



# Operations Assessment Task Force Winter 2017-18 Study



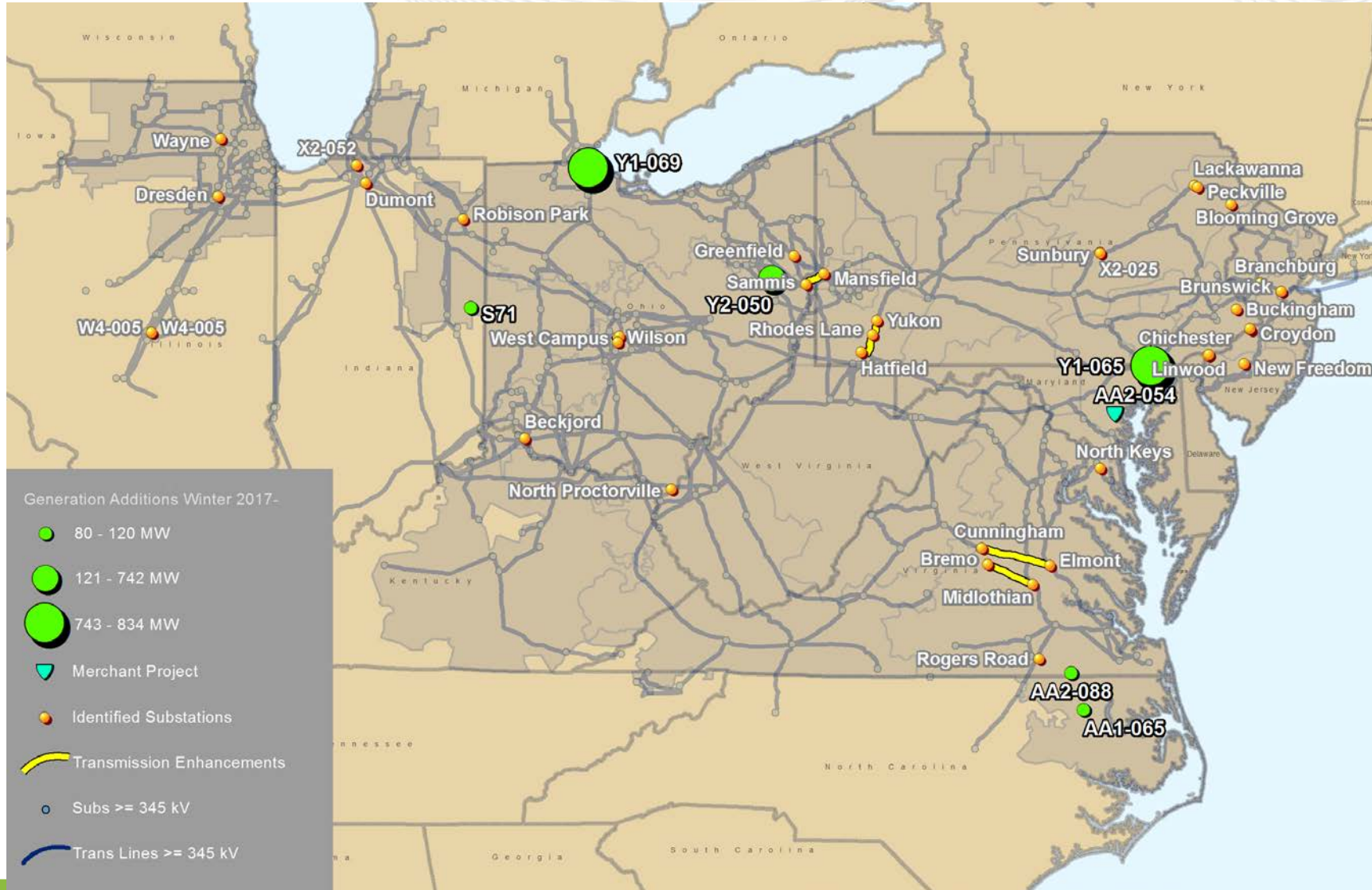
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- Case Parameters
- Significant Facility Changes
- 50/50 Non-diversified peak load study results
- Sensitivity Study Results

## 50/50 Non-diversified Peak Load Base Case

LAS Load Forecast	135,526 MW
RTO Net Interchange	3,950 MW** (Importing)
PJM RTO Installed Capacity	184,926 MW (as of 8/02/2017)
Discrete Generator Outages	16,586 MW

\*\* 3,950 MW of PJM external capacity (Firm) is modeled as net interchange in the OATF base case and these MWs are already included in the total RTO Installed Capacity number.



- No reliability issues identified for base case and N-1 analysis.
- Off-cost generation 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.

Sensitivity Study	Impact
External contingencies that could impact PJM reliability	No reliability concerns
N-1-1 Relay trip conditions	No cascading outage concerns identified <ul style="list-style-type: none"> <li>• Majority of the overloads created by radial load, only controlling action is post-contingency load dump</li> <li>• All networked transmission overloads were controlled pre-contingency</li> </ul>
Transfer Interface Analysis	No reliability concerns
BGE/PEPCO Import Capability	Reactive limit reached prior to a thermal limit this study season.
90/10 Load Forecast (138,881 MW- coincident peak load forecast)	No uncontrollable or unexpected issues observed at the elevated load levels.

Interface	Winter 2017-18 Limit (MW)	Margin (MW)
Eastern	7001	300
Central	1570	200
Western	5021	200
Bed-Blackoak	1737	100
AP South	4581	100
AEP-DOM	2617	100
Cleveland	2829	200
CE-EAST	3962	300
5004/5005	3047	50

- **Loss of each Local Distribution Unit (LDC)**
  - No uncontrollable issues identified.
- **Gas Pipeline or Compressor Failure Contingencies**
  - PJM gas pipeline contingencies that results in 1000 MW or more of generation loss.
  - Assumption:
    - All gas generation downstream of the gas contingency on the same gas infrastructure is lost, regardless of dual fuel status.
  - No uncontrollable issues identified.



- **Temperature Threshold Gas Contingencies**
  - At a pre-determined temperature threshold, assume that non-firm customers (i.e. non-heating demand and 100% of natural gas generation customers in that zone) will be interrupted.
  - No reliability issues identified.
- **EMS Gas Contingencies**
  - Analysis based on potentially more credible segment and compressor station contingencies with definitions in PJM EMS.
  - No uncontrollable issues identified.