Arkansas Electric Cooperative Corporation (AECC) appreciates the opportunity to provide comments to the RSC and OMS regarding the SPP/MISO seam.

Question 1. What do you believe to be the single most important/impactful seams issue and what barriers are preventing resolution? If applicable, include two to four additional priority items the regulators should focus on.

The most important/impactful seams issue is the pancaked transmission rate for serving network load in one RTO from resources located in the other RTO.

AECC believes the costly pancaked rate results in both reduced transmission efficiency across the seam and reduced revenues to the RTO transmission owners. Given the magnitude and recent increases of the RTO transmission rates, AECC and likely others who pay the pancaked rate will be economically driven to find alternatives to paying the pancaked rate, reducing revenues received from transmission service.

Background on AECC Pseudo-Tie and Cost

AECC is primarily a transmission-dependent utility, meaning that its Member loads connect primarily to transmission systems owned by other utilities. Approximately 55**%** of AECC Member cooperative loads are physically connected to the Entergy Arkansas, LLC (EAL) transmission system, and the remainder of AECC Member loads are connected to the Southwestern Electric Power Company (SWEPCO), Oklahoma Gas & Electric (OGE) and Southwestern Power Administration (SWPA) transmission systems. The EAL transmission system is part of the MISO RTO, while the SPP RTO footprint envelopes the SWEPCO, OGE and SWPA transmission systems.

Because AECC is primarily an intra-state utility and its system's planning predated the entry into two separate RTO markets, AECC has excess generation capacity in MISO and more load than generation capacity in SPP. AECC serves some of its load that is physically located in SPP with generation from MISO via FERC-approved pseudo-ties. This pseudo-tied load pays for transmission service twice, both for MISO and SPP network transmission. The overlapping cost of the MISO transmission to serve this pseudo-tied load is estimated at $4.6 million per year for AECC. There are also overlapping congestion and losses charges.

AECC has a power purchase agreement for 170 MW firm power from a natural gas-fueled cogeneration plant in northeast Texas, that is a designated network resource to serve AECC's SPP load. The original agreement was signed in 2011 for a 5-year term ending May 31, 2020. In 2016, the agreement was extended by 5 more years (to May 31, 2025). Absent the seam, AECC has adequate generating capacity to serve its load and would expect to have excess generation greater than the power purchase agreement capacity through 2028. AECC estimates that the power purchase agreement has an extra cost to AECC of $2.4 million per year that would not have been incurred, but for the pancaked rate/seams inefficiency.

AECC Efforts to Reduce Pseudo-Tie Costs

The total annual cost to AECC of the pancaked rate and the cost of securing additional capacity in the SPP is in excess of $7.0 million per year, as summarized above.

As part of its ongoing efforts to mitigate the cost of the transmission seam and the pancaked rate, AECC unwound about one third of the pseudo-tie load on January 1, 2018. AECC is currently evaluating other SPP capacity options to potentially unwind additional pseudo-tie load. AECC's resource plan, including details as provided in AECC's Integrated Resource Plan as filed with the Arkansas Public Service

Commission,[1] will have AECC eventually eliminating the pseudo-tie by balancing generation and load within each of the RTOs.

AECC's position is that elimination of the regional through-and-out rate does not unreasonably or unjustly shift costs across the seam; instead, the rate acts as a barrier to a more efficient transmission network utilization.

AECC has also attempted, through interventions and comments in various FERC dockets, to eliminate the through-and-out rate between the SPP/MISO seam. Elimination of this cost would be consistent with FERC action in eliminating the pancaked rate between MISO and PJM and in efforts to increase market efficiency. AECC's efforts in these FERC proceedings have not been successful. AECC would strongly support any state regulatory efforts to eliminate the through-and-out rate for serving network load.

Additional priority items AECC would appreciate additional and renewed regulatory focus include:

- Consideration of a combined power market footprint across the SPP/MISO regions, as discussed further below.
- Improvements in the process to ensure that beneficial transmission along the seam is built and costed appropriately.
- Improvements in the generator interconnection process efficiency and studies for affected systems.
- Elimination of overlapping congestion and loss charges for entities serving load in one RTO from resources located in the other RTO, as discussed further below.

Question 2. How should the RTOs weigh the benefits of more efficient seams operation against focusing on maximizing intra-RTO efficiencies and operation?

Inter- and intra-RTO efficiencies should be evaluated comparably, and to-date it appears minimal consideration has been given to more efficient operations that could benefit members of both RTOs. From SPP's July 2016 Regional Cost Allocation Review, it appears that the SPP transmission zones along the SPP/MISO seam are the ones that have benefited least from the SPP intra-regional transmission buildout, with City Utilities of Springfield (MO), Empire District Electric, and Omaha Public Power District being the only three transmission zones with benefit/cost ratios below 1.0. Perhaps a focus on inter-regional solutions and efficiencies would allow for those entities near or spread between the seam (such as AECC) to receive comparable benefits from the transmission system.

The respective RTO planning processes appear focused on the reliability and economics of building transmission for intra-RTO benefit only, based on the RTO's dispatch of its generation to serve its load. Billions have been spent on intra-RTO transmission. AECC believes that it is possible that expansion of the market footprint could provide benefits in excess of benefits achieved from adding additional intra-regional transmission.

Both SPP and MISO operate day-ahead and real-time markets for energy and certain ancillary services. AECC believes significant value could come from operation of a combined market footprint across the SPP/MISO footprint.

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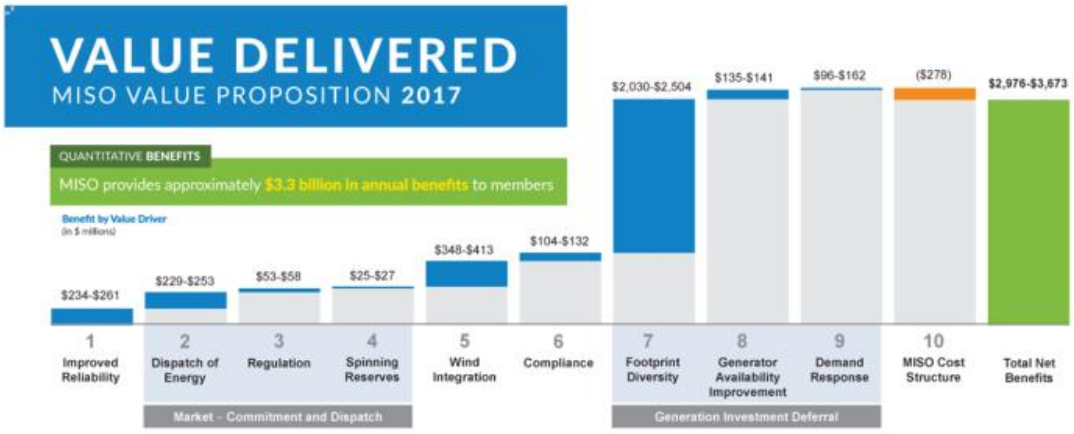
[1] The filings made pursuant to the relevant APSC rules may be accessed with this link: http://www.apscservices.info/efilings/docket_search_results.asp?casenumber=07-017-U.

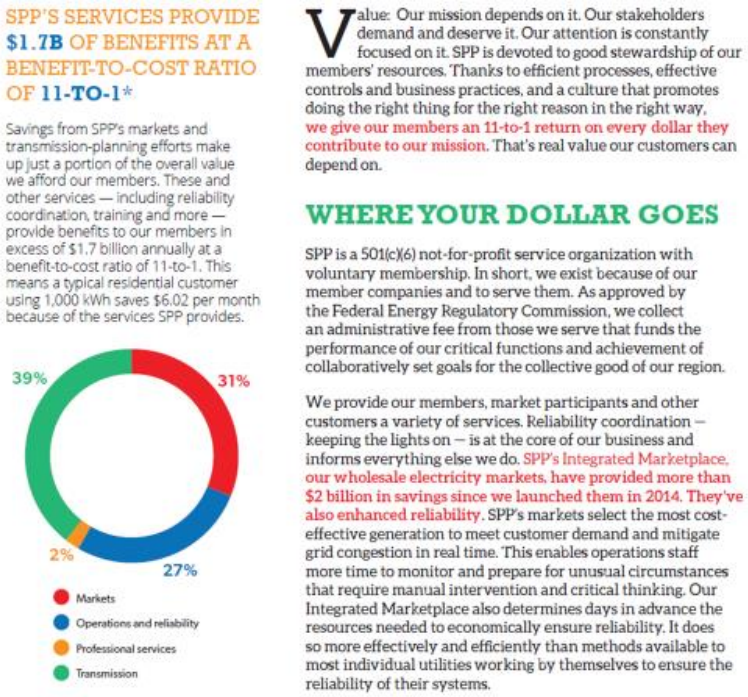
- While the Seams White Paper uses the term market-to-market, it is important to note that this process is a limited intra-RTO market redispatch that allows for the other RTO to avoid overloading of transmission lines within its footprint, i.e. it is not truly market-to-market. Costs associated with the redispatch are charged to the other RTO. Market-to-market is not movement of power from one market to another or combined optimization of dispatch.
- To pick a representative but generic example, AECC reviewed OASIS data for November 2018 to better understand the magnitude of energy scheduled between the two RTOs. The average short-term non-firm transmission allowed for up to 53 MW to be transferred from SPP to MISO and up to 108 MW from MISO to SPP. This is an average in that some hours during the month had significantly more, while many hours had no transactions. There were 17 entities that secured the short-term non-firm transmission, with four marketers representing 76% of the volume – ETC Endure Energy LLC, Macquarie Energy LLC, Westar Energy Generation & Marketing, and Rainbow Energy Marketing. Beyond the short-term non-firm transmission, the only other point-to-point transmission that is reserved is for firm transmission with terms of one year or more. AECC believes most of these reservations are to deliver energy from generating resources in one RTO to load located in another RTO or for export through the RTO to external load.
- Non-firm short-term transmission has a cost of approximately $10/MWh for on-peak, with off-peak schedules approximately half this cost. This is a high-cost threshold that inhibits power from being scheduled across the seam. The revenues from the short-term non-firm transmission for November 2018 is estimated at $835,000, and this revenue would reduce transmission rates for other users of the SPP and MISO grid. Revenues resulting from capturing price differences between the RTO seam through the use of the schedules would profit the marketers with minimal benefits to loads.
- Despite there being 171 tie lines between the two RTOs, a single SPP/MISO interface market price is calculated by each RTO, and this price differs between the RTOs. Energy scheduled across the RTOs receives this price difference. A combined market footprint would optimize dispatch (and lower cost) based on the LMPs that exist at the nodes adjacent to the 171 tie lines.
- Expectations that value could be derived from a combined market across the RTO footprint are based in part on the value propositions as calculated by each of the RTOs for their current members.
- Figure 1 below shows the value proposition of MISO. Items 2 through 5 in the figure along with item 7 would appear as areas where the value delivered would grow with an increased market footprint. AECC would recommend that the OMS direct MISO to calculate the value proposition for an expanded MISO-style market across the SPP/MISO footprint using its methodology to develop the values below. Alternatively, or, in addition, it may prove valuable to have a third-party consultant perform the analysis.

Figure 1 MISO's Value Proposition (from the MISO web site)



- Figure 2 below shows the value proposition of SPP. SPP states that its markets select the most cost-effective generation to meet customer demand and mitigates congestion in real time, with savings of $2 billion since March 2014. An expanded footprint should allow for increased efficiencies in selecting the lowest cost generation to meet loads. SPP's value proposition shows that the added intra-SPP transmission has saved even more that the markets. AECC would recommend that the RSC direct SPP to calculate the value proposition for an expanded SPP-style market across the SPP/MISO footprint using its methodology to develop the values below. Alternatively, or, in addition, it may prove valuable to have a third-party consultant perform the analysis.

Figure 2 SPP's Value Proposition (from the SPP web site)



Question 3. What areas of the whitepaper do you agree and disagree with? Why?

There are no areas of disagreement that AECC has with the whitepaper. AECC does have the following recommendations:

- From AECC's review of the whitepaper, it appears there are many outstanding issues and few successes of joint efforts between SPP and MISO. The one success is an enhancement to the FERC-ordered JOA that provides a slightly more efficient market coordination process for flowgates along the seam. The issues list is long. Perhaps the summary should include the list of issues and the one success.
- It may be worthwhile for the whitepaper to provide the volume of interchange transactions that occur by type and by whom. For example, OASIS data shows that there are minimal short-term transactions that attempt to take advantage of LMP differences between the markets.
- AECC recommends replacing the term "market-to-market coordination" with "interregional coordination process" and to replace the corresponding abbreviations "M2M" with "ICP." This provides a more accurate terminology as "market-to-market" in the whitepaper inaccurately implies that there is movement of energy from one market to another as the words may suggest.

Question 4. Are there seams issues that you believe were left out?

Elimination of the through-and-out rate and consideration of a combined day-ahead and real-time market across the SPP/MISO footprint, both as discussed above.

Question 5. What seams issue(s) require additional analysis and study prior to solution identification? What should the goal of such an analysis/study be and what metrics or other measurable information should be included.

A third-party consultant may be able to quantify benefits that could result from elimination of the through-and-out rate. It would be important for the consultant to consider the point that AECC highlighted above, that absent any change, current use of through-and-out transmission will likely decline over time, given the magnitude and significant increases in the rates.

Recommendations for additional analysis of a combined day-ahead and real-time market across the SPP/MISO footprint are discussed above.

Overlapping congestion and losses were discussed briefly in the white paper (pp. 12-13). Elimination of overlapping congestion and loss charges for entities serving load in one RTO from resources located in the other RTO should be a priority for the RTOs, as the RTOs are aware of this issue. An entity such as AECC should not have to file a complaint at FERC (as Tilton Energy, LLC did for similar overlapping costs for transactions between PJM and MISO) as the only recourse for the RTOs to find solutions for these unjust and unreasonable added costs.

AECC appreciates the work of the RSC and OMS to improve the efficiency and ultimately reduce costs to retail members of utilities within SPP and MISO.