Transmission Expansion Advisory Committee

June 6, 2013
Issues Tracking
• Open Issues
  – None

• New Issues
2013 RTEP Scenario Analysis Update
At-Risk Generation Update

- Data available to PJM
  - Known deactivations (status known, not considered at-risk)
  - Generation Owner survey
  - Projected retrofits and associated eDart outage tickets
  - Economics
• Perform analysis of an at-risk generation case when upgrades are proposed for the 2013 RTEP analysis of 2018
AEP/Dominion 500 kV Transmission Update
• Transmission Line Rebuilds (month/year of first planned outage)
  – Cloverdale – Lexington 500 kV (September 2013)
  – Lexington – Dooms 500 kV (September 2014)
  – Cunningham – Elmont 500 kV (October 2016)
  – Dooms – Cunningham 500 kV (January 2018)
  – Mt. Storm – Valley 500 kV (September 2019)
  – Valley – Dooms 500 kV (September 2021)
• Scope of work
• Drivers
• Timeline
Additional Temporary Bath County SPS Development
Development of Bath County SPS

• Existing Bath County/Cloverdale SPS currently in PJM Operations (see Manual 03) to control thermal/voltage

• Additional temporary SPS under development for the planned outage of Dooms – Lexington 500 kV “555 line”
• Dooms – Lexington 500 kV outage anticipated in September 2014

• Temporary SPS purpose is to control stability for a range of pumping / generating / condensing combinations at Bath County

• Temporary SPS to be added to RTEP baseline
2013 RTEP Update
2013 RTEP Progress

• Evaluation of 2018 Summer
  – Base case
  – Generator Deliverability
  – Load Deliverability
    • Case development in progress, preliminary analysis will be presented at the July TEAC

• Preliminary results
  – West
  – South
  – MAAC
PJM MAAC Potential 2018 RTEP Violations
• Summary of Potential Generation Deliverability Violations

• Several 230 kV circuits are overloaded in the Southern PSEG Gloucester vicinity.

• The potentially overloaded circuits include tie lines between PSEG / AE and PSEG / PECO.

• Potential overloads include existing and planned facilities
• Potential Common Mode Outage Violation:

• The New Freedom – Monroe 230 kV circuit is overloaded for several tower line contingencies.
Potential Generation Deliverability Violation:

- The Camden – Richmond 230 kV circuit is overloaded for several single contingencies.
• Potential Generation Deliverability Violation:

• The Richmond - Waneeta 230 kV circuit is overloaded for the loss of Chichester tie breaker.
Potential Common Mode Outage Violation:

- The Beaver Brook – Gloucester 230 kV circuit is overloaded for several tower line contingencies.
Potential Generation Deliverability Violation:

The Cuthbert – Camden 230 kV circuit is overloaded for several contingencies.
Potential Common Mode Outage Violation:

The Gloucester – Eagle Point 230 kV circuit is overloaded for several category C contingencies.
• Potential Generation Deliverability Violation:

• The Gloucester – Cuthbert 230 kV circuits 1 and 2 are overloaded for several contingencies.
PSEG Transmission Zone

- Potential Generation Deliverability Violation:
- The Gloucester – Camden 230 kV circuits is overloaded for a several contingencies.
Potential Generation Deliverability Violation:

The Mickleton – Deptford 230 kV circuit is overloaded for several contingencies.
• Potential Common Mode Outage Violation:

• The New Freedom – Beaver Brook 230 kV circuit is overloaded for several tower line contingencies.
• Summary of Potential Generation Deliverability Violations

• Several 230 kV circuits are overloaded in the Northern PSEG Aldene vicinity.

• The overloads include existing and future facilities
Potential Generation Deliverability Violation:

The Aldene – Springfield 230 kV circuit is overloaded for several single contingencies.
Potential Generation Deliverability Violation:

- The Aldene – Stanley Terrace 230 kV circuit is overloaded for several single contingencies.
• Potential Generation Deliverability Violation:

• The Stanley Terrace - McArthur 230 kV circuit is overloaded for several contingencies.
• Potential Generation Deliverability Violation:

• The McArthur – West Orange 230 kV circuit is overloaded for several contingencies.
Potential Generation Deliverability Violation:

The Linden – Tosco 230 kV circuit is overloaded for several contingencies.
Potential Generation Deliverability Violation:

The Tosco – VFT 230 kV circuit is overloaded for several contingencies.
Potential Generation Deliverability Violation:

The VFT - Warnanco 230 kV circuit is overloaded for several contingencies.
Potential Generation Deliverability Violation:

The Warnanco - Aldene 230 kV circuit is overloaded for several contingencies.
• Potential Common Mode Outage Violation:

• The Merion – Corson 138 kV circuit is overloaded for the BL England – Scull – Mill 138 kV tower line contingency.
• Potential Common Mode Outage Violation:

• The Middle – Corson 138 kV circuit is overloaded for the BL England – Scull – Mill 138 kV tower line contingency.
• Potential Common Mode Outage Violation:

• The Upper Pittsgrove – Landis 138 kV circuit is overloaded for line fault stuck breaker at Churchtown contingency, resulting in the loss of Churchtown – Chambers and Churchtown – Orchard 230 kV circuits.
• Potential Baseline NERC Category B Single Contingency Violation

• Each Perryman – Hartford 115 kV circuit is overloaded for the loss of the parallel circuit.
• Potential Generation Deliverability Violation:

• The Edge Moor – Harmony 230 kV circuit is several single contingencies.
• Potential Common Mode Outage Violation:

• The New Church – Piney Grove 138 kV circuit is overloaded for multiple line fault stuck breaker contingencies.
• Potential Common Mode Outage Violation:

• The Red Oak – R11 230 kV circuit is overloaded for W4-021 – Atlantic and W4-021 – Freneau 230 kV tower line contingency.
• Potential Common Mode Outage Violation:

• The Atlantic – W4-021 – Freneau 230 kV circuit is overloaded for multiple tower line contingencies.
• Potential Common Mode Outage Violation:

• The Garrett 115 kV tie circuit is overloaded for multiple line fault stuck breaker contingencies.
• Potential Generation Deliverability Violation:

• The North Meshoppen – Oxbow 230 kV circuit is overloaded for several single contingencies.
• Potential Common Mode Outage Violation:

• The Penn Mar – Garrett 115 kV circuit is overloaded for multiple line fault stuck breaker contingencies.
Potential Common Mode Outage Violation:

The Rockwood - Penn Mar 115 kV circuit is overloaded for several line fault with stuck breaker contingencies.
PenElec Transmission Zone

- Potential Generation Deliverability Violation:

- The East Sayre – East Towanda 115 kV circuit is overloaded for several single contingencies.
• Summary of Potential Generation Deliverability Violations

• Several 230 kV circuits are overloaded in the PEPCO Oak Grove vicinity.
• Potential Common Mode Outage Violation:

• The Oak Grove (053) – Bowie (043) 230 kV circuit is overloaded for T133TAP – Aquasco – Oak Grove and Oak Grove – Bowie – Burtonsville 230 kV (5PEPCO) tower line contingency.
Potential Common Mode Outage Violation:

The Oak Grove (054) – Bowie (044) 230 kV circuit is overloaded for Oak Grove – Bowie and Oak Grove – T133TAP (7PEPCO) tower line contingency.
PEPCO Transmission Zone

- Potential Common Mode Outage Violation:
  - The Oak Grove – Talbert (068) 230 kV circuit is overloaded for Oak Grove – Talbert (087) – Morgantown and Oak Grove – Talbert (082) 230 kV tower line contingency.
• Potential Common Mode Outage Violation:

• The Burches Hill – Talbert (068) 230 kV circuit is overloaded for Oak Grove – Talbert (068) and Oak Grove – Talbert (066) 230 kV tower line contingency.
Potential Common Mode Outage Violation:

The Aquasco – Oak Grove 230 kV circuit is overloaded for Oak Grove – Bowie and Oak Grove – T133TAP (7PEPCO) tower line contingencies.
• Potential Generation Deliverability Violation:

• The Chalk Point – T133TAP 230 kV circuits 1 and 2 are overloaded for multiple single contingencies.
Potential Common Mode Outage Violation:

The Oak Grove – T133TAP 230 kV circuit is overloaded for T133TAP – Aquasco – Oak Grove and Oak Grove – Bowie – Burtonsville 230 kV (5PEPCO) tower line contingency.
PEPCO Transmission Zone

- Potential Common Mode Outage Violation:
- The V3-017 – Hawkins Gate 230 kV circuit is overloaded for the V3-017 – Talbert (066) and V3-017 – Talbert (068) tower line contingency.
• Potential Generation Deliverability Violation:

• The Lackawanna – Oxbow 230 kV circuit is overloaded for several single contingencies.
• Potential Common Mode Outage Violation:

• The Montour – Milton 230 kV circuit is overloaded for the Montour – Susquehanna 230 kV tower line contingency.
• Potential Common Mode Outage Violation:

• The Frackville – Siegfried 230 kV circuit is overloaded for the Montour – Susquehanna 230 kV tower line contingency.
Potential Generation Deliverability Violation:

The Susquehanna – Jenkins 230 kV circuit is overloaded for several single contingencies.
Potential Generation Deliverability Violation:

The Edison – Meadow Road 138 kV circuit is overloaded pre-contingency.
• Potential Generation Deliverability Violation:

• The Kilmer – Lake Nelson 230 kV circuits I1023 and W1037 are overloaded for several contingencies.
• Potential Common Mode Outage Violation:

• The Lake Nelson – Middlesex switch Rock 230 kV circuit is overloaded for W4-021 – Atlantic and W4-021 – Freneau 230 kV tower line contingencies.
• Potential Common Mode Outage Violation:

• The Raritan River – Kilmer 230 kV circuit is overloaded for the loss of the W4-021 – Atlantic and W4-021 – Freneau 230 kV tower line contingency.
• Potential NERC Category C Common Mode Outage Violation

• The Garret 138/115KV transformer is overloaded for multiple stuck breaker contingencies
• Potential NERC Category C Common Mode Outage Violation

• The Nettie – Crupperneck 138kV line is overloaded for multiple category C contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• High Voltage at Beech Ridge 138kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at U2-55 Tap 230kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Dale 230kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Shingletown 230kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Quehanna 230kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Moshannon 230kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Milesburg 230kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Elko 230kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Carbon Center 230kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Brackenridge 138kV bus for several contingencies
- Potential NERC Contingency Basecase Analysis Voltage Violation
- Low Voltage and Voltage Drop violation at North Petersburg 138kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at William 138kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Ridgeway 138kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Paper City 138kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Carbon Center 138kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Franklin 138kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Vandergrift 138kV bus for several contingencies
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage and Voltage Drop violation at Iron Bridge 138kV bus for tower outage of the Iron Bridge – Frazier 138kV line and the Iron Bridge – Connellsville 138kV line
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage violation at North Franklin 138kV bus for the loss of the Hardy – Junction 138kV line
• Potential NERC
  Contingency Basecase
  Analysis Voltage Violation

• Low Voltage violation at
  Kiski Valley 138kV bus for
  the line with stuck breaker at
  Springdale1 38kV
• Potential NERC Contingency Basecase Analysis Voltage Violation

• Low Voltage violation at Saltsburg 138kV bus for the line with stuck breaker at Kiski Valley 138kV
• Potential NERC Category C Common Mode Outage Violation

• The Admiral Q2 – Lorain Q2 138kV line is overloaded for the tower outage of Beaver – Black River 138kV line and Beaver – Johnson 138kV line
• Potential NERC Category C Common Mode Outage Violation

• The Brookside–Wellington 138kV line is overloaded for the outage of Brookside – Longview 138kV line with the stuck breaker at the Brookside 138kV side
• Potential NERC Category C Common Mode Outage Violation

• The Meadow–Reynolds 345kV line is overloaded for the outage of Multiple line with stuck breaker contingencies
• Potential Generator Deliverability Violation

• The Millwood–North Bellville 138kV line is overloaded for the loss of the Galion – Ohio Central 345kV line
AEP Transmission Zone

- Potential Basecase Analysis Voltage Violation

- High Voltage at Baker 345kV bus for the Baker – Tristate 345kV line fault with the stuck breaker at Baker 345kV
- Potential Generator Deliverability Violation

- The Hardburg–Central Hardin 138kV line is overloaded for the loss of the Hardin 345/138KV transformer
• Potential Generator Deliverability Violation

• The H440T - H440 138kV line near the City of Rochelle is overloaded for the loss of the H440 – Steward 138KV line (16914)
• Potential Generator Deliverability Violation

• The Kincaid – Pawnee West 345kV line is overloaded for the loss of the Kincaid “R” – Lanesville 345KV line (2101) or the loss of the Kincaid “B” – Lanesville 345kV line (2102)
• Potential Generator Deliverability Violation

• The Skokie – Devon 138kV line is overloaded for the loss of the SK88 – SK85 138KV line (8810)
• Potential Basecase Analysis Voltage Violation

• High Voltage at Twin Grove 345kV bus for several contingencies
• Potential Basecase Analysis Voltage Violation

• High Voltage at Bishop Hill; 138kV bus for several contingencies
Proposed RTEP Projects
PSEG Transmission Zone

- PSE&G Reliability Criteria:
  - Improves reliability at Sewaren station due to condition of equipment. In addition, the Sewaren station was damaged as a result of Superstorm Sandy. The upgrade will also address short circuit violations at Sewaren and prevent future storm damage.
- Proposed Solution:
  - Eliminate the Sewaren 138 kV bus by installing a new 230 kV bay at Sewaren 230 kV
  - Convert the two 138 kV circuits from Sewaren – Metuchen to 230 kV circuits including the Lafayette and Woodbridge substations.
  - Reconfigure the Metuchen 230 kV station to accommodate the two converted circuits (B2276).
- Estimated Project Cost:
  - $101 M
- Expected IS Date:
  - 6/1/2015
PSE&G Transmission Zone - Northern NJ
Short Circuit
PSEG Transmission Zone Short Circuit

• PSEG Short Circuit Issue
  – 2012 RTEP identified several busses in PSEG zone where the fault currents exceed 80 kA
  – A number of alternatives evaluated including rebuilding stations to 90 kA standard, installing current limiting reactors, splitting the system
  – Original recommendation from October 2012 TEAC: Construct HVDC back to Back facility at Hudson
• Corridor overview
PJM is evaluating alternative solutions

- Double circuit 345 kV Solution
  - Isolate Hudson 230 kV from the 138 kV at Marion and 345 kV at Farragut
  - Convert the 138 kV buses and transmission facilities on the path from Linden to Bergen to double circuit 345 kV

- Other solutions considered
  - Double circuit 230 kV Solution
    - Isolate Hudson 230 kV from the 138 kV at Marion and 345 kV at Farragut
    - Convert the 138 kV buses and transmission facilities on the path from Linden to Bergen to double circuit 230 kV
  - Other configurations

- Hudson #2 generation location assumption
  - Existing Hudson 230 kV or converted Marion 230 kV or 345 kV station?
PSE durable Transmission Zone Short Circuit
Double circuit 230 kV Solution Alternative

Existing

Proposed

Legend

138 kV
230 kV
345 kV
b1100
new
b2159
b1082
b2217
s0316
aboveground
underground
PSENG Transmission Zone Short Circuit Double Circuit 345 kV Solution Alternative

- Double circuit 345 kV Solution
- Existing baseline projects included in the scope
PSEG Transmission Zone Short Circuit
Double Circuit 345 kV Solution Alternative

- Impact to existing approved RTEP upgrades
PSEG Transmission Zone Short Circuit

• Assumptions
  – Hudson 230 kV bus tie status
  – Hudson #2 generation location
    • Hudson 230 kV or Marion 345 kV
  – Queued Generation
    • ISA
      – T44/T42 (in-service), T107 (under construction)
    • Impact Study
      – X2-050 (660 MW at Essex 230 kV) & Y2-105 (50 MW at Eagle Point 230 kV)
## Solution Alternatives

### Baseline Performance

<table>
<thead>
<tr>
<th>Location</th>
<th>Breaker Capacity</th>
<th>No Solution</th>
<th>HVDC Solution</th>
<th>Double Circuit 345 kV Alternative</th>
<th>Double Circuit 345 kV (w/Hudson #2 at Marion 345 kV) Alternative</th>
<th>Double Circuit 230 kV Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essex 230kV</td>
<td>80</td>
<td>80.4</td>
<td>72.9</td>
<td>72.3</td>
<td>68.3</td>
<td>74.2</td>
</tr>
<tr>
<td>Hudson 1-6 230kV</td>
<td>80</td>
<td>75.7</td>
<td>62.6</td>
<td>67.8</td>
<td>61.8</td>
<td>71.4</td>
</tr>
<tr>
<td>Hudson 7-12 230kV</td>
<td>80</td>
<td>78</td>
<td>66</td>
<td>67.8</td>
<td>61.8</td>
<td>71.4</td>
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<tr>
<td>Kearny 230kV</td>
<td>80</td>
<td>83.2</td>
<td>74.1</td>
<td>72.6</td>
<td>67.3</td>
<td>74.7</td>
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<tr>
<td>Marion 1 138kV</td>
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<td>77.8</td>
<td>73.2</td>
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<td>Marion 3 138kV</td>
<td>80</td>
<td>76.2</td>
<td>71.5</td>
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<tr>
<td>NJT Meadow 230kV</td>
<td>75.598</td>
<td>80</td>
<td>71.4</td>
<td>71.2</td>
<td>67.7</td>
<td>73.6</td>
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<tr>
<td>Bayway 138 kV</td>
<td>80</td>
<td>63.8</td>
<td>62.2</td>
<td>76.1</td>
<td>76.1</td>
<td>86.3</td>
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<tr>
<td>Bergen 230 kV</td>
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<td>65.9</td>
<td>67.9</td>
<td>66.3</td>
<td>82.2</td>
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<td>Linden 230 kV</td>
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<td>58.8</td>
<td>58.6</td>
<td>68.7</td>
<td>68.8</td>
<td>81.1</td>
</tr>
</tbody>
</table>

*Includes all existing and ISA generation
## Solution Alternatives

### Baseline + Queued Generation Performance

<table>
<thead>
<tr>
<th>Location</th>
<th>Breaker Capacity</th>
<th>No Solution</th>
<th>HVDC Solution</th>
<th>Double Circuit 345 kV Alternative</th>
<th>Double Circuit 345 kV (w/ Hudson #2 at Marion 345 kV) Alternative</th>
<th>Double Circuit 230 kV Alternative</th>
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<td></td>
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<td></td>
<td>kA</td>
<td>kA</td>
<td>kA</td>
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<td>Essex 230kV</td>
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<tr>
<td>Hudson 1-6 230kV</td>
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<tr>
<td>Hudson 7-12 230kV</td>
<td>80</td>
<td>81.0</td>
<td>69.3</td>
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<td>76.2</td>
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<td>Kearny 230kV</td>
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<td>80.3</td>
<td>78.8</td>
<td>74.0</td>
<td>81.3</td>
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<tr>
<td>Marion 1 138kV</td>
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<td>79.0</td>
<td>74.8</td>
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<tr>
<td>Marion 3 138kV</td>
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<td>77.4</td>
<td>73.1</td>
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<tr>
<td>NJT Meadow 230kV</td>
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<td>Bayway 138 kV</td>
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</tr>
</tbody>
</table>

**Includes all existing and ISA generation as well as X2-050 (660 MW at Essex 230 kV) & Y2-105 (50 MW at Eagle Point 230 kV)**
Solution Alternatives – Cost

- HVDC back to back facilities at Hudson
  - Original cost estimate has increased to $800M - $1.1B
    - Additional facility due to HVDC footprint and land acquisition
    - Due to limited space, higher cost VSC technology would be needed
    - Extensive site remediation
    - Relocation of existing cables and facilities
• 345 kV Conversion Alternative
  – Estimated $1.1B total construction cost
  – The 345 kV alternative will obviate the need for approximately $500M of currently approved RTEP projects
## 345kV Alternative Cost and Existing Baseline Cost

<table>
<thead>
<tr>
<th>PIM Project ID</th>
<th>Project Description</th>
<th>Existing Planned RTEP Upgrades ($M)</th>
<th>345 kV Alternative Upgrades ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>345kV Conversion Alternative</strong></td>
<td></td>
<td>1082.6</td>
</tr>
<tr>
<td></td>
<td>Accommodate Hudson 2 injection into 345 kV</td>
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<td>20</td>
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<tr>
<td>b2159</td>
<td>Reconfigure the Linden, Bayway, North Ave, and Passaic Valley S.C. 138 kV substations. Construct and loop new 138 kV circuit to new airport station</td>
<td>250</td>
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<tr>
<td>s0316</td>
<td>Reconfigure Marion for Breaker and Half. Build for 230 kV, operate at 138 kV with 80 kA breakers</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>b1082 + associated station work to accommodate higher rated breakers</td>
<td>230/138 kV Transformer At Bergen &amp; breaker replacements at Bergen 138 kV and 230 kV, and associated station equipment to upgrade station to accommodate higher rated breakers</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>b2217</td>
<td>Reconstruction of the Bergen-North Bergen 138 kV facility</td>
<td>38</td>
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<tr>
<td><strong>Under Development due to potential criteria violations</strong></td>
<td>Current discussion to potentially reconductor existing PVSC-Bayonne underground circuit</td>
<td>65</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>588</td>
<td>1102.6</td>
</tr>
</tbody>
</table>

Net impact to RTEP approved $'s is 1082.6 - 588 = $514.6M
Next Steps

- Refine cost analysis
- Additional load flow analysis
- Coordination with NYISO
Supplemental Projects
• Supplemental Project

• Recondutor the Station 22 Zion (ComEd/PJM) to Pleasant Prairie (ATC/MISO) 345kV line 2221.

• Projected IS Date: 6/1/2016
Deactivation Analysis Update
Deactivation Update

• Updated Deactivation Notices by NRG
  – The requested deactivation date for Portland units 1 and 2 (401 MWs) has changed from January 7, 2015 to June 1, 2014.
  – The requested deactivation date for Titus units 1, 2, and 3 (243 MWs) has changed from April 16, 2015 to September 1, 2013.

• Analysis in progress due to the updated deactivation dates.
Artificial Island RTEP Proposal Window
Artificial Island Proposal Window Timeline
Updated for 4/11/2013 TEAC

Announcement
(Presented at 3/7/2013 TEAC)
• Announce window and potential timeline
• Request CEII/NDA submittals from anticipated participants
• Request Designated Entity Pre-Qualification

PSS/E v32 Case Development
(Initial case complete, pending benchmarking)
• Initial PSS/E v32 case created
• Benchmarking in Progress
• Develop and benchmark critical system condition cases

Open Window
(Anticipated 4/29/2013
60 Day Duration)
• Open the “Artificial Island” RTEP Proposal Window
• Complete problem statement available
• Analytical files available

Coordinate with Window Participants and Receive Solution Proposals
• Coordination VIA www.pjm.com
• Data, Information
• Questions & Answers

Close Proposal Window
(Estimated 6/28/2013)
• Dependant on timing of window opening

PJM Evaluates Solution Proposals
Artificial Island Proposal Window Status

• Window opened on 4/29/2013  
  – Anticipated close on 6/28/2013

• Scope and Requirements Document Posted

• Analytical Study files posted

• Updates
Artificial Island Proposal Window Next Steps

• Continue to respond to stakeholder questions

• Evaluate solution alternatives
Next Steps
Questions?

Email: RTEP@pjm.com
• 6/5/2013 – Original version distributed to PJM TEAC
• 6/7/2013 – Revision – As presented to PJM TEAC
  – Slide #40, changed the voltage of Perryman – Hartford from 230 kV to 115 kV
  – Added Slide #50, PEPCO zone summary of potential violations
  – Slide #63, changed the voltage of Edison – Meadow Road from 230 kV to 115 kV