



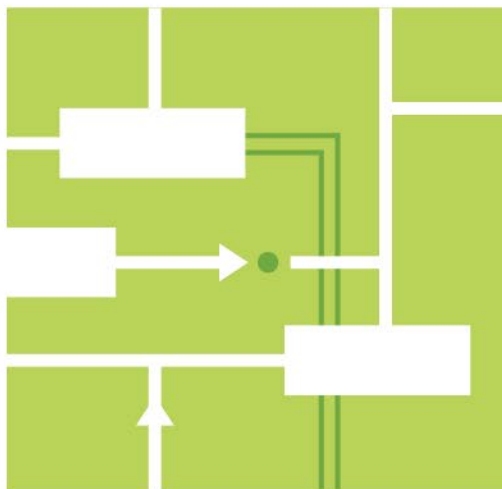
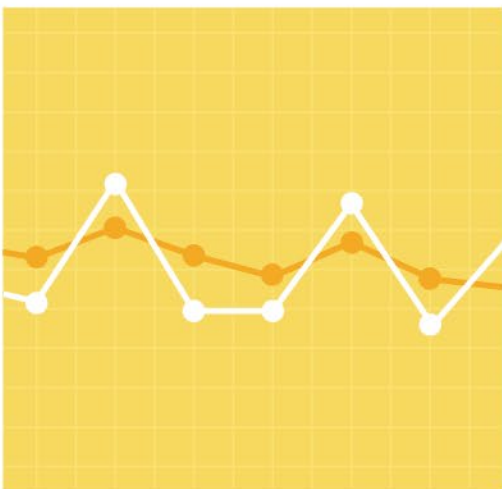
Compliance Bulletin

IRO-010 and TOP-003

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Preface/Disclaimer

ISO New England (ISO) provides Compliance Bulletins to enhance participant and stakeholder understanding. Because not all issues or examples are addressed by the Compliance Bulletin, participants and stakeholders should not rely solely on this Compliance Bulletin but should consult the effective Transmission, Markets and Services Tariff (known as the ISO "Tariff"), relevant Market Manuals, and Operating Procedures, Planning Procedures, and Master/Local Control Center Procedures ("Procedures").

In case of a discrepancy between this Compliance Bulletin and a NERC Reliability Standard, 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. To support Operational Planning Analysis, Real-time monitoring and Real-time Assessments, IRO-010 requires ISO as a Reliability Coordinator (RC) to document and communicate its data specifications for data to be provided by the Balancing Authority (ISO) as well as Generator Owners (GOs), Generator Operators (GOPs), Transmission Owners (GOs), Transmission Operators (TOPs), and Distribution Providers (DPs). TOP-003 has similar requirements with ISO as a Transmission Operator and Balancing Authority requiring data. Language provided below describes the data requirements, however 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 (TOPs).

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, Real-time 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 see Standard)

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 see Standard)

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 frequency, format, protocol and conflict resolution requirement. **Table 1** recognizes specific ISO Procedures and Departments that are relevant to and support the data requirements.

Table 1 - Applicable for NERC Standards IRO-010 and TOP-003

<i>ISO-NE DATA Specifications</i>							
<i>Objective</i>	<i>Data type</i>	<i>Source of Data</i>	<i>ISO-NE Documentation / Procedure(s)</i>	<i>ISO-NE Department and Initial Contact</i>	<i>Format Requirements</i>	<i>Periodicity of Data</i>	<i>Data Validation</i>
Real-Time Assessments	Energy Management System (EMS) Network topology	New England TOs/GOs Neighboring RCs	<ul style="list-style-type: none"> • OP14 - Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources • OP16 - Transmission System Data • OP18 - Metering and Telemetry Criteria • MLCC15 – Attachment L – Real Time Assessment Data 	AskISO (initial contact) Power System Model Management	EMS / ICCP & DNP	At least 120 days prior to facility’s expected in-service date. Per OP18 Section V.C. (4 or 10 seconds)	Continuous
	SCADA	New England TOs/GOs Neighboring RCs	<ul style="list-style-type: none"> • OP14 - Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources • OP16 - Transmission System Data • OP18 - Metering and Telemetry Criteria • MLCC15 – Attachment L – Real Time Assessment Data 	Power System Model Management Data Communications	ICCP & DNP	Per OP18 Section V.C. (4 or 10 seconds)	Continuous
	Remedial Action Scheme (RAS) Status	New England TOs Neighboring RCs	<ul style="list-style-type: none"> • OP18 - Metering and Telemetry Criteria • MLCC15 – Attachment L – Real Time Assessment Data 	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	<ul style="list-style-type: none"> • OP14 - Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources • OP16 - Transmission System Data (NX9 data) • MLCC15 – Attachment L – Real Time Assessment 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	<ul style="list-style-type: none"> • OP3 - Transmission Outage Scheduling • OP24 - Protection Outages, Settings and Coordination • MLCC15 – Attachment L – Real Time Assessment Data 	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	<ul style="list-style-type: none"> • 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 Telemetry Criteria • MLCC1 – Nuclear Plant Transmission Operations • MLCC15 – 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

<i>ISO-NE DATA Specifications</i>							
<i>Objective</i>	<i>Data type</i>	<i>Source of Data</i>	<i>ISO-NE Documentation / Procedure(s)</i>	<i>ISO-NE Department and Initial Contact</i>	<i>Format Requirements</i>	<i>Periodicity of Data</i>	<i>Data Validation</i>
Real-Time Assessments (cont.)	Resource Outages (Material Change for GSU, AVR, PSS, Turbine Governor)	New England GOs Neighboring RCs	<ul style="list-style-type: none"> • OP5 - Resource Maintenance and Outage Scheduling (Section IV.1)(Note: These outages require Tariff I.3.9 approval) • MLCC8 - Coordination of Generator Voltage Regulator and Power System Stabilizer Outages • MLCC15 – 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
	Resource Audits	New England GOs	<ul style="list-style-type: none"> • 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
Operational Planning Analysis <i>(up to two years in advance of operating day)</i>	Energy Management System (EMS) Network Topology	New England TOs/GOs Neighboring RCs	<ul style="list-style-type: none"> • Tariff I.3.9 • Planning Procedure 5-6 Interconnection Planning Procedure for Generation and Elective Transmission Upgrades • OP14 – Appendices A – I • OP16 – Transmission System Data (App. J & K) 	System Planning	IRTT, PSS/E, DDMS	As needed	As needed
			<ul style="list-style-type: none"> • OP14 Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources • OP16 - Transmission System Data • OP18 - Metering and Telemetry Criteria • OP24 - Protection Outages, Settings and Coordination 	Power System Modeling & Support System Operations and Market Administration	Energy Management System (EMS) / ICCP & DNP	At least 120 days prior to facility’s expected in-service date. Per OP14 Section II / OP16 Section II / OP18 Section V.C. (4 or 10 seconds)	Daily
	Equipment Ratings	New England TOs/GOs Neighboring RCs	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • 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

<i>ISO-NE DATA Specifications</i>							
<i>Objective</i>	<i>Data type</i>	<i>Source of Data</i>	<i>ISO-NE Documentation / Procedure(s)</i>	<i>ISO-NE Department and Initial Contact</i>	<i>Format Requirements</i>	<i>Periodicity of Data</i>	<i>Data Validation</i>
Operational Planning Analysis (cont.) <i>(up to two years in advance of operating day)</i>	Transmission Element Status / Outages	New England TOs Neighboring RCs	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • OP5 - Resource Maintenance and Outage Scheduling • MLCC1 – Nuclear Plant Transmission Operations 	System Operations and Market Administration	Outage Request	Timelines per OP5 / As needed	Daily / As Needed
	Resource Equipment Outages (Material Change for GSU, AVR, PSS, Turbine Governor)	New England GOs Neighboring RCs	<ul style="list-style-type: none"> • 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
			<ul style="list-style-type: none"> • OP5 - Resource Maintenance and Outage Scheduling (Section IV.1) • MLCC8 - Coordination of Generator Voltage Regulator and Power System Stabilizer Outages 	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	<ul style="list-style-type: none"> • OP21 - Operational Surveys, Energy Forecasting & Reporting and Actions During an Energy Emergency 	System Operations and Market Administration	Operational Survey	Annually / As needed	Annually / As needed

Section 2 – Document History

Rev. No.	Date	Reason
0	02/01/2023	Initial version of IRO-010 and TOP-003 Compliance Bulletin
1	08/27/2024	Minor formatting edits Clarification provided in the Introduction Added the following procedures to respective areas: <ul style="list-style-type: none">• MLCC1 – Nuclear Plant Transmission Operations• MLCC8 - Coordination of Generator Voltage Regulator and Power System Stabilizer Outages• MLCC15 – Attachment L – Real Time Assessment Data