Transmission Developer Sector Response to the Hot Topic issue on Interregional Planning for the April AC Meeting

Executive Summary

The Transmission Developers acknowledge that improvements to the existing JOA and IPSAC processes for interregional planning are needed to ensure that cross-border projects are built when appropriate. Those improvements include re-evaluation of the 1.25 Benefit to Cost ratio; additional metrics to determine the true value of transmission; a single interregional planning process where the Board approves projects and including those projects in the regional analysis as approved upgrades; and the development of a new project type for interregional projects. We appreciate the opportunity to advise the Board on interregional planning since the Transmission Developers spend significant man-hours and resources evaluating transmission along the seam. The opinions in response to the questions posed below represent the opinion and feedback from all Transmission Developers. There is an additional minority position from Exelon and AEP at the end of the question answers.

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?

Answer: The primary objectives of any interregional transmission planning effort should be to:

   a. Identify congestion that causes reliability or economic impact on the adjoining transmission systems.
   b. Resolve transmission and energy delivery issues that can be solved more efficiently interregionally than a regional solution.
   c. Provide effective solutions that eliminate unwanted congestion not just move the congestion from one area to another.
   d. Determine the appropriate beneficiaries of any upgrades needed using the principles of cost causers pay or beneficiaries pay.
   e. Anticipate the needs of the transmission system such that upgrades that get built resolve problems that will occur in the future.
   f. Build a robust enough system to handle major events, regulatory changes, economic changes and other unanticipated occasions to reliably serve customers at the lowest possible cost over the long term (10+ years)
   g. Identify and rectify any potential legal challenges that might impact regional planning and implementation of transmission projects through a coordinated approach to streamlining tariff language, operating agreements etc. as appropriate
   h. Provide for grid vitality for highly interconnected regions
For highly integrated seams, such as those that exist between MISO-PJM and MISO-SPP, successful interregional planning is a vital necessity. Proper planning allows for the necessary growth, adaption and development of the transmission system to meet the changing needs. If the only successful form of planning to ensure grid vitality is regional, then the only growth, only adaption and only development that will successfully occur will be regional. This will come at great detriment to both highly interconnected systems.

That said, the current interregional transmission planning efforts have NOT met any of the above objectives as evidenced by the lack of a single seams project in MISO while customers have paid over $100 million in congestion, Market to Market and higher LMP costs over the last 4 years. The increasing congestion cost that can be seen on the SPP-MISO and MISO-PJM seams is evidence that interregional planning is not working. The fact that MISO and SPP are in negotiations over use of the SPP and MISO transmission systems is a strong warning sign to the Board that Interregional Planning requirements will have legal ramifications in the future through additional FERC complaints, interstate commerce violations, dissatisfied customers and unhappy members.

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?

Answer: Since 2012 over 121 project solutions along the MISO seams have been identified and summarily rejected by the MISO planning process due to lack of meeting a 1.25 BC ratio, being a reliability upgrade that does not meet the Base Plan Reliability requirements, or cost allocation issues where seams parties cannot agree on cost split of a project. Identification of projects is not the issue! Incumbent Transmission Owners, Transmission Developers, and Regulators have all participated in providing potential solutions across the MISO seam as part of the interregional planning efforts. The major impediment is the criteria for a project to meet in order to be recommended to the Board. First, a project must meet the interregional criteria of providing a 25% return on investment based on a simulated adjusted production cost with perfect unit dispatch and no transmission outages (1.25 Benefit to Cost requirement). Second, a project that passes the interregional criteria must now pass the regional criteria under the MTEP process using a different set of economic and powerflow models and show a 25% return on investment to the region (1.25 BC ratio) given a different dispatch and adjusted production cost basis under perfect dispatching, no transmission outages, generation outages that have no impact on the system. The final impediment is an arbitrary voltage threshold for economic transmission projects. MISO has no MEP equivalent classification for economic projects under 300kV. Currently they are listed as “Other” projects subject to the sponsorship of the incumbent Transmission Owner. Most interconnections from MISO to its neighbors are on transmission lines less than 300kV. MISO appears to be discriminating against lower voltage projects that resolve reliability and economic solutions by making the requirement that the host zone needs to pay for the upgrade even though the upgrade may benefit multiple zones.
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?

Answer: The realistic approach without Order 1000 consideration is to work with the seams partners (PJM, SPP, SERTP) without consideration of cost allocation and looking at all the benefits that a transmission solution brings to the table, these include but are not limited to:

- Adjusted Production Cost (MISO's current benefit metric)
- Reduced capacity expansion costs due to reduced transmission losses on peak
- Avoided or delayed reliability projects
- Reduction of emission rates and values
- Savings due to lower ancillary service needs and ancillary service production costs
- Marginal energy losses benefits
- Mitigation of transmission outage costs
- Capital savings due to reduction of minimum required capacity margin
- Reduced Loss of Load Probability (LOLP)
- Reducing the cost of extreme events
- Assumed benefit of mandated reliability projects
- Increased wheeling through and out revenues


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

Answer: Why do the interregional and regional planning processes need to be incorporated together? If we look at each as a separate process and the solutions that come out of those processes, a series of project solutions becomes evident that MISO Planning and the Board can evaluate to develop a transmission planning solution that can be determined to have no regrets if built. The Board should have the flexibility to
approve interregional projects separate from regional projects. Interregional and regional projects serve different purposes. For example, putting a sidewalk in front of my house doesn’t necessarily provide me benefit but it provides benefits to my neighbors. There are certain things people do as a society to be a good neighbor. If we had that paradigm/outlook shift in our perception of the seams where seams projects were awarded on their own merit the concern over issues caused by the seams may go away.

One way to allow the Board the needed flexibility is to create a new project category in the regional Tariff for all “Interregional Projects,” which would allow the Board to expeditiously approve beneficial projects emerging from interregional coordination efforts without subjecting those projects to a subsequent regional analysis using differing assumptions, benefit metrics, and cost allocation criteria. The criteria and benefit metrics for the new project category encompassing all interregional projects should be exactly the same as the criteria and benefit metrics used to justify the projects in the interregional studies. This reform would eliminate the three-stage approval process and misalignment between interregional and regional criteria that is currently preventing beneficial projects from moving forward.

3. Is there a need for a new interregional project 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 type(s) be cost shared?

Answer: See above. MISO should create a new project type in the regional Tariff encompassing all interregional projects emerging from interregional planning efforts. The new project type should measure all quantifiable benefits of interregional transmission projects listed above. In other words, MISO should not separate reliability benefits from economic benefits in distinct project categories. In addition, the new project type should allow for approval of projects at voltages below 300 kV based on economic and other benefits. As Transmission Developers we have no opinion on how the project type should be cost allocated.

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?

Initial Comment: A key point for the Board to consider is that Order 1000 has very little to do with Planning and more to do with Coordination. As our sector see it, RTOs view compliance with Order 1000 as regularly scheduled meetings to facilitate discussion and data exchange. No plan or project is required. We are not sure the MISO Board fully appreciates this disconnect. However, the RTOs do.
Answer: No, MISO will need to consider separating the transmission planning/analysis and the Board approvals for MTEP and Interregional projects into separately approved processes rather than feeding the interregional process back into the regional process in separate steps. As noted above, one way to accomplish this would be to create a new project category in the regional Tariff allowing for streamlined approval of projects emerging from interregional studies. Projects identified in each process should be included in both analyses however the analysis for the region and interregional efforts would be separate.

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

Answer: The Transmission Developer have no opinion on cost allocation issues.

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?

Answer: Since the detailed transmission planning procedures and model development procedures are not publically available nor should be without a CEII non-disclosure agreement in place. At this time we have no evidence the planning procedures are inadequate.

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

Answer: Yes, We recommend the following enhancements:

a. Development of a new project category for interregional projects in the regional Tariff that allows for streamlined approval of interregional projects and includes projects less than 300kV to be considered MEP projects such that a series of small reliability solutions can be replaced with a longer term economic solution.

b. Use additional benefit metrics if MISO wants to maintain a 1.25 B/C ratio. Some additional metrics for MISO’s consideration include:
   - Reduced capacity expansion costs due to reduced transmission losses on peak
   - Avoided or delayed reliability projects
   - Reduction of emission rates and values
   - Savings due to lower ancillary service needs and ancillary service production costs
   - Marginal energy losses benefits
   - Mitigation of transmission outage costs
   - Capital savings due to reduction of minimum required capacity margin
- Reduced Loss of Load Probability (LOLP)
- Reducing the cost of extreme events
- Assumed benefit of mandated reliability projects
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Note that not all of these benefits yield enough dollars to warrant routine B/C calculations. The list provided is our interpretation of benefit value in ranked order. MISO may want to independently calculate these values to determine their own valuation of ranked order. Detailed calculations on the values can be provided upon request.

**Minority Position**

A minority of Transmission Developers (Excelon and AEP) have additional insight on the feasible changes in the interregional planning processes in addition to the comments above. The notion that MISO, SPP and PJM could or should modify the JOA to conduct concurrent joint and regional studies with identical criteria is simply untenable from our experience. Each Regional Transmission Organization (“RTO”) has its own set of regional planning criteria that were specifically developed to address its unique regional needs. Moreover, each RTO must also coordinate with transmission systems at other seams, whose regional planning criteria may differ from MISO’s, SPP’s and PJM’s. Order No. 1000 specifically: (1) recognized that regional differences are valid; and (2) did not mandate involuntary interregional cost allocation; consequently, it is difficult to see how a joint study would ever result in approval of an interregional transmission project.

The Transmission Developers, therefore, advocate another approach for reforming planning for cross-border projects. With respect to planning of Cross-Border Market Efficiency Projects (“CBMEP”), Minority Transmission Developers recommend that each RTO use its established regional study process to determine and quantify its respective regional market efficiency needs. The two RTOs would then post their respective regional market efficiency needs and congested flowgates and invite stakeholders to submit both regional and interregional proposals that potentially could address these regional market efficiency issues more efficiently and cost-effectively than any regional proposals the RTOs may already be considering. As part of the interregional planning process, each RTO would determine what portion of its market efficiency issues is met by each of the interregional proposals. If the sum of each RTO’s portion meets or exceeds the total cost of the interregional proposal, then the proposed interregional project would be included in the list of finalists from which the most efficient and cost-effective projects would be selected for approval as CBMEPs. Cost apportionment of the approved CBMEPs across the two RTOs would be in proportion to the market efficiency benefits that each RTO derives from the approved CBMEPs.

With respect to planning of Cross-Border Baseline Reliability Projects (“CBBRP”), the interregional study process for determining reliability needs should be eliminated in
favor of each RTO using its regional study process to determine its regional reliability needs (with appropriate considerations regarding reliability impacts involving the other RTO). Similar to the approach advocated for CBMEPs, the RTOs would then post their respective regional reliability needs and invite stakeholders to submit both regional and interregional proposals that may address these regional reliability needs more efficiently and cost-effectively than any regional proposals the RTOs may already be considering. Similar to the cost apportionment of approved CBMEPs, any approved CBBRPs would be cost apportioned across the two RTOs in proportion to the total cost of the regional reliability projects displaced in each RTO footprint by the approved CBBRPs.

Minority Transmission Developers disagree with the suggestion that avoidance of future market-to-market (“M2M”) payments made to reallocate short-term transmission capacity must be considered as part of joint planning criteria. With the reforms proposed by Transmission Developers in the above questions, there should be no need to explicitly include any backward-looking M2M metrics into the planning criteria, since the real-time congestion that produces M2M payments would be addressed in the planning horizon through that properly-implemented joint planning process. Minority Transmission Developers also disagree with any suggestion that there must be a special process for joint planning and cost allocation of lower voltage and lower cost cross-border upgrades. The reforms advocated by Transmission Developers above would identify the most efficient and cost-effective solutions, irrespective of their voltage rating. With respect to coordination of interconnection processes, Minority Transmission Developers note that MISO and the seams partners have made improvements in coordination of the interconnection and modeling processes. The Minority Transmission Developers recommend additional improvements to those processes beginning with 1) increased transparency into the queue coordination study status, results, and 2) posting on the FTP site any operating guides associated with the new interconnection requests be posted on the joint PJM and MISO webpage or SPP and MISO Webpage.

**Closing**

The Transmission Developers appreciate the opportunity to advise the Board on the issue of Interregional Planning. Thank you for your time and consideration.