



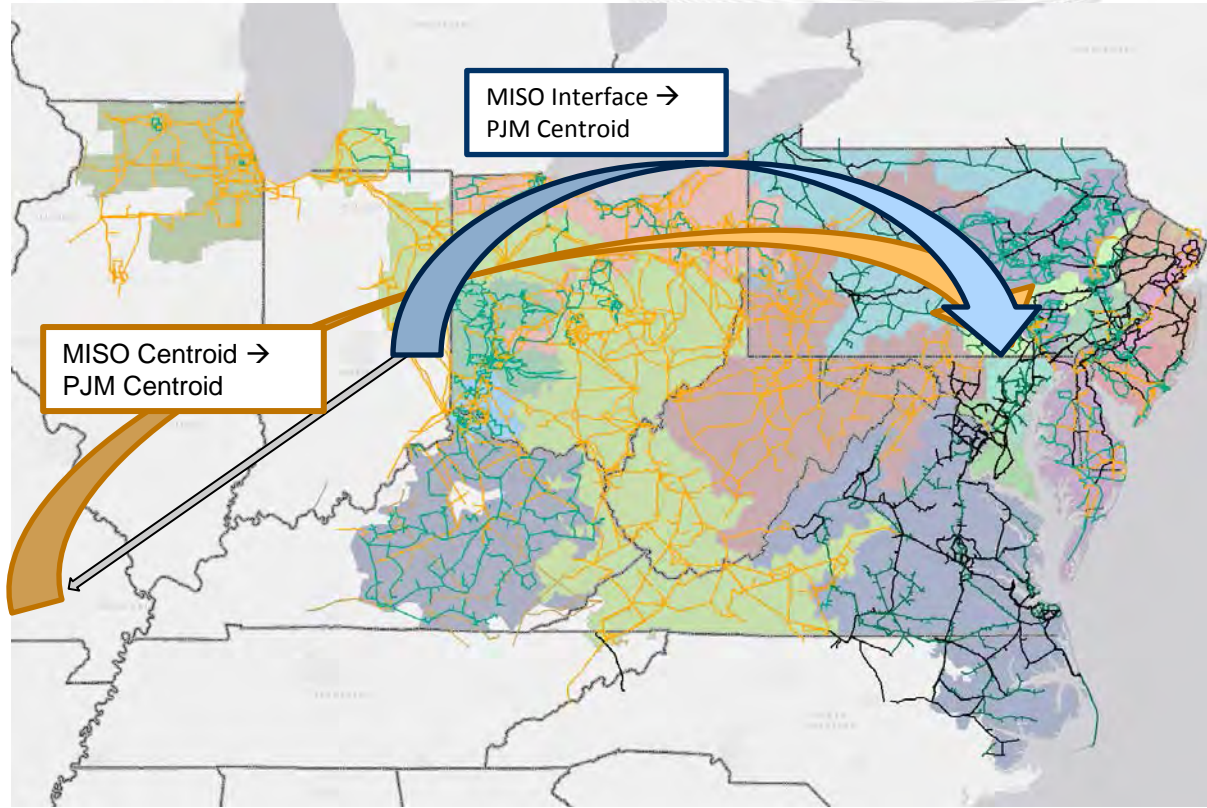
Interface Pricing

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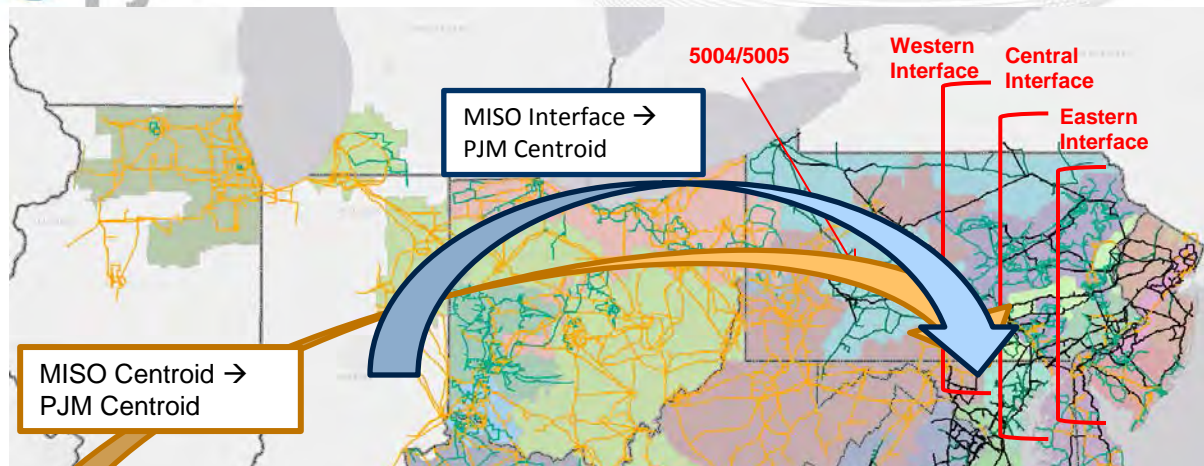
Two primary components to the MISO IMM proposal:

- Move interface definition to the load center of the other RTO; and
- Non-monitoring RTO to eliminate congestion component of interface price LMP caused by Monitoring RTO constraints

PJM has concerns with both components of this proposal and as such, recommends adoption of the PJM proposal to establish the interface price definitions at the RTO border and the commercial flow approach to account for transactions in the Market Flow calculation



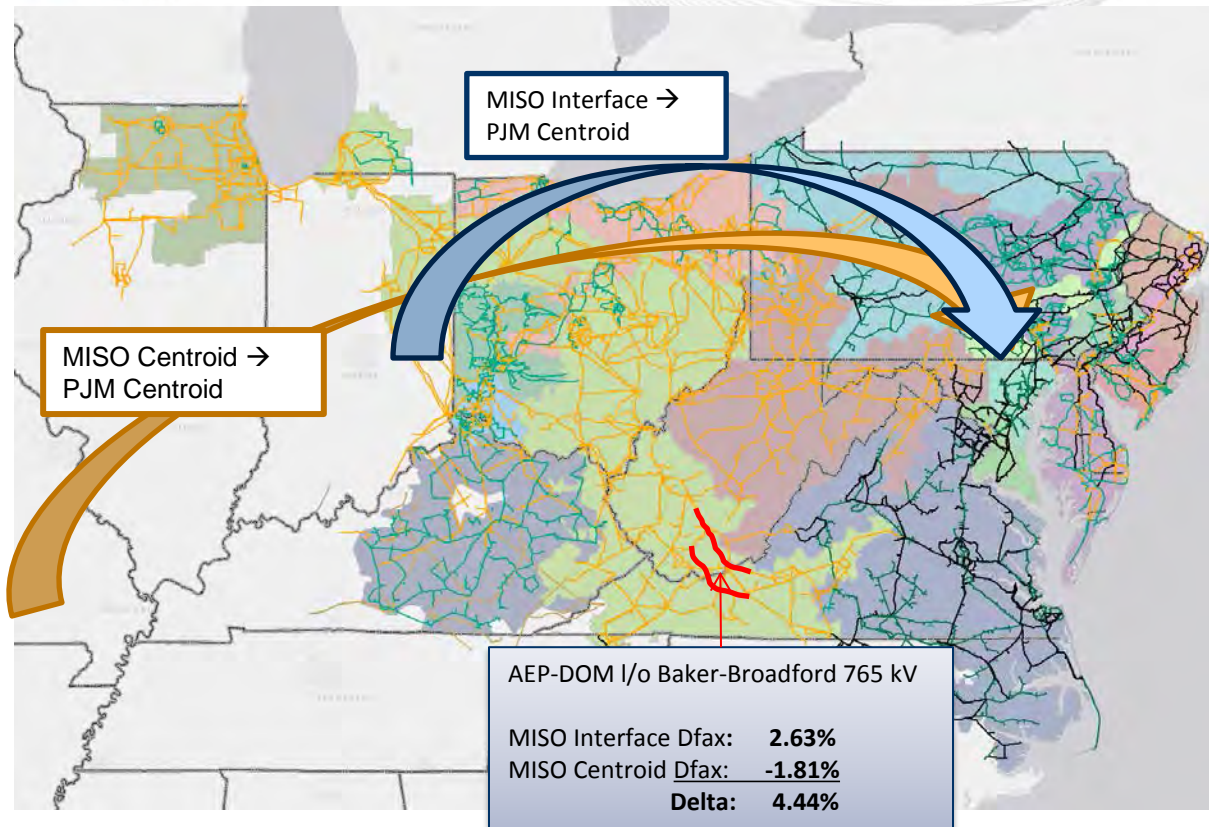
- MISO IMM proposes that PJM move the interchange injection reference from the currently defined PJM MISO Interface to MISO's load weighted reference bus
- PJM believes this will misrepresent the impact of interchange on internal PJM constraints



Impact on internal PJM interfaces:

- Clear reduction of interchange impact on internal constraints
- This reduction is reflected in pricing only, actual MW impact is unchanged
- This results in an interface price that is insensitive to internal constraints

Interface	MISO Interface	MISO Centroid	Delta
5004/5005 I/o Conemaugh-Keystone	5.47%	2.82%	2.65%
Western Interface	11.15%	5.73%	5.42%
Central Interface	14.30%	3.66%	10.64%
Eastern Interface	10.34%	2.65%	7.69%



- Evidence of this effect extends to reversing the impact of interchange from a hurt to a help on the AEP-DOM Interface

<u>Month</u>	<u>Day-ahead Impact</u>	<u>Balancing Impact</u>	<u>Net Impact</u>	<u>RT Impact</u>
1	\$11,191,620.43	\$ (6,783,841.95)	\$ 4,407,778.48	\$ (2,599,711.99)
2	\$10,557,335.81	\$ (2,819,256.00)	\$ 7,738,079.80	\$ 7,103,174.23
3	\$24,389,932.56	\$ (1,887,143.58)	\$ 22,502,788.98	\$ 12,735,179.89
4	\$10,254,412.16	\$ (1,814,264.46)	\$ 8,440,147.70	\$ 3,015,092.58
5	\$9,150,099.78	\$ (5,398,184.00)	\$ 3,751,915.78	\$ (235,712.08)
6	\$5,366,831.12	\$ (375,596.48)	\$ 4,991,234.64	\$ 243,562.35
7	\$2,095,469.49	\$ (176,552.46)	\$ 1,918,917.03	\$ 126,039.56
8	\$287,457.55	\$ 374,647.41	\$ 662,104.96	\$ 6,285.79
9	\$1,929,674.24	\$ (232,097.77)	\$ 1,697,576.48	\$ 618,812.89
10	\$1,643,582.26	\$ 85,616.01	\$ 1,729,198.27	\$ 460,973.72
11	\$1,599,142.76	\$ (62,173.66)	\$ 1,536,969.09	\$ 134,721.15
12	\$650,652.95	\$ 2,241.58	\$ 652,894.53	\$ 63,322.06
Total	\$79,116,211.09	\$ (19,086,605.35)	\$ 60,029,605.74	\$ 21,671,740.15
Average before June	\$13,108,680.14	\$ (3,740,538.00)	\$ 9,368,142.15	\$ 4,003,604.53
Average after June	\$1,938,972.91	\$ (54,845.05)	\$ 1,884,127.86	\$ 236,245.36

- The ~\$80 million in DA “impact” does NOT represent potential PJM congestion savings from adopting the proposal
 - The flow relief from the interface activity would need to be replaced in the DA market
 - The congestion cost from doing so would by definition be higher
- The fact that the Balancing Congestion impact was negative means that PJM would have collected less balancing congestion under the MISO IMM proposal
- Impacts are smaller than the MISO IMM estimates
 - PJM interface definition change in June was beneficial
 - Current interface definition is a good, average approximation of transaction impact

- Differences in real time shadow prices appear to be driven by volatility of MISO values
- PJM recommends continued analysis of these differences to identify drivers and determine whether changes could be made to reduce differences
- PJM also recommends continuing the progress the RTOs have made in coordinating DA market results and moving forward with exchange of Firm Flow Entitlements in DA solutions

- PJM's concerns with moving its interface to the center of MISO load remain
- PJM does not concur with the recommendation to eliminate the congestion impact of monitoring RTO constraints on interface prices
- PJM recommends:
 - Adoption of the common interface definition at the RTO border
 - Implementation of the commercial flow approach to account for interchange transactions in Market Flows
 - Continuing to analyze the drivers of PJM and MISO shadow price differences in both DA and RT