NERC Project 2019-06 Cold Weather Update

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Operating Committee

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NERC Project 2019-06 Cold Weather

Standards	NERC Project 2019-06 Cold Weather
EOP-011-2 **IRO-010-4** **TOP-003-5**	**Project 2019-06 Cold Weather** **Project Recap:** ➢ Recommendation #1 from the FERC and NERC report titled *The South Central United States Cold Weather Bulk Electric System Event of January 17, 2018* ➢ Focus on communication between functional entities when generator unit availability is expected to be impacted by cold weather conditions Three NERC Standards revised: ➢ EOP-011-2 Emergency Preparedness and Operations ➢ IRO-010-4 Reliability Coordinator Data Specification and Collection ➢ TOP-003-5 Operational Reliability Data Additional documentation: ➢ Implementation Plan ➢ EOP-011-2 Implementation Guidance

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EOP-011-2 Emergency Preparedness and Operations – overview

- *Purpose:* To address the effects of operating emergencies by ensuring each Transmission Operator, Balancing Authority, and Generator Owner has developed plan(s) to mitigate operating Emergencies and that those plans are implemented and coordinated within the Reliability Coordinator Area as specified within the requirements.
- Adds Generator Owner and Generator Operator to applicable Functional Entities (Balancing Authority, Reliability Coordinator, and Transmission Operator remain applicable).
- Adds two new requirements, R7 (applicable to GOs) and R8 (applicable to GOs or GOPs)
- Does not provide cold weather definition, but adds provisions to determine reliability impacts of cold weather conditions:
  - ✓ Determined by the generating unit's geographical location, climate, and cold weather event experience
  - ✓ Recommends utilizing common industry resources
  - ✓ Should include most recent extreme cold weather event data available (preference within last five years)
  - ✓ Cold weather preparedness plan to include information on freeze protection in place, if any.

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IRO-010-4 Reliability Coordinator Data Specifications and Collection; and TOP-003-5 Operational Reliability Data

- IRO-010-4 *Purpose:* To prevent instability, uncontrolled separation, or Cascading outages that adversely impact reliability, by ensuring the Reliability Coordinator has the data it needs to monitor and assess the operations of its Reliability Coordinator Area.
- TOP-003-5 *Purpose:* To ensure that the Transmission Operator and Balancing Authority have data needed to fulfill their operational and planning responsibilities.

➢ Standards include collecting data (data specifications; periodicity; and deadlines) necessary to perform Operational Planning Analyses, Real-time monitoring and Real-time Assessments as a Reliability Coordinator and Transmission Operator. Real-time monitoring also includes the Balancing Authority.

Overview of Standard Revisions and Existing Manual Language/Practices

EOP-011-2 Revisions

1.2.6. ~~Reliability~~Provisions to determine reliability impacts of~~-~~:

1.2.6.1. cold weather conditions; and

~~**1.2.5.1.**~~**1.2.6.2.** extreme weather conditions.

R7. Each Generator Owner shall implement and maintain one or more cold weather preparedness plan(s) for its generating units. The cold weather preparedness plan(s) shall include the following, at a minimum: [*Violation Risk Factor: High*] [*Time Horizon: Operations Planning and Real-Time Operations*]

7.1. Generating unit(s) freeze protection measures based on geographical location and plant configuration;

7.2. Annual inspection and maintenance of generating unit(s) freeze protection measures;

7.3. Generating unit(s) cold weather data, to include:

7.3.1. Generating unit(s) operating limitations in cold weather to include:

7.3.1.1. capability and availability;

7.3.1.2. fuel supply and inventory concerns;

Manual 13, Section 3.3 - Cold Weather Alert

- We may have changes to this section

Manual 14D, Attachment N – Cold Weather Preparation Guideline and Checklist

- Will need to change current language from ‘should’ to ‘shall'
- **Even without language changes, lets not wait to ensure these plans are in place**

Overview of Standard Revisions and Existing Manual Practices

IRO-010-3 (RC) and TOP-003-5 (BA, TOP) Revisions

1.3. Provisions for notification of BES generating unit(s)during local forecasted cold weather to include:

1.3.1. Operating limitations based on:

1.3.1.1. capability and availability;

1.3.1.2. fuel supply and inventory concerns;

1.3.1.3. fuel switching capabilities; and

1.3.1.4. environmental constraints

1.3.2. Generating unit(s) minimum:

1.3.2.1 design temperature; or

1.3.2.2. historical operating temperature; or

1.3.2.3 current cold weather performance temperature determined by an engineering analysis.

1.4. A periodicity for providing data.

1.5. The deadline by which the respondent is to provide the indicated data.

PJM Manual 14D, Section 7.3.5 - Fuel and Emissions Reporting

- Cold Weather Operating Limits Survey
- Pre-winter GO Survey for Fuel and Emissions
- Periodic Fuel and Emissions Surveys
- Real time reporting requirements via Markets Gateway

Cold Weather – Next Steps

- Don’t let Standard enforcement dates delay necessary good reliability practices
  - Ensure all GOs have winterization plans and 100% response rate to all PJM issued Surveys
- Manual updates to align with future Standards once FERC approved
- Will most likely also have additional recommendations following the FERC and NERC inquiry into what happened in Texas and the Midwest and South-Central states.

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