003 paper at page viii.
[46] Ibid at page 51.

Given the lack of supporting documentation in the tariff filing, the OMS is concerned with the calculation of the VOLL. Determining the appropriate value is an important step in designing the ASM. The scarcity price on the administratively determined demand curve must strike an appropriate balance: not excessively high, to create unnecessary costs and encouraging undesired market behavior, but high enough to achieve the goal of economically maintaining system reliability. As a result of the importance of establishing this value and its effects on the reliability of the system, the OMS urges the Commission to direct the Midwest ISO to provide additional support for its proposed VOLL before it is utilized in the operation of the ASM. The OMS wants to be assured that the VOLL is truly reflective of the characteristics of the Midwest ISO footprint. The OMS suggests posing the following questions to the Midwest ISO:

1. Precisely how did the Midwest ISO translate these vintage studies from the U.S. DOE November 2003 paper into its ASM VOLL?
2. Why does the Midwest ISO believe that, "the consumer's cost of being interrupted" is a good proxy for "what the consumer is willing to pay to not be interrupted?"
3. If the Midwest ISO utilized the U.S. DOE November 2003 paper to calculate the VOLL, how did it manage the biases and weaknesses as pointed out in the paper?
4. What other methods in the economics literature are known for estimating the VOLL?
5. Why was the proposed method chosen over the other possible methods?
6. How do other RTOs determine VOLL?
7. If other RTOs use a different methodology, why is the proposed Midwest ISO method superior to other RTO methods?
8. If the scarcity price is meant to stand as a price signal to incent new generation investment into the Midwest ISO footprint, how will that work when the ASM deliverability zones are likely to change every day?

Generally, the OMS considers $3,500 VOLL to be too high. The VOLL studies are too broad and the studies used by the Midwest ISO are, in many cases, 20 years old and include no Midwest residential customers. The VOLL studies should be contemporary and be more relevant to the actual customers in the Midwest ISO footprint. The OMS questions the value of using out-of-date VOLL studies with little Midwestern data. Second, many of the states in the Midwest ISO footprint have planning reserve requirements and continue to be rate regulated, so a fully unhedged market price may not be appropriate. The planning reserves already provide a safety net for reliability. Third, the Midwest ISO lacks experience with scarcity pricing based upon a VOLL, and therefore it may be appropriate to set the VOLL at a more conservative level. Fourth, in state regulator's experience, the majority of outages are not attributable to ancillary

services, but to local problems with storms, transformer malfunctions and wildlife damage. Finally, residential customers are, in all likelihood, paying currently for operating and maintenance costs in their regulated distribution rates to avoid these types of outages. Therefore, the OMS requests that the Commission determine that the VOLL level proposed by the Midwest ISO is not sufficiently supported by data in its filing and therefore is not just and reasonable. The OMS asks the Commission to direct the Midwest ISO to reevaluate, with detailed justification, its proposed VOLL level.

G. Invoices

In responding to utilities' ASM cost recovery requests, state regulators are likely to examine issues related to the nature of the ASM credits and charges incurred. The OMS is concerned with the sufficiency of information to be included in the Midwest ISO invoices and settlement statements. Specifically, the OMS is interested in the ability of regulators to consider operating information in order to make findings of prudence and reasonableness of ASM costs, particularly with respect to energy and ASM offers, real-time performance, and the amount of any penalties that may accrue. Similarly, the OMS is concerned that utilities have the ability to identify areas for operational or market participation improvements to control costs on behalf of their customers.

The prepared direct testimony of Mr. Roy Jones describes the nature of credits and charges for ancillary services under the proposed tariff. He further describes settlements and performance monitoring, including new settlements calculations and charge types. The OMS continues to have concerns as to the level of detail that will be included on invoices and settlement statements. Specifically, will each of the seven settlement calculations and charge types listed on page 72 of Exhibit E be readily apparent in invoices and settlement statements? Individual circumstances may need detailed examination to justify cost recovery approvals consistent with state cost recovery statutes.

It was suggested in a recent meeting of the Rate Design Task Force on January 24, 2007, that Midwest ISO settlement statements provide the detail necessary to ascertain whether penalty provisions have been applied. However, it was also suggested that the settlement statement details have not all been established, and that the Midwest ISO Market Settlements Working

Group will be addressing such details in future meetings. To the extent that the tariff does not or cannot provide such details, the OMS strongly suggests that the Commission recognize the need for the Midwest ISO to remain committed to addressing this and to work with the states to understand the impact of the ASM on current state ratemaking as it implements the ASM.

H. Long Term Resource Adequacy Plan

In its initial resource adequacy plan filed June 6, 2006 in Docket No. ER06-1112-000, the Midwest ISO stated that in Phase II of its resource adequacy plan, the Midwest ISO will undertake a long-term integration of shortage pricing with the Energy Market. The Midwest ISO listed five elements of its Phase II resource adequacy plan: (1) effectively implement enhanced DSM programs; (2) develop long term financial transmission rights; (3) facilitate the use of longer-term energy contracts by market participants; (4) coordinate the resolution of seams issues; and (5) coordinate with national resource adequacy standards.

Now in its February 15, 2006 informational filing in ER07-550-000 regarding a Phase II permanent Resource Adequacy Plan[47], the Midwest ISO recognizes the "key role" the states will play in a permanent Resource Adequacy Plan and lists a series of steps it will take through its stakeholder process to develop this Phase II Plan. The OMS thanks the Midwest ISO for that recognition. However, the OMS also notes that of the five resource adequacy elements promised in the Midwest ISO's June 6, 2006 filing, only three elements are addressed by the Midwest ISO in the ER07-550-000 February 15, 2007 filing. In addition to developing long-term firm transmission rights in Docket ER07-478, the remaining two elements: (1) effective implementation of enhanced demand side management programs and (2) coordination with national resource adequacy standards are of immediate importance to many of the OMS states, where state and provincial members of the OMS have the primary responsibility for electric generation and resource adequacy, as recognized in Section 1211(i) of the Energy Policy Act of 2005.

The primary purpose of a forward planning capacity reserve margin is to ensure the availability of sufficient deliverable capacity to satisfy the system's needs for energy and contingency reserves.

[47] The Resource Adequacy Plan is in Tab A of the Midwest ISO February 15, 2007 filing.

At this point in the development of a Permanent Midwest ISO Resource Adequacy Plan, the OMS through the coordinated efforts of the state commissioners and regulatory staff of its Resource Adequacy and Midwest Demand Response working groups hopes to concentrate its efforts on three key activities mentioned in the February 15, 2007 filing related to enhanced demand side management and coordination with the Commission-approved resource adequacy standard setting. These three key Midwest ISO activities are the following:

(1) Facilitating load serving entity achievement of planning reserve margins,
(2) Developing a set of planning capacity reserve margins to achieve regional entity reliability requirements, and
(3) Developing additional demand response resource improvements.

In the Resource Adequacy Plan, the Midwest ISO has included a list of Deadlines/Milestones with dates that target completion by the end of 2007. This list appears to be overly optimistic, with many items concurrent in December of 2007. The OMS questions if this is realistic because there is a limit to the number of activities that the Midwest ISO and Stakeholders can work on simultaneously. If the Midwest ISO intends to meet the deadlines by December, 2007, then some of the activities should be moved forward. Toward that end, the OMS suggests rescheduling the target completion dates for the first two activities due in December to be completed in October. Those items are: load serving entity achievement of planning reserve margins and compliance protocols to monitor and respond to compliance issues.

I. The OMS Commitment To Work With the Midwest ISO

In its filing, the OMS is led to understand that the Midwest ISO wants a market construct that consolidates certain functions and operates a more efficient market to produce energy for Midwest ISO operations (regulation and contingency reserves) at the same time that energy is produced for end use electric customer consumption. The OMS believes that the details of that construct are complicated and will require further work by knowledgeable stakeholders to be able to put a workable market construct into effect in 2008. Towards that end, the OMS is committed to work with MISO on a series of local Midwest workshops to provide the OMS with a ground-level understanding of where the Midwest ISO wants to go over the next year, and how the co-optimization of ancillary services and energy and its scarcity pricing mechanism as described in the filing intends to incorporate long-term policy issues such as reserve sharing

planning agreements, reserve margins, and forward-looking capacity planning so that the right resources, such as fuel diverse generation, transmission, and demand response, will be available in the right places at the right times.

IV. Notice of Intervention

Pursuant to Rule 214(a)(2) of the Federal Energy Regulatory Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(a)(2), the Organization of MISO States and its member state commissions file Notice of Intervention in this proceeding. Service of pleadings, documents, and communications should be made on the following:

William H. Smith, Jr.
Executive Director
Organization of MISO States
100 Court Avenue, Suite 218
Des Moines, Iowa 50309

V. Conclusion

The OMS respectfully requests that the Commission consider the above comments.

The OMS submits these comments because a majority of the members have agreed to generally support them. The following members generally support these comments. Individual OMS members reserve the right to file separate comments regarding the issues discussed in these comments:

Indiana Utility Regulatory Commission
Iowa Utilities Board
Kentucky Public Service Commission
Michigan Public Service Commission
Minnesota Public Utilities Commission
Missouri Public Service Commission
Montana Public Service Commission
Nebraska Power Review Board
North Dakota Public Service Commission
Public Utilities Commission of Ohio
South Dakota Public Utilities Commission
Wisconsin Public Service Commission

The Manitoba Public Utilities Board did not participate in this pleading. The Pennsylvania Public Utility Commission abstained from these comments. The Illinois Commerce Commission abstained and may file separate comments at a later time..

The Illinois Citizens Utility Board, the Indiana Office of Utility Consumer Counselor, the Iowa Office of Consumer Advocate, the Office of the Ohio Consumers' Counsel, and the Minnesota Department of Commerce, as associate members of the OMS, participated in these comments and generally support these comments.

Respectfully Submitted,

William H. Smith, Jr.
William H. Smith, Jr.
Executive Director
Organization of MISO States
100 Court Avenue, Suite 218
Des Moines, Iowa 50309
Tel: 515-243-0742

Dated: March 30, 2007

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Des Moines, Iowa, this 30th day of March, 2007.

William H. Smith, Jr.

ATTACHMENT

Comments of the Indiana Utility Regulatory Commission (IURC) and the Indiana Office of Utility Consumer Counselor (OUCC)
Concerning the Midwest ISO's Proposed Cost Allocation Method and Reserve Zone Hedging Concerns

I. Cost Allocation

In principle, the IURC and the OUCC are supportive of the cost allocation method proposed by the Midwest ISO. We believe that operating reserves and a reliable transmission system exist to serve load and that it is reasonable to allocate the costs of procuring and deploying operating reserves to load. It is our understanding the proposed allocation method is consistent with how costs are allocated in other markets.

The IURC and the OUCC considered the merits of other cost allocation methods. For example, allocating the costs of operating reserves based on cost causation is appealing if doing so improves incentives for generators to operate reliably thus increasing economic efficiency. But it is not immediately clear that this would be the case and would be heavily dependent on the specific details. Under the Midwest ISO market structure, generators are penalized if they do not meet their performance commitments. If a generator trips off-line should they bear all the costs of operating reserves related to their forced outage on top of the penalties they are assessed for differences between their real-time performance and their financially binding day-ahead offer that cleared? This would effectively penalize the generators twice. In addition, if generators know they are going to be charged for costs that they can not identify in advance of their bids (such as after the fact ancillary service cost allocations for forced outages) the generators will raise their bids to cover the estimated risk. It is likely that this will not result in the most economic solution.

In evaluating this method it also became apparent that clearly identifying the cost causers would be difficult if not impossible and may have unintended consequences. For example activation of contingency reserves is frequently caused by transmission contingencies. Transmission facilities do not receive Ancillary Service revenue; therefore it would be inappropriate to charge owners of transmission facilities for ancillary service costs. The IURC

and the OUCC also believe that developing consensus on a cost causation allocation method would be time consuming and could potentially delay market start.

The allocation of the costs of operating reserves to all MWhs (all injections and withdrawals) was another allocation method considered. This would allocate the costs to both load and generation. The question has to be asked if spreading these costs to all MWh injected into the Midwest ISO system would improve price signals and encourage greater efficiency. As discussed above, the Midwest ISO market design includes elements to encourage generators to meet performance measures. If the argument supporting this type of cost allocation rests on equity considerations, then it must be recognized that a possible outcome of simply allocating these costs to generation will be for owners of generation to increase the offers they submit to the Midwest ISO markets which will ultimately be reflected in prices and bills borne by retail customers.

Although, there are pros and cons of each allocation method, we believe that the method proposed by the Midwest ISO is reasonable for market start and request the Commission direct the Midwest ISO to revisit the Ancillary Service cost allocation method through the stakeholder process one year after market operations.

II. Ability to Hedge and Reserve Zones

MISO intends to establish "reserve zones," based on the location of generation resources, to assure adequate dispersion of reserves throughout the footprint and account for deliverability limitations imposed by transmission constraints. These constraints could change every time system topology changes and can be revised as often as daily, although this is unlikely. As currently proposed, a company could have resources in one reserve zone and all, or some, of its load located in a different reserve zone. Resources will be paid the zonal price. However, load will be charged a footprint wide allocation. This could make it difficult to fully hedge the cost of ancillaries and generally all of the IURC regulated companies expressed concerns on this issue.

The Midwest ISO will publish its operating reserve procurement requirements the day prior to the operating day, in advance of the Day Ahead market close. The information will

allow market participants to submit self schedules based on their expected operating reserve cost allocation. The IURC and the OUCC believe this will enable companies to partially or even substantially hedge their positions even if generation and load are in different reserve zones. The generation provider can offer its resources into the ASM for its zone and, if selected, receive ASM revenues that would offset to a considerable degree the cost of operating reserves borne by its load in a separate reserve zone. However, we believe the issue of changing reserve zones and the possibility of a company's load and generation being in different zones is a complex matter that will be best solved through a comprehensive Stakeholder process. The IURC and the OUCC do not have the ability to estimate the magnitude, and thus the importance, of this issue. The IURC and the OUCC suggest a two prong approach. First we request the Commission to direct the Midwest ISO to revisit reserve zone issues via the Stakeholder process and to make a recommendation and filing, subject to Commission approval, prior to the start of the Ancillary Services Market. Secondly, the we request that the Commission direct the Midwest ISO to assess the impact of the reserve zones after one year of market operations and to make a compliance filing discussing the lessons learned and recommendations for improvement.

Finally, the IURC and the OUCC want to make it clear that the issue is not whether reserve zones should exist. There are clearly sound engineering and reliability reasons for reserve zones to exist and for them to change when deemed appropriate. The question is more of trying to determine the balance between flexibility in zone determination and giving market participants a reasonable opportunity to align their load and generation resources.