Northern Indiana Public Service Company

MISO-PJM Seams Issues – OMS All Seams Considered

July 18, 2012







NIPSCO's Company Profile

- Provide electric and gas service in the northern third of Indiana
 - 458,000 electric; 786,000 natural gas
- Transmission interconnections with 5 other major utilities
 - 3 in MISO, 2 in PJM
- Transmission service to 2 network customers
- Operational Independent Power Producers
 - Whiting Clean Energy, Benton Co. WF, Hoosier WF, Others





10,000 miles of electric distribution wire 2,800 miles of electric transmission wire 16,000 miles of gas mains

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MISO-PJM Seams Issues

- NIPSCO supports open, efficient, and transparent markets and generally supports MISO's & Ameren's concerns about capacity deliverability.
- Fundamentally, market issues and transmission issues cannot be solved in silos they are mutually dependent
 - Capacity Deliverability and Transmission are joined at the hip



MISO-PJM Seams Issues

- NIPSCO occupies a unique geography –
 PJM/MISO seam on the west, north and east
- MISO generation capabilities in this area nearly match MISO load summer peak for same area
- NIPSCO's ties with PJM
 - Com Ed = 5,334 MVA (SE)
 - AEP = 2,824 MVA (SE)
- NIPSCO experiences significant through flow on our system due to PJM economic dispatch, and other transfers
 - Summer Peak East to West
 - Other Periods West to East
- Not surprisingly, significant congestion exists on our transmission system which was never designed for these types of PJM transfers





MISO-PJM Seams Issues

Our experience on this seam has given us the opportunity to recognize key Transmission issues and to also offer some insight into key priorities and potential solutions. From our perspective, the JCM process must address the following:

- Transmission Planning
- Short Term vs. Long Term Firm Transmission
- Cost Allocation / Tariff Modifications



1) Transmission Planning

- Follow Joint Planning criteria described in Joint Operating Agreement
 - It appears as though no true joint planning is performed
 - No coordinated joint model assumptions and inputs (single model)
 - No joint seams studies
 - Different sets of assumptions used mask understanding of true seams issues
 - e.g. PJM RTEP Baseline Analysis VS. PJM Generation Retirement Study vs. MISO's studies of these issues using MTEP model
 - Established procedures are not consistently followed when compensating for poor up-front coordination
 - e.g. Meadow Lake generator interconnection



1) Transmission Planning (continued)

- Synchronize transmission planning cycles and model development
 - Common beginning and end dates
 - Include all appropriate generation and transmission assets in common model
- Improve coordination of generator interconnection and retirement studies as well as real time models
 - Project in-service & retirement dates
 - Enhanced system monitoring
 - Consistent with NERC recommendations from southwest blackout relative to monitoring lower voltage lines
 - Increased detail to improve state estimator solutions and optimize impact of congestion relief procedures
- RTO's must communicate early and often
 - In an open and transparent manner
 - With neighboring RTO's as well as with impacted Transmission Owners, regardless of RTO affiliation – (e.g. NIPSCO southern PJM seam)



2) Take a Long Term vs. Short Term View of Transmission

- Current approach
 - Firm transmission is currently allocated between RTOs based on historical usage per a JOA calculation
 - M2M settlement process charges for the incremental amount used by one of the RTOs over their allotment of firm flow
 - Financial exposure is limited to usage above FFE allocated only during M2M re-dispatch (M2M settlements)
- Proposed approach
 - RTO's measure and report on short term (M2M settlements per flow-gate) vs. long term (assigned revenue requirement of building transmission to mitigate constraint) costs
 - Build transmission and share in revenue requirement through Cross Border cost allocation when the business case above is satisfied
 - Modify FFE to align rights with those who funded the assets in question
 - Resist rule changes that limit the use of M2M re-dispatch and accompanying settlements to reduce financial exposure to short term settlement obligations



3) Update Cost Allocation Methodologies & Tariffs

- Refine Cross Border cost allocation project thresholds (reliability and market efficiency) to more realistic terms allowing for the option to build a long term solution rather than relying on short term tools
- Carve out reliability projects (NERC Standards) that have clear causers and beneficiaries for the project from current cost sharing thresholds (e.g., generation retirement, generation deliverability to load, etc.) to be directly funded by the RTO causing the problem
- Modify existing Tariffs / JOA when needed, don't allow them to be a barrier to resolving seams issues
 - No Tariff provisions to address deliverability issues in one RTO due to generation retirements that require network upgrades in the other RTO, yet...
 - NIPSCO has a history of solving problems in cooperation with both MISO & PJM
 - We are making system upgrades to address PJM ARR requests no current Tariff provisions supported this approach
 - Stakeholders shouldn't have to work around the system



Summary Thoughts

- Order 1000 compliance is perfect opportunity to work together to not only meet FERC requirements but to address the seam problems
 - We are concerned that while MISO has met with other adjoining RTO's on this compliance filing requirement, we are not aware of scheduled meetings with PJM
- Identifying and fixing problems is far more effective than pointing fingers at the other RTO
- NIPSCO is more than willing to be part of the solutions

