

MISO Advisory Committee
April 22, 2015
Hot Topic: Interregional Planning
Organization of MISO States Response
For the State Regulatory Authorities Sector

The Organization of MISO States (OMS) appreciates this opportunity to provide the MISO Board of Directors, MISO Staff and other stakeholders with the State Regulatory Authorities' sector perspective on Interregional Planning. The OMS has previously provided responses on this topic for the June 2011 and October 2014 Hot Topics (available on the OMS website). In the October 2014 Hot Topic response we ranked Interregional Planning as the single most important seams topic. The OMS continues to urge MISO to explore any potential options and stakeholder suggestions to enhance interregional planning outcomes that will identify, approve and result in the construction of needed and beneficial interregional transmission projects. MISO has focused attention and resources on various large projects over the years: Day 2 energy markets, ancillary services, the development of MTEP, and changes to the resource adequacy construct to name a few. We support MISO turning its attention and resources to interregional planning at this time so that MISO can develop and operate an efficient and optimal transmission system that benefits all of the customers across the MISO footprint.

Foundational questions

- 1. What should be the objectives of interregional transmission planning according to your sector? Does the current interregional transmission planning process meet these objectives?**

The objectives of interregional transmission planning should be the same as for regional transmission planning: create an optimally-planned transmission system that ensures consumer demand is met reliably, economically (i.e., at the lowest costs to customers), and furthers identifiable public policy mandates and goals (e.g., state renewable portfolio standards). Interregional transmission planning should also be effective and efficient. That is to say, the interregional transmission planning processes should ensure the transmission solution selected to address a discrete transmission issue (e.g., potential NERC violation, unnecessary congestion) is the most cost-effective transmission solution available that address the identified transmission issue.

Moreover, effective and efficient interregional transmission planning processes eliminate any unnecessary barriers that inhibit needed transmission solutions from moving from the planning to the development stage. One such barrier is cost allocation. When the set of customers who pay the cost of a new transmission project is significantly different from the customers who receive demonstrable benefits, inequities may be perceived within a region or between regions. While applying proper cost allocation is complicated, especially given the added complexity associated with interregional transmission planning, it is necessary.

Finally, to achieve the aforementioned objectives, interregional transmission planning should be as robust as regional transmission planning. In other words, transmission planning processes must not bias regional transmission over interregional transmission or vice versa. Transmission planning cannot occur in a vacuum. Planners cannot ensure the transmission system is reliable, economic, and advances public policy without considering all possible transmission solutions, regional and interregional solutions alike. Customers near the seams should not be denied the benefits and costs savings of enhanced transmission simply because they are located near a seam.

The current interregional transmission planning processes do not achieve these goals. Consider the MISO-PJM interregional transmission planning process that occurs within the MISO-PJM Joint Operating Agreement (JOA). Even though the MISO-PJM JOA requires a higher level of interregional planning than the minimum requirements of Order 1000, no projects have been approved under this process.

This is due, in part, to the relative newness of regional transmission organizations themselves. Since their creation roughly a decade ago, RTOs like MISO and PJM have concentrated on developing markets to manage transmission congestion and robust transmission planning processes within their own footprints. It is understandable that interregional transmission planning may have not yet reached the peak of its possible success. In the multi-year process of Order 1000, FERC first processed the regional compliance filings before turning to the interregional transmission planning and cost allocation issues. It appears that interregional transmission planning and cost allocation is now ripe for more focused efforts and could be ready to contribute to additional efficiency and cost-effective improvements in MISO interregional transmission planning efforts.

2. Does the current interregional planning process allow for proper identification of projects that solve system issues? If so, how? If not, what does your sector view as impediments to effective interregional planning?

In general, no; the current processes are not adequate. Differences in definitions, models, and approaches have all made it difficult for cooperation and planning to progress across the various seams. The following impediments, among others, inhibit MISO and its neighbors from identifying interregional transmission projects that would better ensure the transmission system is reliable, economic and advances public policy:¹

Reliability Projects: One impediment to effective interregional reliability planning is the 2013 change in cost allocation for MISO Baseline Reliability Projects.² This change caused MISO to propose interregional reliability planning approaches for its SPP and PJM seams which were rejected by FERC. MISO is now working on new approaches to remedy this impediment in the RECB Task Force process, beginning with the MISO-PJM process since that order was issued by FERC before the MISO-SPP Interregional Order 1000 decision.

Economic Projects: The impediments to effective, efficient interregional economic planning differ depending on the seam in question. For instance, MISO and PJM have conducted cross-border economic transmission planning as far back as 2009. Indeed, the two entities conducted a more global study in 2013-14, which resulted in the identification of potentially cost effective projects. However, none of those projects passed MISO's intra-regional standards. Given this history, OMS supports implementing the "lessons learned" during the last MISO-PJM IPSAC, including but not limited to, better aligning the regional and interregional processes and model assumptions, clearly defining the scope of work early in the process and the

¹ The OMS recognizes three primary types of transmission projects: reliability, economic and public policy. Interregional transmission planning should seek to identify all three types of projects, but note, OMS does not believe the methods and processes for each project type need to be unique.

² Although the OMS sees the recent elimination of cost sharing for BRPs as an obstacle to interregional reliability transmission planning, it does not support re-introducing cost sharing for regional reliability transmission projects (i.e., BRPs) at this time. If MISO's efforts to ensure the recent BRP cost allocation change does not impede interregional reliability transmission planning prove unsuccessful, OMS's opinion on this matter may change.

Joint Future(s) and their roles, and allow more stakeholders more time to review and offer comments regarding the interregional planning model(s).

Furthermore, the OMS supports the reduction of significant congestion payments from MISO to PJM and vice versa. However, the OMS also recognizes that completely reducing congestion to zero is cost-prohibitive. Rather, there is an optimal range in the middle where total system costs are minimized. The OMS supports the periodic MISO Top Congested Flowgates studies in which MISO looks to resolve the most congested areas on its system. We also encourage the efforts of MISO and PJM in examining such flowgates as they relate to MISO-PJM seams.

With regard to the MISO-SPP seam, economic planning across that seam is in its infancy, and the OMS is closely following the MISO-SPP IPSAC process. Agreements such as the Operations Reliability Coordination Agreement (ORCA) and any that may result from the current MISO-SPP dispute may establish flow limitations that should be incorporated into the economic planning process. Ideally interregional transmission planning and optimal projects would be based on the physical characteristics of the transmission system. Construction and funding of a forty year asset should not be based on artificial limits created by RTO to RTO agreements.

Regardless of the seam, a possible impediment to economic planning across all seams is MISO's (inter)regional criteria for economic projects (i.e., MEPs). Said criteria may be too narrow, and MISO should continue to explore these issues. Some states in the OMS take the position that if MISO were to determine that its regional MEP criteria is too narrow, it should not implement any changes to said criteria until the conclusion of the five year transition period of the MISO South members. Approval of Entergy's membership in MISO by its retail regulators was predicated on certain conditions filed at FERC that were to be in effect during the Transition Period. Those conditions included established definitions and cost allocations for various regional transmission projects (e.g., MEPs). Any changes to those conditions during the Transition Period are inconsistent with the underlying approvals and may require a reevaluation of the costs and benefits of MISO membership. Other states in OMS are more open to potential changes in the MISO MEP criteria before the end of the five year transition period for the MISO South members.

Public Policy Projects: In 2009-2011, the OMS undertook the Cost Allocation and Regional Planning (CARP) process to address new planning and cost allocation for public policy projects. Public policy is only one of the drivers for the Multi-Value Projects, the first, and so far only round which was approved in 2011. However, MISO does not have a transmission project type focusing solely on public policy needs. The absence in MISO of a transmission project type focusing solely on public policy needs may make interregional planning and cost allocation of public policy projects more complicated and difficult.

First Principles (without yet considering Order 1000):

- 1. How should the process of interregional transmission planning be implemented across the different MISO seams (PJM, SPP, SERTP)? How should the existing IPSAC process be leveraged? What should be the same or different? (i.e. transmission system modeling, cost allocation, assumptions, benefit metrics, etc.) Is there anything missing?**

Consistency and standardization in interregional transmission planning may be desirable, but is certainly not necessary to achieve efficiency and equity. Standardization is probably more achievable for reliability project planning than planning for market efficiency or public policy needs. NERC sets out the minimum standards to meet reliability, and those govern the planning process. Consequently, transmission system modeling and assumptions for reliability projects should be nearly the same across MISO's seams. Thus, MISO and its seams partners should be able to agree on a single model for the interregional planning of reliability projects.

For market efficiency or economic projects the planning process and criteria will differ, depending on whether the planning partner is an RTO that operates energy markets, or is a non-RTO area. In such instances, it will be difficult to determine meaningful benefit metrics for non-RTO areas. For the MISO-PJM seam, there is a process in place for the study and approval of MEPs. The last iteration of the MISO-PJM MEP Study produced no viable candidate projects, but did produce lessons learned for the RTOs. The OMS supports continued improvement to the process with each iteration of an IPSAC and the recent Quick Hits study, which shows the many problem areas that should be remedied by transmission projects in the process of coming into service. However, the OMS remains concerned about the misalignment of each RTO's transmission planning cycles, and the possibility that a viable interregional transmission project

must then be studied and approved in a full cycle of each RTO's regional transmission planning cycle. This situation adds unnecessary delays to beneficial MISO-PJM market efficiency projects.

The SPP has operated markets for just over a year and the MISO-SPP market-to-market process began on March 1, 2015. The MISO-SPP IPSAC has initiated a study to plan for potential interregional reliability and market efficiency projects. The OMS is following the process closely, and appreciates that both MISO and SPP have applied the "lessons learned" from the recent MISO-PJM interregional planning study to the MISO-SPP IPSAC process.

Interregional planning for MISO to non-RTO areas should be concentrated in those areas where there are potential reliability project benefits to be captured. Ideally the non-RTO areas can identify problem areas where they would like to plan beneficial projects with MISO. However, there is little experience yet with these interregional processes, so it is difficult to comment on what more is needed. States that contain or border these areas can lead the way by requesting studies performed by the RTOs and non-RTO transmission providers and planning coordinators.

Up to now, MISO's main approach to interregional planning and cost allocation has been a three screen process at each seam. A potential interregional project must first pass the interregional planning screen agreed to by MISO and the relevant neighboring RTO, and then be subjected to both of the individual RTOs' regional planning criteria and approval processes. To date, this has not resulted in any interregional projects moving forward. In past Hot Topic comments, the OMS has urged MISO to work with its seams partners to more closely align the interregional and regional planning processes, as well as the benefit metrics, use of futures and time period studied, thresholds (cost, voltage and benefit/cost ratios), and other requirements. The OMS continues to believe that reducing the incompatibilities among the various regional and interregional processes and facilitating concurrent regional and interregional planning of projects, both within MISO and among RTOs, would increase the likelihood that interregional projects would actually be built.

While the push toward more alignment of transmission planning variables should continue and may even prevail in the long term, another approach which may have value is the

creation of an interregional project type that allows joint consideration of economic, public policy, and reliability drivers instead of having an interregional project type for each type of driver. Indeed, MISO has recently proposed consideration of such an approach in an effort to comply with Order 1000. The OMS supports MISO's exploration of this approach and is hopeful that MISO will be able to develop a single interregional project type and cost allocation that would apply across all of MISO's seams.

2. How can regional transmission planning be better incorporated into the interregional process? How can the two processes be synchronized?

The “just-in-time” transmission planning for reliability projects that currently occurs in the MISO region does not provide sufficient time in the planning cycle for meaningful interregional transmission planning. There simply does not seem to be enough time for coordination and planning with MISO's planning neighbors, particularly when additional lead-time is needed to conduct a competitive developer selection process. MISO's recent move away from identifying and posting Appendix C and Appendix B projects prevents stakeholders and planners from identifying potential new reliability projects well ahead of the current planning cycle. While a return to these appendices may not be necessary, there could be some form of advance planning from the transmission owners indicating potential longer-term reliability issues and solutions³. This would allow stakeholders on both sides of a seam to consider a potential, cost-saving interregional reliability project.

For the MISO-PJM seam, a significant complication is that PJM does not identify specific reliability projects in its planning process. Instead, PJM identifies transmission issues and problems and opens a proposal window for transmission developers to submit project solutions. This process is generally for projects that have an in-service date more than three years in the future. If MISO and PJM would engage in interregional planning, with a focus on transmission needs with longer lead times, PJM would be better able to perform its competitive developer selection process.

³ By “longer-term”, we do not necessarily mean 10 or 20 year reliability studies, but rather a look at reliability issues one or two years further out than what may be necessary to meet NERC reliability standards so that planning neighbors have a chance to develop an interregional solution that provides costs savings to both areas.

If the “just-in-time” nature of the interregional and regional planning processes is to continue, MISO needs to make clear how the process will work and how the process will allow for the proper consideration of cost-saving interregional projects. The OMS strongly supports concurrent planning for regional and interregional projects, instead of forcing viable interregional projects to wait for the next planning cycle. This especially applies to transmission projects that do not have to go through a longer, competitive developer selection process. To the extent MISO pursues its March 19th RECB proposal for a single interregional project type using an avoided regional projects approach to measure benefits, some parallel analysis will be required if interregional projects are to be considered in a timely way.

As stated above, transmission planning needs to be neutral with respect to whether the solution is regional or interregional. There should not be any bias created one way or the other due to the planning process.

3. Is there a need for a new interregional product type(s)? Should there be different interregional project types depending on the seam? If so, what benefit metrics should be considered and how should those project types(s) be cost shared?

Each MISO seam has different characteristics and if an umbrella “interregional project” project type is created, it must adhere to each pertinent MISO seams’ legal agreements. While consistency is the ideal across the MISO seams, achieving such an objective is likely to be a long-term process and seam differences would have to be taken into account until consistency is attained.

Whether a need for a new interregional project type exists or not, the important point is that effective interregional transmission planning be accomplished by MISO and its neighbors. If there are some projects that do not fit into the already-established MISO project types, then new ones should be created. The OMS does not wish to offer any additional benefit metrics or opine on cost allocation at this time.

MISO Transmission Expansion Plan Experience and Where We Are Today:

1. Will the implementation of the Interregional FERC Order 1000 Directives be sufficient to remedy any problems with interregional transmission planning and cost allocation issues that have been detailed in the above questions? If not, what else needs to occur?

Order 1000 is the minimum requirement for interregional coordination of regional transmission planning. There is a need to go beyond the Order 1000 requirements. The MISO-PJM has always been a special case because when Commonwealth Edison joined PJM, FERC required the RTOs to engage in interregional planning. These requirements pre-date Order 1000 and arguably are beyond what Order 1000 requires of the two RTOs.

The newly-effective NERC standard TPL-001-4 requires Transmission Providers (TPs) and Planning Coordinators (PCs) perform annual Planning Assessments, and once completed, said Assessment must be shared with neighboring TPs and PCs, who may comment on the Planning Assessment. The entity issuing the assessment is required to respond to comments within 90 days. The OMS is interested in when this process will occur in 2016 and beyond, and how MISO sees it fitting in with, and improving its MTEP process. Will these Planning Assessments be helpful in each interregional planning process?

2. Are changes needed to better facilitate market participant funded⁴ interregional transmission projects? If so, what changes does your sector recommend?

No comment.

3. Do adequate interregional transmission planning procedures exist to study the impacts of generator retirements, (including high volume impacts such as the Mercury and Air Toxics Standards (MATS), Clean Power Plan, and Renewable Standard changes), develop needed upgrades, and allocate the costs appropriately?

These areas are on the frontier of interregional transmission planning. The answer is “No” even though each RTO may have planning tools in place to approve needed projects, along with its cost allocation method, there isn’t anything in the interregional realm where this takes place. For example, if a System Support Resource is needed in MISO and the optimal transmission planning fix is in the neighboring RTO or planning region, there doesn’t appear to be a way for MISO to order and approve the project.

⁴ Market Participant’s Option to Fund per Attachment FF: Notwithstanding the Transmission Provider’s assignment of cost responsibility for a project included in the MTEP, one or more Market Participants may elect to assume cost responsibility for any or all costs of a Network Upgrade that is included in the MTEP. Provided however, in the event the Market Participant is also a Transmission Owner such election of the option to fund must be made on a consistent, non-discriminatory basis.

The OMS is very interested in MISO's modeling of potential reliability issues due to the Clean Power Plan (CPP). The nature of how states comply with the CPP is a key assumption in this modeling. Given the questions involving individual state compliance vs. regional compliance, this seems to be a natural area for states to lead and provide guidance, should they choose to do so. Since this is a national rule, and many states contain more than one RTO or non-RTO area, it is important for the transmission planners across the Eastern Interconnection to model and optimize their transmission systems to enable compliance with the CPP at the lowest possible cost.

4. Can enhancements to the MTEP process facilitate Interregional Planning? If so, what enhancements does your sector recommend?

There are enhancements that can be made to the MTEP process that are necessary to comply with, and go beyond, Order 1000. In particular, there needs to be a clear process for when interregional planning occurs and what the on-ramps are for proposed projects to flow into the MTEP process. The OMS appreciates MISO's willingness to perform targeted transmission studies. In that regard, to the extent that the subjects of these studies are interregional in nature, MISO should explain when and how such projects enter the MTEP process for approval.