Reliability Analysis Update

Transmission Expansion Advisory Committee
April 7, 2016
2016 RTEP Timeline
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• Cases
  – 2016 RTEP summer case finalized (quality control check in-progress)
  – 2016 RTEP winter case sent to TO for modeling updates
  – 2016 RTEP light load case sent to TO for modeling updates

• Analysis
  – Performed preliminary N-1 and generation deliverability analysis; currently in the process of the quality control check
  – Finalize the N-1 and generation deliverability analysis
  – Perform load deliverability and N-1-1 analysis

• Windows
  – Post the preliminary N-1 thermal and Generation deliverability results by mid April 2016
2016 RTEP Proposal Window #1
2016 RTEP Proposal Window #1

- **Scope**
  - Generator Deliverability and Common Mode Outage Violations
  - End of life facilities
- Preliminary Files Released: 2/5/2016
- Window Opened: 2/16/2016
- Window Closes: 3/17/2016 – Proposal definitions, simulation data and planning cost estimate due
- Detailed Cost due: 4/1/2016 – Additional 15 days to develop and provide detailed cost data – See the window documentation for additional information
• Generation Deliverability and Common Mode Outage (FG# 60, 61, 62, 66, 68, 70, 71, 72, 76, 78, 248, 249)

• The Chesterfield – Messer Road – Charles City Road 230kV circuit is overloaded for several contingencies
• Generation Deliverability and Common Mode Outage (FG# 102)

• The Carson – Rogers Rd 500 kV circuit is overloaded for single contingency loss of the Carson – Rawlings 500 kV circuit.
2016 RTEP Proposal Window #1 Statistics

• 26 Proposals from 7 entities
  – 3 Transmission Owner Upgrades
    • Cost range of $7.7M to $48.5M
  – 23 Greenfield Projects
    • Cost range of $15.6M to $111.5M

• Proposal Fee

• Next Steps
  – Proposal evaluations
  – More Detailed overview of proposals received to be presented at a future TEAC
Artificial Island Update
Artificial Island Area Network

KEY

Gen Bus

Peach Bottom 5007
Rock Springs 5014
Keeney 5025
Red Lion 5036
Hope Creek 5015
Cedar Creek 23030
Cartanza 23032

Deans 6019
Smithburg 6020
East Windsor 5022
New Freedom 5038
Orchard 5039
Red Lion 5015
Hope Creek 5037
Cedar Creek 23030
Cartanza 23032
• New Freedom SVC Technical Specifications

  – Development of a technical spec to provide engineering, procurement and construction of an SVC at New Freedom

  – Detailed PSCAD (transient study tool) Study
    • Confirmed previous PJM study results
Artificial Island Update

• Consideration of increased cost estimates for the current approved scope of work

• Examining configuration changes to terminate the planned Cedar Creek – Salem transmission facility at Hope Creek
  – Electrical performance
  – Cost estimates
  – Constructability
  – Consideration of process implications
RTEP Next Steps
Questions?

Email: RTEP@pjm.com
• Revision History
  – V1 - Original version posted to PJM.com – 4/6/2016