

Operations Assessment Task Force 2020-21 Winter Study

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Operating Committee
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Overview

Case Parameters

Significant Facility Changes

50/50 Non-diversified peak load study results

Sensitivity Study Results



| 50/50 Non-diversified Peak Load Base Case | | |
|---|--------------------------|--|
| LAS Load Forecast | 136,449 MW | |
| Preliminary RTO Net Interchange | 4,000 MW** (Exporting) | |
| PJM RTO Installed Capacity | 186,294 MW (preliminary) | |
| Discrete Generator Outages | 15,942 MW | |

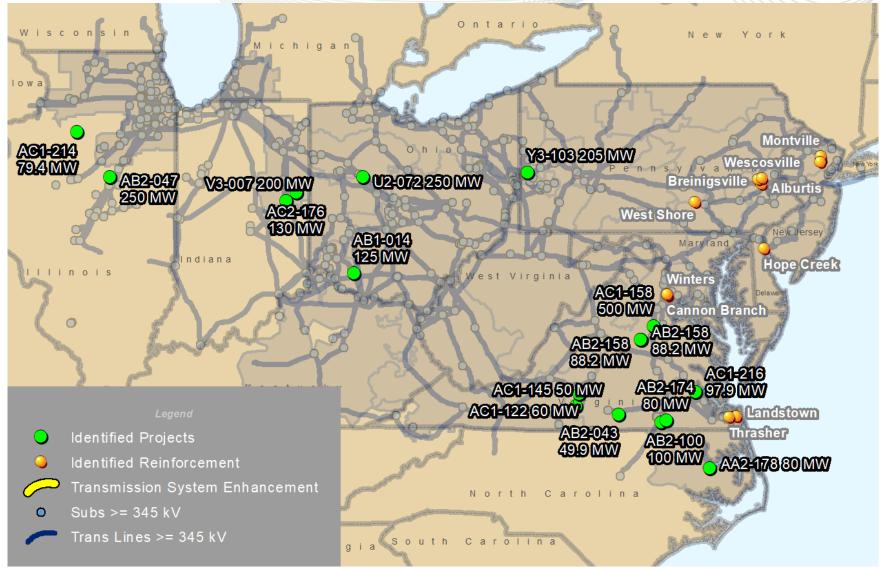
^{** 4,000} MW of net interchange is modeled in the OATF base case and accounts for historical and forecasted Pseudo Tie data.

PEAK LOAD ANALYSIS

No reliability issues identified.



Topology Changes





- No reliability issues identified for base case and N-1 analysis.
- Re-dispatch and switching required to control local thermal or voltage violations in some areas.
- All networked transmission voltage violations were controlled by capacitors. All other voltage violations were caused by radial load.



2020-21 Winter OATF Study

| Sensitivity Studies | Impact | |
|--|---|--|
| External contingencies that could impact PJM reliability | No reliability concerns | |
| N-1-1 Relay trip conditions | No cascading outage concerns identified • All networked transmission overloads were controlled pre-contingency | |
| Max-Cred Contingency Analysis | No reliability concerns | |
| Transfer Interface Analysis | No reliability concerns | |
| BGE/PEPCO Import Capability | No reliability concerns | |
| 90/10 Load Forecast study (141,368 MW) | No uncontrollable or unexpected issues observed at the elevated load levels. | |
| Gas Pipeline Disruption Study | No reliability concerns | |



Reactive Interface Transfer Analysis

| Interface | Winter 2020-21 Limit (MW) | Typical Back-off (MW) |
|--------------|------------------------------|-----------------------------|
| Eastern | 7327 | 300 |
| Central | 3067 | 200 |
| Western | 5628 | 200 |
| Bed-Blackoak | 1538 | 50 |
| AP South | 3830 | 100 |
| AEP-DOM | 5546 | 100 |
| Cleveland | 3712 | 200 |
| CE-EAST | 3231 | 200 |
| 5004/5005 | 3275 | 50 |

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- Loss of each Local Distribution Company (LDC)
 - No issues observed.
- EMS Gas Contingencies
 - Analysis based on potentially more credible segment and compressor station contingencies with definitions in PJM EMS.
 - No issues observed.



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OATF 2020-21 Winter Study



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