

Generation Resource Cold Weather Preparation

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Operating Committee

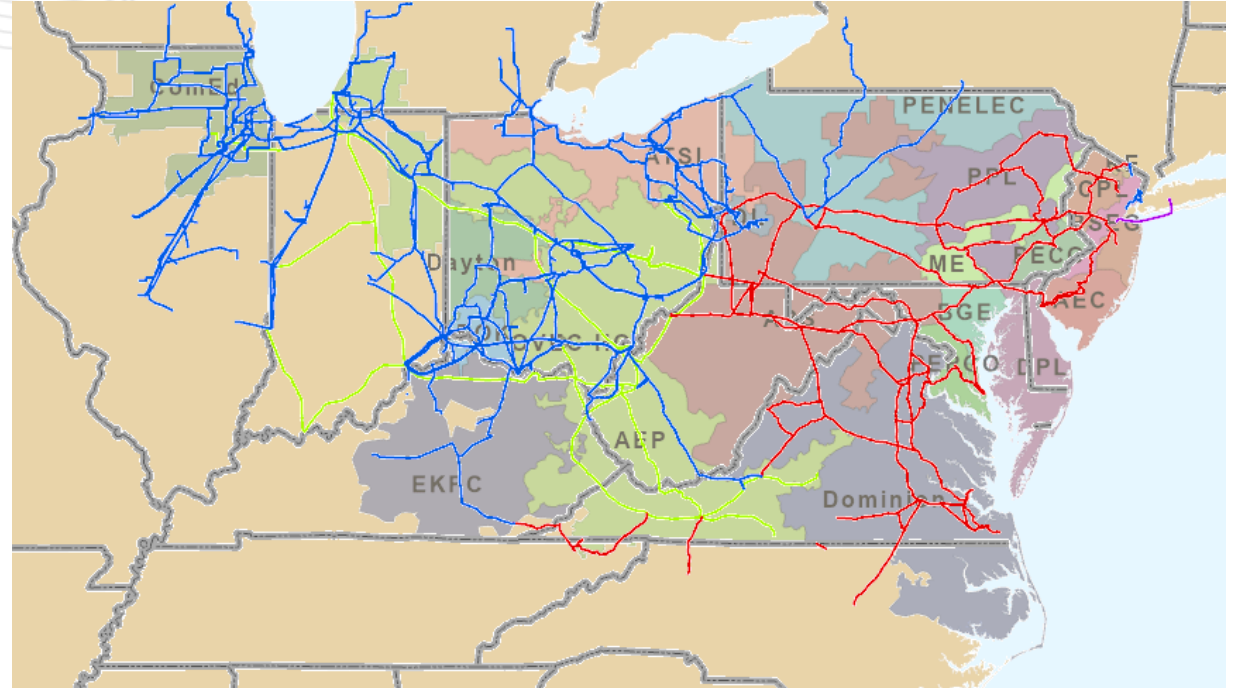
October 8th, 2026

Disclaimer: While materials are current at the time of publishing, applicable requirements may change. PJM Governing Documents control.

Why Cold Weather Prep Matters:

Our 67+ million customers are depending us (Generation, Transmission and PJM) to deliver safe and reliable electricity to their homes and businesses during extreme winter conditions.

- Polar Vortex – January 2014
- Winter Storm Uri – February 2021
- Winter Storm Elliot – December 2022
- Winter Storm Enzo – January 2025
- Winter Storm Fern – January 2026
- Winter Storm Gianna – Jan-Feb 2026
- NERC Reliability Standards:
 - EOP-011 Emergency Operations
 - EOP-012 Extreme Cold Weather Preparedness



- Mechanical Systems

- Frozen transmitters, sensing lines, piping & valves, instrument air systems
- New systems/equipment not insulated/heat traced
- Lubricants and fluid viscosity

- Fuel Delivery and Supply

- Gas curtailments, coal freeze, oil handling/storage, snow/ice on solar panels and wind turbine blades

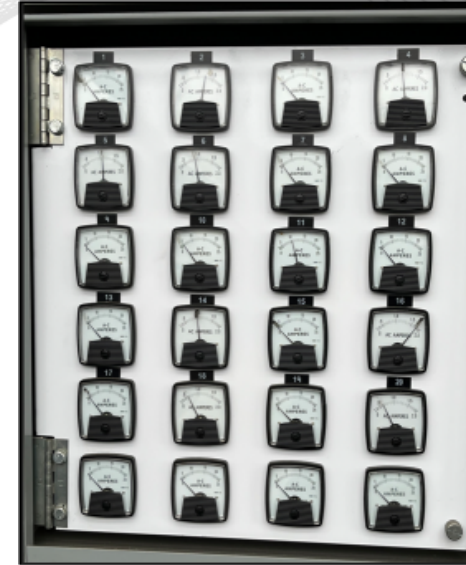
- Electrical and Control Systems

- Breaker failure, Critical instrumentation reliability

- Staffing & Accessibility

- Travel challenges, extended shifts, onsite accommodations

- Plant hardening measures
 - Heat tracing, insulation, shelters, enclosures, heaters
- Equipment checks & maintenance
 - Critical systems and instrumentation vulnerable to cold weather
- Fuel assurance plans
 - Inventory levels, alternate supply coordination
- Staff readiness
 - Training, cold weather procedures, onsite housing/food



- **Generation Resource Operational Exercise**
- Generation resources are strongly encouraged to self-schedule for testing
 - Day-ahead preferred, real-time acceptable with proper notice to PJM dispatch
 - During month of December and temperatures forecasted below 35 degrees
 - Informational eDART ticket with cause “Cold Weather Preparation Exercise”
 - [Manual 14-D, Section 7.5.1](#) has details

- **Pre-Winter Reactive Capability Verification**
- Pre-Winter Review: From October 1st, 2026 - October 31st, 2026
- Generation Owners review their unit reactive capabilities in eDART
- Update D-curves as necessary
- Provide acknowledgement via eDART
- Transmission Owner D-curve acknowledgment performed during November 1st – 30th

- **Cold Weather Advisory - Manual 13 Section 3.3.1**

- Provides early notice (3-5 days) that forecasted temperatures may call for a Cold Weather Alert
 - PJM issues Cold Weather Advisory via Emergency Procedure Posting
 - Generators to review/update their Cold Weather Operating Limit (CWOL) in Markets Gateway as needed

- **Cold Weather Alert - Manual 13 Section 3.3.2**

- Notice given in advance to operating day.
- Update all parameters in Markets Gateway
- Report any limitations to PJM Dispatch

- **Markets Gateway**
 - Resource Limitation Reporting, Operational Restrictions, Max Run Time
- **Parameter Exceptions**
 - For additional information on submitting exceptions for pipeline constraints, please refer to the [Temporary Operating Parameter Limit \(PLS\) Exceptions due to Pipeline Restrictions](#) document posted on the Energy Market page under the Parameter Limited Schedules section
 - Temporary Exceptions can be submitted throughout the operating day including before and after the close of the Day-Ahead Market
 - Supporting Documentation can now be uploaded directly to Markets Gateway
- **Periodic Fuel and Non-Fuel Consumables Inventory Data Requests**
- **eDART Outage and Informational Tickets**

- **Upcoming In-person Training:**
 - [PJM 101: The Basics](#) – 12/08/2026
- **[LMS Courses](#):**
 - Generation ITP Part B – Communications and Emergency Procedures
 - Generation ITP Part D – Ancillary Services and Real Time Operations
- **Virtual Sessions Planned for Q4 of 2026:**
 - [Demand Response Overview](#) – 10/13/2026
 - [Performance Assessment Intervals](#) – 12/09/2026

- **NERC Winter Prep Webinar 09/17/2026 – Recording not yet available**
- **[NERC Winter Prep Webinar 09/04/2025](#)**
 - Preparation for the upcoming winter weather, including:
 - [Industry specific presentations:](#)
 - Reliability First- Generator Site visits
 - MRO- Generator Winterization
 - NERC- Failure Modes and Mechanisms/Lessons Learned- Combustion Turbine anti icing
 - MISO- Generator Survey data update to external stakeholders
 - ISONE- Generator readiness webinar
 - NERC/Duke Energy- Winter reliability assessment update

- **Cold Weather Preparation Guideline and Checklist**
- Provides generation resources with a guide to prepare units for cold weather operation
- Based on [Manual 14-D, Attachment “N”](#)
- Data Request in eDART
 - Open November 1st, 2026 to December 15th, 2026
 - Option of using the PJM or equivalent GO developed checklist
 - GOs requested to identify any improvements or changes to preparation activities made from previous cold weather experiences
 - GOs requested to share best practices not already documented in M-14D, Attachment “N”
 - Data will be pre-populated where possible

- **Seasonal Fuel and Emissions Data Request**
- Enhance PJM situational awareness in preparation for severe cold weather
- Data Request open in eDART October 1st - October 31st, 2026
- Focused on fuel supply and delivery details, emissions limitations and gas supply/delivery information
- Required for reliable operations planning purposes
- Data will be pre-populated where possible

- **Generation resource site visits**

- PJM coordinating with RF to develop plan and schedule (~30 Sites)
- Targeted start in Q4 2026 and continue into Q1 2027
- Focus on winterization best practices and opportunities
- PJM coordinating with SERC to initiate a winter site visit program:
 - SERC GWG has developed a procedure for the program
 - Targeting 3 site visits in the SERC region for the inaugural 2026-2027 season

- **Gas-Electric Coordination**

- During Critical Periods:

- Dispatching gas units in real time taking the intraday gas nomination deadlines into account as necessary
 - Evaluating feedback from gas generators relative to gas supply availability via new Markets Gateway field in compliance with NERC TOP-002-5
 - Working with interstate natural gas pipelines and local distribution companies to assess gas delivery restrictions and potential impacts to gas deliveries

- A successful 2026/2027 winter will take a collaborative effort
- Please keep us up to date on all operational limitations that will or may affect Generation Facility output.
 - Participation in data requests
 - Ensure markets gateway accurately reflects current unit conditions
 - eDART Outage/Informational tickets and cold weather operating limits as needed.

Generation Resource Cold Weather Preparation

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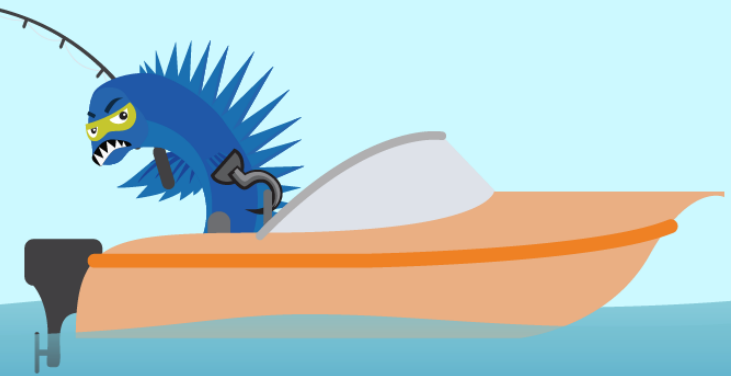
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POWER GRID**

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YOU CLICK!**



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