Memorandum

To: Entergy Regional State Committee Working Group
Date: January 11, 2011
Re: Limitations on Midwest ISO use of SPP Transmission Capacity to Integrate Entergy into the Midwest ISO System

Introduction
Southwest Power Pool, Inc. (“SPP”) has prepared this whitepaper to set forth its views concerning the Midwest Independent Transmission System Operator, Inc.’s (“Midwest ISO”) use of SPP’s transmission system to effectuate the potential integration of operating companies of Entergy Corporation (“Entergy”) into the Midwest ISO. Recently, Midwest ISO has put forth publicly its assessment that, under the terms of the Joint Operating Agreement between the Midwest Independent Transmission System Operator, Inc. and Southwest Power Pool, Inc. (“SPP JOA”), it is entitled to use the “contract path” capacity between Midwest ISO and SPP, and between SPP and Entergy, to integrate Entergy into the Midwest ISO markets.

First, SPP would like to assure the ERSC and ERSC Working Group that seams agreements (JOAs) are important to the effective and efficient operation and planning of the bulk electric system. SPP and its members gain value from having agreements that facilitate information sharing and coordinated planning and operations with other entities on the SPP seams, including the Midwest ISO. SPP will continue to press for seams agreements that provide value to its members and the industry.

However, the Midwest ISO’s positions on the items highlighted in its assessment are inconsistent with the plain meaning of the terms of the SPP JOA. Its positions ignore limitations on the use of flowgates under the SPP JOA and pay no heed to the parties’ recognition that the SPP JOA applies only to the current configuration of the Midwest ISO, not to the expanded system that would exist if Entergy were a part of either organization. The parties also must ensure that the implementation of their seams agreement does not create burdens on neighbors, including in the case of SPP: Associated Electric Cooperative, Inc., the Tennessee Valley Authority, and Southern Company. SPP also must assess whether the integration of Entergy into the Midwest ISO market creates material burdens on SPP’s members.

The Single High-Voltage Connection between Midwest ISO and Entergy
Interconnection capacity between Midwest ISO and Entergy is a critical component of determining the allowable interchange between the two. Generally, there are two conditions that have to be met to facilitate interchange directly between two utilities. First, the two utilities have to be contractually interconnected with sufficient interconnection capacity to validate the contractual arrangement. Second, sufficient transmission system capacity must exist to reliably facilitate the interchange. Limitations in either interconnection capacity or Available Transfer Capacity (ATC) would impose limitations on the amount of energy that could be exchanged directly between the two parties.
The only high voltage connection between Midwest ISO and Entergy is via certain transmission arrangements contained in the “Interchange Agreement between Arkansas-Missouri Power Company, Associated Electric Cooperative, Inc. and Union Electric Company for the Missouri-Arkansas EHV Interconnection (“Interchange Agreement”). This agreement provides a “contract path” between Ameren Corporation (“Ameren”), a Midwest ISO transmission owner, and Entergy through the use of Ameren, Entergy, and Associated Electric Cooperative, Inc.’s (“AECI”) facilities that are subject to the agreement. The total capacity of the interconnection facilities associated with the Interchange Agreement is approximately 1500 megawatts, divided equally among the three parties. As a result of this contractual arrangement, Midwest ISO and Entergy combined currently have a contractual interconnection between them of approximately 1000 megawatts.

SPP has been informed that AECI has given notice to the other parties that it is canceling this agreement as of its expiration date in June 2013. Absent a replacement arrangement, the cancellation of the Interchange Agreement will eliminate any high-voltage connection between Midwest ISO and Entergy.

In addition, if this contract is relied upon to integrate Entergy into the Midwest ISO market, provisions for at least some contract path between Entergy and Midwest ISO would have to be in place whenever the interconnection facilities are out of service to continue the integrated operation of the Entergy and Midwest ISO systems.

Midwest ISO and SPP currently have interconnections between their systems totaling approximately 6,900 megawatts. Note also that most (74%) of the contract path capability between SPP and the Midwest ISO is between Nebraska and Iowa. This is remote from the transmission connection between Midwest ISO and Entergy and, even if appropriate contractual arrangements were put in place, would be of very limited use for the integration of Entergy in the Midwest ISO market. The physical connection from these contract path capabilities to the remainder of SPP is one of the most constrained portions of the SPP region; this would likely be exacerbated if Entergy were part of the Midwest ISO market and were using this path. As discussed below, Midwest ISO’s rights to use this capacity are limited.

Finally, even if contractual arrangements existed for the use of SPP capacity, SPP has interconnections with Entergy totaling only approximately 4,500 megawatts (not the 8818 megawatts identified in the Midwest ISO’s analysis).

**Sharing “Contract Path” Capacity**

Midwest ISO has stated that it may “share” SPP’s interconnection capacity to Entergy under the terms of the SPP JOA. Midwest ISO relies on section 5.2 of the SPP JOA, which provides that:

**Section 5.2 Sharing Contract Path Capacity.** If the Parties have contract paths to the same entity, the combined contract path capacity will be made available for use by both Parties. This will not create new contract paths for either Party that did not previously exist. SPP will not be able to deal directly with companies with which it does not physically or contractually interconnect and the Midwest
ISO will not be able to deal directly with companies with which it does not physically or contractually interconnect.

Section 5.2 applies when each of the two parties, Midwest ISO and SPP, have “contract paths to the same entity.” If Entergy were a part of the Midwest ISO system, then neither Midwest ISO nor SPP would have a contract path “to” the same entity. Entergy would now be a part of the Midwest ISO system as a whole; Midwest ISO does not have contract paths “to” itself. Similarly, if Entergy were a part of the Midwest ISO system, SPP would no longer have a contract path “to” Entergy. All of SPP’s existing paths to Entergy would become paths “to” Midwest ISO. Thus, section 5.2 is inapplicable because Midwest ISO and SPP would not have “contracts paths to the same entity.”

Section 5.2, by its plain terms, applies when Midwest ISO and SPP have contract paths to the same third-party system. For example, Entergy today is a third party system, not a part of either Midwest ISO or SPP, and “the Parties [Midwest ISO and SPP] have contract paths to the same entity [Entergy].” TVA is another example of a third party to which both Midwest ISO and SPP currently have contract paths by virtue of their separate interconnections to TVA. Under section 5.2, the parties agreed to share their contract path capacity to these third parties.

That this is Midwest ISO’s and SPP’s understanding of section 5.2 of the SPP JOA is confirmed by a recent request by Midwest ISO to use the SPP connections to Entergy under section 5.2 for transfers to Entergy that occur today. Midwest ISO had been making transfers to Entergy using its share of the capacity under the Interchange Agreement, discussed above, and governing the interconnection facilities connecting Midwest ISO and Entergy. See section II, above. However, as result of an outage of the facility comprising the contractual interconnection between Midwest ISO and Entergy, transfers between Midwest ISO and Entergy were being interrupted. Midwest ISO therefore contacted SPP and, relying on section 5.2 of the SPP JOA, asked to use the SPP-Entergy interconnections during that system condition.

This recent incident confirms SPP’s view of the meaning of section 5.2 of the SPP JOA. It is clear that both parties understood that the provision concerns transfers to third parties. Entergy would not be such a third party if it was a part of either SPP or Midwest ISO, and section 5.2 would be inapplicable.

The JOA’s Congestion Management Process identifies the limits for Midwest ISO’s use of SPP Flowgates

In any event, the provisions of the SPP JOA must be read as a whole. Regardless of any sharing of contract path capacity, even if under section 5.2 of the SPP JOA, the Parties agreed to other restrictions on the flow of a party’s energy over the other party’s system as a result of the operations of the parties’ respective markets.

At the same time that the Federal Energy Regulatory Commission (“FERC”) approved section 5.2 of the SPP JOA, it also approved a comprehensive set of rules concerning the flow of energy across the Midwest ISO and SPP systems. These rules are set forth in an Attachment to the JOA called the Congestion Management Process.1 Under the Congestion Management Process, the

1 SPP JOA, Attachment 1.
Parties agreed to allocate the transmission capacity on flowgates for purposes of coordinating flowgate capacity, transmission sales, and dispatch of generation. The allocation is based on the Parties’ uses of the regional systems as of April 1, 2004, which is known as the Historic Firm Flow. In real time, the Parties agreed to determine the firm and non-firm market flows occurring from their market operations “and constrain their operations to limit Firm Market Flows on the Coordinated Flowgates to no more than the calculated Firm Flow Limit.” The “Firm Flow Limit” is “the maximum value of Firm Flows that an entity can have on a Coordinated Flowgate.” Section 6.1 of the JOA expressly states that “each Party agrees to respect the allocations defined by the allocation process set forth in the Congestion Management Process,” and all real time activities “shall be governed by and in accordance with the Congestion Management Process.”

Consequently, Midwest ISO and Entergy would be constrained in the amount of firm energy flow they could place on SPP flowgates to the allocations derived from the share of the firm “rights” they possessed on these flowgates in 2004. Given the limited ties between Midwest ISO and Entergy at that time (and today) and based upon SPP’s initial assessment, it does not appear that significant firm “rights” exist to provide Midwest ISO the allocations needed to reliably serve the loads of Midwest ISO and Entergy using the flowgates of SPP, or other neighboring transmission systems, much less gain the benefit of joint operations of the combined facilities. The SPP JOA would limit Midwest ISO’s use of SPP flowgates based on historic firm “rights”.

In other words the sharing of contract path capacity must be read in conjunction with the explicit limitations in the Congestion Management Process on the use of flowgate capacity. The parties agreed to respect these limitations.

**Obligation to Renegotiate**

Finally, even if the JOA by its existing terms permitted the types of flows that Midwest ISO apparently contemplates if it were to integrate Entergy into its system, the parties expressly agreed that the current SPP JOA terms were only applicable to the parties’ systems as they existed at the time. Section 3.1 of the SPP JOA provides that the parties agreed to the specified coordination “to ensure system reliability and efficient market operations as systems exist and...”

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2 A flowgate is a facility or group of facilities that may act as a significant constraint point on the regional system. SPP JOA § 2.2.20.

3 See SPP JOA, Attachment 1, Appendix A (definition of “Allocation”).

4 SPP JOA, Attachment 1 § 6.4. The date of the measurement of historic flows is called the “Freeze Date” in the SPP JOA, and is set at April 1, 2004. Id.

5 SPP JOA, Attachment 1, Executive Summary.

6 SPP JOA § 2.2.19.

7 SPP JOA § 6.1.

8 There also are provisions in the SPP JOA for the sharing of unused flowgate capacity, if any.
are contemplated as of the Effective Date.9 The parties agreed to renegotiate the SPP JOA in the event of system expansions:

The Parties expect that these systems . . . will change from time to time throughout the term of this Agreement. The Parties agree that the objectives of this Agreement can be fulfilled efficiently and economically only if the Parties, from time to time, review and as appropriate revise the requirements stated herein in response to such changes, including deleting, adding, or revising requirements and protocols. Each Party will negotiate in good faith in response to such revisions the other Party may propose from time to time.10

In submitting the Midwest ISO-PJM JOA to the FERC, the parties to that agreement explained the purpose of this renegotiation clause, which also appears in that agreement and was adopted and included in the SPP JOA:

The JOA provisions are predicated upon the current configurations of the parties’ systems. In order to respond to continued evolution of these systems and applicable technology, the JOA provides that the parties will review and revise its terms from time to time to respond to these developments and to remain up to date in all respects. Events precipitating review and revision also include changes to a party’s boundaries as RTO . . . .11

Whatever the parties may have agreed with respect to the use of each other’s facilities was in the context of the existing configuration of their systems. The expansion of Midwest ISO to include Entergy plainly was not “contemplated as of the Effective Date.” Given the limited direct connections between Midwest ISO and Entergy, the integration of Entergy into the Midwest ISO dispatch would produce significantly different energy flows in the region and on SPP’s system than were contemplated at the time the SPP JOA became effective. The parties agreed to revisit, and to delete from, add to, or revise the requirements and protocols of, the SPP JOA, in the event of a system reconfiguration of the nature that the addition of Entergy to either SPP or the Midwest ISO system would represent. Therefore, neither SPP nor the Midwest ISO can rely on the existing provisions of the SPP JOA for the integration of Entergy, and the parties would have to renegotiate the SPP JOA if this integration were to occur.12

9 SPP JOA § 3.1 (emphasis added).

10 SPP JOA § 3.1.


12 Midwest ISO contends that it and PJM agreed to provisions substantially similar to section 5.2 of the SPP JOA, and Midwest ISO and PJM purportedly have used the provisions to enable Midwest ISO to share PJM transmission capacity to dispatch energy to the weakly connected Michigan portion of Midwest ISO’s internal system. Unlike the Midwest ISO-PJM border, SPP and Midwest ISO transmission systems are not intertwined in a way that provides the mutual benefits that Midwest ISO and PJM enjoy in sharing of contract path capacity for their joint operations. With the substantial system impacts SPP, and others, would experience if Entergy
Conclusion

The evaluation of the merits of the integration of Entergy into the Midwest ISO and any resulting joint operations of the two systems must reflect the physical and contractual limitations that would be placed on Entergy and Midwest ISO. There is only a limited interconnection between the two systems, and the use of SPP’s system to effectuate power transfers between Midwest ISO and Entergy is restricted by the existing SPP JOA.

While additional evaluation of these limitations can be performed with sufficient time and resources, the SPP system’s ability to accommodate the flows that Midwest ISO and Entergy may contemplate necessarily must be evaluated based on the limited interconnection capabilities in the region, the contractual limitations that exist, and the impacts on the SPP and other systems on the Entergy seams. In addition, the impacts on SPP’s members and other neighboring transmission systems must be carefully considered. The SPP JOA would need to be renegotiated to address any adverse impacts.

SPP looks forward to working with Entergy and Midwest ISO and other stakeholders to accurately reflect the physical and contractual limitations in studies of the benefits, if any, of joint Midwest ISO/Entergy operations, and in renegotiating, as necessary, the terms of the seams agreement between Midwest ISO and SPP.

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were to be integrated into Midwest ISO, SPP would not benefit and would likely suffer a greater burden. Therefore, the terms of any sharing of capacity renegotiated to accommodate Entergy would not be the same.