UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Competitive Transmission Development Technical Conference — Docket No. AD16-18-000

OPENING REMARKS OF JENNIFER CURRAN ON BEHALF OF THE MIDCONTINENT INDEPENDENT SYSTEM OPERATOR, INC.

On behalf of the Midcontinent Independent System Operator, Inc. (MISO), I am pleased to present these opening remarks on Interregional Transmission Coordination Issues (Panel 4) for the June 27 and June 28 Competitive Transmission Development Technical Conference.

I. Executive Summary

Since the issuance of FERC Order 1000, the industry has placed renewed focus on coordinating transmission planning between regions. MISO understands the critical role for transmission planning to meet emerging challenges and acknowledges the value that interregional planning can have in identifying and addressing long term needs. Identifying and building appropriate transmission is more important than ever to provide appropriate system reliability and flexibility given a changing resource mix. Improved interregional planning is critical to maximize the value of the transmission system to drive savings for customers.

Even before Order 1000, MISO was active in interregional planning with PJM and SPP through an established and agreed upon planning coordination process and cost allocation methodology (PJM only) for interregional projects. Order 1000 has provided a platform to continue to advance those efforts more broadly with our neighbors. Although a great deal of progress has been made, the true potential of interregional planning has yet to be realized. This is in part due to the natural evolutionary process in aligning practices between regions which have historically had different approaches to transmission planning, transmission cost allocation

and transmission operations. Among other things, these differences have led regions to focus on the low hanging fruit of short term needs, many of which have already been addressed through regional plans. In many cases this manifests itself as evaluating a changed allocation of costs of previously planned for projects, rather than the identification and implementation of new more efficient infrastructure.

Longer term, in order to see the value from interregional transmission investment that the Commission envisioned with Order 1000, regions will have to embark on increased coordination starting with joint assessment of longer range interregional needs. This work will require multi-year processes akin to MISO's previous work on Multi-Value Projects, incorporating reliability, economic and public policy criteria and longer term scenario analysis. Focusing on long range needs offers the opportunity to drive value for customers by identifying projects that wouldn't have otherwise been identified. We are currently exploring this approach with SPP. This is not to say that there should be no focus on short term needs. Our experience with PJM shows that there are some gaps between our regional tariffs reflecting unique operational scenarios along the seam. New interregional planning protocols, such as the Targeted Market Efficiency Project that we are working on currently with PJM can help fill those gaps with appropriate transmission solutions.

Taking this longer term view, while still addressing the near term needs, should drive incremental value from Order 1000 implementation on top of the value of the existing coordination that naturally happens between neighboring planning regions. Recent work with PJM in the advancement of the Duff Coleman is an example of the latter. While not an "Order 1000" cost allocation project, Duff Coleman demonstrates the value of regular interregional

coordination between planners which, in this case, enabled MISO and PJM to jointly identify a mutually beneficial plan to improve upon regionally identified needs.

One concern emerging among our transmission planners as we implement Order 1000 is that the litmus test for the success of interregional planning appears to be the near term identification of interregional projects. There are two challenges with this approach. First, lack of fuel diversity between regions and low gas prices minimize the value of congestion reduction – the very metric at the base of most interregional planning. Thus the transmission solution may in fact be more expensive than the problem it is trying to solve. Second, the short term view has the effect of focusing resources that could be more productively leveraged to identify new or more efficient interregional projects on what are effectively cost shifting exercises for regional projects that are already planned and in many cases will go into service without interregional coordination and cost allocation. From an interregional planning perspective we believe the true value in interregional planning is identifying new and necessary improvements in infrastructure, a process which in some cases may take multiple years to complete.

Finally, in order for customers to capture all the benefits identified in the robust inter-regional planning process, the actual operations at the seams must ensure efficient operations and remove barriers to more efficient transactions across the seams. MISO believes the MISO-PJM seams operations reflects a best practice among RTOs as it reflects a focus on maximizing the use of existing infrastructure using the most efficient resources. We look to advances in the Parallel Flow Visualization effort, the implementation of which will provide more visibility into all flows on the system, to help as a basis for operational improvements more broadly across the interconnection.

In summary, while we don't see the need for any additional action by the Commission relating to the Order 1000 interregional planning process at this time, MISO would encourage the Commission to focus attention on ensuring that the planning processes are focusing on identifying joint projects that collectively improve upon regional plans by identifying new and necessary transmission. In addition, the Commission should continue to `encourage development of operating best practices and advancements to allow more efficient use of the transmission infrastructure and fully leverages all resources most effectively. It makes little sense to spend the time planning and incur the cost for new transmission investment and not ensure that the grid operations most effectively leverages the benefits of weather, fuel, and load diversity to ensure the lowest delivered costs for customers.

II. Fundamental Drivers for Interregional Planning

To help explain some of the challenges and opportunities in the interregional transmission process it may be helpful to more explicitly describe drivers that can result in "interregional" projects. In general, there are three (3) drivers for interregional transmission planning that can result in potential projects and interregional cost allocation.

1. Project Need Coordination - Identify and jointly evaluate more cost effective and efficient projects than would otherwise be identified in our individual regions (i.e. find a superior project to replace a project in the regional plan)

2. Seams Coordination - Fill gaps or resolve issues that the regional plans may not identify or fully address on their own because of differing operations or cost allocation misalignments that may only manifest themselves at the seams (i.e. the need wasn't identified or fully addressed in any regional plan).

3. Cost Assignment - Realign costs with additional jointly identified neighboring benefits for regional projects that are already beneficial to one region and will go forward in any case, but have been reclassified as an "interregional" project (i.e. no new infrastructure is identified, it is just about who pays).

The three (3) drivers for interregional transmission planning that can result in potential projects and interregional cost allocation are further discussed below:

1. <u>Project Need Coordination:</u>

The first and foremost driver for interregional planning is identifying and jointly evaluating more cost effective and efficient projects than would otherwise be identified in our respective regional processes. This we believe is in the truest spirit of Order 1000 planning reforms. For this driver we are asking ourselves, can we identify an interregional project that is a more cost effective and efficient (i.e. provide more value) alternative to a project the individual regions have identified on their own. This look at interregional planning is particularly useful when evaluating and planning for the impacts of public policy requirements and large scale shifts in the resource mix.

As the scale of the infrastructure needs grows to meet these new challenges, value in the identification of more efficient interregional solutions also grows. Although these types of projects provide the greatest potential value they also typically have a study timeline of several years. There are several drivers for the extended timeline. First, the scope of these issues, particularly when tied to policy changes tends to be more complex and more uncertain, given that the plans are usually to address needs farther in the future and arising from policy drivers that themselves may be subject to uncertainty or on which different regions have diverging

views. This requires the development of scenarios and other work efforts that extend the study timeline. Also, this approach to interregional planning will require multiple iterations through the regional processes as well as entities seek to align the regional plans with the interregional efforts.

An example of this type of planning is a commitment MISO has recently made to pursue a coordinated study with SPP to evaluate transmission needs in order to maintain efficient and reliable operations given the ongoing evolution of the resource mix. MISO has begun its regional planning efforts with scenario development, and in 2017 will begin to evaluate the transmission needs to address this issue. At that point MISO will be in a position to work with neighboring regions (who are evaluating their own regional needs concurrently) to identify potential interregional projects that are more efficient and cost effective. MISO has been having ongoing dialogue with our RTO neighbors and hope to begin coordinated studies to address the evolving resource mix in 2018In the meantime MISO along with SPP and PJM have committed to working with stakeholders to identify process improvement opportunities to coordinate or our regional processes as well as interregional study processes. These efforts are the necessary prerequisites to developing a transmission plan based on a shared assessment of needs. In addition, and to the degree possible, the RTO's should be coordinating scenario assumptions in our regional planning activities. Consistency in our regional planning assumptions will greatly improve the likelihood that potential interregional projects that are more efficient and cost effective will be identified and disagreements over regional differences will be minimized.

2. Seams Coordination:

The second driver for interregional planning relates to seams resolution, where seams neighbors seek to fill in the gaps or resolve issues that regions may not be fully addressing on their own because of differing operations or cost allocation misalignments that may only manifest themselves at the seams. MISO continues to collaborate with its neighbors and our joint stakeholders on exploring these opportunities. Regional differences in planning philosophy and cost allocation is the major challenge facing interregional planning. Each planning region has developed their processes over many years and those processes are relied upon to ensure that if project costs are assigned then that region is receiving commensurate benefits based on how they calculate them. In order to overcome these hurdles planning regions should consider new and innovative processes that do not rely solely on regional criteria but are based on new interregional criteria in order to address these gaps. MISO and PJM have attempted to address these types of seams issues with new study approaches with the previous years 'quick hits' studies that have now matured into what we are calling "targeted" studies. To complement the Targeted Study concept, MISO and PJM are jointly exploring a new Targeted Market Efficiency Project type. This exploratory concept is meant to address near term historic congestion that is expected to be persistent, have no planned long term projects to mitigate the congestion and are not showing up in our regional market efficiency study work and can be mitigated with facility upgrades that are relatively lower cost and can be in service on a relatively shorter timeline. This kind of project does not neatly fit into either of our regional project categories, but is a new type of project that is unique to interregional planning issues at the MISO-PJM seam. We will be looking for similar opportunities as our processes mature with SPP and SERTP in the future.

3. Cost Assignment:

Since Order 1000 has mandated broader application of cost allocation for interregional projects, we have seen increased interest in identifying opportunities to interregionally cost share previously identified regional projects even in the absence of any identified improvement to the regional project. This approach can result in significant effort in an attempt to appease an appetite to find an "interregional" project that in the end is not driving additional value for customers collectively, although it may provide a better alignment of costs and benefits for specific customers individually. There is a risk that this type of endeavor can actually have a detrimental effect on the interregional coordination progress we have collectively seen. This is due to inevitable disagreements around the magnitude and calculation of the benefits a neighboring region might receive. The overall system is also no better off because the project had been identified in the regional process to address a regional need without any enhancements or changes available in the interregional process. In this situation, there is no alternate regional project on the other side that can be avoided or deferred. It is simply an argument about cost allocation.

III. Areas for Focus on Interregional Planning Efforts

The industry should focus the bulk of its efforts on Planning Need Coordination type projects described above that focus on better investment decisions broadly. The challenges we are all facing as the resource mix evolves and new technologies are integrated into the power grid require that planning resources are spent in the area with the most potential benefits. The transmission system does not dramatically change year to year and it is not a good use of planning resources (both RTO and stakeholder) to continuously search for small incremental

benefit impact type projects. The broad based policy, reliability and economic studies needed to address the change in resource mix are longer duration efforts. The MISO MVP portfolio underwent 5 years of analysis before projects were approved. MISO anticipates a similar timeframe for fully evaluating the policy driven issues the industry is facing today.

In addition to the major focus items I have discussed above MISO continues to support incremental process improvements and, where possible, consistency among the regional processes. Examples include removing unnecessary interregional hurdles (such as JOA B/C thresholds, minimum cost thresholds), improving modeling and data exchange, targeted studies, adjusting coordination timelines, and coordination of our regional plans.

It is also important that FERC and the industry spend time on the operational aspects of seams coordination. In order for the benefits of interregional transmission investment to be realized we must have operating procedures that are equitable and maximize the use of the scarce transmission resources. Consistent seams processes will minimize disputes and the adverse impacts differing seams processes can have on providing reliable, least cost energy to consumers.

IV. Recent Activity within EIPC

A new effort that FERC may not be aware of is the Eastern Interconnection Planning Collaborative's (EIPC) efforts to streamline model and data exchange through the use of a standard Critical Energy Infrastructure Information (CEII) Non-Disclosure Agreement (NDA). Under current differing NDA protocols across the various transmission provider regions, models and data that are exchanged for purposes of Order 1000 (which is intended to make the models more consistent and accurate between one set of neighbors), have challenges propagating into

regional processes and across to other seams, which could limit the full benefits of such modeling and data exchanges. Third parties have to sign the NDA from the initial data source entity, not from the secondary recipient entity that received the data. The EIPC efforts focus on how the information exchanged for purposes of Order 1000 and NERC modeling standards can more effectively propagate to the appropriate users via a standardized CEII NDA and data disclosure protocols that we all agree on. We see this as a positive and necessary step forward.

V. Closing

In closing, MISO reiterates the view that the primary value of interregional planning is on seeking more efficient and cost effective transmission projects rather than battles over cost allocation for projects identified in the regional planning process. There have been several recent changes made to the MISO-PJM planning processes and MISO's efforts with the other regions are just beginning to mature. MISO believes these processes need adequate time to be implemented and evaluated before additional FERC action is warranted. MISO plans to continue its work to identify effective transmission solutions to meet the emerging challenges and is also committed to advancing operations with its neighbors to fully leverage the benefits of that transmission investment with efficient interconnection-wide operations.