Transource AP-South (2014/15_9A) Project Reevaluation

Transmission Expansion Advisory Committee
September 13, 2018
Overview

• History of 9A project
  – Project submitted by Transource during 2014/2015 Regional Transmission Expansion Plan (RTEP) window to relieve AP-South congestion
  – Initial approval benefit/cost ratio May 2016 was 2.48
  – Capital cost $340.6M used for May 2016, Sep 2017

• Previous Reevaluation Processes
  – Project reevaluated September 2017 - Benefit/Cost ratio: 1.30
  – Project reevaluated February 2018 - Benefit/Cost ratio: 1.32
  – Capital cost $340.6M used for September 2017, Feb 2018
  – Lower benefit/cost ratios due to reduced load payment benefits

• Latest Reevaluation Process
  – Project reevaluated September 2018 - Benefit/Cost ratio: 1.42
  – Capital cost $366.17M
Reevaluation Model Assumptions as of August 31, 2018

• Used the current Market Efficiency Base Case (posted on 09/13/2018)
  – 2023 RTEP case, including all Board approved projects through Feb. 2018
  – Added BGE 5E project

• Model Assumptions as of August 31, 2018
  – Load forecast from 2018 PJM Load Forecast report
  – Latest ABB data release as of April 2018 with gas forecast update as of August 2018
  – Updated uniform generation expansion plan
    • Machine list from 2023 RTEP case
    • Generator status update as of May 2018, retirements as of August 2018
    • MEPETF Manual 14B change effective August 23rd
    • Generator Must Run status based on ABB’s feedback and historical 2016-2018 evaluation
  – Reactive limits updated with and without 9A project
  – Updated ARR definitions to match aggregate definitions as defined in the 2018 ARR Allocation
  – Updated interregional modeling
<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Limiting Equipment (Preliminary)</th>
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<tbody>
<tr>
<td>Three Mile Island 500/230 kV</td>
<td>Transformer</td>
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<tr>
<td>Peach Bottom - Conastone 500 kV</td>
<td>Conductor</td>
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<tr>
<td>Hunterstown - Lincoln 115 kV</td>
<td>Conductor</td>
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<td>Lincoln Tap - Lincoln 115 kV</td>
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<td>Lincoln - Straban 115 kV</td>
<td>Conductor</td>
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• The Benefit/Cost ratio for Transource 9A project is 1.42
• According to this latest analysis, the project is estimated to save $866.2 million in congestion costs over 15 years
• There are significant reliability violations with Transource 9A removed from model
• There are RPM benefits for RTEP year due to BGE CETL increase
  – Difficult to estimate RPM benefits beyond the RTEP year due to lack of data
• Additional report will be available on PJM.com
• October/November TEAC will have reevaluation results of other projects