



## **PJM Response to MISO Capacity Deliverability Whitepaper**

**July 10, 2012**

On June 26, 2012, MISO distributed and posted a whitepaper entitled “Capacity Deliverability”. In the whitepaper, MISO states that the purpose of the document is to, “provide a detailed description of barriers to capacity deliverability and proposed steps to unlock the value of increased capacity deliverability.”<sup>1</sup> Recognizing that MISO has been discussing what it perceives to be barriers to the transfer of capacity across the RTO seam for some time and in various forums, PJM appreciates MISO’s efforts to clarify the elements of its proposal.

PJM further appreciates MISO’s clarification on several aspects of its proposal, including day-ahead must offer requirements, the need to respect existing capacity transactions and firm service reservations, and the establishment of guiding principles.

PJM looks forward to engaging both PJM and MISO stakeholders on identifying what they believe are key issues and assisting the two RTOs in developing priorities on these issues. PJM puts forward this document to provide its own initial thoughts on those issues identified in the MISO paper.<sup>2</sup>

PJM believes that certain of the components of the MISO “Solution Proposal” described in the whitepaper would be fruitful areas for further initial exploration in the joint stakeholder process that will commence on July 16, 2012. Specifically, PJM believes the following items should be further analyzed as high priority items in the joint stakeholder process:

---

<sup>1</sup> The whitepaper is posted at the following link: <https://www.midwestiso.org/layouts/miso/ecm/redirect.aspx?id=133200>

<sup>2</sup> PJM continues to believe that these issues and their component parts will require considerable effort to identify and prioritize. Although PJM will be filing comments to FERC as requested by the Commission, PJM does not believe that these issues have been sufficiently worked through by stakeholders or the two RTOs such that discrete and identifiable issues can be presented to the regulator for meaningful action. PJM hopes that working with PJM and MISO stakeholders, it can continue to narrow and crystallize these issues further rather than having any one party simply resort to placing these issues at FERC’s doorstep for a single regulatory resolution to what are multi-faceted and complex issues.



### **High Priority / Near-Term Items**

Coordination of long-term Transmission Service Requests – this would ensure that both RTOs are using consistent methodologies and assumptions when evaluating long-term transmission service requests, and therefore that any constraints to the reliable award of such service are properly resolved on both sides of the seam. This coordination could include the MISO solution components of establishing a total transfer capability across the seam, and would necessarily require the MISO solution component of respecting existing capacity transactions and Firm Transmission Service Reservations.

Coordination of capacity product definition – ensuring that the capacity product is defined consistently on both sides of the seam will assist market participants in efficiently committing the product in either RTO, because the product will be evaluated consistently regardless of the market to which it is offered.

PJM believes initial focus on the above items will achieve the greatest benefits with the most expedient solutions with respect to capacity deliverability across the seam. However, other potential initiatives could also be beneficial as the next order of priorities. Specifically, PJM believes the following efforts should be pursued with a medium priority in the joint stakeholder process:

### **Medium Priority / Mid-Term Items**

Coordination of capacity deliverability modeling and assumptions – both PJM and MISO evaluate generation resources for deliverability to their respective footprints, as well as load deliverability to determine sub-regional constraints on capacity transfers within their respective footprints. PJM believes that coordinating the models and assumptions used in these respective analyses would ensure consistency of the analysis results and greater transparency regarding deliverability of resources both within and between the RTO footprints.

Coordination of capacity auction timing – PJM and MISO have or will implement very different capacity constructs. Coordinating the timing of the capacity auctions operated by each RTO will help to ensure that capacity resources may be efficiently offered and clear in either auction. Given the current RPM construct in PJM and the recently approved auction structure in MISO, the coordination opportunity would be between the MISO annual auction and the PJM Third Incremental Auction. The same level of coordination between the PJM Base Residual and the First and Second Incremental Auctions and the



MISO annual auction would not be possible because these PJM auctions occur well ahead of the single MISO auction.

Finally, PJM believes that there are additional potential initiatives that could be undertaken, but which would require significant effort and commitment of resources by both RTOs and their stakeholders. PJM believes this third “basket” of issues deserves further discussion but that the benefits of the short term high priority coordination opportunities outlined above would be sacrificed if these more complex issues (and FERC resolution of same) somehow became the highest priority of either RTO. The history of market development in both the PJM and MISO markets underscores the need for prioritization and incremental approaches so that the limited resources of stakeholders, RTO staffs and state and federal regulators can be most effectively utilized and tangible results achieved in the near term. PJM approaches this third set of issues with these principles in mind:

### **Longer-Term Items**

Joint deliverability analysis and common commitment timeframe – the RTO capacity markets could evolve to the point where generation resources are evaluated for deliverability to the combined load of both footprints, and load deliverability is analyzed on the basis of the combined region. However, given the links in the planning analysis to operational assumptions around optimizing the dispatch of the other resources in the footprint, PJM believes that, as more fully explained below, a common Day-Ahead Market would be required to fully implement joint deliverability analysis.

Combined capacity market – should MISO and its stakeholders progress toward a forward capacity market, it may be possible to execute a common capacity auction across the combined region.

However, there are several aspects of the whitepaper with which PJM takes issue. PJM is disappointed that MISO continues to reference the previously released Brattle study as the basis for its proposal. As PJM previously established:

- The level of capacity imports offered into PJM RPM auctions from the West has been significantly greater than the report indicates. In fact, in the latest RPM Base Residual Auction for the 2015/2016 Delivery Year, over 4,300 MW of capacity imports from the West of PJM cleared which is an 8% increase over previous auctions. This increased level of imports was clearly driven by the price differentials between the two RTOs and demonstrates the lack of some institutional barrier to MISO generation participation in the PJM capacity auction.



- Failing to account for the PJM Capacity Benefit Margin (CBM), which provides significant reliability and economic benefits for the PJM region, overstates the amount of available firm transmission capability between MISO and PJM. This point was acknowledged by Brattle in their statement of January 26, 2012.<sup>3</sup>
- The capacity import offers from the West have been at a level roughly commensurate with the physical availability of the firm transmission transfer capability between PJM and MISO suggesting that transmission availability does not appear to hinder imports' willingness to offer.
- That not all capacity imports offered cleared in prior RPM auctions suggests that the offered price exceeded the clearing price, and therefore the imports did not occur due to the correct auction clearing result and not due to any institutional barriers.
- Understating the level of capacity import offers and failing to account for CBM results in a significantly overstated estimate of the potential savings for the PJM region should further interregional coordination be effectuated.

PJM and MISO both utilize CBM in the calculation of their respective required reserve margins. PJM assumes that MISO is not suggesting that CBM be reduced or eliminated only in PJM<sup>4</sup>. However, reducing or eliminating CBM in favor of procuring capacity in the same amount would increase capacity costs in both regions, thereby violating one of the guiding principles MISO states in the whitepaper to, "Ensure proposal would not lead to higher total capacity costs in MISO and PJM." (whitepaper at page 10) PJM is concerned that the cost impact in each region of reducing or eliminating CBM in both of our respective footprints has not been adequately analyzed or detailed to regulators.

Additionally, the First Energy and/or Duke integrations into PJM do not demonstrate the existence of "institutional barriers" to the transfer of capacity across the seam. The generation resources in these zones are serving fundamentally the same load they were serving when the zones were in MISO. New "transfers" of capacity to the PJM footprint are not available due to these zones' move from MISO to PJM. In short, the MISO paper only looks at half the equation i.e. generations deliverability before and

---

<sup>3</sup> This statement can be found at

<http://www.google.com/url?q=http://www.brattle.com/documents/UploadLibrary/Upload1008.pdf&sa=U&ei=g mT8T9jsJIHn0QH7w6XOBg&ved=0CBEQFjAA&usg=AFQjCNGih3g30DQpNDCJdihqJorz63PSgA>.

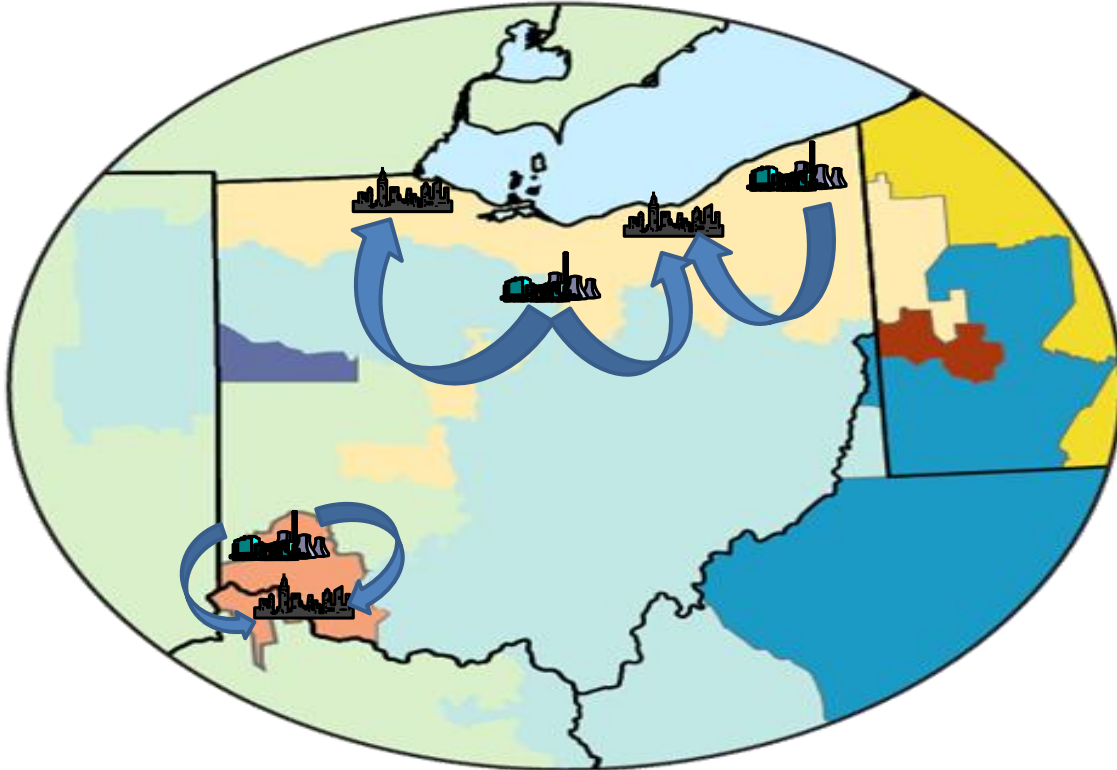
<sup>4</sup> PJM notes that MISO also includes a CBM value in its calculation of reserve requirements. PJM's CBM value is 3,500 MW, and results in a reduction of about 1.8% in PJM's required reserve margin. MISO includes an even greater amount of "external support" in its reserve margin calculation, for an even greater percentage impact. See MISO's 2012 LOLE Study Report posted at: <https://www.midwestiso.org/layouts/miso/ecm/redirect.aspx?id=120519>.



after the First Energy integration while ignoring the fact that the load which is served by that generation also moved to PJM thus maintaining the balance that existed when that same level of generation and load was all in the MISO region.

First Energy and Duke generation AND load transferred to PJM.

Resources in the zones largely serve the same load; new “transfers” of capacity are not suddenly available that were not before.



### **Requirement for Firm Transmission Service**

A fundamental principle of the PJM resource adequacy construct is that capacity must be deliverable to load. Deliverability ensures that when the capacity resource produces electricity, that electricity may be transferred across the transmission grid for real time operations. Both imports from outside of PJM and generation resources within PJM must be deliverable to customers in order to be eligible to participate in the RPM capacity market. The purpose of a generation resource capacity product is to ensure that the energy can be produced and delivered when it is needed. The PJM deliverability analysis for internal resources and the requirement for Firm transmission



service for external resource are fundamental requirements to ensure reliability is maintained and that transmission capability is not double counted.

In its whitepaper, MISO proposes a joint study process to determine resource deliverability to both PJM and MISO load. Implementation of a joint deliverability analysis however, requires resolution of many other issues. For example, when PJM evaluates the ability for a generator to deliver its capacity to PJM load (referred to as PJM's generator deliverability test) the analysis optimizes other generation in the PJM footprint in order to manage transmission constraints. This planning analysis assumption is valid because the generation in the PJM footprint is dispatchable by PJM in actual operations. The same is not true for MISO generation. Therefore, assuming that MISO generation can be optimized in the performance of a joint generation deliverability test would not be valid unless the day-ahead markets were more tightly coordinated to the point where generation in either region could be redispatched by either RTO. While the current PJM/MISO JOA provides for coordinated real time dispatch, the JOA does not provide for the common day-ahead dispatch and energy exchange between the RTOs that would be required to support the assumptions in a joint deliverability test. These linkages between the planning analysis assumptions and the reality of actual operations must be considered in the development of enhanced coordination of the planning studies. Moving directly to implement joint deliverability analysis would akin to skipping several, critical steps in the process and would not properly consider these important linkages.

### **Long Term Resource Adequacy**

PJM notes that in its latest state of the market report for MISO, the MISO IMM expects that the MISO region will decreasing capacity margins in the coming years [cite to MISO SOM at following link, page 14:

<https://www.midwestiso.org/layouts/MISO/ECM/Redirect.aspx?ID=132800>]. PJM

believes that one of the most significant improvements that MISO could make to address its concerns related to resource adequacy is to develop a more comprehensive forward capacity market that will incent generation investments and will provide generation and demand response commitments on a longer term basis. PJM encourages MISO to consider this alternative.