

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

DRAFT

Cold Weather Generator Data Collection

Request for Data or Information

DRAFT-11/13/2024

RELIABILITY | RESILIENCE | SECURITY



3353 Peachtree Road NE
Suite 600, North Tower
Atlanta, GA 30326
404-446-2560 | www.nerc.com

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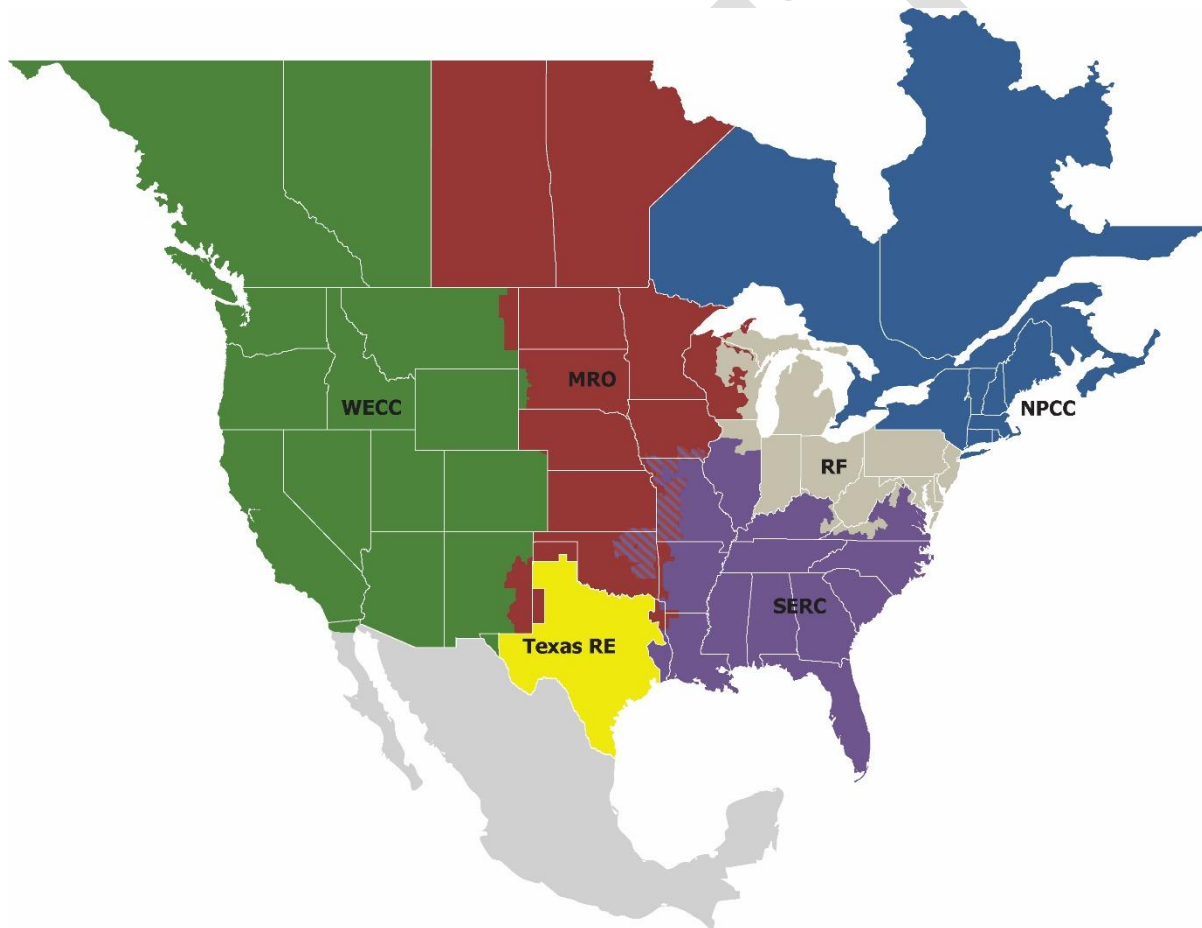
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Preface

Electricity is a key component of the fabric of modern society and the Electric Reliability Organization (ERO) Enterprise serves to strengthen that fabric. The vision for the ERO Enterprise, which is comprised of NERC and the six Regional Entities, is a highly reliable, resilient, and secure North American bulk power system (BPS). Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.

Reliability | Resilience | Security
Because nearly 400 million citizens in North America are counting on us

The North American BPS is made up of six Regional Entities as shown on the map and in the corresponding table below. The multicolored area denotes overlap as some load-serving entities participate in one Regional Entity while associated Transmission Owners/Operators participate in another.



| | |
|-----------------|--------------------------------------|
| MRO | Midwest Reliability Organization |
| NPCC | Northeast Power Coordinating Council |
| RF | ReliabilityFirst |
| SERC | SERC Reliability Corporation |
| Texas RE | Texas Reliability Entity |
| WECC | WECC |

Introduction

In accordance with Section 1600 of the NERC Rules of Procedure,¹ NERC may request data or information that is deemed necessary to meet its obligations under Section 215 of the Federal Power Act², as authorized by Section 39.2(d) of the Federal Energy Regulatory Commission’s (FERC) regulations. Consistent with those provisions, this data request seeks certain data and information regarding generators’ operation during cold weather.

Background

Over the past twelve years, NERC and FERC staff have initiated inquiries into five events where cold weather has caused effects to the Bulk Electric System (“BES”) generation, with four of those events resulting in the need for firm load shed.³ Based on the recommendations resulting from these inquiries, the ERO Enterprise and FERC have initiated several types of activities, such as Reliability Standards development, NERC Alerts issuances, a review of generator performance during cold weather in February 2024, and entity assist visits, among others, to support industry in extreme cold weather preparedness. In addition, the ERO Enterprise is preparing a broad and comprehensive strategy for coordinating its cold weather activities, including assessing the implementation of Reliability Standards addressing cold weather over the next several years as part of robust compliance monitoring.

Along those lines, the Federal Energy Regulatory Commission (“FERC” or “the Commission”) issued an order⁴ on February 16, 2023 directing NERC to work with Commission staff to develop a plan to collect data on the winterization of generating units and to submit an annual informational filing on the analysis of the data. Specifically, the Commission directed NERC to develop a plan that included, at a minimum, data that will help the Commission understand what portion of a generator’s fleet is capable of performing at the Extreme Cold Weather Temperature for the location, what portion is under a corrective action plan (and until when), and what portion will not be winterized due to declared constraints. In addition, the Commission directed the plan to include how NERC will assess actual performance of freeze protection measures during future extreme cold weather events. Finally, the Commission directed NERC to file an annual informational filing reporting on the data and analysis.

In response, NERC filed its work plan on February 16, 2024 detailing its data collection and analysis for cold weather data. The plan divides its data collection into the data that will be included in each annual information filing, the first of which will be submitted on October 1, 2025. In so doing, NERC will be able to focus on analyzing data, collected through a NERC Rules of Procedure Section 1600 data request, while cold weather Reliability Standards are still in implementation stage prior to their effective dates. In subsequent filings, starting with the annual information filing submitted on October 1, 2026, NERC anticipates continuing to collect data not submitted as compliance evidence while also considering whether to initiate any compliance monitoring data requests (such as a periodic data submittal) to supplement analysis into the efficacy of cold weather Reliability Standards. In addition, NERC may also consider revising any data requests as needed to either refine the request or collect more data. In the future, NERC will consider the use of existing processes (such as the collection of data through the Generator Availability Database System (“GADS”)) in order to support the sustainability of the data collection and analysis.

¹ NERC’s Rules of Procedure are available at: <https://www.nerc.com/AboutNERC/RulesOfProcedure/Forms/AllItems.aspx>

² 16 U.S.C § 824o” (Section 215)

³ FERC, NERC, and Regional Entity Staff Report, Inquiry into Bulk-Power System Operations During December 2022 Winter Storm Elliott, FERC-NERC and Regional Entity Staff Report (Oct. 2023), at pp. 12-14, available at <https://www.ferc.gov/media/winter-storm-elliott-report-inquiry-bulk-power-system-operations-duringdecember-2022>.

⁴ *N. Am. Elec. Reliability Corp.*, 182 FERC ¶ 61,094 (2023) (Order Approving Extreme Cold Weather Reliability Standards EOP-011-3 and EOP-012-1 and Directing Modification of Reliability Standard EOP-012-1) [hereinafter February 16 Order], *reh’g. denied*, 183 FERC ¶ 62,034, *order addressing arguments raised on reh’g*, 183 FERC ¶ 61,222.

Due Date and NERC Contact Information

The completion of this data request and submission to NERC is due by May 15 each year, with the initial dataset due on May 15, 2025. Entities will be able to amend data submitted until June 15 each year. As the data collection is meant to capture winter performance, please wait to submit the data until after winter is reasonably considered finished in your generator area, but before the due date. NERC will develop a secure automated data collection mechanism.

Any other questions may be directed to Kiel Lyons at: Kiel.Lyons@nerc.net or by telephone at 404-620-9439.

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Authority

This section describes the statute, regulations, and governing procedures that grant NERC its authority to issue this data request.

Section 215 of the Federal Power Act and FERC Regulations

Under Section 215 of the Federal Power Act (16 U.S.C. § 824o), Congress entrusted FERC with the duties of approving and enforcing rules to ensure the reliability of the nation's BPS, and with the duties of certifying an Electric Reliability Organization ("ERO") that would be charged with developing and enforcing mandatory Reliability Standards, subject to FERC approval. NERC was certified as the ERO on July 20, 2006. In addition to NERC's authority derived from Section 215 of the Federal Power Act, NERC is requesting this information in accordance with its authority provided in 18 C.F.R. §39.2(d), which provides:

Each user, owner or operator of the Bulk-Power System within the United States (other than Alaska and Hawaii) shall provide the Commission, the Electric Reliability Organization and the applicable Regional Entity such information as is necessary to implement section 215 of the Federal Power Act as determined by the Commission and set out in the Rules of the Electric Reliability Organization and each applicable Regional Entity. The Electric Reliability Organization and each Regional Entity shall provide the Commission such information as is necessary to implement section 215 of the Federal Power Act.

NERC Rules of Procedure

Section 1600 of the NERC Rules of Procedure provides a mechanism for requesting data or information from registered entities, which includes an expedited procedure. The NERC Rules of Procedure Section 1600 provides in pertinent part:

1601. Scope of a NERC or Regional Entity Request for Data or Information

Within the United States, NERC and Regional Entities may request data or information that is necessary to meet their obligations under Section 215 of the Federal Power Act, as authorized by Section 39.2(d) of the Commission's regulations, 18 C.F.R. § 39.2(d). In other jurisdictions NERC and Regional Entities may request comparable data or information, using such authority as may exist pursuant to these Rules of Procedure and as may be granted by Applicable Governmental Authorities in those other jurisdictions. The provisions of Section 1600 shall not apply to Requirements contained in any Reliability Standard to provide data or information; the Requirements in the Reliability Standards govern. The provisions of Section 1600 shall also not apply to data or information requested in connection with a compliance or enforcement action under Section 215 of the Federal Power Act, Section 400 of these Rules of Procedure, or any procedures adopted pursuant to those authorities, in which case the Rules of Procedure applicable to the production of data or information for compliance and enforcement actions shall apply.

1602. Procedure for Authorizing a NERC Request for Data or Information

- 1. NERC shall provide a proposed request for data or information or a proposed modification to a previously-authorized request, including the information specified in Section 1602.2.1 or 1602.2.2 as applicable, to the Commission's Office of Electric Reliability at least twenty-one (21) days prior to initially posting the request or modification for public comment. Submission of the proposed request or modification to the Office of Electric Reliability is for the information of the Commission. NERC is not required to receive any approval from the Commission prior to posting the proposed request or modification for public comment in accordance with Section 1602.2 or issuing the request or modification to Reporting Entities following approval by the Board of Trustees.*
- 2. NERC shall post a proposed request for data or information or a proposed modification to a previously authorized request for data or information for a forty five (45) day public comment period.*

- 2.1. A proposed request for data or information shall contain, at a minimum, the following information: (i) a description of the data or information to be requested, how the data or information will be used, and how the availability of the data or information is necessary for NERC to meet its obligations under applicable laws and agreements; (ii) a description of how the data or information will be collected and validated; (iii) a description of the entities (by functional class and jurisdiction) that will be required to provide the data or information (“Reporting Entities”); (iv) the schedule or due date for the data or information; (v) a description of any restrictions on disseminating the data or information (e.g., “Confidential Information,” “Critical Energy Infrastructure Information,” “aggregating” or “identity masking”); and (vi) an estimate of the relative burden imposed on the Reporting Entities to accommodate the data or information request.
 - 2.2. A proposed modification to a previously authorized request for data or information shall explain (i) the nature of the modifications; (ii) an estimate of the burden imposed on the Reporting Entities to accommodate the modified data or information request, and (iii) any other items from Section 1602.2.1 that require updating as a result of the modifications.
3. After the close of the comment period, NERC shall make such revisions to the proposed request for data or information as are appropriate in light of the comments. NERC shall submit the proposed request for data or information, as revised, along with the comments received, NERC’s evaluation of the comments and recommendations, to the Board of Trustees.
4. In acting on the proposed request for data or information, the Board of Trustees may authorize NERC to issue it, modify it, or remand it for further consideration.
5. NERC may make minor changes to an authorized request for data or information without Board approval. However, if a Reporting Entity objects to NERC in writing to such changes within 21 days of issuance of the modified request, such changes shall require Board approval before they are implemented.
6. Authorization of a request for data or information shall be final unless, within thirty (30) days of the decision by the Board of Trustees, an affected party appeals the authorization under this Section 1600 to the Applicable Governmental Authority.

1603. Owners, Operators, and Users to Comply

Owners, operators, and users of the Bulk Power System registered on the NERC Compliance Registry shall comply with authorized requests for data and information. In the event a Reporting Entity within the United States fails to comply with an authorized request for data or information under Section 1600, NERC may request the Commission to exercise its enforcement authority to require the Reporting Entity to comply with the request for data or information and for other appropriate enforcement action by the Commission. NERC will make any request for the Commission to enforce a request for data or information through a non-public submission to the Commission’s enforcement staff.

1605. Confidentiality

If the approved data or information request includes a statement under Section 1602.1.1(v) that the requested data or information will be held confidential or treated as Critical Energy Infrastructure Information, then the applicable provisions of Section 1500 will apply without further action by a Submitting Entity. A Submitting Entity may designate any other data or information as Confidential Information pursuant to the provisions of Section 1500, and NERC or the Regional Entity shall treat that data or information in accordance with Section 1500. NERC or a Regional Entity may utilize additional protective procedures for handling particular requests for data or information as may be necessary under the circumstances.

Data Handling and Need for Data

The following section describes how the data or information will be used; how the availability of the data or information is necessary for NERC to meet its obligations under applicable laws and agreements; how the data or information will be collected and validated; and a description of the entities (by functional class and jurisdiction) that will be required to provide the data or information (“Reporting Entities”). In addition, this section includes the schedule or due date for the data or information; a description of any restrictions on disseminating the data or information (e.g., “Confidential Information,” “Critical Energy Infrastructure Information,” “aggregating” or “identity masking”); and an estimate of the relative burden imposed on the Reporting Entities to accommodate the data or information request.

How the data will be used

NERC and the Regional Entities will use the data to meet obligations pursuant to the February 16, 2023, Order. The data will be used by NERC staff and Regional Entity staff to analyze:

1. possible impacts to total winter capacity for an area of generation that has a Corrective Action Plan (as used in EOP-012-2)⁵ developed but not implemented or completed;
2. the Generator Cold Weather Constraints declarations reported by entities to determine whether there are outliers in the use of certain categories of Generator Cold Weather Constraints, particularly those categorized by cost;
3. a comparison of the Generator Cold Weather Constraints data to the reported outage data to determine if any Balancing Authority Area, or aggregated Balance Authority Area, is at heightened risk of a large number of outages during cold weather;
4. impact of declared Generator Cold Weather Constraints on the Balancing Authority’s total available winter capacity;
5. outage rates for each area assessed due to cold weather for each winter; and
6. monitoring the on-going risk related to cold weather preparedness.

The analysis will be included in a public filing to FERC each year. Individual registered entity responses will not be published in that filing, and NERC will summarize and anonymize any data as necessary.

Why the data is necessary

The collected data and information are necessary for NERC to meet its obligations under the FERC directive to collect and analyze certain cold weather data and preparedness measures. This data is necessary to support NERC’s and the Regional Entities’ analysis on the efficacy of, and ongoing risk posed by, certain constraints provisions in EOP-012-2 and the performance of freeze protection measures during future Generator Cold Weather Reliability Events.

How the data will be collected and validated

NERC will identify the registered entities required to complete the data request. NERC will develop a secure automated data collection mechanism and provide instruction to the registered entities to submit the data. NERC will compare the list of registered entities with the data request respondents to ensure that responses are received as requested.

⁵ For the remainder of this document, NERC will use “EOP-012” to encompass both Reliability Standard EOP-012-1 and Reliability Standard EOP-012-2 as the version of the standard will change during the execution of this data collection. Under the implementation plan for Reliability Standard EOP-012-2, Reliability Standard EOP-012-2 would become effective on the later of October 1, 2024 (effective date of EOP-012-1), or the first day of the first calendar quarter that is three (3) months following regulatory approval.

Reporting Entities

- Generator Owners

Due date for the information

Reporting entities are expected to respond annually to the data request. Reporting Entities must respond by May 15 of each year, with the initial submission of data due on May 15, 2025. Entities will be able to amend data submitted until June 15, 2025. NERC requests that Reporting Entities wait to submit the annual data until after the winter season is reasonably expected to be over for the generator's area.

Restrictions on disseminating data (Confidential/CEII)

In accordance with Section 1500 of NERC's Rules of Procedures, all detailed data reported will be treated as confidential and will only be presented publicly in aggregated and summarized form.

Estimate on burden imposed to collect data

The burden for reporting will include preparation of required yearly data to be uploaded to NERC on an annual basis. Reporting entities will need to provide data around each generator owned as well as other information about the area or weather where the generator is located. To the extent possible, NERC is relying on data already in its possession or already part of other data collection efforts, such as GADS, to supplement analysis. Therefore, NERC drafted this data request to include only information that is necessary to gather from Reporting Entities rather than other sources.

Data Request

NERC will request Reporting Entities to submit the data using a secure automated data collection mechanism that NERC will develop. For ease of review, NERC is reproducing the questions below.

For the following questions, Responding Entities will fill out a spreadsheet row for each BES generating unit owned by the GO. A plant with multiple units at a single location should have a single row for each unit. Some questions below refer to terms used in EOP-012-2.

1. GO-NCR #: For the Generator Owner (GO) functional registration only, please enter the company's NERC Compliance Registry Number. (Format: NCRxxxxx)
2. GO Name: Please enter the name of the GO as found on the NERC Compliance Registry.
3. Company GADS Identifier: For thermal/conventional generators, please enter the company's 3-digit GADS Identifier number (Utility Code field from GADS). If the Generator Owner has units that do not report to GADS, use 000 as the GADS company identifier.
4. GADS Unit identifier (3 digits for conventional generators, If the Generator Owner has units that do not report to GADS, use 000 as the GADS unit identifier.
5. Plant GADS Wind/Solar Identifier (7 digit Plant ID for GADS Wind or GADS Solar group)
6. EIA Plant ID (free text)
7. EIA Generator ID (free text)
8. Unit Postal Zip Code (5 digits)
9. NERC Regional Entity where unit is located (3-4 char regional abbreviation used by NERC)
10. NCR ID of BA for BA Area unit is located in
11. Gen Unit Name
12. Did the unit self-commit or was it required to run at or below 32 deg F during the winter of xxxx-xxxx? (Y/N)
13. Unit's current Extreme Cold Weather Temperature in use(ECWT) (deg F)
14. Date ECWT Calculated (mm/dd/yyyy)
15. Generating Unit Minimum Ambient Temperature (deg F) - using any of these three options may be used:
 - a. Design or nameplate temperature
 - b. Historical operating temperature at least one hour in duration
 - c. Current cold weather performance temperature determined by an engineering analysis
16. Generating Unit Maximum Ambient Operating Temp (deg F) - any of these three options may be used:
 - a. Design or nameplate temperature
 - b. Historical operating temperature at least one hour in duration
 - c. Current performance temperature determined by an engineering analysis

NOTE: For 2025, this field is only required for generating units with a declared Generator Cold Weather Constraint(s) due to the impacts on performance during warmer time periods.
17. Net Winter Capacity (MW)
18. Capacity Operable at ECWT (MW)
19. Capacity Under Corrective Action Plans (CAPs) developed (MW)

20. CAP Development Date (mm/dd/yyyy)
21. Projected CAP Completion Date (mm/dd/yyyy)
22. Did the unit experience a Generator Cold Weather Reliability Event this past winter? (Y/N)
23. Is the unit under a CAP because it was identified as “similar equipment”? (Y/N)
24. Description of the “similar equipment” identified (free narrative text)
25. Unit has a Generator Cold Weather Constraint identified? (Y/N)
26. Date the Generator Cold Weather Constraint identified (mm/dd/yyyy)
27. Generator Cold Weather Constraint Rationale (drop down menu)
 - a. Commercial
 - i. Commercial – warranties would be voided by application of freeze protection measure
 - ii. Commercial – cost is prohibitively expensive
 - iii. Commercial – significant expense on equipment with minimal remaining life
 - iv. Commercial – other (free text narrative; one sentence)
 - b. Technical
 - i. Technical – technology not used by a significant portion of electric industry for similar units
 - ii. Technical – no commercially viable solutions
 - iii. Technical – other (free text narrative; one sentence)
 - c. Environmental
 - i. Environmental – introduces unacceptable risk of noncompliance with environmental regulations on unit
 - ii. Environmental – other (free text narrative; one sentence)
 - d. Operational
 - i. Operational – accelerates retirement of existing unit
 - ii. Operational – cancellation of new generating unit
 - iii. Operational – reduces reliability of unit in warm weather or normal conditions
 - iv. Operational – introduces increased personnel or safety risk
 - v. Operational – compromised ability to provide ancillary services
 - vi. Operational – other (free text narrative; one sentence)
 - e. Other (free text narrative; one sentence)