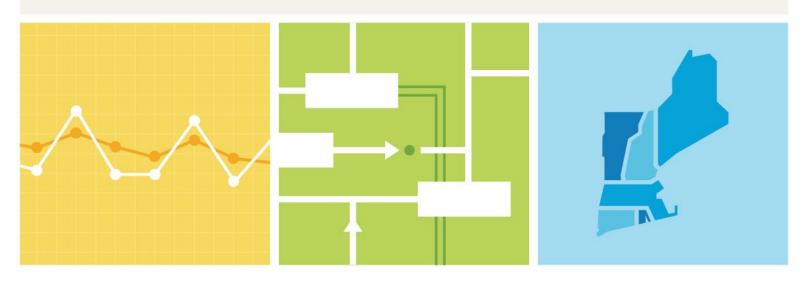


Compliance Bulletin IRO-010 and TOP-003

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ISO-NE PUBLIC



Preface/Disclaimer

In case of a discrepancy between this Compliance Bulletin and a NERC Reliability Standard, ISO New England Inc. Transmission, Markets, and Services Tariff (known as the ISO Tariff) or an ISO New England Operating Document, the NERC Reliability Standard, ISO Tariff or the ISO New England Operating Document shall govern.

Section 1 Introduction

This document describes ISO New England (ISO) data requirements per NERC Standards IRO-010-4 (IRO-010) and TOP-003-5 (TOP-003). Both of these standards are subject to enforcement as of April 1, 2023. IRO-010 requires ISO as a Reliability Coordinator to have data specifications for data to be provided by the Balancing Authority (ISO) as well as Generator Owners, Generator Operators, Transmission Operators, Distribution Providers. TOP-003 has similar requirements with ISO as a Transmission Operator and Balancing Authority requiring data. Language provided below describes the data requirements, please see the NERC Standards for specific requirement language. Note that in New England, ISO and its Local Control Centers (LCCs) are registered as Transmission Operators.

1.1 NERC Standards IRO-010 R1 (TOP-003 R1 / R2 see standard)

- **R1.** The Reliability Coordinator (Each Transmission Operator / Balancing Authority) shall maintain a documented specification for the data necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. The data specification shall include but not be limited to:
 - **1.1.** A list of data and information needed by the Reliability Coordinator (Transmission Operator / Balancing Authority) to support its Operational Planning Analyses, Realtime monitoring, and Real-time Assessments including non-BES data and external network data, as deemed necessary by the Reliability Coordinator (Transmission Operator).
 - **1.2.** Provisions for notification of current Protection System and Remedial Action Scheme (RAS) status or degradation that impacts System reliability.
 - **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.

ISO has several well established Operating Procedures that describe how data is provided in accordance with these requirements to support its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. Table 1 shows how data is provided. Specific data required per IRO-010 Requirement 1.3 is provided in accordance with ISO Operating Procedure OP-21 - Operational Surveys, Energy Forecasting & Reporting and Actions During an Energy Emergencies

1.2 NERC Standards IRO-010 R2 (TOP-003 R3 / R4)

R2. The Reliability Coordinator (Each Transmission Operator / Balancing Authority) shall distribute its data specification to entities that have data required by the Reliability Coordinator's Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.

ISO Planning and Operating Procedures are available on the ISO public website that address the data specifications. Table 1 lists specific ISO Procedures that are relevant along with data requirements.

1.3 NERC Standards IRO-010 R3 (TOP-003 R5)

- **R3**. Each Reliability Coordinator, Balancing Authority, Generator Owner, Generator Operator, Transmission Operator, Transmission Owner, and Distribution Provider receiving a data specification in Requirement R2 shall satisfy the obligations of the documented specifications using:
 - **3.1**. A mutually agreeable format
 - **3.2**. A mutually agreeable process for resolving data conflicts
 - **3.3.** A mutually agreeable security protocol

ISO Planning and Operating Procedures are available on the ISO public website that address the format, protocol and conflict resolution requirement. Table 1 lists specific ISO Procedures that are relevant along with data requirements.

Table 1 - Applicable for NERC Standards IRO-010 and TOP-003									
ISO-NE DATA Specifications									
Objective	Data type	Source of Data	ISO-NE Documentation / Procedure(s)	ISO-NE Department and Initial Contact	Format Requirements	Periodicity of Data	Data Validation		
	Energy Management System (EMS) Network topology	New England TOs/GOs Neighboring RCs	OP14 - Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources OP16 - Transmission System Data OP18 - Metering and Telemetering Criteria	AskISO (initial contact) Power System Model Management	EMS / ICCP & DNP	Up to 120 days prior to inservice / Per OP18 Section V.C. (4 or 10 seconds)	Continuous		
	SCADA	New England TOs/GOs Neighboring RCs	OP14 - Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources OP16 - Transmission System Data OP18 - Metering and Telemetering Criteria MLCC 15 – Attachment L – Real Time Assessment Data	Power System Model Management / Data Communications	ICCP & DNP	Per OP18 Section V.C. (4 or 10 seconds)	Continuous		
Real-Time Assessments	Remedial Action Scheme (RAS) Status	New England TOs/ Neighboring RCs	OP18 - Metering and Telemetering Criteria	System Operations and Market Administration Support	ICCP (where available)/ Call to System Operator	Every 4 seconds / As needed	Continuous		
	Equipment Ratings	New England TOs/GOs Neighboring RCs	OP14 - Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources OP16 - Transmission System Data (NX9 data)	System Operations and Market Administration / Power System Modeling & Support	NX9 / NX-12 / NX-12D	Timelines per OP14 and OP16 / As needed	Continuous		
	Transmission Element Outages	New England TOs/ Neighboring RCs	OP3 - Transmission Outage Scheduling OP24 - Protection Outages, Settings and Coordination	System Operations and Market Administration	Outage Request / Call to System Operator	Timelines per OP3 and OP24 / As needed	Continuous		
	Resource Status	New England GOs/ Neighboring RCs	OP5 - Resource Maintenance and Outage Scheduling OP14 - Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources OP18 - Metering and Telemetering Criteria MLCC 15 - Attachment L - Real Time Assessment Data	System Operations and Market Administration	ICCP / Outage Request / Call to System Operator	Every 4 seconds/ Timelines per OP5 / As needed	Continuous		

Table 1 - Applicable for NERC Standards IRO-010 and TOP-003									
ISO-NE DATA Specifications									
Objective	Data type	Source of Data	ISO-NE Documentation / Procedure(s)	ISO-NE Department and Initial Contact	Format Requirements	Periodicity of Data	Data Validation		
Real-Time Assessments (cont.)	Resource Outages (Material Change for GSU, AVR, PSS, Turbine Governor)	New England GOs/ Neighboring RCs	OP5 - Resource Maintenance and Outage Scheduling (Section IV.1) (Note: These outages require I.3.9 approval)	System Operations and Market Administration	ICCP / Outage Request / Call to System Operator	Every 4 seconds / Timelines per OP5 / As needed	Continuous		
	Resource Audits	New England GOs	Market Rule 1 - Section III.9.5 Manual M-RPA Registration and Performance Auditing Manual M-MDVR - Measurement and Verification of On-Peak Demand Resources and Seasonal Peak Demand Resources OP23 - Resource Auditing	System Operations and Market Administration	OP-23 Appendices	As needed	Continuous		
Operations Planning Assessments (up to two years in advance of operating day)	Energy Management System (EMS) Network topology	New England TOs/GOs Neighboring RCs	Tariff I.3.9 Planning Procedure 5-6	System Planning	IRTT, PSS/E, DDMS	As needed	As needed		
			OP14 Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources OP16 - Transmission System Data OP18 - Metering and Telemetering Criteria OP24 - Protection Outages, Settings and Coordination	Power System Modeling & Support / System Operations and Market Administration	Energy Management System (EMS) / ICCP & DNP	Up to 120 days prior to inservice / Per OP18 Section V.C. (4 or 10 seconds)	Daily		
	Equipment Ratings	New England TOs/GOs Neighboring RCs	OP14 - Appendices A - I OP16 - Transmission System Data (App. J & K)	Power System Modeling & Support / System Operations and Market Administration	NX9 / NX-12 / NX-12D	Timelines per OP14 and OP16 / As needed	Daily		
	Remedial Action Scheme Status / Outages	New England TOs/ Neighboring RCs	Planning Procedure 5-5 Data Collection Form for Remedial Action/Automatic Control Schemes	System Planning	PP5-5 Attachment 1	As needed per PRC-012	As needed		
			OP24 - Protection Outages, Settings and Coordination	System Planning / System Operations and Market Administration	Outage Request	Timelines per OP3 and OP24 / As needed	Daily		

Table 1 - Applicable for NERC Standards IRO-010 and TOP-003									
ISO-NE DATA Specifications									
Objective	Data type	Source of Data	ISO-NE Documentation / Procedure(s)	ISO-NE Department and Initial Contact	Format Requirements	Periodicity of Data	Data Validation		
Operations Planning Assessments (cont.)	Transmission Element Status / Outages	New England TOs/ Neighboring RCs	OP3 - Transmission Outage Scheduling OP24 - Protection Outages, Settings and Coordination	System Operations and Market Administration	Outage Request	Timelines per OP3 and OP24 / As needed	Daily		
	Resource Status / Outages	New England GOs/ Neighboring RCs	OP5 - Resource Maintenance and Outage Scheduling	System Operations and Market Administration	Outage Request	Timelines per OP5 / As needed	Daily		
	Resource Equipment Outages (Material Change for GSU, AVR, PSS, Turbine Governor)	New England GOs/ Neighboring RCs	Tariff I.3.9 Planning Procedure 5-1 Procedure for Review of Market Participant's Or Transmission Owner's Proposed Plans	System Planning	Outage Request	Timelines per OP5 / As needed	As needed		
			OP5 - Resource Maintenance and Outage Scheduling (Section IV.1)	System Operations and Market Administration	Outage Request	Timelines per OP5 / As needed	Daily		
	Obtain Generator Operating Limitations (i.e. cold weather data such as capability and availability, fuel supply and inventory concerns, fuel switching capabilities and environmental constraints)	New England GOs	OP-21 - Operational Surveys, Energy Forecasting & Reporting and Actions During an Energy Emergency	System Operations and Market Administration	Operational Survey	Annually / As needed	Annually / As needed		