

II. Statement of Issues

A. Market Monitoring and Mitigation

The OMS is concerned about the persistent presence of market concentration and the potential for exercising market power in all of the geographic sub-regions studied by Dr. Patton. The OMS urges to Commission to require: effective mitigation to address the exercise of market power, a lower economic threshold of \$10 per MW/hour with an analysis that allows for step increases of \$10 over time, a discussion and analysis concerning reference price creep, a more formal and detailed methodology for auditing and identifying physical withholding, and a requirement that the reference price be cost-based where a generating unit has changed zones. The OMS also requests that the Midwest ISO reinstate the inadvertently deleted Section 50.4 from Module D of its tariff, a section relating to the independence of the Independent Market Monitor.

B. Regulation Reserve Tolerance Band and Excessive/Deficient Energy Issues

The OMS is requests that the Commission require the Midwest ISO to explain why its proposed tolerances are appropriate by providing an analysis, by owner or generator type and size if possible, of the impact of a 2% vs. 4% tolerance band on the number and diversity of market participants for the purpose of stakeholder review. If this is not possible, the OMS strongly urges the Commission to complete a thorough investigation into the optimality of the proposed regulation tolerance band.

In addition to the current standard requiring the generator to stay within the tolerance band around its set point requirement in three or more consecutive five-minute dispatch intervals within any hour or face the excessive/deficient energy deployment charges, the OMS proposes a new standard that would also expose the generator to the excessive/deficient energy deployment charge if it fails to stay within the tolerance band around its set point requirement for a given

number of dispatch intervals within any hour, regardless of whether or not they are consecutive occurrences.

The OMS requests the Commission to require the Midwest ISO to clarify its intent with regard to market behavior inducements caused by the inclusion of excessive/deficiency energy in RSG and the pricing of excessive energy and deficiency energy charges. The OMS also urges the Commission to require the Midwest ISO to further explain the calculation and application of the excessive/deficiency energy charge.

C. Demand Curves, Scarcity Pricing and Proper Financial Incentives

The OMS urges the Commission to condition any approval of the demand curves, offer caps, and Value of Lost Load (VOLL) on the Commission's findings resulting from the Midwest ISO's demonstration, in its Long-Term Resource Adequacy filing, that the prices and the resulting demand curves used to provide the proper incentives for short-term reliability will also provide the proper incentives for longer-term resource adequacy.

The OMS urges the Commission to direct the Midwest ISO to continue work with stakeholders on all of the inputs to the demand curve by also considering changes in offer caps, the VOLL, and any other changes towards revising the demand curves to provide the proper financial incentives.

D. ASM Cost Allocation

The OMS commends the Midwest ISO for moving in the right direction and supports a hybrid approach for cost allocation. The OMS urges the Commission to direct the Midwest ISO to analyze the results of the allocation methodology one year following the start of the ASM market and provide a report to its stakeholders that includes details by reserve zones, what each zone and non-zone would have paid under the various allocation proposals, and any recommendations that the Midwest ISO may have to improve the allocation method.

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

The OMS generally supports the need for an ancillary services market, and offers these comments with the intent to ensure an efficient and workable ancillary services market. In its Guidance Order on June 22, 2007, the Commission instructed the Midwest ISO to supplement its filings with a market power analysis as it did not do so in its original ASM filing on February 15, 2007. The OMS is very concerned with the analysis results and the specific findings by Dr. Patton that in every sub-region studied, there was high supplier concentration which is a strong indicator of the ability of suppliers to exercise market power. The OMS, therefore, requests that should the Commission decide to implement a market-based approach for ancillary services, it require strong and effective market power mitigation measures and reporting requirements as suggested in the comments below. Such a mitigation approach would be a reasonable response to Dr. Patton's analysis and would align with the approach taken for energy market mitigation in broadly constrained areas

A. Market Monitoring and Mitigation

On June 22, 2007 the Commission rejected without prejudice the Midwest ISO's February 15, 2007 Ancillary Services Market (ASM) proposal and provided directions to correct filing deficiencies in a future ASM filing.¹ Specifically, the Guidance Order directed the Midwest ISO to: (1) Submit a market power analysis, and (2) develop market readiness and reversion plans.² Where an RTO performs a market analysis demonstrating a lack of market power for certain ancillary services, the Commission has approved the sale of those ancillary services at market-based rates.³ Where there is market power, the Commission considers on a

¹ *Midwest Independent Transmission System Operator, Inc.*, "Order on Ancillary Services Filing and Providing Guidance," 119 FERC ¶ 61,311 (2007) ("Guidance Order").

² Guidance Order, at P. 43 & P. 49.

³ *Final Rule on Market-Based Rates For Wholesale Sales Of Electric Energy, Capacity And Ancillary Services By Public Utilities* (Order No. 697), 119 FERC ¶ 61,295 (2007), at P. 1069.

case-by-case basis market power mitigation measures for sales involving ancillary services in these markets.⁴ As OMS understands it, the Midwest ISO's entire market design depends on the approval of market-based rates, so the procedures used to prevent the exercise of market power are therefore the cornerstone for approval of the ancillary service markets.

With regards to the Midwest ISO Market Power study submitted by Dr. David Patton, the OMS has a number of concerns. In concept, the OMS believes that the Conduct and Impact tests proposed by Dr. Patton for mitigating market power in the ancillary services markets would be just and reasonable as long as the "correct" relevant geographic market and the "appropriate" economic threshold are used. In the following discussion, the OMS highlights its concerns regarding the presence of market power opportunities in each of the seven defined geographic sub-regions studied by Dr. Patton, the relative size of the \$50 per MW/hour economic threshold for the conduct test, the methodology for auditing/identifying physical withholding and the determination of a unit's average reference price within a operating reserve zone.

i. The Exercise of Market Power must be Mitigated

Among other things, Dr. Patton's market power study concludes that when the market power analysis is performed using the entire Midwest ISO footprint as the relevant geographic market, none of the participating suppliers will be likely to have market power, regardless of the metric used; namely the market share, the *Herfindahl-Hirshman* Index (HHI), or the pivotal supplier test.⁵ On the other hand, Dr. Patton states that if specific sub-regions of the Midwest ISO are used as the defined relevant geographic market, the results indicate a clear presence of market power for all three metrics.⁶ Dr. Patton states that the reason for using a sub-region in the analysis, rather than the entire Midwest ISO footprint, is the presence of transmission

⁴ *Id.*

⁵ Affidavit of Dr. David Patton, page 15, 18.

constraints in local areas that generally preclude a supplier physically located in one sub-region from participating in another sub-region.⁷ In Dr. Patton's analysis, the sub regions serve as proxies for operating reserve zones in the proposed ancillary service markets.

The market analysis results in each of the seven analyzed sub-regions, and for each of the two products defined in the analysis (regulating reserve and contingency reserve), indicate the following:

- The presence of at least one supplier with more than a 20% market share in each of the seven sub-regions during the summer 2006 and winter 2006/2007 seasons;
- An HHI concentration of more than 1,800 in each of the seven sub-regions during the summer 2006 and winter 2006/2007 seasons; and
- The existence of at least one pivotal supplier in both the Regulating Reserve (between 14.3% and 97.4% of the time period studied⁸) and the Contingency Reserve markets (between 34.4% and 100% of the time studied)

The OMS is concerned about Dr. Patton's market power analysis results of the seven studied Midwest ISO sub-regions. This concern is especially critical given the fact that several actual sub-regions of the Midwest ISO are often constrained on a daily basis. As such, an assumption that the defined geographic market is the entire Midwest ISO market is and will likely continue to be violated daily. Where the Midwest ISO determines operating reserve zones, Dr. Patton's solution to this problem is to continually monitor the sub-regional markets created by these zones, apply the conduct and impact tests, and mitigate accordingly within each of the zones whenever the proposed defined economic threshold is triggered.⁹

⁶ Seven sub-regions (or reserve zones) were analyzed by Dr. Patton in his affidavit: WUMS, Michigan, Minnesota, and Clusters #1, #4, #5, and #9.

⁷ Affidavit of Dr. David Patton, page 18.

⁸ The time period studied for the pivotal supplier test spanned the hourly data from April 1, 2005 through June 30, 2007.

⁹ Affidavit of David B. Patton, Attachment A, at P 54 & P 57

The OMS is also concerned with the high percentage of time a pivotal supplier exists in each of the seven studied sub-regions. This is critical if one considers, for example, that there exists a pivotal supplier in Cluster #1 during 34% of the hours in a particular year. This implies that during 2,978 (.34 x 8,760 hours) hours, there is an opportunity for at least one pivotal supplier to exercise market power. Dr. Patton's response to this is that a supplier that is pivotal will not necessarily exercise market power.¹⁰ This response is not sufficient to allay the concerns of the OMS. Indeed, even if a pivotal supplier does not exercise market power during all 2,978 hours of the year, there are clearly enough opportunities to exercise it and extract excessive profits during any portion of those 2,978 hours without failing Dr. Patton's test for an economic threshold.

As stated earlier, Dr. Patton's sub-regional analyses indicate clear evidence of the potential for the exercise of market power during a large portion of the hours examined. Therefore, it would not be appropriate at this time for the Commission to approve an ancillary services market where suppliers are allowed to charge market-based rates unless there is a comprehensive program in place to prevent or mitigate the exercise of market power. The OMS believes that the sub-regions, or reserve zones, are the correct relevant market areas and given that a competitive market in these reserve zones will not exist, the Commission must ensure that effective mitigation measures are in place.

ii. The Conduct and Impact Tests

In his affidavit, Dr. Patton states that he will consider a unit to have failed the economic threshold if its bid represents a 300% increase or an increase of \$50 per MW/hour, whichever is lower, from a reference price.¹¹ Dr. Patton further states that until there is sufficient historical

¹⁰ OMS teleconference with Dr. Patton, September 27, 2007

¹¹ Market Power Study, Exhibit 1, at 36-37

market data, a cost-based estimate for each of the units will be used during a transition period.¹²

(Note: of the three options available, the first two require historical data to determine the average. As such, there can be no average until after the third month)

In this regard, the OMS has three concerns. The first concern is related to the accuracy of establishing a reference price for each generating unit. Dr. Patton's Affidavit does not include a comprehensive discussion as to how he intends to assess the accuracy and reliability of a submitted reference price. The OMS recommends that Dr. Patton develop a formalized approach for evaluating the accuracy and appropriateness of a submitted reference price and report the results to the Commission and the OMS.

The second concern is that the \$50 per MW/hour economic threshold proposed by Dr. Patton is "large enough" to allow a supplier with game theory skills to outplay an automated computer code during certain hours of the year when a transmission constraint is binding. As explained above, a pivotal supplier does not need to exercise market power the entire domain of hours when it is pivotal to extract excessive profits.

The OMS disagrees with Dr. Patton as to what threshold should trigger a conduct test in a particular operating reserve zone. The OMS, therefore, proposes that an increase of \$10 per MW/hour be used as the defined economic threshold for each of the two products (Regulating and Contingency Reserves) in each operating reserve zone during the initial 90-day period. At the conclusion of the 90-day period, Dr. Patton should report to the Commission and OMS on the behavior of the suppliers in each of the operating reserve zones for each of the two products. If the results of the first report indicate "fair game" behavior, the OMS proposes allowing the economic threshold to increase to \$20 per MW/hour (a \$10 increase from the previous threshold)

¹² Market Power Study, Exhibit 1, at 37

during the following 90-day period. If, on the other hand, the results indicate the exercise of market power by certain pivotal suppliers for a large number of hours in a specific operating reserve zone for a specific product, the OMS proposes freezing the economic threshold at \$10 per MW/hour for an additional 90-day period in that particular operating reserve zone for that particular product. The OMS proposes that the Commission direct the Independent Market Monitor (IMM) to use this iterative procedure in each reserve zone for each product, and authorize the IMM to increase or decrease the economic threshold by \$10.00 until the economic threshold reaches \$50.00 and the OMS receives four consecutive quarterly reports concluding “fair game” behavior in the ancillary services markets. If all goes well, at the completion of the fourth quarter post the commencement period of the ancillary services markets, the \$50 per MW/hour threshold proposed by Dr. Patton will be reached.

In conclusion, the OMS finds that the conduct test submitted by Dr. Patton is incomplete and unpersuasive. The analysis raises more questions than it provides answers. The Commission must take into consideration that the IMM’s analysis shows a Midwest ISO ASM rife with pivotal suppliers and the potential for market power abuse. The OMS is not convinced that an ASM market with mitigation using \$50 per MW/hour thresholds affords sufficient protection to approve market-based rates. Under the Midwest ISO’s proposal, it is not clear that mitigation and the use of market mechanisms would be less costly for customers than using a cost-based approach. Recognizing that the Commission and national policy have embraced the market approach that the Midwest ISO’s proposal depends on, the OMS urges the Commission to approve a tighter threshold, such as the one proposed above, for monitoring the exercise of market power be used. Without a tighter threshold, the illustrative analysis results presented by Dr. Patton indicate that the net benefits of moving to a market-based ASM approach that the Midwest ISO has estimated elsewhere will likely be significantly degraded. The OMS is

concerned that there be no degradation in net benefits as a result of moving to market-based ASM.

Potomac Economics, the firm that conducted the ASM market power analysis here for the Midwest ISO, concluded earlier in 2007 that TXU Corporation likely manipulated Texas' electricity balancing market¹³ The OMS notes that in the market power analysis provided for the Midwest ISO, Potomac Economics provides no factual insight based on its experience in Texas or anywhere else it is a market monitor that a \$50 per MW/hour threshold is appropriate or would protect rate payers. For the reasons stated above, the Commission should err on the conservative side and choose a threshold less than the proposed \$50 per MW/hour value. This would give the markets a chance to work. Unlike the move to the Day-2 wholesale energy market when there was a transition period of cost-based bidding, the Midwest ISO has not proposed a transition period for the ASM. This provides ample foundation for using a lower starting value for mitigation with relaxation of that threshold only after successful demonstration that market forces are sufficiently strong to check the potential for market power abuse.

The third concern has to do with the "price creep" phenomenon. The OMS is concerned that certain pivotal suppliers in a particular reserve zone will endeavor to extract excessive profits within the economic bounds set by the conduct test by exercising market power during certain hours of the year using a delta that is below Dr. Patton's proposed \$50 per MW/hour threshold. Such an occurrence has a long-term negative impact on the market as pivotal suppliers may be exercising market power and contributing to an increase in their 90-day historical bid-based averages that are used by the IMM in future conduct tests. Additionally,

¹³ **"TXU Charged with Price Manipulation:** The Texas Public Utility Commission proposed a \$210 million fine against TXU after a market monitor's report alleged economic withholding of generating capacity to raise prices in ERCOT's balancing market to levels as high as \$200/MWh or more above marginal costs during times TXU was a pivotal supplier (when demand in the market cannot be satisfied without the resources of this supplier).

price creep in the uncompetitive operating reserve zones will erode any ratepayer benefits that are derived from market-based ancillary services procurement. The OMS is not satisfied with the answer regarding the potential for suppliers with market power for the majority of hours during a year to have substantial reference price creep. The OMS, therefore, recommends that the Commission direct the Midwest ISO and Dr. Patton to provide a detailed discussion of how Dr. Patton intends to monitor the price creep phenomenon and to include this discussion and his findings in each of the 90-day reports to the OMS during the first year of ancillary services market implementation.

iii. Physical Withholding

With regards to the issue of monitoring physical withholding, Dr. Patton states:

Physical Withholding will affect both Energy Markets and Ancillary Services Markets, and the existing thresholds in the Midwest ISO Tariff are adequate to identify such conduct.¹⁴

The simultaneous monitoring and co-optimization of both the energy and ancillary services markets will significantly increase the complexity of the IMM's task. Accordingly, Dr. Patton's above statement appears to be too generic. The OMS urges the Commission to require Dr. Patton to provide a more formal and detailed explanation regarding the specific method and criteria that he intends to employ in auditing and identifying suppliers that physically withhold power in both the energy and ancillary services markets.

iv. Proposed Use of Reference Prices in Reserve Zones

The Midwest ISO proposes to run a quarterly "Reserve Zones" study that will incorporate transmission constraints and deliverability areas in order to ensure reliability.¹⁵ According to the

TXU denies the charges." From FERC web site in Section, "Electric Power Markets: Texas (ERCOT)," as updated September 13, 2007.

¹⁴ Market Power Study, Exhibit 1, at 36

Midwest ISO, the resulting operating reserve zones may change quarterly based either on the outcome of the constraint analysis or on the Midwest ISO's proposal to require operating reserve "dispersal" across the Midwest ISO footprint.¹⁶ As a result, a supplier physically located in one operating reserve zone during a particular quarter may be physically located in an alternative reserve zone during another quarter. The OMS is concerned that changes in the reserve zones may compromise the integrity of the proposed Conduct and Impact tests. Specifically, the OMS questions whether it is appropriate to use for a generating unit's reference price the historical bid-based average of a unit that was located in reserve zone A during quarter 1, for a conduct test during quarter 2 if that unit is now located in reserve zone B. The OMS proposes that if such a scenario does occur, that the historical cost-based average of the unit be used rather than its bid-based average as its reference price. This is consistent with what Dr. Patton is proposing to use as reference prices for the first 90-day transition period post ancillary services market implementation.

v. The Disappearance of Section 50.4 from Module D of the Tariff

At its filing, the Midwest ISO proposes tariff sheets that delete Section 50.4 from Module D of its Tariff relating to the independence of the Independent Market Monitor. The deleted section states:

50.4 Independence of Market Monitoring

The IMM shall be granted complete independence to perform those activities necessary to provide impartial and effective market monitoring within the scope of the Plan. No person, party or agent, including the Transmission Provider, State Regulatory Commissions, or any other administrative oversight group responsible for the

¹⁵ Midwest ISO Ancillary Services Markets Proposal Resubmission, Transmittal Letter, Docket No. ER07-1320-000, dated September 14, 2007, at 10, 37-39; *See* Midwest ISO Proposal, Attachment E, Testimony of Roy Jones; *See also*, Midwest ISO Proposed Tariff Sections 39.2.1A.c and 40.2.3.c.

¹⁶ The OMS acknowledges that even though quarterly zones are not as accurate, they provide certainty of geographic market boundaries. This partially addresses a previous OMS concern in the original filing about the inability of market participants to hedge. *See* OMS comments filed 3/30/07 in ER07-550, page 20. The quarterly reserve zones better provide that hedging ability. On balance, the OMS views this use of longer-term quarterly reserve zone determinations as a positive change from the Midwest ISO's original proposal.

administration of the IMM activities, shall be granted authority to screen, alter, delete, or delay IMM investigations or the preparation of findings, conclusions, and recommendations developed by the IMM that fall within the scope of market monitoring responsibilities contained in the Plan. (Sheet No. 706)

The OMS discussed this omission during the MSC/ASM Market Power Study Review conference call with Dr. Patton on September 27, 2007. The Midwest ISO stated that that the deletion was an inadvertent error that would be corrected upon compliance. As a follow up, the Midwest ISO notified stakeholders via e-mail on October 1, 2007, that the deletion was inadvertent, and that the Midwest ISO will respond in its Answer to any comments on this deletion that the deletion was an error and that the Midwest ISO commits to correcting the error at the time of its compliance filing in the ASM proceeding. Given the importance of this section, the OMS requests that the Commission direct the Midwest ISO to correct this error.

B. Regulation Reserve Tolerance Band and Excessive/Deficient Energy Issues

The Midwest ISO proposes a tolerance band for generation resources providing regulating reserves of +/- four percent of the sum of the average dispatch target for energy for the resource plus the average regulation deployment instruction for the resource, if applicable, in the dispatch interval.¹⁷

The OMS recognizes that the tolerance band must strike a balance between meeting the technical requirements of the regulation product and allowing more participants for a more competitive market. However, the Midwest ISO provides little support regarding the optimality of the proposed tolerance band of +/- four percent with a 6 MW minimum and a 20 MW maximum limit. This a point of concern for the OMS because, as Mr. Jones states in his testimony, a band that is too wide will result in an increase in the required amount of regulating reserve to be procured by the Midwest ISO to comply with the ERO standard and increase costs

¹⁷ Attachment E, at 114

to customers.¹⁸ On the other hand, a tolerance band that is too narrow will result in fewer resources and less diversity of market participants.

Mr. Jones explains that the proposed tolerance bands were developed by examining confidential performance data submitted by resources currently providing regulating reserves.¹⁹ However, Mr. Jones also states that his analysis of the data showed that generation resources had the ability to operate successfully at various tolerance bands. While the Midwest ISO ultimately determined that the +/- four percent band was “appropriate”, Mr. Jones does not explain why it is appropriate. Beyond stating that it believes that a +/- four percent band is appropriate, the Midwest ISO filing provides little supporting evidence regarding the optimality of the proposed +/- four percent band.²⁰

The OMS acknowledges that the data used by the Midwest ISO to develop the proposed tolerance band is confidential. However, given that the Commission’s current data access provisions preclude the OMS from obtaining confidential data to verify the claims of the Midwest ISO, the OMS requests that the Commission require the Midwest ISO to provide an analysis, by owner or generator type and size if possible, of the impact of a 2% vs. 4% tolerance band on the number and diversity of market participants and overall cost for the purpose of stakeholder review. If this is not possible, the OMS strongly urges the Commission to complete a thorough investigation into the optimality of the proposed regulation tolerance band. If the Commission’s analysis concludes that the proposed band is not well-designed, then the Commission may want to consider an alternative approach to ensure the Midwest ISO procures

¹⁸ Attachment E, at 115

¹⁹ Attachment E, at 115

²⁰ The IURC and the Indiana Office of Utility Consumer Counselor do not believe that Mr. Jones would characterize the proposed bandwidth as the “optimal solution” but, rather, as a “compromise” that is a matter of judgment based on his substantial operating expertise, the expertise of several others, and as a product of stakeholder input. The IURC would, then, prefer to give substantial deference to the Midwest ISO’s proposal particularly since

the optimal level of regulating reserves and that generators committed to providing regulating reserves actually provide such reserves to the extent possible. Alternatives might include different tolerance bands based on generator type or unit size.

Regardless of the approach, the establishment of the tolerance band must be developed in conjunction with the penalties/charges for failing to meet the tolerance band to minimize “free-riding” generators, *i.e.*, those committed to providing regulation service and getting paid to provide regulation service, but not actually providing the regulation service that they are committed to and being paid for. Mr. Jones explains that any regulating reserve generation resource that fails to follow its set point instructions in three or more consecutive five-minute dispatch intervals within any single hour will be subject to excessive/deficient energy deployment charges.²¹ This effectively means that a generator providing regulating reserve can fail to meet its set point requirement within the tolerance band in two-thirds (66 percent) of the dispatch intervals without being subject to the excessive/deficient energy deployment charge. The OMS questions the use of a standard that permits a resource to fail two-thirds of the time to provide the service at the levels it is committed to provide and being paid to provide, especially considering that the proposed tolerance band has been doubled to +/- four percent to make it easier to track the set point target.

If the Commission finds the above-mentioned standard acceptable, the OMS suggests an additional standard. In addition to the current standard requiring the generator to stay within the tolerance band around its set point requirement in three or more consecutive five-minute dispatch intervals within any hour or face the excessive/deficient energy deployment charges, the OMS proposes a new standard that would also expose the generator to the excessive/deficient energy

there is no proposed alternative that is generally regarded as “better” and certainly no alternative that is regarded as “optimal.”

²¹ Attachment E, at 114

deployment charge if it fails to stay within the tolerance band around its set point requirement for a given number of dispatch intervals within any hour, regardless of whether or not they are consecutive occurrences. Under this approach, it might be reasonable to allow a resource to deviate outside the band three to five times before the additional penalty would be applied.

Mr. Jones also states that the hourly values of excessive/deficient energy will be incorporated into the calculation of the real-time sufficiency guarantee (“RSG”) charges so that market participants with resources that have hourly excessive and deficient energy are charged a portion of the real-time sufficiency guarantee costs.²² The implication of applying RSG charges to generators with hourly values of excessive/deficient energy as a penalty for excessive/deficient energy or as an inducement for generators to reduce excessive/deficient energy is not adequately explained in the Midwest ISO filing. The OMS urges the Commission to require the Midwest ISO to clarify this point.

Mr. Jones states that hourly excessive energy is credited at the lesser of the hourly offer cost associated with that energy or the hourly ex post LMP, whichever is less.²³ He states that deficient energy is credited at the hourly ex post LMP. The implication of this compensation arrangement as a penalty or as an inducement for generators to reduce excessive/deficient energy is not explained in the Midwest ISO filing. The OMS urges the Commission to require the Midwest ISO to clarify this point.

Finally, Mr. Jones describes how the excessive/deficient energy deployment charge will be calculated and applied.²⁴ However, Mr. Jones’ explanation of the calculation and application of this charge is not clear. The OMS urges the Commission to require the Midwest ISO to clarify that discussion.

²² Attachment E, at 114

²³ Attachment E, at 116-117

²⁴ Attachment E, at 121

C. Demand Curves, Scarcity Pricing and Proper Financial Incentives

One of the key elements of ASM design is scarcity pricing implemented through the use of demand curves. According to the Midwest ISO, the demand curves determine the price during periods of scarcity and thus send the appropriate price signals with respect to the value of those Operating Reserves.²⁵ The Midwest ISO explains that Demand Curves are used in the market clearing process to represent the incremental reliability value of Capacity and Regulation Capability to the market at various deficiency levels on both a market-wide and zonal basis.²⁶ The scarcity prices thus produced “provide the correct price signal in both the short-term and long-term for Capacity and Regulation Capability.”²⁷ In other words, the demand curves are what make the Midwest ISO’s Ancillary Services Market proposal work.

The Commission has directed the Midwest ISO to file a long-term resource adequacy plan later this year, saying,

The long-term resource adequacy plan due to be filed as Phase II should address giving the proper financial incentives such that new generation entry is economically feasible based on all revenues received from the Midwest ISO’s market, including scarcity payments.²⁸

The Commission later said that it expects the plan to “support the region’s short-term reliability needs, and that it will encourage long-term planning and infrastructural investments”²⁹

The proposed Demand Curves are central to providing the proper incentives. They may in fact be the single-most important item to be considered in the evaluation of the Midwest ISO’s market design. While the OMS does not quarrel here how the curves are utilized in the market clearing process, we question the derivation of the curves, and the Midwest ISO’s choice for the

²⁵ Cover letter page 8

²⁶ Affidavit of Roy Jones, Exhibit No. E, page 54

²⁷ Id at page 95

²⁸ ER07-550-000 6/22/07 Order at P 137

²⁹ 9/18/07 Order Granting Extension of Broadly Constrained Areas, ER07-1182-000 at P 37

prices used for setting those curves. To be clear, the curves must be properly derived such that the resulting prices provide the proper short-term and long-term financial incentives.

The Midwest ISO must show how the demand curves and their respective pricing points provide those incentives. The Midwest ISO has not yet done that. The Midwest ISO has not demonstrated in this filing that the prices and the resulting demand curves used to provide the proper incentives for short-term reliability will also provide the proper incentives for longer-term resource adequacy. The Midwest ISO must eventually tie this all together to demonstrate that the curves are properly set for both. The OMS therefore asks that the Commission's approval of the demand curves, offer caps, and VOLL be contingent on any needed further revisions resulting from the Commission's findings regarding the Midwest ISO's demonstration, in its Long-Term Resource Adequacy filing, that the prices and the resulting demand curves used to provide the proper incentives for short-term reliability will also provide the proper incentives for longer-term resource adequacy.³⁰

The Midwest ISO's proposed demand curves are used to determine a market-clearing price based on finding the intersection of a supply curve to a demand curve. The supply curve consists of offers from resource providers that are arranged in economic order. The "demand" curve, however, is not based on demand bids, but is instead set on prices that the Midwest ISO

³⁰ The Indiana Utility Regulatory Commission (IURC) and the Indiana Office of Utility Consumer Counselor respectfully disagree with the conclusions reached. There is agreement that the ASM markets, if successful, will be beneficial. There is also agreement that the Demand Curves could improve short-term resource decisions that are integral to the success of ASM. Unfortunately, the conclusion is that the benefits should be deferred until the Midwest ISO somehow demonstrates that better real-time price signals will resolve the longer-term resource adequacy matters. In essence, our colleagues recognize that the short-term markets will operate more efficiently and economically because of ASM and the short-term Demand Curves but recommend approval of the entire ASM be made contingent upon a demonstration of the success of the Demand Curves to resolve not only short-term resource issues but also longer-term resource adequacy issues. While improved short-term price signals from the ASM will enhance incentives to make longer-term resource adequacy decisions, the ASM is a necessary but not sufficient condition for long-term resource adequacy.

The IURC agrees with the OMS, at page 17, that *...The proposed Demand Curves are central to providing the proper incentives. They may in fact be the single most important item to be considered in the evaluation of Midwest*

thinks are the highest supply costs to supply operating reserves.³¹ This basis is not one generally regarded as an appropriate methodology of setting operating reserve demand curves.³² The various points on the demand curves are essentially proxies for demand bids. The Midwest ISO has developed them from prices based on the existing energy and proposed ancillary services offer caps and its best estimate of the Value of Lost Load (VOLL).³³ Until the Midwest ISO demonstrates how the resulting market prices provide the proper financial incentives in the bigger picture of long-term resource adequacy, the selection of these price levels, and the resulting demand curves, appear arbitrary. With the potential for market power in reserve zones, there is as much risk that prices will be too high as there is that prices will be too low.

When priced properly, the Midwest ISO's energy and ancillary services markets, when added to other revenues, should provide prices that are high enough to "allow for the recovery of needed and prudent investment costs" but are not so high as to be unjust and unreasonable.³⁴

The Midwest ISO is still working on future changes to its tariff that will affect the success and pricing of the Midwest ISO's markets. Examples include more effective participation of demand response and the Long-Term Resource Adequacy Plan.³⁵ The resolution of these issues will have an impact on revenues from the Midwest ISO-run markets and other sources, and may require the Midwest ISO to revise its demand curves. The OMS

ISO's markets design..." Therefore, we believe it is inconsistent to conclude that approval of the ASM should be contingent upon the multitude of complex long-term resource adequacy issues being resolved.

³¹ Affidavit of Roy Jones at page 99

³² "Reliability and Scarcity Pricing: Operating Reserve Demand Curves", William W. Hogan, John F. Kennedy School of Government, Harvard University, Harvard Electricity Policy Group, March 2006; "Optimizing the Co-Production of Operating Reserve: The New Nirvana?", Robert L. Borlick, The Brattle Group, 26th USAEE/IAEE North American Conference, September 2006.

³³ \$100/MW/Hour offer cap for contingency reserves, \$500/MW/Hour offer cap for regulating reserves, \$1,000/MWh offer cap for energy, and \$3,500/MWh average outage cost for the Value of Lost Load (VOLL)

³⁴ 9/18/07 Order Granting Extension of Broadly Constrained Areas, ER07-1182-000 at P 35

³⁵ For example, the Midwest ISO expect to file a tariff revision to provide for emergency demand response procedures

therefore requests the Commission and the Midwest ISO to consider the development of the Midwest ISO's markets as ongoing and subject to further changes.

The Midwest ISO proposes to “work with Market Participants during the first year of Energy and ASM operation to determine methods to be use to update the VOLL in the future.”³⁶ This is not enough. The OMS urges the Commission to direct the Midwest ISO to work with stakeholders on ALL of the inputs to the demand curve by also considering changes in offer caps and any other changes towards revising the demand curves to provide the proper financial incentives.

D. ASM Cost Allocation

In its Guidance Order, issued June 22, 2007, the Commission found the Midwest ISO's cost allocation proposal in its February 15 filing “to be generally acceptable,”³⁷ but stated that “it would be beneficial for the Midwest ISO to continue discussions with stakeholders on cost allocation issues . . .”³⁸. The OMS on August 10, 2007, sought clarification that the Commission did not intend its statements to constitute approval of the Midwest ISO's February 15 cost allocation proposal and to keep the door open to alternative cost allocation proposals on re-filing. Consistent with the OMS interpretation that the Commission invited further discussion and refinement on the cost allocation proposal, the Midwest ISO invited and considered alternative cost allocation methods and facilitated analysis and stakeholder consideration of these alternatives. The OMS commends the Midwest ISO for its open and timely process that led to a new “hybrid” methodology that was submitted in the September 14 filing.

³⁶ Roy Jones Affidavit at page 105.

³⁷ Guidance order at footnote 70

³⁸ *Id.* at P 106.

The OMS commends the Midwest ISO for moving in the right direction and supports a hybrid approach.³⁹ The hybrid approach is a middle ground approach and although it is a more superior approach than the Load Ratio Share (LRS) socialization approach included in the original ASM filing, it may not necessarily be the most cost causative approach for allocating ASM costs. As a result, the OMS urges Commission to direct the Midwest ISO to analyze the results of the allocation methodology one year following the start of the ASM market and provide a report to its stakeholders, broken down into each quarter or timeframe the reserve zones are static, that provides the following; 1) a description of the zones that were created and the dates the reserve zones were in effect, 2) the average AS cost (MCP * Cleared OR) for each product in each zone and non-zone, 3) the average revenues from each zone and non-zone, 4) the reasons the reserve zones were created, 5) a table showing what each zone and non-zone would have paid under the original LRS allocation proposal, the August 17, 2007 Market Subcommittee (MSC) approved hybrid proposal, a pure zonal approach, and finally what each zone and non-zone paid under the modified hybrid proposal included in the Sept 14 ASM filing. The Midwest ISO should also include any recommendations it may have as a result of its analysis, with the ultimate goal of allocating costs on a cost causation basis; providing better ASM hedging opportunities for the Market Participants.

³⁹ The Ohio Commission and the Indiana Office of Utility Consumer Counselor support the original hybrid methodology that was voted on and approved at the Midwest ISO August 17, 2007 Market Subcommittee (MSC) meeting. The original hybrid methodology was proposed by the Midwest ISO as a middle ground solution that eloquently blended the pure load ratio share approach that was included in the original ASM filing and a pure zonal approach. While the original hybrid approach may not be perfect, it was a step in the right direction, unfortunately, the original hybrid approach was not included in the September 14, 2007 ASM filing, but rather a modified version of the hybrid proposal was included. While the original hybrid approach moved the allocation closer to a more appropriate allocation of costs, the modified hybrid proposal moves the allocation methodology back towards the load ratio share (socialization) methodology, thus diminishing some of the progress made in developing the original hybrid approach, which is a better and more cost causative allocation methodology.

The Ohio Commission commends the Midwest ISO for taking necessary action with its stakeholders to develop a better allocation methodology, however; Ohio is discouraged with the two-step forward, one-step back modified hybrid approach that was ultimately filed. Ohio urges FERC to direct the Midwest ISO to implement its original hybrid allocation approach, as approved at the August 17, 2007 MSC meeting.

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 Midwest ISO States files 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:

Illinois Commerce Commission
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. The Indiana Office of Utility Consumer

Counselor, the Iowa Office of Consumer Advocate, 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 Midwest ISO States

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Tel: 515-243-0742

Dated: October 15, 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 15th day of October, 2007.

William H. Smith, Jr.