

State Regulatory Authorities Sector Responses by OMS

To the February Advisory Committee Questions

February 10, 2011

Opening Statement

The Organization of MISO States (OMS) once again reiterates its opposition to the Midwest ISO's proposed changes to resource adequacy. OMS remains unconvinced that the Midwest ISO's proposal for a forward capacity auction is a solution to an identified problem. The clear definition of a problem may dictate a different solution. Currently, the Midwest ISO's development of a forward capacity auction appears to be an attempt to retain voluntary generation membership. OMS is not convinced that a forward capacity auction is the efficient means to retain membership.

The Midwest ISO has not been consistently clear about the goals of the proposed forward capacity auction. One expressed goal of forward capacity "markets" is recovery of so called missing money. Missing money, or revenues missing from the energy and operating reserves markets, has not been and will not be a significant problem in the Midwest ISO footprint given the vast majority of generation capacity is regulated under the traditional vertically integrated structure. Under the vertically integrated structure, generation assets are fully compensated by inclusion into retail rates for costs that they incur for expenses as well as capital investments. Therefore, the vast majority of generation assets in the Midwest ISO are not experiencing "missing money" problems. In Illinois, a restructured state, generation assets are no longer rate base items and therefore are merchant plants with no "guarantee" of full cost recovery through utility rates and ratepayers. The Midwest ISO's proposal seems to suggest that merchant plants in restructured states are "missing money" due to market revaluations of their asset base and that, therefore, they are or should be compensated through a capacity market payment to recover lost revenues ("missing money") due to the actual functioning of the marketplace seems extremely prejudicial to the States' policies with regard to restructuring. This appears to fully, or more fully, compensate the asset owners on a par with regulated, rate based plants without the associated State rate base/rate of return regulatory oversight.

Another expressed goal of a forward capacity "market" is to incent new generation. The market clearing mechanism of the PJM Reliability Pricing Model (RPM) is a variable resource requirement. This downward sloping demand curve is based on the theoretical cost of new entry of a peaking plant. Theoretically, the model is expected to return, on average overtime, and in combination with energy rates, revenues equal to the cost of new entry of a combustion turbine power plant. The RPM and other forward capacity markets are promulgated on the premise that they provide a forward expectation of revenue to investors who could potentially construct a new combustion turbine power plant. The inconsistency between states' rights and objectives and RPM capacity auctions is well illustrated by a bill recently passed in New Jersey that will subsidize the construction of 2,000 MW of base load capacity for up to 10 years. The bill says the state must take action to ensure that enough generation is available in the region because the incentives under the PJM RPM have failed.¹

¹ "New Jersey bill would subsidize 2,000 MW of new generation." Electric Power Daily, January 10, 2011, plattsenergyweekly.com.

The Midwest ISO currently has significant excess capacity in its footprint. Therefore, a forward capacity auction in the Midwest ISO cannot be justified at this time based on the need to incent new entry, even for weather related summer peak demand. When viewed in terms of these goals, the construct is essentially an outside-of-market uplift to account for what is viewed, by some, as insufficient revenue from energy and operating reserves markets, including scarcity price revenues and by others as the market revaluing assets based upon market forces. This is contrary to the direction the Midwest ISO is taking with Extended LMP, which is to improve market design by minimizing out-of-market uplifts. The OMS is not convinced that the implementation of a centralized forward capacity auction will achieve any desirable goal.

The goal of resource adequacy should be to assure cost-effective, future reliability. Accomplishing this is a complex endeavor, carrying wide-ranging implications. For example, many states in the Midwest ISO are engaged in energy efficiency, peak demand reduction, and other smart grid policy initiatives aimed at reducing the need for future investment in generation, particularly during the summer peak. Since the price cost margins would be greatest for existing capacity or new capacity, or peak generators, such a market could result in further life extensions to aging generators, additions of peak capacity that may not be needed, and/or skewing the market for new generators toward peak capacity that is relatively inexpensive to build but expensive to operate. Establishing policies that would pay to retain aging capacity or incenting new capacity to meet a diminishing peak demand is contrary to the policy goals of state legislatures and will impose costs on customers that are avoidable through much less costly and more efficient management of electrical demand. Further, an auction that distorts balanced decisions needed in choosing the appropriate amounts and types of supply-side and demand-side resources would not be in the public interest. The OMS instead sees the effort to establish a forward capacity auction as a means to preserve generator membership at the expense of electricity consumers. The result is a wealth transfer from consumers to generators.

What elements of the Midwest ISO proposal do you like, and why?

- **All LSEs are required to meet resource adequacy standards**

The Midwest ISO proposal appears to continue the present resource adequacy requirement that all LSEs must procure sufficient resources to meet resource adequacy standards at a target established by the Midwest ISO or state regulatory authority. The emphasis here is on all LSEs. The OMS supports this as consistent with the OMS August 12, 2010 Revised Resource Adequacy Principles. The OMS does, however, have concerns regarding the excessive reserve requirements (that result from the Midwest ISO application of the standards) as discussed in the sections below about load forecast uncertainty and the downward sloping demand curve.

OMS does like the proposal's concept of continuing to track contract changes between load and supplies to make sure there is comparability of service for resource adequacy.

- **Vertical demand curve located at a quantity equal to the PRM**

The current auction construct reflects a vertical demand curve located at the planning resource requirement. The OMS supports a vertical demand curve rather than a sloped demand curve.² With a

² PJM, for example, uses a sloped demand curve in its Reliability Pricing Model resource adequacy construct.

vertical demand curve, the resource requirement equals the amount necessary to meet reliability. However, with a downward sloping demand curve, the procured level of capacity could be less or more than the amount necessary for a specified level of reliability. With the exception of Illinois, the states in OMS where LSEs own generation (LSEGOs) are more concerned about procuring a specified level of capacity for a specified level of reliability than avoiding the consequences of price volatility associated with a vertical demand curve. This is because the prices, for the most part, are irrelevant, after the fact, and have little bearing on the states planning processes that typically look farther forward than the Midwest ISO construct. The overwhelming majority of OMS states regulate all segments of vertically integrated utilities, and therefore, load serving entities (LSEs) in coordination with their regulatory authority have greater control over the consequence of changes in price than they do over the consequences of changes in quantity.

The state regulatory authority can reallocate all funds regardless of auction price for the *planned* quantity, but payments to resources beyond that quantity, assuming that those resources are not under the state's regulatory control, represent financial outflows that cannot be reallocated by a state authority. An auction with a vertical demand curve clears the exact quantity of resources that a state commission understands it must plan for based on the Midwest ISO's planning reserve margin. An auction with a sloped demand curve has the potential to undermine a state's right to determine resource adequacy because it could obligate LSEs to purchase capacity beyond the planning reserve margin and make capacity payments to resources not under the states' regulatory control. An auction with a vertical demand clears the exact quantity that a state commission with LSEGOs must plan for based on the Midwest ISO's established planning reserve margin.

A vertical demand curve ensures that the equilibrium amount of capacity determined in the auction equals the planning reserve margin that meets the reliability standard. This is the target that the LSEGO states plan for, whereas a variable requirement from a sloped demand curve creates an unpredictable quantity that could result in an unnecessary increase in cost to ratepayers.

What elements do you oppose, and why?

- **Different method for applying load forecast diversity factor**

The Midwest ISO proposes to change the way it adjusts individual LSE peak load forecasts from a non-coincidental peak to a Midwest ISO wide coincidental peak. The current method uses a single system-wide diversity factor, recognizing the difference between the total of all LSE non-coincidental peak load forecasts and the lower Midwest ISO coincidental peak load, to reduce the Planning Reserve Margin (PRM) to that required to meet the lower coincidental peak load forecast. The factor for the 2011-2012 planning year reduces the PRM (Igen) from 17.4% down to 12.06%. The resulting single PRM, after changing to an unforced capacity (Ucap) basis, applies to all equally. Under the Midwest ISO's new proposal, the reduction due to diversity is individual, and depends on how much each LSE's forecasted peak requirement coincides with the Midwest ISO system peak load. The OMS has concerns with the new method, and is therefore leaning towards retaining the current "socialized" method of sharing load diversity as something that works and provides all with the benefits of being in a capacity pool. The current method seems to work well and is understood by all. The new method may be more complicated, difficult to implement, and will likely create new incentives for an LSE to construct forecasts that garner the greatest diversity for itself to the detriment of others. We say "may" because

the Midwest ISO has not yet provided details on how each LSE would adjust its forecast to the system-wide peak, or how it will address potential abuse from these new incentives that can introduce counterproductive outcomes with bias to abuse the pool sharing rules. When the Midwest ISO addresses these concerns, it will make it easier for the OMS to take a position.

●Use of Load Forecast Uncertainty (LFU) and the 3 Year Period

The Midwest ISO proposal still stands with 100% compliance (enforcement) of procured resources at 3 years. This proposal does not consider the methodology being used currently for the 1 year “planning” period. There is a subsequent enforcement at the next 30 days. The current LFU for one year is 4.45%. This incorporates the NERC Bandwidth Variance Calculations.

The LOLE team from the Midwest ISO estimated the change if a 3 year minimum compliance period for 100% of load to meet the various Planning Reserve Margins. Below is the presentation from the January 12th LOLE Working Group meeting.

Load Forecast Uncertainty(LFU) Sensitivities on Planning Reserve Margin(PRM)				
LFU (Type)	None	NERC Bandwidth		
		1-year	3-year	5-year
LFU (%)	0.00%	4.45%	7.68%	9.87%
PRM(Sys-Igen)	10.7%	17.4%	23.9%	27.6%
Load Diversity	4.55%	4.55%	4.55%	4.55%
PRM(LSE-Igen)	5.7%	12.06%	18.3%	21.8%
Sys-Wide XEFORD	7.36%	7.36%	7.36%	7.36%
PRM(LSE- Ucap)	-2.1%	3.81%	9.6%	12.8%



2011 Planning Year

Going to a 3-year full compliance would increase the installed system generation from 17.4% to 23.9%. That is a 6.5% increase. The PRM for each LSE, in Ucap, would move from 3.81% to 9.6% which is a 252% increase. To see the cost of such change consider the increased requirement of capacity and its associate costs. For example the Midwest ISO footprint is projected to have a coincident peak load at approximately 105,000 MW next planning year.³ The increase in installed reserves would be approximately 6,800 MW (6.5% of demand). Assuming this increase would be met by one of the lowest cost technologies, Combustion Turbines, the compliance at \$740/kW installed would increase the capital investment by \$5 Billion. The annual weighted cost of capital would be approximately 8% or so. At a minimum the annual cost would therefore be an additional \$400 million.

This added cost is a compelling argument to better balance the risk assessment with benefits and cost. One method for balancing the risk assessment is anticipating the “planning”

³“Planning Year 2011 LOLE Study Report.” the Midwest ISO.

requirement but not committing 100% financially to meet every MW without adjustment. A more balanced approach is to identify where and what type of resources could be used going forward to meet the next planning year. The commitment would depend on the amount of MW needed, where and what type of resources will fill the requirement at the final planning period.

OMS support of a shorter compliance period does not indicate OMS preference on the length of the planning assessment periods.

- **Downward-sloping demand curve**

The OMS opposes a downward sloping demand curve for the resource auction. The Independent Market Monitor's (IMM) objections to a vertical demand curve are based on the theoretical assumption that reliability is a well-defined product for which buyers of capacity can accurately assess the marginal benefit of an additional unit of reliability. This does not accurately describe the reality of the electrical grid. There is little empirical data to define the willingness to pay for additional reliability thus the need for the demand curve to be administratively determined. The slope of any demand curve currently used for capacity auctions is administratively determined and not based on empirical data describing the behavior of market participants. The price determined by an administratively determined downward sloping demand curve is no more accurate than the price achieved through a descending clock auction with a vertical demand curve that is closely monitored by the IMM. See the vertical demand curve discussion above.

- **One-sided incremental auction**

The OMS prefers reconfiguration or incremental auctions which allow capacity to be released when capacity beyond the most updated reserve requirement is procured, to one that allows only additional capacity to be procured. Capacity may be released in incremental auctions when an updated forecast indicates that expected load has decreased relative to the forecast conducted at the time of the base auction. Other parameters such as transmission transfer capability or decreased planning reserve margins could also result in over procurement of capacity in the original or base auction, and would allow capacity to be released in the incremental auction while still maintaining the target level of reliability. This would require an LSE or the Midwest ISO on behalf of LSEs to place a sell offer for capacity procured at the time of the base auction that is no longer needed because of a change in parameters, e.g. load forecast that indicates that less load is needed than previously expected. This would allow capacity suppliers needing to replace capacity because of resource cancellation, delay or de-rate to purchase that replacement from capacity that is already committed, but otherwise not needed, thereby reducing the level of total procurement. This type of incremental auction, allowing both buying and selling of capacity would allow the most efficient result in the capacity auction.

- **Transition auctions**

The OMS opposes the use of transition auctions. Instead, once the length of the forward delivery period is decided, the forward auction should be held for the delivery year out to the full forward period and the current Module E mechanism retained for all of the interim months until the beginning of the steady state delivery year. Transition auctions are unlikely to incent new entry as the time between the auction and the delivery year are not sufficient or at least less likely to incent new entry, and therefore represent wealth transfers. Transition auctions exacerbate market power problems in capacity markets

because potential new entrants are not able to discipline the market resulting in a propensity toward greater wealth transfers. Therefore, the use of transition auctions can only increase the cost of capacity that is already in existence. Furthermore, eliminating transition auctions will address the expressed desire for a smooth transition into the new capacity construct. For example, existing bilateral contracts can remain in force longer if transition auctions are not held but will need to be renegotiated sooner if transition auctions are held. Finally, transition auctions will increase administrative costs for the Midwest ISO and for market participants. Therefore, the OMS recommends that if the decision is made to adopt a forward capacity program, transition auctions be avoided. Instead, the Midwest ISO should begin the program with an auction for the steady state delivery year and retain the current monthly mechanism in the interim.

What alternative approaches do you recommend?

Some of the OMS states do not believe that the current construct will meet the Federal Energy Regulatory Commission (FERC) directives without some modifications: “The February Order was intended to complement the Midwest ISO’s traditional resource planning with market mechanisms, such as locational capacity requirements, which would allow the Midwest ISO to take advantage of the incentives that can be provided via price signals and market rules.”⁴ In light of this FERC directive we offer the following modification to the current construct as means of complying with the FERC Order⁵.

Each year, the Midwest ISO will calculate for each local resource zone, the maximum amount of capacity, as a percentage of total load located in the resource zone, which each LSE can procure from resources outside of its locational capacity zone.⁶ All LSEs within the Midwest ISO must demonstrate that they have the required amount of capacity (subject to import constraints) procured for the upcoming planning year (June 1st through May 31st) by March 1st of the planning year.

LSEs who do not meet their resource requirement will be required to participate in a mandatory *residual* capacity auction with import constraints. Under this construct the import constraints for self-supply and bilateral arrangements will be allocated based on load percentages and the import constraints for *residual* capacity will be allocated through the auction process.⁷

The 3 years forward period would be a planning period with declaration of plans to meet existing firm load of each year. The planning period could assess and clearly point out areas of import or export constraints. The LSEs could adjust their respective supply and demand side programs and/or transmission companies could provide a possibly less expensive solution.⁸

What information/details still need to be provided?

⁴ Order on Compliance Filing (Issued June 8, 2010), Docket No. ER08-394-024, p. 8.

⁵ This is a variation on the “Conceptual Elements of a Voluntary Approach” included in the **COMMENTS OF MGE, WPPI, and Wolverine submitted for the 1/20/11 SAWG meeting.**

⁶ The ICC does not support the contents of this paragraph and the immediately following paragraph.

⁷ This proposal is not necessarily supported by all of the OMS states.

⁸ While the Michigan PSC supports the current practice of Midwest ISO multi-year planning, it opposes a requirement to procure capacity resources beyond the immediately forward 1-year planning period.

- State Integrated Resource Planning Type of Process

The proposed Resource Adequacy (RA) construct would broaden the scope of the Midwest ISO's activities and increase the potential for conflict with state statutes and state regulatory authority. Greater clarification is needed as to how the Midwest ISO plans to address this issue. One example is resource planning. The RA construct will broaden the scope of Midwest ISO's activities beyond strictly transmission planning for the Midwest ISO footprint to also encompass footprint-wide planning considerations regarding generation. Primary authority for resource decisions, generally, and resource planning, where it is required as a public endeavor, resides with the state regulatory commissions. Consequently, the Midwest ISO's obligation to ensure long-term reliability and comply with requirements of the FERC will necessitate coordination with the variety of resource planning processes in the various states comprising the footprint. This variety ranges from no public resource planning process to quite detailed resource planning processes with specific requirements that feed in to a host of other company-specific issues, including many that relate directly to ratemaking. Also, among those states with resource planning requirements, the processes currently are company-specific; i.e., they are not geared for planning considerations across an entire state or broader region. Therefore, a significant challenge for the Midwest ISO will be to work with states, including those with no current planning requirement, to develop a meaningful resource adequacy planning process that will address needs from the regional perspective while respecting individual state authority. The following are some specific issues that need to be addressed:

- The Midwest ISO needs to articulate and propose a process to collect information from utilities on the state resource plan decisions.
- The Midwest ISO needs to articulate and propose a process to integrate the information in the state regulatory decisions into a meaningful plan for the footprint. For example, this process needs to account for factors like the following: the frequency of state resource plan filings are likely to vary; the time periods covered in each utility plan very likely will not match; the states have different approaches and level of detail in the plans; states may treat energy efficiency and demand response in different ways, among other issues.
- The Midwest ISO need to develop a plan for consultation with state regulatory authorities over questions of interpretation of plan decisions.
- Likewise, the Midwest ISO needs to articulate and propose a process to resolve potential conflicts among plans— who may be a “winner” and some who maybe a “loser” and how that is decided for resource qualifications and potential risks to the other LSEs?
- The Midwest ISO needs to articulate and propose a method for considering the resource adequacy issues for utilities in states that do not have resource planning processes at all, or have ones that do not cover all utilities, or are limited in various ways.

- Clear definition of zonal boundaries

Will they change? What conditions might require a change?

- How LSEs are supposed to forecast to the Midwest ISO's coincident peak in the future? How will the Midwest ISO know the diversity assumed by independent forecasts? How will the Midwest ISO assure accurate forecasting?

- How LSEs are supposed to do monthly forecasts for transition period

- Auction details

- Shape of Demand curve

- Will it still be descending clock?

- How will existing capacity positions be treated in the auction?

- Are they guaranteed deliverability under the import and export constraints? And for how long?

- Distribution of excess revenue when a load zone price is greater than a resource zone price

- What happens if the load zone price is less than the source load price?

- How will market power monitoring and mitigation be conducted for the auction? And what will be the cost of this?

- Credit requirement changes

- Administrative cost of implementing the current proposal versus alternative constructs or modifications that address the FERC directive

- Details of how capacity portability will work. Is there a way that capacity in the Midwest ISO or PJM can be dedicated to the other RTO in a manner that is similar to being a member of the other RTO?