

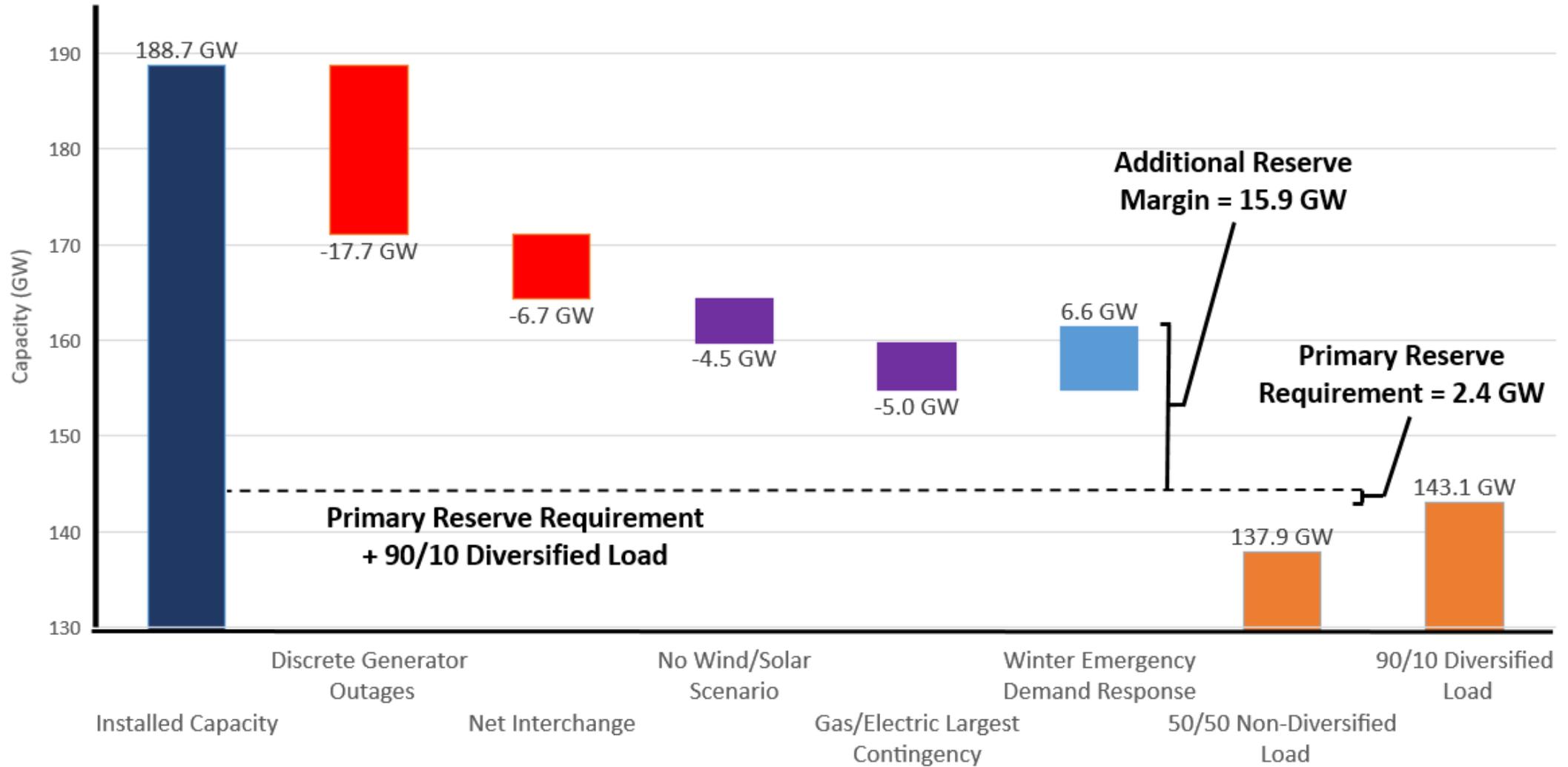


Operations Assessment Task Force 2021-22 Winter Study

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Operating Committee
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- 2021-22 Winter Preliminary Capacity Overview
- OATF Study
 - Case Parameters
 - Significant Facility Changes
 - 50/50 Non-diversified peak load study results
 - Sensitivity Study Results

Winter 2021-22 Extreme Scenario Overview (Preliminary)

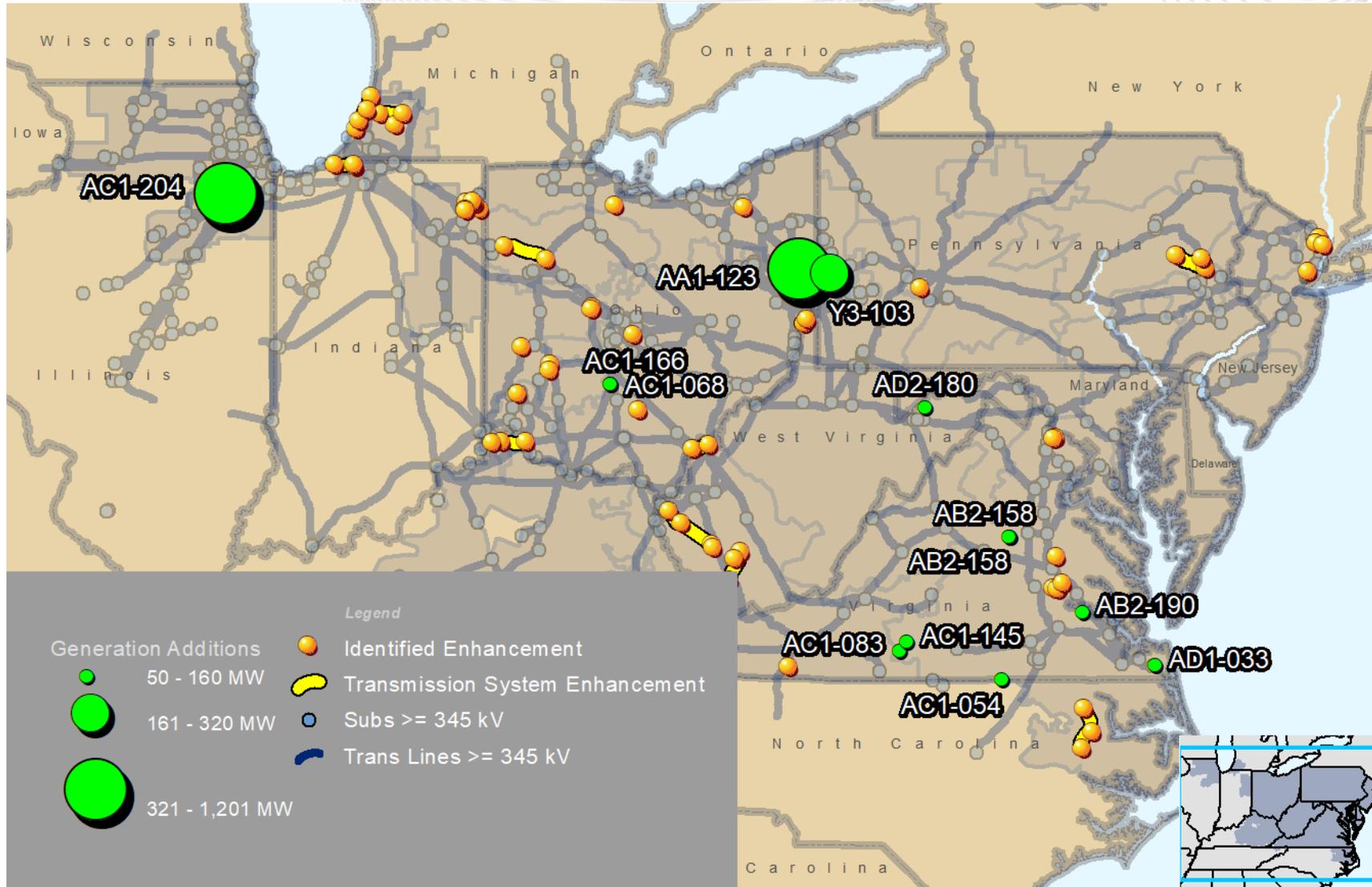


50/50 Non-diversified Peak Load Base Case	
LAS Load Forecast	137,866 MW
Preliminary RTO Net Interchange	5,750 MW** (Exporting)
PJM RTO Installed Capacity	188,709 MW (preliminary)
Discrete Generator Outages	17,696 MW

** 5,750 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.



- 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.

Sensitivity Studies	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"> • 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 (143,065 MW)	No uncontrollable or unexpected issues observed at the elevated load levels.
Solar and Wind Generation Sensitivity Study	No reliability concerns
Gas Pipeline Disruption Study	No reliability concerns

Interface	Winter 2021-22 Limit (MW)	Typical Back-off (MW)
Eastern	7174	300
Central	2088	200
Western	5326	200
Bed-Blackoak	1635	50
AP South	4793	100
AEP-DOM	5226	100
Cleveland	3537	200
CE-EAST	3463	200
5004/5005	2997	50

- **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 2021-22 Winter Study



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