

State Regulatory Sector Response September Hot Topic on Resource Adequacy

Before any changes to the current Resource Adequacy Construct (RAC) are considered, the State Regulatory Sector, comprised of the members of the Organization of MISO States (OMS)¹, urges MISO to keep in mind that **resource adequacy within MISO is largely a state and local responsibility**. Unlike most other RTOs in the Eastern Interconnection, MISO is predominately composed of traditional vertically-integrated utilities subject to state and local regulation. The vast majority of OMS members exercise plenary and exclusive jurisdiction over decisions regarding the type and amount of generation constructed within their boundaries by the utilities they regulate and the costs those utilities are allowed to recover in retail rates.

To date, MISO's RAC has recognized and respected state and local regulators resource adequacy decisions. By doing so, MISO's RAC has not attempted to force new generation into regions that state and local regulators have determined do not need additional capacity. The Planning Reserve Auction (PRA) is appropriately a voluntary component of the RAC.

FERC recently recognized and reinforced the jurisdictional role of state and local regulatory authorities in resource adequacy matters in Docket No. ER11-4081, explaining why major changes – implementation of a MOPR, mandatory capacity market, and downward-sloped demand curve – to the RAC were unnecessary. In the November 2015 Order, FERC stated:

“This market and regulatory framework, with the largely vertically-integrated nature of the MISO region, has provided the basis for resource sufficiency in MISO for a significant period of time, and therefore there appears to be no need... to require a mandatory auction to manage resource adequacy.”²

“We are not persuaded that a mandatory centralized capacity auction construct is necessary to ensure resource adequacy in the MISO region. Such assertions are unsupported given that utilities in MISO have historically procured sufficient capacity to meet their needs.”³

“We disagree with [the] argument that the current MISO capacity market structure lacks a robust and transparent means of incenting merchant generators to remain viable.”⁴

“We generally accept the role for state regulatory authorities in resource adequacy requirements.”⁵

Given FERC's findings, OMS views the following questions as attempting to address minor, incremental changes to the capacity construct (except for the CRS applicable to only retail choice jurisdictions).

1. **How should our planning for resource adequacy and capacity change? What changes will be required of MISO's resource adequacy, market design and**

¹ The Illinois Commerce Commission, Indiana Utility Regulatory Commission, and Manitoba Public Utilities Board abstain.

² ER11-4081 November 20, 2015 Order, FERC ¶ 44 at P 22.

³ ER11-4081 November 20, 2015 Order, FERC ¶ 50 at P 24.

⁴ ER11-4081 November 20, 2015 Order, FERC ¶ 110 at P 51.

⁵ ER11-4081 November 20, 2015 Order, FERC ¶ 116 at P 53.

business processes to ensure that resources counted as capacity are available and performing as accredited?

Planning for resource adequacy will continue to happen at the state and local level. This allows states and local jurisdictions to consider their unique policy goals, resource availability, local environmental concerns, and the broader interests of their ratepayers. This approach allows for state-level experimentation to occur and enables jurisdictions to make planning decisions that are in their own best interests. For these reasons, OMS believes that MISO need only make incremental changes to its resource adequacy construct in the near term. MISO should not look for additional changes to the already long list of modifications MISO is working with stakeholders to develop.

For MISO's market design, OMS is an active participant in several ongoing stakeholder processes that are considering proposals impacting the MISO capacity construct. These proposals include the Competitive Retail Solution, Seasonal Construct, and Locational proposal. OMS has raised concerns with all of these proposals and is optimistic that major issues will be addressed prior to implementation and benefits will ensue, especially from the seasonal and locational proposals.

A primary focus of OMS during these stakeholder processes is ensuring that resource adequacy planning remains firmly with state and local regulators. For instance, it is imperative that the current Competitive Retail Solution is shown not to impact existing state and local authority and processes. OMS appreciates that MISO created guiding principles for the development of its proposal, which include “preserving the existing construct” and maintaining market efficiency and reliability. OMS continues to monitor this proposal, pointing out deviations from these principles when they occur.

OMS believes the Seasonal Construct will bring reliability benefits to the MISO system. As the fuel mix within MISO changes, with corresponding changes in fleet operating characteristics, it will be increasingly important to have transparency into generator performance and availability on a more granular level. The change to a seasonal construct would provide greater visibility to MISO into the resources that regulators and their LSEs have determined are necessary to maintain resource adequacy throughout a given year. Additional levels of reliability could be reached through seasonal testing requirements in place of the current annual generation verification testing. Economic benefits can also be realized by reducing the reserve requirement for lower load, non-summer seasons. The approach is reasonable, leaving decisions with regulators and adding flexibility.

OMS does not support the inclusion of any “pay for performance” mechanism in MISO's capacity construct. What has been implemented in eastern ISOs is not needed in MISO for a variety of reasons, especially with the implementation of a seasonal construct. The issues with performance and the incentive to invest in maintaining a resource's ability to come online are not as large an issue in MISO since regulated LSEs have the obligation to serve load.

Fuel assurance is another major component of making sure resources are available and performing as planned. Retail regulators typically monitor resource availability issues for jurisdictional entities under the basic tenet of utility regulatory authority: ensuring safe and reliable utility service at reasonable rates. Though most states' and local enabling statutes do not specifically address fuel assurance, they do encompass maintaining adequate fuel to ensure

reliable service in a cost-effective manner. Additional information on various state and local actions and authorities in this area were explained in an April 2015 filing to FERC.⁶

2. What additional products and services in either the electric or gas industry would be needed to provide fuel assurance during periods of high natural gas demand?

Fuel assurance is a broad topic that can include a range of generator-specific issues, including the ability of MISO to have a portfolio of generators with access to sufficient fuel sources to meet system needs and maintain reliability at all times. Fuel options continue to evolve, as discussed in Question 4, with increased renewable projects, battery storage, and distributed generation, and investments in energy efficiency and demand response, all of which can help meet system demand and maintain reliability. Importantly, the need for fuel assurance is naturally diminished by a variety of factors across the MISO footprint, including diverse extreme temperatures, weather events, and usage patterns across an expansive geographic footprint.

On the natural gas side, generator location can drive very different impacts on the need for flexibility or certainty in the gas markets. For this reason, products should be crafted narrowly to address fuel assurance concerns for the generators that need it but not be applied to all. Furthermore, compared to other regions, studies have shown that the MISO region has a very robust and dependable natural gas system. This infrastructure, and the flexibility it affords, should be utilized for the benefit of ratepayers.

The increase in reliance on natural gas generation may cause a need for additional pipelines, storage, and/or communication infrastructure to maintain current levels of reliability and flexibility. MISO has established relationships with a few of the interstate pipeline operators in its region, and MISO should continue to establish relationships with additional pipeline and storage operators. MISO should have open dialogue with all participants of the natural gas industry to discuss increasing challenges across the electric and gas industries and proactively work to solve the foreseeable issues.

One key area that MISO could provide additional services is in the commitment of natural gas resources. Providing financially binding commitment earlier than one day in advance, especially during forecasted extreme winter weather, would allow gas generation to procure the needed quantities of fuel at a reasonable price. To help balance this seemingly preferential commitment process, this approach would only be needed in periods of peak demand or extreme weather conditions where it will be likely that a majority of generators will eventually be committed. MISO is currently evaluating this type of market change through its Market Roadmap process and OMS is supportive of this project being implemented.

To assist state and local regulatory authorities in fully utilizing the flexibility given to them through their various state and local planning processes, MISO should support state and local planning activities wherever possible. MISO could support these efforts by providing regulators with any data and communications it has concerning the regional availability and deliverability of the various types of generator fuels. A formal process for this type of information sharing should be developed.

⁶ <http://misostates.org/images/stories/Filings/FERC/2015/AD13-7andAD14-8-Filed21Apr15.pdf>.

Lastly, the increasing amount of wind generation within the footprint can help offset fuel availability or frozen coal pile events during extreme winter weather. This was observed during the polar vortex of 2014 and should be considered when assessing fuel assurance⁷.

3. What steps could both industries take to ensure that their products, market processes, planning practices (pipeline and transmission) are synchronized to the maximum extent practicable?

MISO should work with the natural gas industry and participate in the North American Energy Standards Board (NAESB) standards electric gas coordination meetings and technical conferences. Continued coordination between MISO stakeholders and natural gas pipeline operators will help ensure that there are available transportation services to support the system needs and that they are synchronized to the maximum extent practicable. MISO should continue its synchronized planning processes by being mindful of current and projected locations of pipelines, transmission lines, and generation. Ongoing computer modeling via Plexus, EGEAS, and PROMOD should continue to help inform stakeholders.

As a result of FERC Order 809, natural gas fired generators have a few more opportunities to nominate and balance their gas and transportation services throughout the operating day, including the winter morning electric ramp up and evening ramp up and, of course, the massive ramp up on a summer peak day. Currently NAESB is holding meetings as a result of the directive from FERC in Order 809. In Order 809, FERC stated:

“We request that gas and electric industries, through NAESB, explore the potential for faster, computerized scheduling when shippers and confirming parties all submit electronic nominations and confirmations, including a streamlined confirmation process if necessary. Providing such an option would enable those entities that need greater scheduling flexibility to have their requests processed expeditiously.”

As a result of this directive, NAESB has been holding meetings and plans to “submit standards or a report on the development of such standards” by October 17, 2016 to FERC. MISO should present its understanding of this report to stakeholders at a meeting of the Resource Adequacy Subcommittee as soon as practicable following publication.

4. Grid-scale energy storage has advanced significantly. What capabilities do you see this technology providing? When do you expect robust adoption of this technology to occur? As the technology develops, how should MISO evolve current products and processes to adapt?

Energy storage can provide a variety of capabilities and services within MISO markets, including capacity, frequency and voltage regulation, and congestion relief. A new storage definition may need to be developed to accommodate battery storage technologies and the advanced capabilities they may achieve. Defining a “New Storage Resource” was an item to be prioritized as part of the Market Roadmap process and OMS supports MISO moving forward with stakeholders on this effort.

The primary question for MISO and its stakeholders is how storage is allowed to participate, and what, if any, restrictions will be placed on storage. For instance, will storage be able to recover transmission costs as a Non-Traditional Transmission Alternative (NTTA) through FERC

⁷ <http://www.nerc.com/pa/rrm/Pages/January-2014-Polar-Vortex-Review.aspx>.

formula rates, while also participating in the energy, ancillary, and capacity markets? While addressing how storage capabilities are allowed to participate within MISO these jurisdictional issues must also be addressed..

MISO recently responded to a FERC data request in Docket No. AD16-20 regarding energy storage. FERC's questions were primarily pertaining to the description of status quo rules for storage within the RTO tariff and business practices, what market barriers currently exist for storage, and what the RTO is currently doing to address needed changes. One primary issue that OMS took away from MISO's response was that the currently defined Storage Energy Resource (SER) was designed with short-term flywheel type technologies in mind.

FERC has several efforts underway to investigate Generator Interconnection Queue, Energy Storage, NTTA, etc. While FERC may be attempting to look at all RTOs, different market structures among these RTOs may complicate the ability to craft simple solutions that apply to all of the RTOs.

5. What changes are necessary to improve the recognition and visibility of demand response resources? What changes need to be considered related to the product design, integration and pricing of demand response resources going forward in the MISO market?

Before OMS can answer this question, MISO needs to clearly communicate what additional information on location, activity, and other descriptive information on registered resources is needed for increased visibility and why it is needed. For example, does MISO need to know the bus where a DR resource is interconnected, or will the general LSE service territory or Local Balancing Authority identification suffice? Also, MISO should categorize informational needs by market type. For instance, if MISO needs more granularity for aggregated resources that will participate in ancillary services, this granularity may not be needed for resources that are only participating as Load Modifying Resources in the capacity construct.

DR policies, programs, and retail customer actions are increasing the amount of distributed generation in some areas of MISO's footprint. MISO should coordinate with LSEs in these areas on what visibility is needed. The state or local regulatory entity that has regulatory authority over these LSEs should also be included in that coordination effort.

With regards to MISO operational changes, OMS would like to see MISO fully address the market barrier issues of minimum participation threshold and ability to aggregate DR resources. Many LSE legacy programs utilize direct load control of aggregated air-conditioning units. Electric water heater programs are being developed as well that need to aggregate across larger expanses of rural areas for the purposes of providing ancillary services. These issues were discussed for well over a year at the DRWG and there was an immediate attempt to table the items at the MSC once the DRWG was retired. Stakeholders expressed strong opposition to ending this discussion making it clear that these issues need to be addressed. OMS believes MISO should take these issues up with stakeholders at the MSC now. A presentation should be provided to include what is established in other RTO markets and what issues are complicating MISO's ability to allow: 1) a lower minimum participation limit, and 2) market participant aggregation of DR resources, both across LBAs and across buses. After the presentation, stakeholders should be given a chance to provide feedback and then MISO should map out a plan for moving forward. If changes can be made to allow integration of smaller DR resources, then these resources will quickly add up and likely provide a significant new amount of ancillary service and, perhaps, energy and capacity within MISO markets.