

PJM Winter Preparedness

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Indiana Utility Regulatory Commission - Winter Reliability Forum

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PJM Preparation for Winter 2023–2024

Perform a winter reliability assessment to include any additional sensitivity analysis required

Coordinate winter assessments with neighboring systems (NYISO, MISO, TVA and VACAR)

Conduct emergency procedures drill to prepare PJM staff and PJM stakeholder staff for any emergency operations

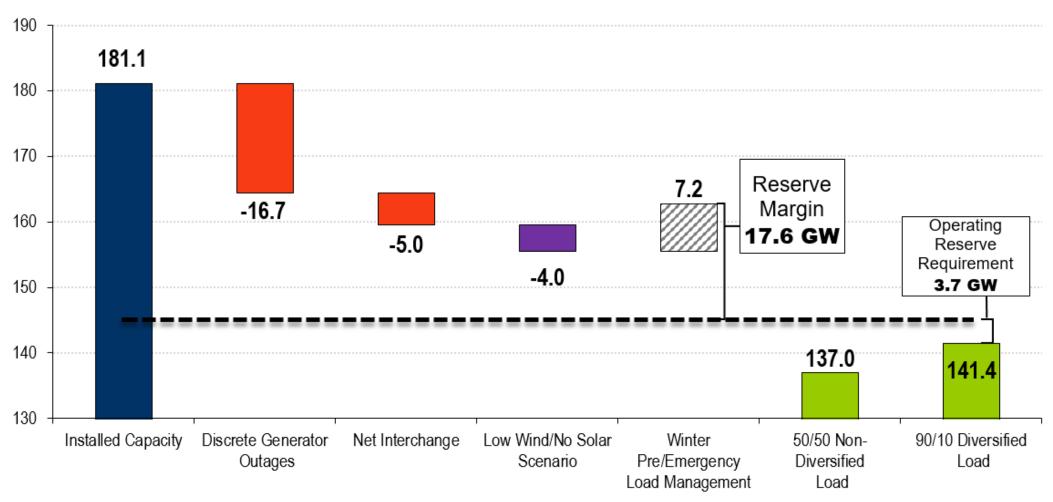
Ongoing fuel supply and supply chain planning, coordination and communication



Low Wind and No Solar Scenario

(Winter 2023–24 – Preliminary)

Capacity (GW)

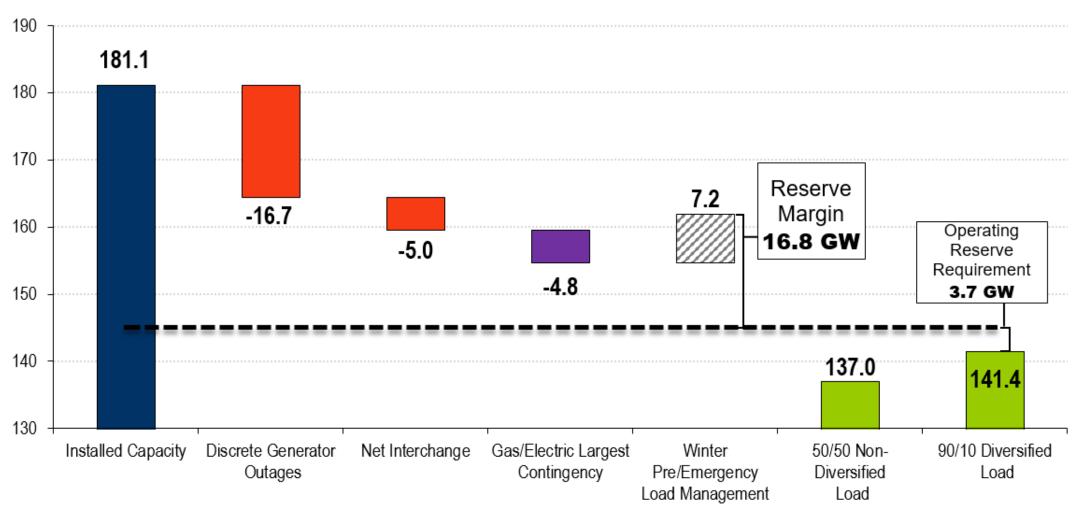




Gas-Electric Contingency Scenario

(Winter 2023–24 – Preliminary)

Capacity (GW)





2023-24 Winter OATF Study

Sensitivity Studies	Results
External contingencies that could impact PJM reliability	No reliability concerns
N-1-1 Relay trip conditions	No reliability concerns
Max-Cred Contingency Analysis	No reliability concerns
90/10 Load Forecast study (141,443 MW diversified peak load forecast)	No reliability concerns
Gas Pipeline Study	No reliability concerns
Solar and Wind Generation Sensitivity Study	No reliability concerns
Transfer Interface Analysis	No reliability concerns
BGE/PEPCO Import Capability	No reliability concerns

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Fuel Markets Review

Natural Gas

- Production rates remain at record levels
- Storage inventory 6% above 5year average
- Record gas generation demand this summer
- Spot and futures prices are a third of where they were last year at this time
- LNG export capacity fully maximized (12–14 Bcf/day)

Coal

- U.S. electric power inventory up 60% vs last year driven by low natural gas prices and reduced coal dispatch
- U.S. production down 1.3% from last year
- Prices have declined just over 60% since last year at this time
- Export demand has softened

Distillate Fuel Oil

- PADD 1 (East coast)
 inventory remains well below
 the 5 year average around the
 same level as last year at this
 time
- PADD 2 (Midwest) inventory above the 5 year average and 25% above last year at this time
- Production generally flat
- Increased international demand
- Price could be increasingly volatile given global unrest



Gas-Electric Coordination

Pre-Winter IRC Electric Gas Coordination Task Force Meeting

Review of winter prep activities with ISOs/RTOs, interstate pipelines and Natural Gas Supply Association

PJM Gas-Electric Coordination Team

The weekly operational review meetings with interstate pipelines commenced in early November. The daily risk assessment of
pipeline operations and potential fuel limitations has started with ongoing monitoring of fuel market conditions and forecasts.

Generator Parameter "Temporary Exceptions

 A Joint PJM/IMM guidance document was reviewed with stakeholders and posted September 2023 which directs generation owners how to reflect gas pipeline nomination cycle times, when being enforced, in unit parameters

Real-Time Values (RTV)

 Joint PJM / IMM motion filed on September 11, 2023, to expedite acceptance of PJM's proposal on real-time values from September 15, 2021. The proposal is to sunset RTVs and permit Temporary Exceptions after the close of the DA Market.

Electric Gas Coordination Sr. Task Force (EGCSTF)

Proposal for Generation owners to confirm to PJM that they have updated unit parameters to reflect pipeline restrictions and confirm gas
procurement for DA committed units for improved situational awareness for dispatch

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