



MISO-PJM Order 1000 Interregional Planning Compliance Proposals

February 13th, 2013
MISO-PJM Order 1000
Interregional Workshop

- **Introductions and Overview**
 - Welcome and Roll Call
 - Review Agenda
- **Review Stakeholder Feedback from January 16th Meeting**
- **Order 1000 MISO-PJM JOA Enhancements**
 - JRPC and IPSAC Governance and Responsibilities
 - Model and Data Exchange
- **Order 1000 MISO-PJM JOA Enhancements**
 - Coordinated System Planning
- **Update on MISO-PJM JOA Cost Allocation Proposals**
- **Open Discussion and Next Steps**
- **Adjourn**

- **At the January 16th meeting, feedback was requested on the Order 1000 Interregional Planning Compliance Proposals**
 - MISO & PJM appreciate the feedback and recognize the time & effort taken to address this request.
 - Feedback was received from:
 - American Electric Power (AEP)
 - Dominion
 - Duke Energy (Duke)
 - Exelon
 - International Transmission Company (ITC)
 - MISO Transmission Owners (MISO TOs)
 - Northern Indiana Public Service Company (NIPSCO)
 - Wisconsin Public Service Corporation and Upper Peninsula Power Company (WPSC and UPPCO)
 - Wind on the Wires (WOW), the Sustainable FERC Project (FERC Project), and the Mid-Atlantic Renewable Energy Coalition (MAREC)

- **General comments were focused on:**
 - Model & Data Exchange
 - Joint RTO Planning Committee (JRPC)
 - Interregional Planning Stakeholder Advisory Committee (IPSAC)
 - Annual Issues Review
 - Coordinated System Planning
 - Interregional Cost Allocation
 - Generation Interconnections & Retirements
 - Regional Planning Processes

Comment	Joint RTO Response
<p><i>"The JOA should be amended to specify that annual model and data exchange should be a requirement, not an option, and that the criteria identified in P 437 of Order No. 1000 be the minimum information that is exchanged." – Exelon</i></p>	<p>Draft JOA language has an annual requirement for modeling data and information exchange, including the minimum requirements, that fulfills the criteria specified in the Order</p>
<p>"The frequency and schedule for the exchange of models and data, and the use of such models and data, should be specified in the JOA and not just in business practice manuals or solely in RTO tariffs." – NIPSCO</p>	<p>Draft JOA language specifies timeframe for annual exchange of modeling data and information to be used in coordinating planning studies.</p>
<p><i>"The JOA should be amended to require that... neither RTO may change the region-specific data provided to it by the other RTO" – Exelon</i></p>	<p>Conceptually the RTOs agree however there may be limited examples where changes may be required. Each RTO's planning procedures establish the "critical system conditions" pursuant to the NERC standards. These region specific planning procedures may require modification of some data such as generation dispatch and load level assumptions.</p>
<p><i>"RTO tariffs and the JOA should specify that PJM and MISO will exchange study results and relevant data where Interconnection Agreements and Transmission Upgrade Agreements pertaining to facilities that will have cross-border impacts are being considered." – NIPSCO</i></p>	<p>Draft JOA language includes exchange of system expansion, generation interconnection, and transmission service study information; including planned generation retirements.</p>



Comment	Joint RTO Response
<p><i>"The JOA should be amended to require ... that all RTEP, MTEP, and interregional models be made available to stakeholders" – Exelon</i></p>	<p>Draft JOA language specifies that joint interregional models will be available to stakeholders subject to confidentiality and Critical Energy Infrastructure Information (CEII) processes of the Parties. MTEP and RTEP models are available subject to CEII and existing confidentiality provisions.</p>
<p><i>"The JOA should be amended to require that PJM and MISO must identify any differences in regional modeling practices that could impact the other, such as light load scenarios in interconnection requests" – Exelon</i></p>	<p>Draft JOA language includes exchange of assumptions used in the development of powerflow, stability and production cost models. Additional information on differences in regional modeling practices can be found in the RTO's regional BPMs.</p>
<p><i>"The JOA should state that the model exchange should be accomplished prior to the development of the MTEP and RTEP models for each RTO's planning cycle." – NIPSCO</i></p>	<p>Draft JOA language specifies timeframe for annual exchange of modeling data and information to be used in coordinating planning studies.</p>
<p><i>"Both RTOs should endeavor to share and coordinate economic and power flow data/databases in a similar fashion as what PJM is presently attempting to accomplish with its NYISO and ISO-NE neighbors." – AEP</i></p>	<p>The draft JOA language provides for the development and sharing of a joint economic model with a common set of assumptions.</p>



Comment	Joint RTO Response
<p><i>"We suggest that the Chair and Vice Chair both be rotating positions of the JRPC (one from each region) and that these two people share the responsibilities and consult with each other to set meeting agendas, etc." – WOW, FERC Project, & MAREC</i></p>	<p>Current JOA specifies a Chairman that serves a one year term and is rotated between the two Parties. Current responsibilities are the scheduling of meetings, the preparation of agendas for meetings, and the production of minutes of meetings.</p>
<p>"WPSC/UPPCO support JRPC taking inputs from IPSAC to determine the need for an interregional study." – WPSC/UPPCO</p>	<p>Draft JOA language specifies that the IPSAC will provide input to the JRPC on whether a Coordinated System Plan study should be performed</p>
<p><i>"Is JRPC the final authority to decide whether an interregional study should be performed, after getting inputs from IPSAC." – WPSC/UPPCO</i></p>	<p>Draft JOA language specifies that the JRPC, considering input from the IPSAC, shall determine if a Coordinated System Plan study should be performed.</p>
<p>"Proposed added responsibilities to JRPC (Joint RTO Planning Committee) is a positive step to help address Order 1000 Interregional planning requirements." – WPSC/UPPCO</p>	<p>The RTOs agree</p>

Comment	Joint RTO Response
<p><i>"We want to ensure that participation in the IPSAC is open to all stakeholders." – WOW, FERC Project, & MAREC</i></p>	<p>Draft JOA language specifies that the IPSAC participation is open to all stakeholders.</p>
<p>"All stakeholders should be able to participate in IPSAC meetings. However, there may be the need to hold meetings for just stakeholders with confidential / CEII access in order to discuss detailed confidential transmission information." – NIPSCO</p>	<p>Draft JOA language specifies that the IPSAC participation is open to all stakeholders. CEII information will not be provided in these meetings, consistent with the guidelines of each region.</p>
<p><i>"NIPSCO believes that each RTO should determine the appropriate stakeholder representation on the IPSAC for purposes of voting." – NIPSCO</i></p>	<p>Participation is open to all stakeholders and is advisory to the JRPC. The RTOs think the numerous opportunities for input from the IPSAC will be more informative than formal votes.</p>
<p><i>"We also understand from prior MISO presentations that stakeholders who participate in MISO's Planning Advisory Committee will be able to participate in the IPSAC process. Similarly, we would like PJM's confirmation that stakeholders (including stakeholders who are not members of a particular PJM sector) who participate in the Transmission Expansion Advisory Committee and Planning Committees also will be able to participate in the IPSAC." – WOW, FERC Project, & MAREC</i></p>	<p>Draft JOA language specifies that the IPSAC participation is open to all stakeholders interested in interregional planning activities.</p>




Comment	Joint RTO Response
<p><i>"Would IPSAC define the scope of an interregional plan and provide that input to JRPC? Please clarify." – WPSC/UPPCO</i></p>	<p>Draft JOA language specifies that the IPSAC would provide input regarding the scope of a Coordinated System Plan to the JRPC. The JRPC, with consideration of the IPSAC input, determines the scope.</p>
<p>"The process should include stakeholder review and approval of models prior to use in an interregional study." – Exelon</p>	<p>Draft JOA language requires the development of joint models by the JRPC, considering input from the IPSAC, if a Coordinated System Plan is being performed. Stakeholder approval will not be required prior to beginning an interregional study.</p>
<p><i>"It may be warranted to study the top 10 market to market flowgates on a yearly basis to evaluate if it makes sense to reallocate a small portion of transmission capacity (M2M redispatch), or if a project is needed to increase the transfer capability across the path." – NIPSCO</i></p>	<p>Draft JOA language provides stakeholders with an opportunity to provide input to the JRPC for the annual issues review. The RTOs do not believe any further specificity is required in the JOA, though would agree that this is an example of the information to be considered as part of the annual issues review. M2M procedure changes are more appropriately considered in a markets or operations forum</p>




Annual Issues Review (1/2)

Comment	Joint RTO Response
<p><i>"The removal of the present requirement to perform an interregional study every three years should be accompanied by the addition of appropriate wording in the JOA that ensures that some level of interregional study is being performed each year." – AEP</i></p>	<p>Draft JOA language has annual requirement for an annual issue evaluation. After the annual issue evaluation, the JRPC with input from the IPSAC will determine if a Coordinated System Plan study is needed that year.</p>
<p><i>"JRPC determination requires agreement from both MISO and PJM on which transmission issues would benefit from further study and consideration at the interregional level..."</i> <i>"We urge MISO and PJM to adopt an approach that if a region requests an interregional study be done to address a specific identified need for two consecutive years, and the other region disagrees with the need for the study, the study will be done the third year. This approach prevents one region blocking the consideration and study of a particular issue for more than two years." – WOW, FERC Project, & MAREC (paraphrased)</i></p>	<p>Draft JOA language provides for annual issues evaluation, including issues proposed by stakeholders. We believe this process will result in the decision to perform interregional studies as needed.</p>
<p><i>"A joint process should be established for how proposed projects should be submitted to the RTOs for evaluation as CBMEP. This process could be as simple as having project developers submit their requests through IPSAC." – AEP</i></p>	<p>Draft JOA language allows stakeholders to present issues for consideration to the JRPC during the annual issues review and submit proposed projects to resolve identified issues to the JRPC for consideration during the Coordinated System Plan study.</p>



Comment	Joint RTO Response
<p>"For the annual Issues evaluation, when inputs are taken from other stakeholders identified transmission issues/proposed solutions, how would those inputs be coordinated with MISO- coordinated and PJM- coordinated issues from the respective regional processes, and how would the conflicts be resolved? Please clarify." – WPSC/UPPCO</p>	<p>Issues and projects identified from the MISO & PJM regional processes along with any issues and projects submitted by stakeholders will be presented to the IPSAC for comment during the annual issues review. The JRPC, considering input from the IPSAC, will then determine if a Coordinated System Plan is needed .</p>
<p>"Since the interregional study process is an enhancement to the current process in the JOA, is it fair to assume that BRPS and MEPs would considered and evaluated in the interregional study process. Please clarify." – WPSC/UPPCO</p>	<p>The annual issues review will consider interregional projects to address reliability and economic projects. If a Coordinated System Plan is initiated by the JRPC, both reliability and economic drivers will be studied.</p>





Comment	Joint RTO Response
<p><i>"We request that MISO and PJM provide more clarity as part of the compliance proposal around how stakeholder input will be received, and what process or criteria will be used to decide on the final assumptions and scenarios used." – WOW, FERC Project, & MAREC</i></p>	<p>Draft JOA language allows stakeholders to provide input related to the Coordinated System Plan study scope, models, assumptions, and scenarios through the IPSAC. The JRPC will consider the IPSAC's input and finalize the study scope, model, assumptions, and scenarios.</p>
<p><i>"NIPSCO strongly advocates that the RTOs use common models for economic analysis and for reliability analysis." – NIPSCO</i></p>	<p>Draft JOA language requires the development of joint models by the JRPC, considering input from the IPSAC, if a Coordinated System Plan is being performed.</p>
<p><i>"The JOA should be amended to require that...PJM and MISO develop a common model for use in interregional planning" – Exelon</i></p>	
<p><i>"Currently, MISO and PJM use two different models to identify CBMEPs. As a result, the process for identifying new projects lacks transparency and predictability." – MISO TO's</i></p>	





Comment	Joint RTO Response
<p>"Since MISO-PJM seams issues span a wide geographic range, the studies should consider portfolios of projects that would comprehensively address congestion across the seams flow paths. This would avoid a band-aid approach to fixing congestion that would otherwise just move congestion from one flowgate to the next without much improvement in accessing cheaper generation." – NIPSCO</p>	<p>Draft JOA language provides stakeholders with an opportunity to provide input on solutions to issues identified in the annual issues review. Potential solutions could include identified upgrades in discrete locations to address areas of congestion.</p>
<p><i>"MISO and PJM should also provide more detail regarding what criteria will be used to evaluate solutions to interregional transmission issues."</i> – WOW, FERC Project, & MAREC</p>	<p>The criteria that will be used to evaluate solutions to interregional transmission issues is contained in the JOA and in each region's procedures and BPMs.</p>
<p><i>"WPSC/UPPCO support the approval of an interregional project by both regions. However, if one of the RTOs says "NO" to an interregional project, then is there a backstop authority? Please clarify."</i> – WPSC/UPPCO</p>	<p>See the dispute resolution procedures included in the JOA.</p>
<p><i>"We urge the JRPC and IPSAC to examine in the next several months how to account for the EIPC results and lessons learned."</i> – WOW, FERC Project, & MAREC</p>	<p>RTOs will <i>review and consider the EIPC</i> results as may be appropriate.</p>




Comment	Joint RTO Response
<p><i>"NIPSCO believes the JOA needs to better address the cost allocation for generator interconnections and generator retirements." – NIPSCO</i></p>	<p>The RTOs believe the JOA language and the Party's respective OATT provide sufficient clarity on allocation of generator interconnection costs. Costs for upgrades needed to address reliability criteria violations due to generation retirements are allocated pursuant to each Region's baseline reliability upgrade allocation procedures.</p>
<p><i>"Processes and actions around generator retirements need to be added to the JOA." – NIPSCO</i></p>	<p>Draft JOA language includes sharing of planned generation information including retirements.</p>
<p><i>"At the January 16, 2013 MISO / PJM Order 1000 Stakeholders Meeting, 2 alternatives were presented for the improving this generator interconnection process. Rather than choose 1 of the approaches, we believe MISO and PJM should use both process, incrementally, with the end state being that represented in Alternative 2 (i.e. the creation of a common queue)." – Duke Energy</i></p>	<p>The RTOs are moving forward with implementing "Alternative 1" as an immediate action to improve coordination for generation interconnection studies. To the extent coordination issues remain after implementing these reforms the RTOs are open to pursuing additional enhancements to improve coordination.</p>
<p><i>"We believe the implementation of Alternative 1 should be modified somewhat from that listed on the January 16 presentation, with that modification being the creation of a joint study case with common study assumptions and study criteria." – Duke Energy</i></p>	<p>The impact of generator interconnections, regardless of the location of the generator, are evaluated using the criteria, assumptions, procedures and BPMs of each RTO. Study cases used in the conduct of these analyses are coordinated per the language in the JOA.</p>



Comment	Joint RTO Response
<p><i>"MISO and PJM should align their planning cycles."</i> – NIPSCO</p>	<p>The RTO's believe our planning cycles are fairly well aligned and the interregional coordination can be successfully implemented according to the Order 1000 requirements.</p>
<p><i>"The use of a single MTEP/RTEP common base case enables a more consistent evaluation of seams issues like generator interconnections, generator retirements, no harm testing, etc."</i> – NIPSCO</p>	<p>The draft JOA language provides for extensive data and modeling exchange so that the adjacent Region's system can be accurately modeled in MTEP and RTEP.</p>
<p><i>"Processes and actions around generator retirements need to be added to the JOA."</i> – NIPSCO</p>	<p>Draft JOA language includes sharing of planned generation information including retirements.</p>
<p><i>"The JOA should be amended to specify that models and data provided from one RTO to the other be included in the receiving RTO's RTEP or MTEP, respectively."</i> – Exelon</p>	<p>Coordination and development of regional models takes into account the neighboring region's models in sufficient detail for regional analyses.</p>
<p><i>"Each RTO should include in its model and study assumptions the conditions that were considered by the other RTO in justifying the approved projects in its transmission expansion plan. Each RTO should also model similar testing conditions in the other RTO footprint when conducting its own testing."</i> – AEP</p>	<p>Region planning is governed by regional assumptions and business practices as developed in conjunction with the regional stakeholder processes. These plans are coordinated through the interregional planning process that is being strengthened and enhanced according to the Order 1000 requirements.</p>






Comment	Joint RTO Response
<p><i>"Monitored and contingency lists used by each RTO should include facilities that are located in the neighboring RTO footprint to ensure that all reliability impacts on either RTO are identified and addressed." – AEP</i></p>	<p>The RTOs agree. The draft JOA language provides for extensive modeling and data exchange. Monitored and contingency lists can be exchanged per the draft JOA language. Each Region will decide the specific facilities to be monitored and contingencies to be simulated per regional procedures and BPMs.</p>
<p><i>"Planning criteria violations caused in one RTO footprint by planning criteria testing conducted by the other RTO need to be addressed by both RTOs, with the solutions included in the appropriate transmission expansion plans" – AEP</i></p>	<p>See the response above. To the extent one RTO identifies a potential issue in the adjacent RTO, the adjacent RTO will be notified. The adjacent RTO will validate the potential issue and take corrective action if necessary.</p>
<p><i>"Each RTO should continue to conduct its own separate baseline reliability studies (no need for joint studies), although some level of coordination and cross-border communication would be required to properly implement the above recommendations." – AEP</i></p>	<p>The RTOs agree.</p>



- **MISO and PJM have jointly drafted modifications to Article IX of the JOA to address the Order 1000 interregional coordination requirements**
- **Posted drafts cover the following sections:**
 - Section 9.1 – Administration; Committees
 - Enhancements to the responsibilities of the JRPC and IPSAC
 - Section 9.2 – Data and Information Exchange
 - Enhancements to commit to annual model and data exchange
 - Section 9.3 - Coordinated System Planning
 - Enhancements to Interconnection Request Coordination
 - Incorporation of an annual issues review with the IPSAC
 - Clarifications to the Coordinated System Planning study process



Update on MISO-PJM JOA Cost Allocation Proposals (update will be verbal)

- **Request for feedback on the draft JOA language presented today will be sent to stakeholders**
 - Proposed due date for feedback is February 27th
- **Next meeting March 13th to review proposed revisions to MISO-PJM JOA for Order 1000 compliance requirements**
 - Meeting will be a conference call/web meeting

2012-2013 Timeline	Task	Forum
Feb 13	MISO and PJM present draft JOA language	MISO-PJM Joint Stakeholder Workshop (MISO Office – Carmel, IN)
Feb 27	Stakeholder feedback on draft JOA language due	
Mar 13	Finalize MISO-PJM JOA Order 1000 Revisions	MISO-PJM Joint Stakeholder Workshop (Conference call/web meeting)
April 11	Interregional Coordination and Cost Allocation Compliance Filing Due	

- **MISO Contact**
 - Jesse Moser (jmoser@misoenergy.org)
 - Jeremiah Doner (jdoner@misoenergy.org)

- **PJM Contact**
 - Paul McGlynn (mcglyp@pjm.com)
 - Chuck Liebold (lieboc@pjm.com)