RTO Alignment
Supporting Reliability, Energy Efficiency and Retail Choice

TOA-AC meeting
8/27/09
Why Align with PJM?

- **Consolidation provides long-term benefits to FirstEnergy and its customers, including:**
  - Better fit operationally
    - FirstEnergy has 32 interconnections with PJM, versus three with MISO
    - Single RTO will enhance operating efficiencies
  - More fully developed “retail choice” market
    - Larger pool of available merchant generation
    - Better access to more transparent, incentive-based energy efficiency and demand response programs
  - Enhanced long-term planning for supply resources
    - Supports construction of new, and retention of existing generation, when and where it’s needed
    - Capacity is committed in advance, so supply is assured
Supporting Reliability, Energy Efficiency and Retail Choice

PJM is a Better Fit
Both Electrically and Geographically

Existing FirstEnergy RTO seam

MISO
PJM
FirstEnergy
Supporting Reliability, Energy Efficiency and Retail Choice

PJM is a Better Fit
Both Electrically and Geographically

New FirstEnergy RTO seam
FirstEnergy’s ATSI has more transmission capacity into PJM than into MISO

<table>
<thead>
<tr>
<th>MISO</th>
<th>PJM</th>
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<tbody>
<tr>
<td>4,110 MW</td>
<td>1,559 MW</td>
</tr>
<tr>
<td>7,029 MW</td>
<td>1,490 MW</td>
</tr>
<tr>
<td>13,025 MW</td>
<td>783 MW</td>
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- 32 interconnections with PJM vs. 3 with MISO
- FirstEnergy necessarily draws on PJM for energy and capacity
- Moving seam will simplify coordination and benefit both RTOs
PJM Energy Market Analysis Indicates Reductions in Congestion and Production Costs

Comparing ATSI Zone in PJM vs. MISO

<table>
<thead>
<tr>
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<th>Hurdle Rate</th>
<th>Hurdle Rate</th>
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<tbody>
<tr>
<td></td>
<td>$10/$2.50</td>
<td>$10/$1</td>
</tr>
<tr>
<td>Reduction in Total System Congestion</td>
<td>$91</td>
<td>$45</td>
</tr>
<tr>
<td>($ millions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in Total System Production Cost</td>
<td>$26</td>
<td>$27</td>
</tr>
<tr>
<td>($ millions)</td>
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Note: hurdle rate is defined as the minimum LMP price differential between two independently dispatched areas to facilitate energy transfer between those two areas.

- Due to the strength of ATSI connections to PJM, moving ATSI footprint into PJM unit commitment improves efficiency of dispatch.
What We’re Proposing

- Requesting consolidation of our transmission assets and operations into PJM, effective June 1, 2011
- Participate in May 2010 PJM capacity auction for 2013/2014 delivery year
- Establish transition capacity plan and competitive auction with PJM to align with next Ohio procurement process
  - Out-of-time FRR plan – similar to Duquesne re-integration
  - Allows LSEs to opt-out if they meet FRR requirements
  - PJM would administer RPM-like auctions to secure capacity commitments for LSEs in ATSI footprint that have not opted out for 11/12 and 12/13 planning years
  - Auctions to be completed before next Ohio and PennPower POLR procurement processes
What We’re Proposing - Continued

- **Transmission Cost Allocation**
  - Required to pay MTEP cost allocations for projects approved while a member of MISO
  - Request to avoid RTEP cost allocations for projects approved before we joined PJM
  - Not asking anyone in MISO or PJM to pay more or less for transmission cost allocation
  - Will have full responsibility for RTEP cost allocations for projects approved after we join PJM
    - Larger PJM footprint to spread future expansion cost allocation

- **Presents a larger policy question affecting RTO membership**
Orderly Transition

- January 2010 commitment date for PJM auction provides ample notice to stakeholders – should not disrupt markets
- Transitional capacity auction by PJM ensures that ATSI load-serving entities have adequate capacity during the transition period to full integration in 2013
- June 1, 2011 integration date permits alignment with state retail plans
- FirstEnergy will fulfill contractual obligations to MISO
## Key Dates

<table>
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<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td><strong>August 17</strong></td>
<td>Date of FERC filing</td>
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<tr>
<td><strong>December 17</strong></td>
<td>Requested date for FERC order</td>
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<tr>
<td><strong>June 1, 2011</strong></td>
<td>ATSI integration with PJM</td>
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<tr>
<td><strong>June 1, 2013</strong></td>
<td>Align with PJM capacity market</td>
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