Transmission Expansion Advisory Committee Meeting

2009 Market Efficiency Analysis Results Update

February 10, 2010
• As part of the 2009 cycle of Market Efficiency analysis, two projects tested as economic projects against criteria of section 1.5.7 of Schedule 6 of the PJM Operating Agreement.
  – Addition of Conemaugh 500/230 KV transformer and new line from Conemaugh-Seward 230kV in Penelec zone
  – Addition of second CLOVER 500/230 KV transformer in Dominion zone

• Both projects met the criterion necessary for inclusion into RTEP as an economic project
Recommending Conemaugh 500/230 kV transformer and Conemaugh-Seward 230 kV line for inclusion in RTEP as economic project.

- Detailed results presented at the 11/18/2009 TEAC
- Expected in-service date is 2014
- Expected Cost = $21 million

Cost Allocation
• Defer recommendation of 2\textsuperscript{nd} Clover 500/230 kV transformer as RTEP upgrade
  – Validate congestion analysis results with results from PJM/Duke/TVA Study
  – Constraint relieved by upgrade is sensitive to PJM interchange to the south
  – PJM/Duke/TVA study will have a more complete/robust model of PJM-South interchange
2009 Market Efficiency Results

- For informational purposes only, sensitivity analysis performed on Conemaugh 500/230 kV transformer and Conemaugh-Seward 230 kV line.
  - CO2 at +/- 10%
  - Gas/Oil at +/- 10%
  - Load at +/- 3%

For informational purposes only, all sensitivity scenarios met the criterion necessary for inclusion into RTEP as an economic project (i.e. Benefit/Cost ratio >1.25)

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<thead>
<tr>
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<th>Benefit/Cost Ratio</th>
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<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>CO2</td>
<td>4.37</td>
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<tr>
<td>Gas/Oil</td>
<td>4.36</td>
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<tr>
<td>Load</td>
<td>4.54</td>
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