

Feedback on the MISO-SPP Whitepaper on Seams In Response to OMS and RSC

The Clean Grid Alliance (CGA, formerly known as Wind on the Wires), the Advanced Power Alliance (APA, also known as the Wind Coalition), and the American Wind Energy Association (AWEA) greatly appreciate the SPP Regional State Committee (RSC) and the Organization of MISO States (OMS) focusing on challenges and opportunities along the seam between MISO and SPP. The seams issues of today are not new and are the result of the localized way our country electrified throughout the 20th century. Financial savings and improved reliability have come about from the formation of MISO and SPP in the 21st century, which eliminated individual utilities' seams within each RTO. Despite these improvements, a dynamic exists today along the seam between RTOs similar to that which previously existed on the seams between the utilities. There are real costs of this market and transmission seam. The potential savings and increased reliability that could be gained by addressing inefficiencies should be studied and quantified. Such an analysis has not previously occurred, and we believe that without the intervention of the states it likely will not occur. In response to the questions posed by the RSC and the OMS we discuss a number of the seams issues we believe need to be addressed, and we stand ready to assist in this process as it moves forward. We are glad you have brought this topic to the forefront.

Responses to OMS/RSC Questions:

1. What do you believe to be the single most important/impactful seams issue and what barriers are preventing resolution? If applicable, include two to four additional priority items the regulators should focus on.

MISO and SPP's paper states that "one primary goal of joint operating agreements is to advance the creation of "seamless" markets and eliminate the inefficiencies that inhibit economic transfers between the neighboring regions." We couldn't agree more. The most important seams issue is MISO and SPP's limited ability to move power across the artificial and physical barriers that exist between the RTOs. Some of these barriers are physical, due to a lack of sufficient transmission capacity to take advantage of lower cost power, but in many cases they are artificial, due to market and operational differences. These barriers have a significant cost to consumers in both higher market prices and increased reliability risks. The limitations to flows across the seams are especially obvious during extreme events such as maximum generation events where there is a risk of losing load, and during severe weather situations that result in transmission and generation outages. However, we believe that there are substantial savings that would be gained for consumers by reducing the barriers to moving power across the seams during many other times of the year that could bring lower cost energy to consumers. Moving to a more seamless border would improve dispatch efficiency of the existing generation in both regions, saving consumers money and increasing reliability. In light of MISO's increasing concerns about meeting future reserve requirements and SPP's current position of being long in capacity, access to lower cost capacity could be extremely valuable. Further, a joint market dispatch could more efficiently resolve congestion along the seams.

The biggest barrier to moving forward with reforms is that the problem is not well documented and quantified. We recommend that a study be conducted by an independent entity to examine the economic and reliability benefits to consumers of (1) minimizing physical constraints, (2) improving market and operational compatibility, and (3) reducing administrative barriers. By quantifying the value of fully eliminating the seam, Commissioners could have a sense of the scope and scale of benefits being left on the table today, even though full elimination of the seam is not the ultimate end goal. We provide more specific suggestions on the scope of such a study in response to question five below.

Other Issues of Importance:

Rate pancaking and unreserved use penalties–

Rate pancaking was a significant issue between utilities prior to the creation of RTOs. Now that same issue exists between many regions including between RTOs, though it has been eliminated along the MISO-PJM seam. Given the potential for new resource development in the MISO and SPP regions, eliminating the pancaked transmission rates between the two regions could assist load serving entities in choosing the most cost effective new resources to serve their load.

MISO and SPP have different approaches to charging for transmission use, as SPP continues to focus on transmission usage on a transmission path basis, rather than transmission service to the market. The white paper identifies a concern around unreserved use penalties, and this becomes a barrier to construction of new interregional projects, as under SPP's current understanding, MISO would need to both pay its share to construct an interregional line, and then pay transmission service on that line to use it. This needs to be addressed both to eliminate the barriers to interregional upgrades and to avoid double charging customers.

Pseudo tied generators-

The white paper identifies some concerns and challenges related to pseudo tied generators that to date have not been a concern as there are limited pseudo tied resources between the two RTOs. We do believe this is an issue that should be evaluated for improvements before a problem arises. As mentioned above, there may be more LSEs interested in purchasing power from resources in the other RTO, and these purchases that can bring low cost energy to consumers should not face unnecessary barriers. As identified by the IMM, exaggerated congestion pricing should be addressed as well for the pseudo tied generators to eliminate inefficient cost barriers.

2. How should the RTOs weigh the benefits of more efficient seams operation against focusing on maximizing intra-RTO efficiencies and operation?

It is important for the RTOs to focus on improvements to their internal markets and operations, as well as improvements on the seams. Significant progress has already been made by both MISO and SPP, increasing efficiency and improving their markets over the years that MISO and SPP have been operational. Interregional processes are a relatively new area of focus and opportunity that deserve additional attention. Important opportunities for consumer savings lie in seams improvements, many of which may fall in the category of low hanging fruit or quick fixes. A study of the potential benefits as we have described in these responses could help guide the states, the RTOs, and the stakeholders in determining the most beneficial efforts to pursue first.

3. What areas of the whitepaper do you agree and disagree with? Why?

We agree there are some improvements likely under the proposed changes to the JOA that relate to interregional planning, but we have concerns about the elimination of the joint model especially with regard to how this may impact the ability of the regions to agree on cost allocation when each region's study models do not use the same assumptions. The better aligned the study assumptions are, the less potential there will be for stakeholders in each region to argue that the other region is not paying its fair share of the costs of interregional projects. Also, given that MISO and SPP have decided on the removal of the joint model, the result should be a much less time consuming coordination process. Yet we are disappointed the two regions were not able to agree to do an interregional study annually, which could be very beneficial for stakeholders. There is a great need for improved interregional transmission planning as no interregional upgrades have been approved across the MISO and SPP seam.

We do appreciate MISO and SPP's efforts to develop a TMEP type process to allow the regions to jointly support smaller targeted transmission solutions that can address areas of historic congestion in a short time frame. While, this is still a work in progress, we support it, and urge the RTOs to work to include these types of interregional transmission upgrades in their interregional planning process. The forward-looking planning process often does not identify transmission issues that show consistent historic congestion. PJM and MISO have started using this approach and it has resulted in approval of several smaller seams upgrades that are expected to reduce costly congestion and that will pay for themselves in only four years.

Improvements are needed to the affected systems studies for interconnection requests. This process should be streamlined and well-coordinated to meet required interconnection study deadlines in each RTO. Interconnection customers would also benefit from increased transparency on the coordination, timelines and study results. In addition, it is important that both regions are using similar study assumptions so that interconnection requests receive comparable treatment in both regions, and upgrades identified in studies of one RTO do not inappropriately shift the cost burden for new transmission to a neighboring RTO's interconnection customers. In the case of neighboring RTOs like MISO and SPP, it is rare that the same study assumptions and procedures are used in practice. Between MISO and SPP the differences in modeling and studying procedures are quite pronounced, and while we do not expect them to be exactly the same, they should be much better aligned. These differences do further emphasize the need for close coordination, well documented policies and procedures, and very transparent processes between both systems.

Another concern we have regarding interconnection seams issues is the fact that MISO does not model seams upgrades with SPP during the DPP Phase I or II of its interconnection study process. Instead, MISO creates Network Upgrade solutions that are solely constructed on MISO TO wires during DPP1 and DPP2. While lower costs alternatives may exist that cross the seam or are in the neighboring region, MISO does not look for lower cost seams projects with SPP until DPP Phase 3. This means that ICs are forced to withdraw before these lower cost seams solutions can be investigated.

One key issue that seems to impact a number of areas between the regions is the fact that conceptually the regions understand the use of and sales of transmission capacity very differently. MISO approaches transmission service from an overall system-wide deliverability perspective that is refreshed/studied annually, reflective of the use of the transmission system in the market. On the other hand, SPP focuses more narrowly on transmission service on a source to sink or transmission path basis and charges for it that way, even though electricity does not flow nor does the market utilize the grid in that manner. We think this topic is one worth exploring with stakeholders, the RSC and the OMS. It would be helpful for all if MISO and SPP would put on a half day workshop to educate everyone on how they value, sell and charge for transmission in each region. This could be followed with a discussion of how these differences impact transactions across the seams.

4. Are there seams issues that you believe were left out?

Resilience:

There was no mention of the potential resilience benefits to more robust transmission connections across the MISO-SPP seam, or to elimination of administrative barriers to use of transmission capacity across the seams during extreme events. MISO has experienced several maximum generation events over the past couple years. The January 17, 2018 event was described in the MISO-SPP white paper, as well as lessons learned and improvements both RTOs made to coordination protocols that they believe resulted in the improved coordination during a similar event during September of 2018. However, none of those improvements indicate consideration of more robust transmission connections between the two RTOs that could help facilitate emergency transfers to avoid loss of load in future extreme events. We believe that removing physical and administrative limitations to energy transfers should be examined given the potential to improve avoidance of or recovery from loss of load during such events.

Diversity of Intermittent Resources:

As the amount of variable energy resources increases in both SPP and MISO, there should be consideration of how the two RTOs can capitalize on the benefits of the diversity of those resources. Studies have consistently shown that locational diversity of variable resources both reduces the need for regulation to balance these resources and increases the overall capacity value of a variable energy fleet. A larger footprint results in greater locational diversity.

5. What seams issue(s) require additional analysis and study prior to solution identification? What should the goal of such an analysis/study be and what metrics or other measurable information should it include?

We described the need for a study of the economic and reliability impacts of existing barriers on the MISO-SPP seam. This study should help guide the need for and scope of further work to capture net benefits of moving to a more seamless boundary. We suggest the following for inclusion in the scope of such a study.

1. The impact of lowering the barriers to energy sales from generation sources in one RTO by entities in the other;

2. The costs and benefits of lowering or eliminating the pancaking of transmission rates and unreserved use penalties;
3. The barriers that exist and the benefits that could be attained if capacity located in one RTO were more easily accessible to meet long term capacity needs in the other;
4. The impact of joint dispatch on the reliability of the two RTOs;
5. Reduction of the barriers to long term energy and capacity sales by solving problems in the congestion hedging mechanisms that currently exist; and

The impact of lowering the barriers to energy sales from generation in one RTO to entities in the other

MISO and SPP appear to have regular opportunities to take advantage of the difference in the price of energy in each RTO. However, transactions across the seam in the day-ahead and real time markets do not reflect this. The barriers to these transactions include the cost and administrative hurdles that would not exist but for the fact that two different entities, each with their own rules and requirements, are operating an integrated electric system in different ways. It would be very helpful to understand the cost of the seam to consumers and the impact to the reliability of the grid. A study of those costs and the benefits could begin to inform commissioners and stakeholders of the importance of addressing seams issues in a way that has not been previously done. This information could guide the need and scope of further work.

The costs and benefits of lowering or eliminating the pancaking of transmission rates and unreserved use penalties and improving congestion hedging mechanisms

Moving power across the seam requires payment for transmission service in both regions. Failure to make transmission service reservations for the correct amount can result in additional penalties. The impact is a significant impediment to both long-term and short-term transactions. Pancaked transmission rates for transactions across multiple utilities were eliminated within the RTOs as a result of their formation. The result has been the growth in markets that facilitate access to lower cost energy across large regions spanning multiple utilities. Negative impacts from the loss of transmission revenues were generally more than made up by the lower cost of energy. The same concept has been applied for several years between MISO and PJM. It would be highly informative to study the costs and benefits of reducing or even eliminating the pancaked transmission rates between the MISO and SPP.

Further, long term contracts to move power between the two RTOs have been severely hampered by the lack of sufficient protection against congestion when transmission service is acquired. The problem is particularly acute in the SPP where ARR/TCRs from Point to Point transmission service have been of little value, exposing the parties to very large and unanticipated costs. The impact of this should be examined as a part of understanding the cost of transacting energy between the RTOs.

The barriers to and benefits of sharing excess capacity among RTOs

SPP and MISO both have capacity requirements that must be attained by load serving entities in the respective regions. Based upon the current supply of capacity in both regions and the

limitations on transmission capacity within the RTOs it is likely that there are savings from easier access to capacity across the seams. Currently, SPP is long on capacity and that may provide lower cost alternatives to building new capacity or transmission in MISO. Over the long run and in certain areas of the SPP the opportunity may be reversed. In the formation of the RTOs, the overall reserve margin required by all the utilities was reduced. A similar result could happen if the barriers to capacity access between the regions were removed.

The impact of joint dispatch on the reliability of the two RTOs

Recently, there have been numerous events in SPP and MISO where reliability challenges have arisen that endangered the ability to meet load requirements. While the RTOs have been discussing and attempting to address the way the grid is managed during these events, it would be helpful to know if the issues would have been as problematic if the seam had not existed. Again, this does not mean that the goal is to eliminate the seam, but to gauge the value of reducing its impact through changes in policy.